Arizona

Arizona's Instrument to Measure Standards

2013
Technical Report

Submitted to the
Arizona Department of Education
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ALWAYS LEARNING PEARSON

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FOREWORD

The technical information herein is intended for use by those who evaluate tests, interpret scores, or use test results in making educational decisions. It is assumed that the reader has technical knowledge of test construction and measurement procedures, as stated in *Standards for Educational and Psychological Testing* (American Educational Research Association, American Psychological Association, National Council on Measurement in Education, 1999).

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PART 1: EXECUTIVE SUMMARY

This document provides information regarding processes and procedures implemented in the Fall 2012 and Spring 2013 Arizona's Instrument to Measure Standards (AIMS) assessments for the development of tests, analysis of data, calibration, scoring, and scaling. This document also describes the results of the Fall 2012 and Spring 2013 AIMS assessments. The technical information in this report is intended for those who evaluate tests, interpret scores, or use test results in making educational decisions.

This document also provides information relevant to the *Standards for Educational and Psychological Testing* (American Education Research Association, American Psychological Association, National Council on Measurement in Education, 1999). The beginning of each part of this technical report will list the different standards addressed therein. Part 1 of the technical report addresses standards 2.7, 3.2, 3.3, 6.3, 6.4, 6.15, and 13.6.

The Fall 2012 AIMS assessments were administered in reading, writing, and mathematics to students in high school who were in Grades 11 and 12 and had not yet obtained a passing score in all three of the content areas. Additionally, students wishing to improve their scores, in any content area, and attain the exceeding category were eligible for this assessment.

The Spring 2013 AIMS tests were designed and developed to provide fair and accurate ability scores that support appropriate, meaningful, and useful educational decisions. In addition to the evidence provided in Part 2 (Involvement of Arizona Educators), additional validity evidence may be found in the following parts as described: Part 3 (Test Design), Part 4 (Test Development), Part 5 (Test Administration), Part 6 (Classical Item Analysis), Part 7 (Calibration, Scaling and Equating), Part 8 (Reliability), and Part 10 (Classification). As the technical report progresses chapter by chapter, it moves through the phases of the testing cycle. Each part of the technical report details the procedures and processes applied in the creation of AIMS, as well as their results. Each part also highlights the meaning and significance of the procedures, processes, and results in terms of content and construct validity and the relationship to the *Standards.*

The Spring 2013 AIMS assessments were administered in reading, writing, and mathematics to students in Grades 3-8 and high school. This was the nineth year that all Grades 3 through 8 and high school were administered AIMS. Students in Grades 3, 5, and 8 have been taking AIMS assessments since the 1999-2000 school year, and students in high school began taking AIMS (Form A) in reading, writing, and mathematics in 1999. The AIMS assessments are designed to measure Arizona students' performance on the Arizona content standards. The AIMS Reading tests are written to Arizona content standards adopted in March 2003. The AIMS writing tests are written to content standards adopted in June 2004. The writing tests in Grades 5, 6, 7 and high school were revised to include multiple-choice items along with a written essay in the Spring 2011 AIMS. New performance standards were set for these writing tests in spring 2011. The AIMS Mathematics tests assess content standards adopted in June 2008. Performance standards were set for the mathematics tests in spring 2010.

The AIMS high school tests in reading, writing, and mathematics are criterion-reference competency tests. Students' test scores on the AIMS high school tests are one component of the high school graduation requirements, and passing scores are required to earn a diploma for students who graduated beginning in spring 2006. Students in Grade 10 have five opportunities to pass the test prior to their regularly scheduled graduation date. The AIMS high school tests in reading and mathematics consist of multiple-choice items. The AIMS high school test in writing consists of a set

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of multiple choice items and a single prompt essay, which is scored using a holistic six-point rubric (see Appendix D).

The AIMS Reading/Language and Mathematics tests for Grades 3-8 are dual purpose assessments—both criterion and norm-referenced scores are given based on performance on the tests. The AIMS Writing tests for Grades 5, 6, and 7 consist of a set of multiple-choice items and a single prompt essay, which is scored using a holistic six-point rubric (Appendix D). Criterion-referenced scores are reported in reading, writing, and mathematics. Norm-referenced scores are reported in reading, language, and mathematics. Each reading, writing, and mathematics test consists of items written by Arizona teachers and items from Pearson's norm-referenced test, the *Stanford Achievement Test* Series, Tenth Edition (Standardization edition copyright © 2002. Final edition copyright © 2003).

Some of the Stanford 10 items contribute to both criterion-referenced and norm-referenced scores. These items all match the Arizona content standards. This design eliminated the need for students to take two separate tests and was first implemented for the 2004-2005 school year. All reading, language, and mathematics tests consist of multiple-choice items only.

The Spring 2013 AIMS assessments were also administered in science to students in Grades 4, 8, and high school. This was the sixth year that Grades 4, 8, and high school were administered science. The AIMS Science tests are criterion-reference competency tests, which consist of multiple-choice items. The science test consists of items written entirely by Arizona teachers.

The AIMS assessments are designed to measure Arizona students' performance on the Arizona content standards. All AIMS Science tests are written to Arizona content standards approved by the State Board on May 24, 2004, and updated on March 10, 2005.

Based on the input of Arizona educators and Arizona's Instrument to Measurement Standards, a design was derived, developed, administered, and scored. The present technical report documents all aspects of the testing cycle in the subsequent chapters. The structure of the present technical report mirrors the testing cycle. A brief content summary of the report is provided below.

Involvement of Arizona Educators

- Part 2 of this report describes the involvement of Arizona educators in test development.
- Several committees met throughout the year in preparation for the 2013 AIMS assessments.

Test Design and Development

- Part 3 of this report describes the test design and the item development process. It provides the content frameworks and the blueprints upon which all of the AIMS tests are based. This section also includes descriptions and the structure of each AIMS test administered in the 2012-2013 academic year.
- Part 4 of this report provides a chronological description of the passage, stimulus, and item development process including modification of specifications, committee passage/stimulus reviews, item content and sensitivity reviews, data analysis and item selection committees, and customer and contractor reviews to guarantee a quality, error-free product.

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Administration

- Part 5 briefly describes test administration, accommodations, security, and the written procedures available to all test administrations and school personnel.
- The accommodations were available to eligible students while testing on AIMS.
- The same accommodations were available for both Fall 2012 and Spring 2013 AIMS.
- Personnel involved in testing administration were asked to sign a security agreement form certifying that all AIMS tests were administered under secure testing conditions.
- In order to ensure standardized testing administration for all students, a *Test Coordinator Manual* was made available to all test coordinators. Also, *Test Administration Directions* were made available to all test administrators.

Data for Operational Analysis

- Part 6 describes the data used for calibration and scaling of the Spring 2013 AIMS and also presents classical test statistics and item analysis statistics.
- In order to ensure valid calibration and scaling, several data cleaning steps occurred.
- The values for Cronbach's alpha were provided as a measure of internal consistency.

Calibration, Scaling, and Equating

- Part 7 reviews calibration, equating, scoring methods, and calibration results. Evaluation of the calibration results includes model-to-item fit.
- Displacement values and other item characteristics were considered for evaluating anchor items.
- Part 7 also shows the relationships between raw scores and scale score through scoring tables.
- Scaling results including the standard error of measurement are also presented.
- For all content areas, scoring tables were established using students' responses to the Spring 2013 administration.

Test Results

- Part 8 summarizes information about the results of the Spring 2013 administration of AIMS 3-8 and AIMS high school. The test results for different ethnic backgrounds and special program membership status are provided.
- Results for AIMS high school assessments are reported by graduating cohort, viz., for students graduating in years from 2013 to 2015.
- Scale score frequency distributions with three cut scores are also presented.

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Validity Evidence

- Part 9 reviews the main validity issues discussed in all prior chapters and provides additional validity evidence supporting the AIMS tests.
- For reading, mathematics, and science, Cronbach's alpha was estimated as a measure of internal consistency, and for writing, inter-rater position consistency and stratified alpha is provided.
- An analysis of differential item functioning is presented.
- Correlations among assessments are presented in the context of construct validity.

Classification

- Part 10 provides information regarding classification consistency and accuracy when students were classified into proficiency categories.
- The cut scores used for classifying proficiency categories were determined during standard setting and adopted by the State Board of Education.

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PART 2: INVOLVEMENT OF ARIZONA EDUCATORS AT ALL LEVELS

Part 2 of the technical report addresses the involvement of Arizona educators in test development. This part of the technical report addresses standard 3.5 of the *Standards for Educational and Psychological Testing* (AERA, APA, NCME, 1999).

Several committees met throughout the year in preparation for the 2013 AIMS writing, reading, math, and science assessments. These committees included teachers, curriculum specialists, and administrators from across the state and were an integral part of both the AIMS test development processes and AIMS results interpretation.

The 2013 AIMS called for administering one operational test per grade per content area. In order to build the AIMS item bank, multiple field test forms were administered per grade per content area ranging from 20 field test items to 40 field test items. Committee meetings focused on the development and selection of all items to be tested in spring 2013.

The test development committee meetings included:

- Reading Passage Content and Bias/Sensitivity Review, conducted in March 2012, in which Arizona educators reviewed newly developed passages to verify the content's accuracy and to ensure topics were appropriate and would not favor a particular gender or ethnic group;
- Item Writing Workshops, conducted in June 2012, in which AZ educators wrote and edited items aligned to the content standards for possible use in Spring 2013 as field test items;
- Item Content and Bias/Sensitivity Review, conducted in July 2012, in which educators reviewed the items written and edited in June 2012 to ensure the content was appropriate to the standards being assessed and that the items would not favor a particular gender or ethnic group;
- Data Analysis, conducted in July 2012, in which educators examined the item data generated during the Spring 2012 field test and assigned each item a status code to be included with the item information in the item bank; and
- Item Selection, conducted in July 2012, in which educators chose items matching the test blueprints from the item bank and the pool of approved field tested items administered in Spring 2012 for inclusion in the 2013 assessments.

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PART 3: TEST DESIGN

Part 3 of the technical report provides information regarding test design. The following AERA/APA/NCME standards are addressed: 1.2, 1.6, 3.1, 3.2, 3.3, 3.11, 6.4, 6.15, 13.3, and 13.5.

3.1 Content Standards

The AIMS assessments are designed to measure performance on the Arizona content standards adopted in March 2003 for reading, June 2008 for mathematics, June 2004 for writing, and March 2005 for science. These standards are organized by strand, concept, and performance objective. The AIMS Reading and Mathematics test blueprints are based on the concepts and strands of the Arizona content standards, presented in figures 3.1.1-3.1.2. The AIMS writing tests were revised in spring 2011 to include multiple-choice items and a writing prompt. The writing tests address the six concepts that are incorporated in Strand 2 of the Writing Standard. Figure 3.1.3 presents the statement of the six concepts in Strand 2.The AIMS Science test blueprints are based on the concepts and strands of the Arizona content standards, presented in figures 3.1.4 through 3.1.6.

Figure 3.1.1
Arizona Reading Concepts and Strands

Strand 1: Reading Process

- **Concept 1: Print Concepts**
- **Concept 3: Phonics**
- **Concept 4: Vocabulary**
- **Concept 6: Comprehension Strategies**

Strand 2: Comprehending Literary Text

- **Concept 1: Elements of Literature**
- **Concept 2: Historical and Cultural Aspects**

Strand 3: Comprehending Informational Text

- **Concept 1: Expository Text**
- **Concept 2: Functional Text**
- **Concept 3: Persuasive Text**

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Figure 3.1.2
Arizona Mathematics Concepts and Strands

Strand 1: Number and Operations

- **Concept 1: Number Sense**
- **Concept 2: Numerical Operations**
- **Concept 3: Estimation**

Strand 2: Data Analysis, Probability and Discrete Math

- **Concept 1: Data Analysis (Statistics)**
- **Concept 2: Probability**
- **Concept 3: Systematic Listing and Counting**
- **Concept 4: Vertex-Edge Graphs**

Strand 3: Patterns, Algebra and Functions

- **Concept 1: Patterns**
- **Concept 2: Functions and Relationships**
- **Concept 3: Algebraic Representations**
- **Concept 4: Analysis of Change**

Strand 4: Geometry and Measurement

- **Concept 1: Geometric Properties**
- **Concept 2: Transformation of Shapes**
- **Concept 3: Coordinate Geometry**
- **Concept 4: Measurement**

Strand 5: Structure and Logic

- **Concept 1: Algorithms and Algorithmic Thinking**
- **Concept 2: Logic, Reasoning, Problem Solving and Proof**

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Figure 3.1.3
Arizona Writing Concepts in Strand 2

Trait 1: Ideas and Content
Trait 2: Organization
Trait 3: Voice
Trait 4: Word Choice
Trait 5: Sentence Fluency
Trait 6: Conventions

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Figure 3.1.4
Arizona Science Concepts and Strands – Grade 4

Strand 1: Inquiry Process
- **Concept 1: Observations, Questions, and Hypotheses**
- **Concept 2: Scientific Testing (Investigating and Modeling)**
- **Concept 3: Analysis and Conclusions**
- **Concept 4: Communication**

Strand 2: History and Nature of Science
- **Concept 1: History of Science as a Human Endeavor**
- **Concept 2: Nature of Scientific Knowledge**

Strand 3: Science in Personal and Social Perspectives
- **Concept 1: Changes in Environments**
- **Concept 2: Science and Technology in Society**

Strand 4: Life Science
- **Concept 1: Characteristics of Organisms**
- **Concept 2: Life Cycles**
- **Concept 3: Organisms and Environments**
- **Concept 4: Diversity, Adaptation, and Behavior**

Strand 5: Physical Science
- **Concept 1: Properties of Objects and Materials**
- **Concept 2: Position and Motion of Objects**
- **Concept 3: Energy and Magnetism**

Strand 6: Earth and Space Science
- **Concept 1: Properties of Earth Materials**
- **Concept 2: Earth's Processes and Systems**
- **Concept 3: Changes in the Earth and Sky**

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Figure 3.1.5
Arizona Science Concepts and Strands – Grade 8

Strand 1: Inquiry Process
- **Concept 1: Observations, Questions, and Hypotheses**
- **Concept 2: Scientific Testing (Investigating and Modeling)**
- **Concept 3: Analysis and Conclusions**
- **Concept 4: Communication**

Strand 2: History and Nature of Science
- **Concept 1: History of Science as a Human Endeavor**
- **Concept 2: Nature of Scientific Knowledge**

Strand 3: Science in Personal and Social Perspectives
- **Concept 1: Changes in Environments**
- **Concept 2: Science and Technology in Society**

Strand 4: Life Science
- **Concept 1: Structure and Function in Living Systems**
- **Concept 2: Reproduction and Heredity**
- **Concept 3: Populations of Organisms in an Ecosystem**
- **Concept 4: Diversity, Adaptation, and Behavior**

Strand 5: Physical Science
- **Concept 1: Properties and Changes of Properties in Matter**
- **Concept 2: Motion and Forces**
- **Concept 3: Transfer of Energy**

Strand 6: Earth and Space Science
- **Concept 1: Structure of the Earth**
- **Concept 2: Earth's Processes and Systems**
- **Concept 3: Earth in the Solar System**

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Figure 3.1.6
Arizona Science Concepts and Strands – High School

Strand 1: Inquiry Process

- **Concept 1: Observations, Questions, and Hypotheses**
- **Concept 2: Scientific Testing (Investigating and Modeling)**
- **Concept 3: Analysis, Conclusions, and Refinements**
- **Concept 4: Communication**

Strand 2: History and Nature of Science

- **Concept 1: History of Science as a Human Endeavor**
- **Concept 2: Nature of Scientific Knowledge**

Strand 3: Science in Personal and Social Perspectives

- **Concept 1: Changes in Environments**
- **Concept 2: Science and Technology in Society**
- **Concept 3: Human Population Characteristics**

Strand 4: Life Science

- **Concept 1: The Cell**
- **Concept 2: Molecular Basis of Heredity**
- **Concept 3: Interdependence of Organisms**
- **Concept 4: Biological Evolution**
- **Concept 5: Matter, Energy, and Organization in Living Systems (Including Human Systems)**

Strand 5: Physical Science

- **Concept 1: Structure and Properties of Matter**
- **Concept 2: Motions and Forces**
- **Concept 3: Conservation of Energy and Increase in Disorder**
- **Concept 4: Chemical Reactions**
- **Concept 5: Interactions of Energy and Matter**

Strand 6: Earth and Space Science

- **Concept 1: Geochemical Cycles**
- **Concept 2: Energy in the Earth System (Both Internal and External)**
- **Concept 3: Origin and Evolution of the Earth System**
- **Concept 4: Origin and Evolution of the Universe**

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3.2 Test Blueprints

A test blueprint designates the percentage of items that should measure each strand and concept. All AIMS assessments were designed in accordance with the following blueprints. Further discussion of item selection to match the blueprints is included in Part 4 of this report.

Table 3.2.1
AIMS Blueprint for Reading

AIMS Reading Blueprint (beginning Spring 2005)

Grade	3	Strand 1						Strand 2		Strand 3		
		Concept 1	Concept 2	Concept 3	Concept 4	Concept 5	Concept 6	Concept 1	Concept 2	Concept 1	Concept 2	Concept 3
	% of test	7%	0%	9%	11%	0%	17%	22%	0%	11%	11%	11%
	% of strand on test	44%						22%		33%		

Grade	4	Strand 1						Strand 2		Strand 3		
		Concept 1	Concept 2	Concept 3	Concept 4	Concept 5	Concept 6	Concept 1	Concept 2	Concept 1	Concept 2	Concept 3
	% of test	0%	0%	0%	7%	0%	15%	31%	0%	24%	11%	11%
	% of strand on test	22%						31%		46%		

Grade	5	Strand 1						Strand 2		Strand 3		
		Concept 1	Concept 2	Concept 3	Concept 4	Concept 5	Concept 6	Concept 1	Concept 2	Concept 1	Concept 2	Concept 3
	% of test	0%	0%	0%	11%	0%	11%	31%	0%	24%	11%	11%
	% of strand on test	22%						31%		46%		

Grade	6	Strand 1						Strand 2		Strand 3		
		Concept 1	Concept 2	Concept 3	Concept 4	Concept 5	Concept 6	Concept 1	Concept 2	Concept 1	Concept 2	Concept 3
	% of test	0%	0%	0%	11%	0%	11%	31%	0%	24%	11%	11%
	% of strand on test	23%						31%		46%		

Grade	7	Strand 1						Strand 2		Strand 3		
		Concept 1	Concept 2	Concept 3	Concept 4	Concept 5	Concept 6	Concept 1	Concept 2	Concept 1	Concept 2	Concept 3
	% of test	0%	0%	0%	11%	0%	11%	24%	7%	22%	13%	11%
	% of strand on test	22%						31%		46%		

Grade	8	Strand 1						Strand 2		Strand 3		
		Concept 1	Concept 2	Concept 3	Concept 4	Concept 5	Concept 6	Concept 1	Concept 2	Concept 1	Concept 2	Concept 3
	% of test	0%	0%	0%	7%	0%	9%	26%	7%	24%	15%	11%
	% of strand on test	17%						33%		50%		

Grade	HS	Strand 1						Strand 2		Strand 3		
		Concept 1	Concept 2	Concept 3	Concept 4	Concept 5	Concept 6	Concept 1	Concept 2	Concept 1	Concept 2	Concept 3
	% of test	0%	0%	0%	7%	0%	7%	26%	7%	22%	15%	15%
	% of strand on test	15%						33%		52%		

Source: http://www.azed.gov/standards-development-assessment/aims/aims-blueprints/

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Table 3.2.2
AIMS Blueprint for Mathematics

AIMS Mathematics Blueprints (beginning with the 2010 Assessments)

Strand/Concept	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	HS
1. Number and Operations	**42%**	**40%**	**37%**	**34%**	**25%**	**18%**	**6%**
1.1 Number Sense	17%	16%	16%	13%	7%	6%	6%
1.2 Numerical Operations	20%	18%	15%	15%	12%	6%	
1.3 Estimation	6%	6%	6%	6%	6%	6%	
2. Data Analysis/Prob/Discrete	**12%**	**12%**	**18%**	**18%**	**19%**	**18%**	**14%**
2.1 Data Analysis (Statistics)	6%	6%	6%	6%	6%	6%	5%
2.2 Probability	0%	5%	6%	6%	7%	6%	5%
2.3 Systematic Listing and Counting	6%		6%	6%	6%	5%	5%
2.4 Vertex-Edge Graphs							
3. Patterns/Algebra/Functions	**17%**	**18%**	**16%**	**16%**	**19%**	**26%**	**33%**
3.1 Patterns	6%	7%	6%	6%	6%	9%	5%
3.2 Functions and Relationships	11%	0%	0%				7%
3.3 Algebraic Representations		10%	10%	10%	13%	12%	16%
3.4 Analysis of Change	0%					6%	5%
4. Geometry and Measurement	**18%**	**19%**	**15%**	**19%**	**22%**	**24%**	**33%**
4.1 Geometric Properties	9%	7%	7%	6%	13%	6%	13%
4.2 Transformation of Shapes		0%	0%			6%	5%
4.3 Coordinate Geometry	0%	6%	0%	6%	0%	6%	8%
4.4 Measurement	9%	6%	7%	7%	9%	6%	7%
5. Structure and Logic	**11%**	**12%**	**13%**	**13%**	**15%**	**15%**	**14%**
5.1 Algorithms and Algorithmic Thinking 5.2 Logic, Reasoning, Prob Solving, & Proof	11%	12%	13%	13%	15%	15%	14%

The **0%** indicates the lack of the Concept and Performance Objectives in the Mathematics Standard for the specified grade level. 11-21-2008

Source: http://www.azed.gov/standards-development-assessment/aims/aims-blueprints/

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Table 3.2.3
AIMS Blueprint for Science Grade 4

AIMS Science
Grade 4 Test Blueprint

Strand	Concept	Number of POs	Number of testable POs	Number of Test Items	Percentage of Test
Strand 1: Scientific Inquiry	Concept 1: Observations, Questions, and Hypotheses	4	3	6	33.3%
	Concept 2: Scientific Testing (Investigating and Modeling)	5	3	6	
	Concept 3: Analysis and Conclusions	5	5	6	
	Concept 4: Communication	3	1		
Strand 2: History and Nature of Science	Concept 1: History of Science as a Human Endeavor	2	1	6	11.1%
	Concept 2: Nature of Scientific Knowledge	3	2		
Strand 3: Science in Personal and Social Perspectives	Concept 1: Changes in Environments	2	2	6	11.1%
	Concept 2: Science and Technology in Society	3	2		
Strand 4: Life Science	Concept 1: Characteristics Of Organisms	2	2	6	11.1%
	Concept 2: Life Cycles	0	0		
	Concept 3: Organisms and Environments	4	4		
	Concept 4 : Diversity, Adaptation, and Behavior	2	2		
Strand 5: Physical Science	Concept 1: Properties of Objects and Materials	0	0	6	11.1%
	Concept 2: Position and Motion of Objects	0	0		
	Concept 3: Energy and Magnetism	5	5		
Strand 6: Earth and Space Science	Concept 1: Properties of Earth Materials	0	0	0	22.2%
	Concept 2: Earth's Processes and Systems	6	6	6	
	Concept 3: Changes in the Earth and Sky	6	6	6	
12/6/2005	Total Concepts = 18 Testable Concepts = 14	52	44	54	100%

Source: http://www.azed.gov/standards-development-assessment/aims/aims-blueprints/

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Table 3.2.4
AIMS Blueprint for Science Grade 8

AIMS Science
Grade 8 Test Blueprint

Strand	Concept	Number of POs	Number of testable POs	Number of Test Items	Percentage of Test
Strand 1: Scientific Inquiry	Concept 1: Observations, Questions, and Hypotheses	3	3	6	34.5%
	Concept 2: Scientific Testing (Investigating and Modeling)	5	2	4	
	Concept 3: Analysis and Conclusions	8	7	6	
	Concept 4: Communication	5	2	4	
Strand 2: History and Nature of Science	Concept 1: History of Science as a Human Endeavor	4	3	6	10.3%
	Concept 2: Nature of Scientific Knowledge	4	3		
Strand 3: Science in Personal and Social Perspectives	Concept 1: Changes in Environments	2	2	6	10.3%
	Concept 2: Science and Technology in Society	4	2		
Strand 4: Life Science	Concept 1: Structure and Function in Living Organisms	0	0	8	13.8%
	Concept 2: Reproduction and Heredity	3	3		
	Concept 3: Populations of Organisms in an Ecosystem	0	0		
	Concept 4 : Diversity, Adaptation, and Behavior	6	6		
Strand 5: Physical Science	Concept 1: Properties and Changes of Properties in Matter	7	6	10	31.0%
	Concept 2: Motions and Forces	5	5	8	
	Concept 3: Transfer of Energy	0	0	0	
Strand 6: Earth and Space Science	Concept 1: Structure of the Earth	0	0	0	0%
	Concept 2: Earth's Processes and Systems	0	0		
	Concept 3: Earth in the Solar System	0	0		
12/6/2005	Total Concepts = 18 Testable Concepts = 12	56	44	58	100%

Source: http://www.azed.gov/standards-development-assessment/aims/aims-blueprints/

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Table 3.2.5
AIMS Blueprint for Science High School

AIMS Science
High School Test Blueprint

Strand	Concept	Number of POs	Number of testable POs	Number of Test Items	Percentage of Test
Strand 1: Scientific Inquiry	Concept 1: Observations, Questions, and Hypotheses	4	4	6	33.8%
	Concept 2: Scientific Testing (Investigating and Modeling)	5	3	6	
	Concept 3: Analysis, Conclusions, and Refinements	7	5	6	
	Concept 4: Communication	4	2	4	
Strand 2: History and Nature of Science	Concept 1: History of Science as a Human Endeavor	4	2	6	9.2%
	Concept 2: Nature of Scientific Knowledge	4	3		
Strand 3: Science in Personal and Social Perspectives	Concept 1: Changes in Environments	5	3	7	10.8%
	Concept 2: Science and Technology in Society	5	3		
	Concept 3: Human Population Characteristics	3	1		
Strand 4: Life Science	Concept 1: The Cell	5	3	6	46.2%
	Concept 2: Molecular Basis of Heredity	4	3	6	
	Concept 3: Interdependence of Organisms	3	2	6	
	Concept 4: Biological Evolution	6	6	6	
	Concept 5: Matter, Energy, and Organization in Living Systems (Including Human Systems)	5	5	6	
12/6/2005	Total Concepts = 14 Testable Concepts = 14	**64**	**45**	**65**	100%

Source: http://www.azed.gov/standards-development-assessment/aims/aims-blueprints/

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Table 3.2.6
AIMS Blueprint for Writing

AIMS Writing Blueprint May 2010

Strand 2, Concepts 1-6

Grade	3		4		5		6		7		8		10	
Concepts	% MC Items	% of Score	% MC Items	% of Score	% MC Items	% of Score	% MC Items	% of Score	% MC Items	% of Score	% MC Items	% of Score	% MC Items	% of Score
1. Ideas and Content 2. Organization	33%	13%	33%	13%	33%	13%	41%	16%	41%	16%	44%	18%	44%	18%
3. Voice 4. Word Choice 5. Sentence Fluency	22%	9%	22%	9%	22%	9%	26%	10%	26%	10%	33%	13%	33%	13%
6. Conventions	44%	18%	44%	18%	44%	18%	33%	13%	33%	13%	22%	9%	22%	9%
Total Multiple Choice	100%	40%	100%	40%	100%	40%	100%	40%	100%	40%	100%	40%	100%	40%
Extended Response		60%		60%		60%		60%		60%		60%		60%
Totals		100%		100%		100%		100%		100%		100%		100%

AIMS Writing in Grades 3, 4, and 8 has been temporarily suspended.

The Blueprint was proposed on May 29, 2009 and revised on May 19, 2010.

Source: http://www.azed.gov/standards-development-assessment/aims/aims-blueprints/

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3.3 Description of 2013 AIMS Tests

The test blueprints were used with the processes described in detail in Part 4 to develop all AIMS tests administered in 2013. The resulting test configurations are as follows.

3.3.1 High School Reading (Criterion-referenced only)

The AIMS Criterion-Referenced Test (CRT) of high school reading test consisted of 54 multiple-choice items developed by Arizona teachers. The raw scores ranged from 0-54, and scale scores were designed to range from 500 to 900. All items on the high school reading test reported to a criterion-referenced score. No norm-referenced items were included on the high school reading test. Ten reading field test items were embedded with the operational items to form a total of 64 reading test items.

3.3.2 High School Writing (Criterion-referenced only)

The AIMS CRT high school writing test form consisted of one extended response writing prompt and 27 multiple-choice items. The multiple-choice component is weighted 40% and the essay response is weighted 60% in the total score. Responses to the prompt were scored on the holistic six-point rubric (see appendix D). Each essay response received two ratings. Final scores for responses with adjacent ratings were derived by averaging the two ratings. Final scores for responses with discrepant ratings (difference of 2 points) were resolved by a third rater. The raw scores ranged from 0-138, and scale scores were designed to range from 300-700. There were two forms of the high school writing test, A and T. Form T was used as a make-up form administered one week after the administration of Form A. No norm-referenced items were included on the high school writing tests. Five field test items were embedded with the operational items to form a total of 32 multiple-choice items and one prompt.

3.3.3 High School Mathematics (Criterion-referenced only)

The AIMS CRT high school mathematics test form consisted of 85 multiple-choice items developed by Arizona teachers. The raw scores ranged from 0-85, and scale scores were designed to range from 300 to 700. All items on the high school mathematics test reported to a criterion-referenced score. New performance standards were set in spring 2010. No norm-referenced items were included in the high school mathematics test. Fifteen field test items were embedded with the operational items to form a total of 100 test items.

3.3.4 Grades 3, 4, and 8 Reading and Language (Dual Purpose Assessment)

The AIMS reading tests for Grades 3, 4, and 8 consisted of both a criterion-referenced and a norm-referenced component. Some items contributed to the CRT component only, some items contributed to the NRT component only, and some items contributed to both CRT and NRT components. NRT language items were embedded in the reading tests. The language items contributed only to the NRT component. No NRT items were used as anchor items for AIMS.

The AIMS CRT reading tests for Grades 3 and 4 consisted of 39 items developed by Arizona teachers and 15 Stanford 10 items that map to the Arizona content standards, for a total of 54 items. The AIMS CRT reading test for Grade 8 consisted of 40 items developed by Arizona teachers and 14 Stanford 10 items that map to the Arizona content standards, for a total of 54 items. The raw scores on all tests ranged from 0-54. Ten reading field test items written to the Arizona standards were embedded with the operational items. Detailed test structure information can be found in Table 3.3.4.1. Scale score ranges are presented in Table 3.3.4.2. Scaling of AIMS CRT reading is discussed in Part 7 of this technical report.

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The left hand side of Table 3.3.4.1 presents the number of items that contributed to the AIMS reading CRT component, the AIMS reading NRT component, and the AIMS language NRT component for each grade. The number of Stanford 10 reading items that contributed to both AIMS reading CRT and AIMS reading NRT component is also reported. The total number of test items on the test is the composite of the number of field test items, CRT items, NRT reading, and NRT language items. The right hand side of Table 3.3.4.1 presents the number of anchor items used in the annual equating for each grade.

The AIMS NRT reading tests for Grades 3-8 consisted of 25 Stanford 10 reading items from Stanford 10 Form B. The AIMS NRT reading tests closely approximated the test blueprint and statistical criteria of Stanford 10. The Stanford 10 reading items were embedded within the AIMS 3-8 reading test. Scale scores are reported on the Stanford 10 reading NRT scale. Norms are reported using the 2007 Stanford 10 spring norms.

The AIMS NRT language tests for Grades 3-8 consisted of 20 Stanford 10 language items from Stanford 10 Form B. The AIMS NRT language tests closely approximated the test blueprint and statistical criteria of Stanford 10. The Stanford 10 language items were embedded within the AIMS 3-8 reading test. Scale scores are reported on the Stanford 10 language NRT scale. Norms are reported using the 2007 Stanford 10 spring norms.

Table 3.3.4.1
Spring 2013 AIMS Test Structure Reading and Language

Grade	RD FT	RD CRT only	RD NRT /CRT	RD NRT only	RD CRT TOTAL (CRT + NRT/CRT)	LA FT	LA CRT only	LA NRT /CRT	LA NRT only	LA CRT TOTAL (CRT + NRT/CRT)	TOTAL ITEMS ON TEST	RD Anchor (Common CRT: Spring 2012 -2013)	**LA Anchor (Common CRT: Spring 2012 -2013)
3	10	39	15	10	54	N/A	N/A	N/A	20	N/A	94	13	N/A
4	10	39	15	10	54	N/A	N/A	N/A	20	N/A	94	14	N/A
5	5	39	15	10	54	5	18	9	11	27	112	15	9
6	5	39	15	10	54	5	18	9	11	27	112	14	9
7	5	40	14	11	54	5	18	9	11	27	113	13	9
8	10	40	14	11	54	N/A	N/A	N/A	20	N/A	95	13	N/A
HS	10	54	N/A	N/A	54	5	27	N/A	N/A	27	*	13	9

*The high school reading and writing tests are administered separately. The writing test contains 32 multiple-choice items and 1 prompt for 33 total items.

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Table 3.3.4.2
Raw Score and Scale Score ranges of 2013 AIMS CRT Assessments

Content	Grade	Raw Score Range	Scale Score range
Reading	3	0-54	200-640
	4	0-54	220-660
	5	0-54	240-675
	6	0-54	250-690
	7	0-54	260-720
	8	0-54	270-800
	HS*	0-54	500-900
Writing	5	0-69	300-700
	6	0-69	300-700
	7	0-69	300-700
	HS*	0-138	300-700
Mathematics	3	0-66	100-540
	4	0-68	120-560
	5	0-67	140-580
	6	0-68	160-600
	7	0-68	180-620
	8	0-68	200-640
	HS*	0-85	300-700
Science	4	0-54	200-800
	8	0-58	200-800
	HS	0-65	200-800

*HS tests are not on the same scale as G3-8 tests. Scale scores are therefore not comparable between the HS and G3-8 tests. See Part 7 for information regarding the scaling of the AIMS assessment.

3.3.5 Grades 5, 6, and 7 Reading and Writing (Dual Purpose Assessment)

The AIMS reading and writing tests for Grades 5, 6, and 7 are combined into a single test administered over three sessions. They consisted of both a criterion-referenced and a norm-referenced component. Some items contributed to the CRT component only, some items contributed to the NRT component only, and some items contributed to both CRT and NRT components. No NRT items were used as anchor items for AIMS.

The AIMS CRT reading tests for Grades 5 and 6 consisted of 39 items developed by Arizona teachers and 15 Stanford 10 that map to the Arizona content standards, for a total of 54 items. The AIMS CRT reading test for Grade 7 consisted of 40 items developed by Arizona teachers and 14 Stanford 10 items that map to the Arizona content standards, for a total of 54 items. The raw scores on all tests ranged from 0-54. Five reading field test items written to the Arizona standards were embedded with the operational items. Detailed test structure information can be found in Table 3.3.4.1. Scale score ranges are presented in Table 3.3.4.2. Scaling of AIMS CRT reading is discussed in Part 7 of this technical report.

The AIMS CRT writing tests for Grades 5, 6, and 7 consisted of 18 items developed by Arizona teachers and 9 Stanford 10 that map to the Arizona content standards, for a total of 27 items. Five writing field test items written to the Arizona standards were embedded with the operational items. Detailed test structure information can be found in Table 3.3.4.1.

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The writing tests also contain one extended response writing prompt. Responses to the prompt were scored on the six-point holistic rubric. Each response received one rating with a 10% read behind as a check for consistency. The multiple-choice component was weighted 40% and the extended response component was weighted 60%. The raw scores ranged from 0-69. Scale score ranges are presented in Table 3.3.4.2. Scaling of AIMS CRT writing is discussed in Part 7 of this technical report.

3.3.6 Grades 3-8 Mathematics (Dual Purpose Assessment)

The AIMS Mathematics tests for Grades 3-8 consisted of both a criterion-referenced and norm-referenced component to allow for both criterion-referenced and norm-referenced scores. Some items contributed to CRT scores only, some items contributed to NRT scores only, and some items contributed to both CRT and NRT scores. No NRT items were used as anchor items for AIMS.

The AIMS CRT mathematics tests for Grade 3 consisted of 51 items developed by Arizona teachers and 15 Stanford 10 items that map to the Arizona content standards, for a total of 66 items. The AIMS CRT mathematics tests for Grade 5 consisted of 52 items developed by Arizona teachers and 15 Stanford 10 items that map to the Arizona content standards, for a total of 67 items. The AIMS CRT mathematics tests for Grades 4 and 6 through 8 consisted of 53 items developed by Arizona teachers and 15 Stanford 10 items that map to the Arizona content standards, for a total of 68 items. Ten field test items written to the Arizona standards were embedded with the operational items. Detailed test structure information can be found in Table 3.3.6.1. The raw score and scale score ranges are presented in Table 3.3.4.2. New performance standards were set for the tests in 2010. Scaling of AIMS CRT mathematics is discussed in Part 7 of this technical report.

The left hand side of Table 3.3.6.1 presents the break down of the number of items that contributed to the AIMS mathematics CRT and the AIMS mathematics NRT component for each grade. The number of Stanford 10 mathematics items that contributed to both components is also reported. The total number of test items on the test is the composite of the number of field test items, the number of CRT items, and the number of NRT items. The right hand side of Table 3.3.6.1 presents the number of anchor items used in the annual equating for each grade.

The AIMS NRT mathematics tests for Grades 3-8 consisted of 25 Stanford 10 mathematics items from Stanford 10 Form B. The AIMS NRT mathematics tests closely approximated the test blueprint and statistical criteria of Stanford 10. Scale scores are reported on the Stanford 10 mathematics NRT scale. Norms are reported using the 2007 Stanford 10 spring norms.

Items on the AIMS 3-8 reading, writing, and mathematics tests that reported to a criterion-referenced score were either developed by Arizona teachers or were Stanford 10 items that matched the Arizona content standards. No norm-referenced only reading, writing, or mathematics items reported to the AIMS 3-8 criterion-referenced scores.

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Table 3.3.6.1
Spring 2013 AIMS Test Structure Mathematics

Grade	MA FT	MA CRT only	MA NRT /CRT	MA NRT only	MA CRT TOTAL (CRT + NRT/CRT)	MA NRT TOTAL	TOTAL ITEMS ON TEST	Anchor (Common CRT: Spring 2012 - 2013)
3	10	51	15	10	66	25	86	16
4	10	53	15	10	68	25	88	17
5	10	52	15	10	67	25	87	17
6	10	53	15	10	68	25	88	17
7	10	53	15	10	68	25	88	17
8	10	53	15	10	68	25	88	17
HS	15	85	N/A	N/A	85	N/A	100	24

*High School mathematics had a total of 60 field test items; Grades 3-8 math each had 40.

3.3.7 Grades 4, 8, and High School Science (Criterion-referenced only)

The 2013 AIMS CRT science tests consisted of one operational form with 54 multiple-choice items on the Grade 4 test, 58 multiple-choice items on the Grade 8 test, and 65 multiple-choice items on the high school test. All multiple-choice items were developed by Arizona teachers. Ten field test items written to the Arizona standards were embedded with the operational items at each grade level. The scale scores for each test range from 200 to 800 and all items on each test reported to a criterion-referenced score. No norm-referenced items were included on any of the science tests. Table 3.3.10.1 displays the structure of the science tests.

Table 3.3.10.1
Spring 2013 AIMS Test Structure Science

Grade	SC FT	SC CRT only	SC NRT /CRT	SC NRT only	SC CRT TOTAL (CRT + NRT/CRT)	SC NRT TOTAL	TOTAL ITEMS ON TEST	Anchor (Common CRT: Spring 2012 - 2013)
4	10	54	N/A	N/A	54	N/A	64	19
8	10	58	N/A	N/A	58	N/A	68	24
HS	10	65	N/A	N/A	65	N/A	75	20

*Grades 4, 8, and HS science each had a total of 20 field test items.

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PART 4: TEST DEVELOPMENT

Part 4 of the technical report provides a summary of the test development activities that occurred during the 2012-2013 contract year. Information is provided relating to the following topics as they pertain to AIMS:

- a discussion of the AIMS test development and editing process;
- a description of the use of previously created AIMS item specifications;
- a description of the AIMS passage development and review procedures;
- a description of the AIMS item editing procedures;
- a description of content and bias/sensitivity review procedures for AIMS items;
- a description of the data analysis committee procedures;
- a description of the AIMS item selection committee meetings; and
- a description of the NRT alignment committee.

A comprehensive, multi-segment development process guides the development of assessment materials. The following section outlines this process in general terms. The remainder of Part 4 provides details of how these processes were implemented in Arizona. This section of the technical report addresses the following AERA/APA/NCME standards: 1.6, 3.1, 3.5, 3.6, 3.7, 3.9, 3.11, 3.16, 6.4, 6.15, 7.3, 7.4, 7.7, 13.3, and 13.5.

4.1 AIMS Test Development and Editing Process

4.1.1 Test Development Process

Test development for the 2013 test administration began with the customer kick-off meeting in Phoenix during April 2012. During this phase, the project deliverables were defined, such as test books, answer documents, test administration manuals, test coordinator manuals, test interpretation guides, and materials to support special accommodations, including Braille and large print books. The actual test form design was unchanged from the previous year. The ancillary materials were modified and all modifications were discussed and shared among all team members to ensure understanding.

4.1.2 Documents and Materials Development

Following definition of project deliverables, Pearson's entire test development team reviewed the blueprints, item specifications, and the *ADE Style Guide* to ensure that the 2013 assessment would meet all of the required, previously-developed criteria. Field test items were developed for reading, math, science, and writing to ensure a sufficient supply of items would be available to be placed on operational forms for the 2013 assessments.

4.1.3 Item Writing

The development of AIMS assessments for 2013 involved many professionals from Pearson and ADE collaborating in an effort to ensure that all newly developed items closely matched the Arizona Content Standards and the item specifications, while addressing the need to expand the Arizona Item Bank. The Arizona teachers who were selected to serve on item writing committees all possessed

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content and assessment expertise and the ability to be creative while adhering to the test blueprint, detailed item specifications, and content limits. There was a considerable amount of professional development provided to integrate new participants with more experienced item writers. Test items were written by Arizona teachers using a template that contained all requirements and supporting information such as strand, concept, performance objective, and content reference documentation. After the item writing workshops were concluded, test items were edited again by in-house Pearson content specialists, copy editors, art specialists, hand-scoring staff, and research scientists for content appropriateness and standards match. Items were then prepared for review by a committee of Arizona teachers at the Content and Bias Review meetings in July 2012. After passing these committees, the items were prepared for incorporation into the field test portion of the operational 2013 AIMS assessments.

4.1.4 Quality Reviews

ADE and Pearson personnel implemented a series of quality review checks at various stages of production to ensure all AIMS materials were error free.

ADE first reviewed each component at a relatively early stage of forms production. Items were compared to the way they were presented to the content/bias review committee to be sure no unauthorized changes had been introduced. Answer keys were checked. All changes were approved in writing by ADE.

A smooth AIMS test administration requires that all test materials, including test books, answer documents, and directions to students and test coordinators align with each other. Therefore, Pearson and ADE conducted a review of all materials as the second quality check. A side benefit of this review was the detection of possible revisions required on any unclear field test items.

Prior to creation of proofs (blueline stage), Pearson performed a Final Forms review. The purpose of the Final Forms review was to ensure that all publishable products met ADE's high quality standards and expectations.

After Pearson conducted their Final Forms review, all test forms were again submitted to ADE for review. All final forms and documents were reviewed and approved by ADE content specialists.

4.2 Pool of Items Used for Test Construction

4.2.1 Item Specifications

Prior to item writing, ADE and Pearson reviewed and revised existing item specifications for math, reading, writing, and science. The item specifications for writing were developed by Pearson and ADE in May 2009. The item specifications provide a definition of what is tested by each Performance Objective (PO) and, where needed, provide clarification of the PO statements, the content limits, and the stimulus and response attribute descriptions. Taken together, these help to inform instruction by explaining in detail what each PO means at each grade level and by describing how each PO is to be tested.

4.2.2 Reading Passage Content and Bias/Sensitivity Review

The passages considered for field testing in spring 2013 were passages that had been commissioned during March 8, 2012. They reflected the kinds of reading required by the Arizona Reading Standards.

When considering passages and items for use in the Spring 2013 assessments, the committee critiqued them to be sure that:

- all were well-written;

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- all were rich in content and subject matter;
- all were age and grade appropriate;
- all avoided stereotyping and controversial, confusing, or emotionally-charged topics;
- together they reflected a range of multi-cultural content;
- some reflected the diversity of Arizona and the Southwest region; and
- all were written in such a way that no group would have an advantage or disadvantage.

In all, 42 passages and their accompanying items were prepared for a Reading Passage Content and Bias/Sensitivity Review meeting held in March 8, 2012. Those 42 passages were prepared for review in passage review books. Each review book contained the passages for a specific grade. Each passage was on a template that included the word count and genre. The template also included space for reviewers to indicate their acceptance or rejection of the passage based on two back-to-back reviews: one for content and one for sensitivity issues. During a general session, all reviewers were provided the resource materials that contained the review criteria for each type of review.

Content criteria included:

- Prior Knowledge/Audience/Appropriateness – Subject matter should be grade appropriate and not require specialized knowledge or background on the part of the reader.
- Interest – The material should engage the student. Students should find the topic interesting.
- Coherence/Cohesiveness – The passage should provide clear links between sentences and paragraphs. Antecedent reference should be clear and unambiguous.
- Writing Style/Passage Structure – The writing style should be consistent throughout the passage. Ideas should be presented in logical order.
- Unity/Purpose – Ideas should flow in a unified direction. The passage should have a clear purpose.
- Conceptual Density – Passage should place reasonable conceptual demands on the reader. New, unusual, or difficult terms should be explained using vocabulary familiar to the reader.
- Explication – Nonfiction passages should provide a balance between information that is stated directly and information that requires the reader to make inferences.
- Representation/Accuracy – Passages must represent their genre and contain factual information. Facts should be documented from reliable sources.
- Organizational Aids – Organizational aids, such as headings, diagrams, or introductions should be included where applicable.
- Story Structure – Passages should contain sufficient structure to support a variety of questions.

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Sensitivity criteria included:

- Passages should be free of specific references to or descriptions of events of extreme sadness or adversity, acts of physical or psychological violence, alcohol or drug abuse, vulgar language, or sex.
- Religious, political, social, or psychological issues should be presented so that more than one point of view is expressed, factual accuracy is maintained, controversial contemporary issues are avoided, and stereotypical descriptions of beliefs or customs are avoided.
- Offensive, disturbing, and inappropriate language or content is not used.
- There should be no evidence of stereotyping based on gender, race, ethnicity, religion, socioeconomic status, age, regional or geographic area, disability, or occupation.
- Passages should be free of differential familiarity for any group based on language, socioeconomic status, regional or geographic area, or prior knowledge or experiences unrelated to the subject matter being tested.

Reviewers who represented all grade levels and Arizona's rich ethnic and cultural diversity read each passage, discussed its content, and either accepted passages as they were or suggested revisions which were incorporated during the review sessions. Table 4.2.2.1 shows the number of passages brought to passage review and the number accepted. Thirty-nine of the 42 passages taken to Reading Passage Review were accepted for use. The 39 newly accepted passages were considered for item writing.

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Table 4.2.2.1
Results of Reading Passage Review in AZ for 2012

Grade	Passage Genre	Total Passages Reviewed	Total Passages Accepted
3	All	6	5*
	Informational	2	1
	Functional	1	1
	Literary	3	3
4	All	6	5
	Informational	4	3
	Functional	0	0
	Literary	2	2
5	All	6	6
	Informational	3	3
	Functional	0	0
	Literary	3	3
6	All	6	6
	Informational	3	3
	Functional	1	1
	Literary	2	2
7	All	6	6
	Informational	1	1
	Functional	1	1
	Literary	4	4
8	All	6	5
	Informational	3	3
	Functional	1	1
	Literary	2	1
HS	All	6	6
	Informational	3	3
	Functional	2	2
	Literary	1	1
Total	All	42	39

* Two of the grade 3 passages were accepted and moved to Grade 4

4.2.3 Science Scenario Content and Bias/Sensitivity Review

There was no science scenario content and bias/sensitivity review in 2012.

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4.2.4 Item Content and Bias Review

Content and Bias Reviews for newly written reading, math, science, and writing items were conducted by Arizona educators and facilitated by contractor staff in July 2012.

The purposes of the Content Review were to verify the accuracy, difficulty range, depth of knowledge, and grade-appropriateness of potential test items and to verify their alignment to the intended Performance Objective (PO). The purposes of the Bias Review were to verify the items were free of stereotypes or other sources of bias and to confirm that they reflected community standards. Content and Bias Reviews were conducted separately for each item; however, each item earned just one combined rating: *Accept as Is*, *Accept with Revisions*, or *Reject*. Participants were selected on the basis of their ability to represent their grade level and to assure ethnic, racial, and gender representation. At the conclusion of the reviews, participants selected the passages and items that would be field tested in spring 2013.

During general sessions, participants received training in what to check during their Content Review, which included ensuring that the content of each item:

- was targeted to assess only one PO (unless specifications indicate otherwise);
- dealt with material that was important in testing the targeted PO;
- used grade-appropriate content;
- used appropriate thinking skills (application, analysis, conclusions, extending);
- was presented at a reading level suitable for the grade level being tested;
- was accurate and documented against reliable, up-to-date sources;
- had a stem that facilitated answering the question or completing the statement without looking at the answer choices;
- had a stem that did not present clues to the correct answer choice;
- had answer choices that were plausible and attractive to the student who had not mastered the objective or skill;
- was conceptually, grammatically, and syntactically consistent—between the stem and answer choices, and among the answer choices;
- had mutually exclusive distractors; and
- had one and only one correct answer choice.

During general sessions, participants received training in what to check during their Bias Review, which included ensuring that each item:

- was free of offensive, disturbing, or inappropriate language or content;
- was free of stereotyping based on gender, race, ethnicity, religion, socioeconomic status, age, regional or geographic area, disability, and occupation;
- demonstrated sensitivity to historical representation of groups; and
- was free of differential familiarity for any group based on language, socioeconomic status, regional or geographic area, and prior knowledge or experiences unrelated to the subject matter being tested.

Participants were also asked to ensure that the content of each item was free of explicit references to or descriptions of events involving extreme sadness or adversity, acts of physical or psychological violence, alcohol or drug abuse, vulgar language, or sex.

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Throughout the Bias Review, participants were asked to ensure that more than one point of view was expressed when any religious, political, social, or philosophical issues were addressed; beliefs or biases did not interfere with factual accuracy; contemporary issues that had already been proven to be controversial were absent; and stereotypic descriptions of beliefs or customs were absent.

During the reviews, participants were frequently encouraged to discuss each item and to make revisions that would bring the item into compliance with the above conditions. As they worked, participants were asked to consider the items two separate ways – once for content and once for bias. Considering the results of both reviews, participants were asked to place the items into the following categories: *Accept as Is*, *Accept with Revisions*, or *Reject*.

Overall, the acceptance rates were quite high. Across all grade levels, 94% of the items reviewed were accepted either as is or with revisions. Table 4.2.4.1 shows the number and portion of items classified into each category during Content and Bias Reviews by grade level and content area.

Any item that was rejected either for content or for bias issues was removed from consideration for field testing. In order to ultimately contribute to an item bank of items that measure and support the curriculum and state content standards, selection of the field test items was guided by the test blueprints. Field test item selection was performed by Content and Bias Review participants. Selections were subject to approval by ADE staff. Table 4.2.4.2 shows the number of field test items that were selected for inclusion in field test books.

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Table 4.2.4.1
Content and Bias Review Results

Content Area	Grade	Items Reviewed	Accepted		Rejected	
Reading	3	56	55	98%	1	2%
	4	50	50	100%	0	0%
	5	58	58	100%	0	0%
	6	61	60	98%	1	2%
	7	56	56	100%	0	0%
	8	61	61	100%	0	0%
	HS	49	42	86%	7	14%
Reading Total		**391**	**382**	**98%**	**9**	**2%**
Math	3	42	42	100%	0	0%
	4	41	40	98%	1	2%
	5	42	40	95%	2	5%
	6	44	44	100%	0	0%
	7	42	40	95%	2	5%
	8	42	41	98%	1	2%
	HS	31	31	100%	0	0%
Math Total		**284**	**278**	**98%**	**6**	**2%**
Science	4	60	45	75%	15	25%
	8	65	52	80%	13	20%
	HS	61	48	78%	13	22%
Science Total		**186**	**145**	**78%**	**41**	**22%**
Writing	5	30	30	100%	0	0%
	6	33	33	100%	0	0%
	7	30	30	100%	0	0%
	HS	62	62	100%	0	0%
Writing Total		**125**	**125**	**100%**	**0**	**0%**
Grand Total		**986**	**930**	**94%**	**56**	**6%**

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Table 4.2.4.2
Number of Field Test Items Selected

Content Area	Number of Grades	Number of Forms	Number of Items Selected
Reading	3 (Gr 3, 4, 8)	4	40
Reading	3 (Gr 5, 6, 7)	8	40
Reading	1 (HS)	4	40
Math	6 (Gr 3 through 8)	4	40
Math	1 (HS)	4	60
Science	3 (Gr 4, 8, and HS)	4	40
Writing	3 (Gr 5 through 7)	8	20
Writing	1 (HS)	8	40

4.2.5 Data Analysis

AIMS CRT Data Analysis was conducted in July 2012. Primary responsibility for conducting this workshop rested with ADE. However, a team of experienced test developers from Pearson facilitated the data analysis activities. The primary purpose of the Data Analysis meeting was to have Arizona educators examine the item data generated during the Spring 2012 field test, assign each item a status code to be included with the item information in the item bank, and determine each item's eligibility for possible selection as an operational item starting in spring 2013.

Participants were given instruction by ADE staff on how to interpret basic statistical concepts related to item data including *p*-values, Rasch values, infit/outfit, point biserial correlations, response distributions and ethnic and gender differential item functioning (DIF) flags, omit rates, and population counts.

Items that measured the content they were intended to measure and whose statistics were within acceptable limits were assigned Item Available (IA) status. These items were eligible for selection as operational items. Throughout the meeting, content was stressed as the deciding factor over statistics for items to attain IA status. Across all grades/content areas, approximately 88% of the items received IA status.

Items whose statistics indicated a fixable problem and that defined where the items could be improved were assigned Re-Field Test (RFT) status. These items would be revised during future item writing workshops and would be re-field tested in future assessments. Of all the items reviewed, a total of 7.5% were coded RFT.

Items whose statistics indicated they would not function fairly and reliably were rejected and assigned Do Not Use (DNU) status. These items were removed from consideration as operational items. Across the content and grade levels, about 5% of the items were assigned DNU status.

Table 4.2.5.1 shows the number and portion of items classified into each category during Data Analysis by grade level.

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Table 4.2.5.1
Items Given Special Codes

Content Area	Grade	Items Reviewed	Items Assigned IA * Status		Items Assigned RFT* Status		Items Assigned DNU* Status	
Reading	3	40	40	100%	0	0%	0	0%
	4	39	37	95%	2	5%	0	0%
	5	40	39	97.5%	0	0%	1	2.5%
	6	40	30	75%	8	20%	2	5%
	7	40	35	87.5%	2	5%	3	7.5%
	8	40	38	95%	0	0%	2	5%
	HS	40	32	80%	3	7.5%	5	12.5%
Reading Total		**279**	**251**	**90%**	**15**	**5.4%**	**13**	**4.6%**
Math	3	39	31	79.5%	6	15.4%	2	5.1%
	4	40	37	92.5%	1	2.5%	2	5%
	5	40	36	90%	4	10%	0	0%
	6	40	31	77.5%	8	20%	1	2.5%
	7	39	33	85%	5	12.5%	1	2.5%
	8	40	35	87.5%	3	7.5%	2	5%
	HS	60	58	97%	2	3%	0	0%
Math Total		**298**	**261**	**87%**	**29**	**10%**	**8**	**3%**
Science	4	40	37	92.5%	2	5%	1	2.5%
	8	40	31	77.5%	4	10%	5	12.5%
	HS	40	31	77.5%	8	20%	1	2.5%
Science Total		**120**	**99**	**82.5%**	**14**	**11.5%**	**7**	**6%**
Writing	5	20	18	90%	0	0%	2	10%
	6	20	17	85%	2	10%	1	5%
	7	20	17	85%	0	0%	3	15%
	HS	40	38	95%	0	0%	2	5%
Writing Total		**100**	**90**	**90%**	**2**	**2%**	**8**	**8%**
Grand Total		**797**	**701**	**88%**	**60**	**7.5%**	**36**	**4.5%**

Note:* Item Available (IA) - Re-field Test (RFT) - Do Not Use (DNU)

4.2.6 AIMS CRT Item Selection

AIMS CRT Item Selection was conducted in July 2012. A team of experienced test developers from Pearson facilitated the item selection meeting. For reading and math, Arizona participants

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included teachers for each content area and grade level band (Grades 3-4, 5-6, 7-8, and HS. For Writing and Science, each grade had a dedicated group of Arizona teachers. The primary purpose of the Item Selection meeting was to have Arizona educators select items to place on test forms for the Spring 2013 operational test that would produce valid and reliable scores using the items from the 2012 field test administration that had been designated as IA as well as using items from previous test administrations. Two sets of criteria primarily guided the selection of AIMS items: content representation and statistical requirements. In addition, the committee members were encouraged to select items with high level DOKs in order to help prepare students for assessments based on the Arizona College and Career Ready Standards which will be implemented in Spring 2015.

All of the items in the item bank that were available and eligible for selection as operational items in spring 2013 were displayed in grade level and content area item pool tables. With minor exceptions, the pool consisted of items field tested in 2002 through 2012. The items field tested in Spring 2012 were also available in the data analysis materials. The item pool tables for the math, writing, and science committees were arranged by Performance Objective. The item pool tables for the reading committees were arranged by passage. All tables could also be sorted according to any of the columns, making them extremely useful tools for searching for items with specific characteristics. These items formed the pool for item selection. Item images could be viewed electronically via the item bank. Each meeting room was equipped with a laptop with access to the item bank and a projection screen so that the entire group could view items at the same time.

Each entry on the table contained identification numbers, content alignment information (Strand, Concept, Performance Objective), the most recent test administration, and the most current statistical information about that item (*p*-value, Rasch values, point biserial, differential item functioning summary flags, Rasch model fit statistics, and the percent of students who omitted the item). Participants were given training to interpret these statistics and statistical guidelines for test selection. These guidelines included a target difficulty level for each test. Specifically, a target mean and range of selected item *p*-values, as well as a suggested distribution for the item *p*-values was provided for each grade/subject combination. Careful adherence to the specified distribution of *p*-values guaranteed students a reasonable opportunity to do well on a test that would be neither too easy nor too hard.

In addition to selecting items within specific *p*-values ranges, committee members were also asked to select items with item discriminations that indicate that getting the item correct is reasonably correlated with performance on the entire test (i.e., preferably item correlations greater than 0.3) and do not exhibit the potential for item bias (i.e., the items should not be flagged using various differential item functioning statistics).

Content considerations were addressed by the test blueprints. Careful adherence to the blueprints guaranteed the tests would validly measure the construct of math and reading as represented in the Arizona state content standards, maintain consistency, link to instruction, and allow for selection of items from different performance objectives within each concept. Substantial variance from the test blueprint could alter the test alignment and thus the validity of the scores being reported. Items were selected to represent the significant content categories specified in the test blueprint in the same proportion as the content categories represented in the test blueprint.

Prior to the Item Selection Committee meeting, ADE selected an anchor set of items upon which the operational forms would be constructed. The anchor set consisted of items that had been operational at least the previous year (during the Spring 2012 test administration). Regardless of content area or grade, each anchor set was carefully selected to meet statistical criteria and to

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proportionally represent the blueprint. Anchor sets were finalized by ADE prior to the item selection workshop.

To facilitate the selection process and to guarantee that the proper number and proportion of items would be selected, participants were provided with item pool tables and item replacement tables. Table 4.2.6.1 shows a sample of an item pool table and the available data considered by the Item Selection Committee in its selection of replacement items. An analysis of differential item functioning is performed for every administration. The latest values are included in the item pool tables for each grade/content area and provided to participants in the Item Selection Committee. Table 4.2.6.2 is a sample portion of the Item Replacement Table used by the participants to note their replacement requirements for Grade 3 mathematics and to capture proposed items to be used on the Spring 2013 assessment. This sample table shows the portion relevant to Strand 1 Concept 1 only. The entire table included all strands and concepts. This sample table shows the portion of columns relevant to Spring 2012 and Spring 2013. The information in the first column shows the blueprint requirements for Strand 1, Concept 1 – eleven of the 66 Operational items that should be covered by items from Strand 1, Concept 1 in the Grade 3 mathematics test. The next two columns show that two of those 11 items are covered by Stanford 10 NRT/CRT items, leaving nine slots to be filled with AZ items. Similar columns were provided for each element of the blueprint, guaranteeing exact adherence to the blueprint.

The set of columns labeled Spring 2012 New Operational Items include all of the AZ items covering Strand 1 Concept 1 that were in the Spring 2012 test. The set of columns labeled Spring 2013 New Operational Items show the items that were retained from the Spring 2012 or prior administrations (highlighted in blue). These retained items were designated as anchor items. During item selection for Spring 2013, the participants' tasks were to retain anchor items, if possible, and select items to fill in any gaps in blueprint coverage. As the participants considered each option based on content and difficulty, they could refer to the Item Pool Table to determine if the statistical considerations were being met and to the item bank to see the actual items.

As selections were made, they were recorded on item replacement tables. These tables were loaded onto computers and projected for group discussion. These tables provided a running record of the selections and further helped to guarantee blueprint coverage. Table 4.2.6.3 shows a sample of the *p*-value target distribution table and graph used by the committees. Note that this table and graph are displayed as if items were in the process of being selected.

These tables were completed for all selections and were subject to approval by both ADE and Pearson's Research department.

Table 4.2.6.4 shows the number of AIMS reading, writing, mathematics, and science items that were selected for each grade. All selections were approved by Pearson research staff and ADE staff.

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Table 4.2.6.1
Sample Grade 3 Mathematics Item Pool Table

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Row	AZID	Subject	Grade	Status	Passage Code	Strand	Concept	Perf. Obj.	DOK	2010 Standard Alignment	Year 2002	Year 2003	Year 2004	Year 2005	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012	Recent Year	Item No.
1	41123983	Mathematics	3	New	BUTTER	5	2	5	2	Y											FT	2012	42
2	41123984	Mathematics	3	New	BUTTER	5	2	6	2	Y											FT	2012	43
3	41123971	Mathematics	3	New	NUMBER	1	1	4	2	Y											FT	2012	42
4	41123981	Mathematics	3	New	NUMBER	5	2	7	3	Y											FT	2012	43
5	41123666	Mathematics	3	New		1	1	3	2	N											FT	2012	46
6	41123446	Mathematics	3	New		1	1	5	3	Y											FT	2012	52
7	41123972	Mathematics	3	New		1	1	6	2	N											FT	2012	68
8	41123667	Mathematics	3	New		1	2	2	3	Y											FT	2012	22
9	41123797	Mathematics	3	New		1	2	2	3	Y											FT	2012	68
10	41123973	Mathematics	3	New		1	2	3	2	Y											FT	2012	22

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Row	N Count	Rasch	PVal	Flag PVal	PT Bis.	Flag PTBIS	Male vs Female Bias Flag	Non-Hispanic vs Hispanic Bias Flag	White vs Black Bias Flag	White vs Hispanic Bias Flag	White vs AmIn Bias Flag	White vs Asian Bias Flag	White vs Hawi/PaclsIr Bias Flag	White vs Multiracial Bias Flag	Dist A	Dist B	Dist C	Dist D	Omit
1	20644	3.160	0.10	*	0.01	*	A	A	A		A	A	A	A	9.7	37.3	32.7	20.0	0.3
2	20644	-0.294	0.65		0.52		A	A	A		A	A	A	A	10.4	8.8	15.1	65.0	0.7
3	20768	-0.355	0.66		0.51		A	A	A		A	A	A	A	8.1	8.1	65.9	17.7	0.2
4	20768	0.229	0.55		0.48		A	A	A		A	A	A	A	17.6	13.7	13.7	54.7	0.3
5	20644	1.259	0.35		0.32		A	A	A		A	A	A	A	38.0	16.2	34.9	10.7	0.2
6	20805	1.245	0.34		0.33		A	A	A		A	B>	A	A	24.7	17.1	33.5	24.4	0.3
7	20655	1.997	0.22	*	0.07	*	A	A	A		A	A	A	A	24.8	22.3	29.1	23.6	0.3
8	20768	0.559	0.48		0.19	*	A	A	A		A	A	A	A	48.2	24.8	16.1	10.5	0.4
9	20805	1.723	0.26	*	0.38		A	A	A		A	A	A	A	26.9	42.5	25.6	4.7	0.3
10	20644	-0.890	0.75		0.51		A	A	A		A	A	A	A	11.9	6.7	75.1	5.7	0.5

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Table 4.2.6.2
Sample Grade 3 Mathematics Item Replacement Table

AZ AIMS Grade 3 Spring 13 Operational Item Replacement Plan for MATH

# of Items Required per Blueprint	Strand	Concept	Spring 12 - New Operational Items									Spring 13 - New Operational Items								
			Selections									Selections								
			Actual # of AZ Items in Spring 11	# of NRT Items in Test	PO	AZID	PEID/CID	P-VALUE	Rasch	PtBis	DOK	Actual # of AZ Items in Spring 12	# of NRT Items in Test	PO	AZID	AZ CCS	P-VALUE	Rasch	PtBis	DOK
11	1	1	9	2	1.1.4	41093163	N	0.665	-0.5532	0.449	2	9	2	1.1.4	41093163	N	0.665	-0.5532	0.449	2
	1	1			1.1.1	3148311	N	0.897	-2.2305	0.307	1			1.1.3	41093039	N	0.630	-0.2582	0.541	2
	1	1			1.1.1	3523037	N	0.543	0.4479	0.378	2			1.1.1	3523037	N	0.543	0.4479	0.378	2
	1	1			1.1.6	41113426	Y	0.455	0.698	0.412	2									
	1	1			1.1.5	41093190	N	0.394	1.0191	0.011	3									
	1	1			1.1.2	41093136	N	0.716	-0.7049	0.484	2									
	1	1			1.1.2	41093195	N	0.825	-1.4647	0.497	2									
	1	1			1.1.3	41093140	N	0.793	-1.2151	0.462	2									
	1	1			1.1.6	3258469	N	0.755	-0.9518	0.122	1									
	1	1			1.1.5	2109734		0.890	-2.268	0.234	1			1.1.5	2109734		0.890	-2.268	0.234	1
	1	1			1.1.1	2109729		0.600	-0.094	0.396	1			1.1.1	2109729		0.600	-0.094	0.396	1

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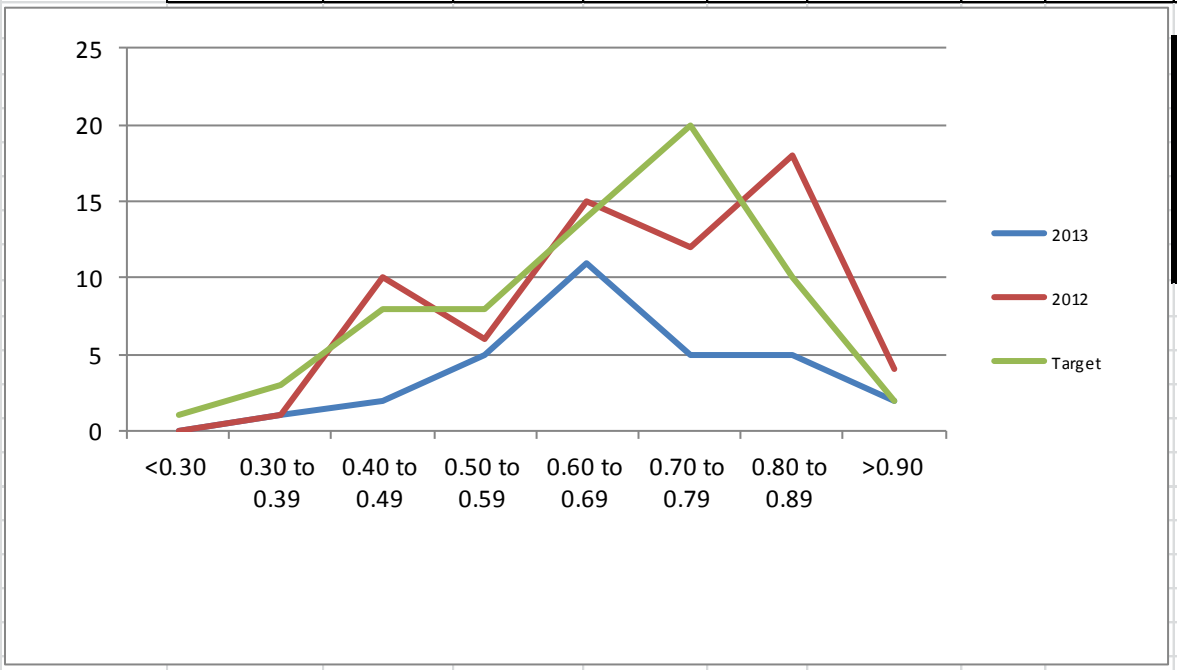
Table 4.2.6.3
Sample *P*-Value Target Table and Graph

Grade 3	target mean < 0.64								
	<0.30	0.30 to 0.39	0.40 to 0.49	0.50 to 0.59	0.60 to 0.69	0.70 to 0.79	0.80 to 0.89	>0.90	**Total Number of Items**
Pct of items for target	1%	4%	12%	13%	21%	31%	15%	3%	
Target Totals	**1**	**3**	**8**	**8**	**14**	**20**	**10**	**2**	**66**
Actual - Anchors	0	1	1	3	7	3	1	0	**16**
Actual - new selections	0	0	0	0	1	0	0	0	**1**
NRT/Dual Purpose	0	0	1	2	3	2	4	2	**14**
TOTAL 2013	**0**	**1**	**2**	**5**	**11**	**5**	**5**	**2**	31
Actual 2012	0	1	10	6	15	12	18	4	**66**



DOK Level	Target N	Actual N
1	17	5
2	39	20
3	10	6
4	0	0
Total	66	31

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Table 4.2.6.4
Number of Reading, Writing, Math, and Science Items Selected by Committee

Content Area	Grade	CRT Items Only	Anchor Items		Total Selected	
Reading	3	39	13	33.3%	26	66.7%
	4	39	14	35.9%	25	64.1%
	5	39	15	33.3%	24	66.7%
	6	39	14	35.9%	25	64.1%
	7	40	13	32.5%	27	67.5%
	8	40	13	32.5%	27	67.5%
	HS	54	13	24%	41	76%
Reading Total		**290**	**93**	**32%**	**197**	**68%**
Math	3	51	16	31%	35	69%
	4	53	17	32%	36	68%
	5	52	17	32.7%	35	67.3%
	6	53	17	32%	36	68%
	7	53	17	32%	36	68%
	8	53	17	32%	36	68%
	HS	85	24	28%	61	72%
Math Total		**400**	**125**	**31.3%**	**275**	**68.7%**
Science	4	54	19	37%	35	63%
	8	58	24	41%	34	59%
	HS	65	20	31%	45	69%
Science Total		**177**	**64**	**36%**	**113**	**64%**
Writing	5	18	9	50%	9	50%
	6	18	9	50%	9	50%
	7	18	9	50%	9	50%
	HS	27	9	33%	18	67%
Writing Total		**81**	**36**	**44%**	**45**	**56%**
Grand Total		948	319	33.5%	629	66.5%

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4.2.7 AIMS NRT Alignment Committee

In order to effectively and validly incorporate Stanford 10 items as a component of AIMS, the ADE formed alignment committees consisting of Arizona educators to compare each reading, writing, and mathematics Stanford 10 items to the Arizona Content Standards in Grades 3 through 8. These committees established a pool of Stanford 10 items that could be used on AIMS as dual purpose items to address specific POs. The committee met in June 2009 and reviewed all the items on the Stanford 10, Form B for alignment. Tables 4.2.7.1 and 4.2.7.2 show the number of items reviewed and the number that were deemed to match the Arizona content strands and concepts for Reading and Mathematics.

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Table 4.2.7.1 Stanford 10 Item Alignment for Reading

Grade Level	Numberof Passages	Number of Items Reviewed	Number of Items for Strand - Concept						Total Items Aligned
			1-4	1-6	2-1	3-1	3-2	3-3	
3	9	54	1	11	9	6	11		38
4	10	54	4	10	7	13	9	2	45
5	8	54		14	8	9	10		41
6	8	54	2	9	6	16	8		41
7	9	54	4	8	7	27	3		49
8	8	54	4	6	4	24		3	41

Table 4.2.7.2 Stanford 10 Item Alignment for Mathematics

Grade Level	Number of Items Reviewed	Number of Items for Strands - Concepts																Total Items Aligned
		1-1	1-2	1-3	2-1	2-2	2-3	3-1	3-2	3-3	3-4	4-1	4-2	4-3	4-4	5-1	5-2	
3	46	5	7	2	5			1	1	1		1	1		1		1	26
4	48	3	1	4	4			2		1		1		1	2		12	31
5	48	6	3	2	1	2	1				1	2			1	1	5	25
6	48	4	2	3	1	2								1	3		8	24
7	48	4	4	3	2			3		2		1			1		4	24
8	48	1	2	4	1		1	1	1	4	2	2					6	25

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4.2.8 AIMS NRT Item Selection

Based on the results of the AIMS NRT Alignment Committee meetings, Pearson content specialists and psychometricians selected Stanford 10 items to serve as dual purpose or NRT only items on the reading, writing, and mathematics tests. The set of NRT items selected for use on the AIMS assessments is refreshed every two years. This is done to avoid over exposure of the NRT items which could lead to skewed statistics for those items. These items were selected prior to the item selection committee meetings in which Arizona educators selected the new AIMS items for the tests. The Stanford 10 items embedded in the AIMS 3-8 assessment were selected to match the test blueprint and statistical criteria of Stanford 10. Approximately twenty-five Stanford 10 items were selected for each grade and subject, and approximately 15 items served as dual purpose and the remainder served as NRT only items. Nine of the twenty items from the language Stanford 10 were chosen as dual purpose items for Grades 5 through 7 writing test. The differences in blueprint representation between the Stanford 10 component embedded in the AIMS 3-8 assessment and the Stanford 10 Form B Abbreviated and Full forms are summarized in the tables below. Stanford 10 is available in two formats, a full form and an abbreviated form. The tables show the number and percent of items in each Stanford 10 cluster on the NRT component of the Arizona tests (NRT), the Stanford 10 Abbreviated Form (B ABr), and the full form B (FormB). The rightmost three columns show the average Rasch difficulty of the NRT item sets on the AIMS tests and the Stanford 10 forms.

Table 4.2.8.1
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 3 Reading

	Test			Test			Test		
	NRT	B Abr	FormB	NRT	B Abr	FormB	NRT	B Abr	FormB
Cluster	N	N	N	Percent	Percent	Percent	Rasch Mean	Rasch Mean	Rasch Mean
Critical Analysis	5	7	12	20.0	23.3	22.2	-0.69	0.01	-0.18
Initial Understanding	7	7	12	28.0	23.3	22.2	-0.20	-0.34	-0.48
Interpretation	9	11	20	36.0	36.7	37.0	0.18	0.46	0.14
Strategies	4	5	10	16.0	16.7	18.5	-0.45	0.26	-0.14
All	25	30	54	100.0	100.0	100.0	-0.20	0.13	-0.12

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Table 4.2.8.2
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 4 Reading

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Critical Analysis	6	7	12	24.0	23.3	22.2	0.02	0.37	0.16
Initial Understanding	6	7	12	24.0	23.3	22.2	0.38	0.54	0.40
Interpretation	10	11	20	40.0	36.7	37.0	0.20	0.54	0.47
Strategies	3	5	10	12.0	16.7	18.5	0.55	0.21	0.52
All	25	30	54	100.0	100.0	100.0	0.24	0.45	0.39

Table 4.2.8.3
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 5 Reading

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Critical Analysis	6	7	12	24.0	23.3	22.2	1.10	1.12	1.07
Initial Understanding	6	7	12	24.0	23.3	22.2	0.35	0.25	0.55
Interpretation	9	11	20	36.0	36.7	37.0	0.48	0.39	0.32
Strategies	4	5	10	16.0	16.7	18.5	1.15	1.41	0.98
All	25	30	54	100.0	100.0	100.0	0.71	0.70	0.66

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Table 4.2.8.4
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster - Grade 6 Reading

	Test			Test			Test		
	NRT	B Abr	FormB	NRT	B Abr	FormB	NRT Rasch	B Abr Rasch	FormB Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Critical Analysis	5	7	12	19.2	23.3	22.2	1.33	1.62	1.29
Initial Understanding	6	7	12	23.1	23.3	22.2	0.85	0.51	0.49
Interpretation	10	11	20	38.5	36.7	37.0	1.46	1.47	1.14
Strategies	5	5	10	19.2	16.7	18.5	0.36	0.88	0.90
All	26	30	54	100.0	100.0	100.0	1.08	1.18	0.98

Table 4.2.8.5
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster - Grade 7 Reading

	Test			Test			Test		
	NRT	B Abr	FormB	NRT	B Abr	FormB	NRT Rasch	B Abr Rasch	FormB Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Critical Analysis	6	7	12	24.0	23.3	22.2	1.64	1.56	1.33
Initial Understanding	6	7	12	24.0	23.3	22.2	1.00	1.11	1.31
Interpretation	9	11	20	36.0	36.7	37.0	1.38	1.42	1.06
Strategies	4	5	10	16.0	16.7	18.5	0.67	1.22	1.14
All	25	30	54	100.0	100.0	100.0	1.24	1.35	1.19

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Table 4.2.8.6
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 8 Reading

	Test			Test			Test		
	NRT	B Abr	FormB	NRT	B Abr	FormB	NRT Rasch	B Abr Rasch	FormB Rasch
Cluster	**N**	**N**	**N**	**Percent**	**Percent**	**Percent**	**Mean**	**Mean**	**Mean**
Critical Analysis	6	9	14	24.0	30.0	25.9	1.09	1.27	1.40
Initial Understanding	5	5	10	20.0	16.7	18.5	1.42	1.11	1.14
Interpretation	9	11	20	36.0	36.7	37.0	1.73	1.51	1.69
Strategies	5	5	10	20.0	16.7	18.5	1.79	2.02	1.72
All	25	30	54	100.0	100.0	100.0	1.53	1.46	1.52

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Table 4.2.8.7
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 3 Language

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Capitalization	4	6	8	20.0	20.0	16.7	-0.56	-0.62	-0.61
Content and Organization	5	7	12	25.0	23.3	25.0	-0.02	-0.06	-0.02
Prewriting	2	4	5	10.0	13.3	10.4	-0.08	-0.08	-0.17
Punctuation	3	5	8	15.0	16.7	16.7	-0.45	-0.19	0.14
Sentence Structure	3	4	7	15.0	13.3	14.6	-0.82	-0.41	-0.46
Usage	3	4	8	15.0	13.3	16.7	-0.48	-0.07	-0.63
All	20	30	48	100.0	100.0	100.0	-0.39	-0.25	-0.27

Table 4.2.8.8
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 4 Language

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Expression									
Content and Organization	5	8	11	50.0	53.3	45.8	-0.16	-0.18	-0.11
Prewriting	2	2	5	20.0	13.3	20.8	-0.08	0.23	0.03
Sentence Structure	3	5	8	30.0	33.3	33.3	0.23	0.21	0.15
All Expression	10	15	24	100.0	100.0	100.0	-0.03	0.01	0.01
Mechanics									
Capitalization	4	5	8	40.0	33.3	33.3	-0.36	-0.39	-0.33
Punctuation	3	5	8	30.0	33.3	33.3	0.50	0.37	0.39
Usage	3	5	8	30.0	33.3	33.3	-0.46	-0.09	-0.28
All Mechanics	10	15	24	100.0	100.0	100.0	-0.13	-0.04	-0.07

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Table 4.2.8.9
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 5 Language

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Expression									
Content and Organization	4	7	10	40.0	46.7	41.7	0.59	0.68	0.59
Prewriting	2	4	5	20.0	26.7	20.8	0.16	0.28	0.34
Sentence Structure	4	4	9	40.0	26.7	37.5	0.40	0.66	0.47
All Expression	10	15	24	100.0	100.0	100.0	0.43	0.57	0.50
Mechanics									
Capitalization	3	5	8	30.0	33.3	33.3	0.46	0.07	0.06
Punctuation	3	5	8	30.0	33.3	33.3	0.84	0.82	0.83
Usage	4	5	8	40.0	33.3	33.3	-0.25	-0.42	-0.26
All Mechanics	10	15	24	100.0	100.0	100.0	0.29	0.15	0.21

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Table 4.2.8.10
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 6 Language

	Test			Test			Test		
	NRT	B Abr	FormB	NRT	B Abr	FormB	NRT Rasch	B Abr Rasch	FormB Rasch
Cluster	**N**	**N**	**N**	**Percent**	**Percent**	**Percent**	**Mean**	**Mean**	**Mean**
Expression									
Content and Organization	4	5	9	40.0	33.3	37.5	0.69	0.39	0.55
Prewriting	2	3	5	20.0	20.0	20.8	0.39	0.47	0.44
Sentence Structure	4	7	10	40.0	46.7	41.7	0.60	0.65	0.55
All Expression	10	15	24	100.0	100.0	100.0	0.59	0.53	0.52
Mechanics									
Capitalization	3	5	8	30.0	33.3	33.3	0.45	0.31	0.46
Punctuation	4	5	8	40.0	33.3	33.3	1.01	1.06	0.94
Usage	3	5	8	30.0	33.3	33.3	-0.25	0.21	-0.00
All Mechanics	10	15	24	100.0	100.0	100.0	0.47	0.53	0.47

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Table 4.2.8.11
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 7 Language

	Test			Test			Test		
	NRT	B Abr	FormB	NRT	B Abr	FormB	NRT Rasch	B Abr Rasch	FormB Rasch
Cluster	**N**	**N**	**N**	**Percent**	**Percent**	**Percent**	**Mean**	**Mean**	**Mean**
Expression									
Content and Organization	3	5	9	30.0	33.3	37.5	0.90	1.00	1.05
Prewriting	3	4	5	30.0	26.7	20.8	1.05	1.04	0.87
Sentence Structure	4	6	10	40.0	40.0	41.7	1.19	1.16	1.17
All Expression	10	15	24	100.0	100.0	100.0	1.06	1.07	1.06
Mechanics									
Capitalization	3	5	8	30.0	33.3	33.3	1.11	1.04	0.86
Punctuation	3	5	8	30.0	33.3	33.3	1.38	1.35	1.08
Usage	4	5	8	40.0	33.3	33.3	0.97	0.72	0.76
All Mechanics	10	15	24	100.0	100.0	100.0	1.13	1.04	0.90

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Table 4.2.8.12
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 8 Language

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Expression									
Content and Organization	4	5	9	40.0	33.3	37.5	1.27	1.26	1.35
Prewriting	3	5	5	30.0	33.3	20.8	0.83	0.78	0.78
Sentence Structure	3	5	10	30.0	33.3	41.7	1.19	1.54	1.22
All Expression	10	15	24	100.0	100.0	100.0	1.11	1.19	1.18
Mechanics									
Capitalization	3	5	8	30.0	33.3	33.3	0.84	1.08	0.99
Punctuation	3	5	8	30.0	33.3	33.3	1.29	1.46	1.42
Usage	4	5	8	40.0	33.3	33.3	0.63	0.62	0.92
All Mechanics	10	15	24	100.0	100.0	100.0	0.89	1.05	1.11

Table 4.2.8.13
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 3 Mathematics

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Data, Statistics, & Probability	3	4	6	12.0	13.3	13.0	-0.28	-0.35	-0.51
Geometry and Measurement	5	7	10	20.0	23.3	21.7	-0.91	-0.26	-0.42
Number Sense and Operations	14	16	25	56.0	53.3	54.3	-0.78	-0.86	-0.96
Patterns, Relationships, & Algebra	3	3	5	12.0	10.0	10.9	-1.14	-1.28	-1.15
All	25	30	46	100.0	100.0	100.0	-0.79	-0.69	-0.80

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Table 4.2.8.14
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 4 Mathematics

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Data, Statistics, & Probability	4	5	8	16.0	16.7	16.7	-0.08	-0.09	-0.03
Geometry and Measurement	5	7	10	20.0	23.3	20.8	0.99	0.59	0.57
Number Sense and Operations	12	14	24	48.0	46.7	50.0	-0.39	-0.25	-0.36
Patterns, Relationships, & Algebra	4	4	6	16.0	13.3	12.5	-0.23	-0.10	0.02
All	25	30	48	100.0	100.0	100.0	-0.04	-0.01	-0.06

Table 4.2.8.15
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 5 Mathematics

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Data, Statistics, & Probability	4	5	8	16.0	16.7	16.7	1.02	0.62	0.61
Geometry and Measurement	5	7	10	20.0	23.3	20.8	1.43	1.26	1.21
Number Sense and Operations	12	14	24	48.0	46.7	50.0	0.94	0.83	0.95
Patterns, Relationships, & Algebra	4	4	6	16.0	13.3	12.5	0.76	0.60	0.76
All	25	30	48	100.0	100.0	100.0	1.02	0.86	0.93

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Table 4.2.8.16
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 6 Mathematics

Cluster	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Data, Statistics, & Probability	4	5	8	16.0	16.7	16.7	2.07	1.71	1.82
Geometry and Measurement	6	7	11	24.0	23.3	22.9	1.47	1.20	1.25
Number Sense and Operations	12	14	22	48.0	46.7	45.8	1.36	1.29	1.32
Patterns, Relationships, & Algebra	3	4	7	12.0	13.3	14.6	1.54	1.57	1.69
All	25	30	48	100.0	100.0	100.0	1.52	1.38	1.44

Table 4.2.8.17
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 7 Mathematics

Cluster	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Data, Statistics, & Probability	4	5	9	16.0	16.7	18.8	2.09	2.13	2.14
Geometry and Measurement	6	8	12	24.0	26.7	25.0	1.82	1.97	1.86
Number Sense and Operations	10	11	18	40.0	36.7	37.5	1.83	1.68	1.57
Patterns, Relationships, & Algebra	5	6	9	20.0	20.0	18.8	1.27	1.63	1.70
All	25	30	48	100.0	100.0	100.0	1.76	1.82	1.78

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Table 4.2.8.18
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 8 Mathematics

	Test			Test			Test		
	NRT	B Abr	FormB	NRT	B Abr	FormB	NRT Rasch	B Abr Rasch	FormB Rasch
Cluster	**N**	**N**	**N**	**Percent**	**Percent**	**Percent**	**Mean**	**Mean**	**Mean**
Data, Statistics, & Probability	4	5	9	16.0	16.7	18.8	2.51	2.34	2.48
Geometry and Measurement	7	8	12	28.0	26.7	25.0	2.82	2.73	2.76
Number Sense and Operations	9	11	18	36.0	36.7	37.5	2.62	2.44	2.28
Patterns, Relationships, & Algebra	5	6	9	20.0	20.0	18.8	2.28	2.02	2.17
All	25	30	48	100.0	100.0	100.0	2.59	2.42	2.42

4.3 Customer Approvals

Approvals from ADE staff were obtained during several phases of development: during selection of the CRT items, after forms were created, at the completion of the QA reviews, and when pre-press test books were available. Each is described below.

4.3.1 Item Selection Approval

Since the item selection was conducted in Arizona, item selection approvals were obtained on site at the end of each day. ADE staff members were given the item replacement tables. Approval was verbal. The item selection tables were then reviewed by Pearson's research scientist. Psychometric evaluation of the test selection was the main focus of this review. Recommended changes were discussed with and approved by ADE.

4.3.2 Test Book Approvals

At the test book phase of development, items had been arranged into test book format. That is, they were no longer treated as individual items, but appeared in page layouts as they would appear in the final, printed test books. By this point, all content issues were resolved. The focus of this approval was on format and presentation issues, rather than on content issues. Formal approval was given. Desired changes were communicated via PDF markup and the Development Tracking Form, which included a description of the change, a justification, and space for the customer to grant or deny approval. Formal sign-off of test books by ADE was achieved via the use of signed electronic Final Proof Approval Forms.

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4.3.3 FTP Site

A secure FTP site had been established by ADE for transfer of electronic documents (annotated test books, test book reviews, etc.) that need to be reviewed by ADE staff. After careful review by ADE staff, corrections and edits were transmitted to Pearson for inclusion/revision of the test documents.

4.3.4 Final Forms Review (Pearson)

The Final Forms review provided an opportunity for Pearson staff members who had not previously seen the test materials to review them. This review helped assure that test books, answer documents, and test administration directions all work in concert. In addition, this review helped in detecting errors, inconsistencies, cosmetic errors, and key verifications. Items with problems identified during the Final Forms review were annotated. Pearson staff resolved all comments and made necessary corrections prior to releasing the materials.

4.3.5 ADE Quality Review

After Pearson reviewed and edited test documents, ADE staff conducted a final review of forms to determine if all edits had been accomplished properly.

4.3.6 Final Sign-off

A final, formal approval (blueline stage) was given as test books became available for printing. A copy of the test book was sent for ADE to review and to provide formal approval.

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PART 5: TEST ADMINISTRATION

Part 5 of the technical report describes administration procedures, including accommodations, security, and written procedures available to test administrators and school personnel for all AIMS and Stanford 10 testing for the 2012-2013 school year. The following AERA/APA/NCME standards are addressed: 1.13, 3.3, 3.19, 3.20, 3.21, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 6.11, 6.15, 9.1, 10.1, and 10.2.

5.1 Accommodations

The same accommodations were made available for all of the Fall 2012 and Spring 2013 AIMS tests, including AIMS HS, AIMS 3-8, AIMS HS Writing field test, and AIMS 5, 6, 7 Writing field test. In addition, in Grades 2 and 9, students were assessed in reading, language, and mathematics using Stanford 10, a norm-referenced assessment published by Pearson. Stanford 10 was normed in 2007. The norming group included students with disabilities who received accommodations and students identified as English Learners. Therefore, all of the AIMS HS, AIMS 3-8, AIMS HS Writing field test, AIMS 5, 6, 7 Writing field test, and Stanford 10 assessments allow the same accommodations and include students who have received accommodations.

Arizona statutes (A.R.S. §15-741 and §15-755), the Individuals with Disabilities Education Act (IDEA) (300.160), and the Elementary and Secondary Education Act (ESEA) (§1111) mandate that all students who are educated with public funds must participate in state assessment, including all students with disabilities and all students identified as English Language Learners.

For the purposes of assessment, a Special Education student is eligible to receive services under the Individuals with Disabilities Education Act and has an Individualized Education Program (IEP); and a 504 student is eligible under Section 504 of the Rehabilitation Act of 1973 and has a 504 Accommodation Plan.

Students with disabilities who have an IEP, or who have a 504 plan, may be considered for both universal test administration conditions and standard accommodations (described in section 5.1.1). Also, students identified as English Language Learner (ELL) and students who have been identified as Fluent English Proficient (FEP) for no more than two years may be considered for universal test administration conditions and standard accommodations.

Students with significant cognitive disabilities and whose current Individualized Education Program (IEP) designates them as eligible for an alternate assessment, AIMS A, are excluded from AIMS or Stanford 10 testing.

The Arizona English Language Learner Assessment (AZELLA), a language proficiency assessment, is given to determine a student's proficiency in English and respective instructional placement. An English Language Learner (ELL) is a student whose native language is other than English, who scores below the proficient level on the AZELLA, and is placed into a language program. Fluent English Proficient (FEP) is a term that is used to refer to a former ELL student who has scored at the proficient level of the AZELLA.

For detailed information on testing accommodations, please see *AIMS Testing Accommodations: Guidelines for School Year 2012-2013* on the Arizona Department of Education website at the following location: http://www.azed.gov/standards-development-assessment/files/2012/07/testing-accommodations-2012-13.pdf.

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5.1.1 Overview of Accommodations

Accommodations are specific practices and procedures that provide students with equitable access during instruction and assessment. Accommodations are made in order to provide a student equal access to learning and equal opportunity to demonstrate what is known. They are intended to reduce or even eliminate the effects of a student's disability.

Accommodations can be changes in the presentation, response, setting, and timing/scheduling of educational activities. There should be a direct connection between a student's disability, special education need or language need and the accommodation(s) provided to the student during educational activities, including assessment.

Students should receive the same accommodations for classroom instruction, classroom assessments, district assessment, and state assessments. No accommodations should be provided during assessments that are not also provided during instruction. However, not all accommodations appropriate for instruction are appropriate for use during a standardized state assessment. **The accommodations available to students while testing on Stanford 10, AIMS 3-8, or AIMS HS are limited to those listed in later sections of this document.**

Accommodations may not provide verbal or other clues or suggestions that hint at or give away the correct response to the student. Therefore, it is not permissible to simplify, paraphrase, explain, or eliminate any test item, prompt, or multiple-choice option. Additionally, accommodations provided for one student may not impede or impact other students in the testing room. It is the responsibility of the testing administrator to see that each student, who qualifies for testing accommodations, receives appropriate accommodations while also ensuring that other students, who do not receive accommodations, are not affected.

5.1.2 Descriptions of Universal and Standard Accommodations

Arizona offers two levels of accommodations to students participating in state assessments: universal test administration conditions and standard accommodations.

Universal Test Administration Conditions are specific testing situations and conditions that may be offered to **any** student in order to provide him/her a comfortable and distraction-free testing environment. Universal test administration conditions may be included in a student's IEP or 504 plan as a required "accommodation"; however, for Arizona state testing purposes, these are not considered testing accommodations and are not limited to only students with IEPs or 504 plans.

Standard Accommodations are provisions made in how a student accesses and demonstrates learning that do not substantially change the instructional level, the content, or the performance criteria. For students with disabilities, standard accommodations are intended to reduce or even eliminate the effects of a student's disability. For English Language Learners and FEP Year 1 and Year 2 students, standard accommodations are intended to allow students the opportunity to demonstrate their content knowledge even though the student is not functioning at grade level in English.

During the assessment, all accommodations for assessment identified in a student's IEP or 504 plan must be made available. However, students may choose not to use the accommodation(s).

5.1.3 Determining if a Student Needs a Testing Accommodation

When students need accommodations in how they learn or demonstrate learning, they are likely to need accommodations in how they are assessed. Conversely, if students do not need accommodations in how they learn or demonstrate learning, they will not need accommodations in how they are assessed. Therefore, no accommodation can be put in place for an assessment that is not already used regularly in the classroom.

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To determine if a student will need testing accommodations to participate in state assessments, the following questions were asked:

- Does the student use accommodations during daily instruction?
- If the student uses accommodations during daily instruction, does the student need accommodations in order to participate in the state assessment?
- If so, which testing accommodations are necessary and appropriate for the student?

It is important to annually re-consider the types of accommodations used for students, particularly as they gain more skills. The following is a list of the specific testing accommodations available to students while participating in a state assessment.

Universal Test Administration Conditions

- Testing in a small group, testing one-on-one, testing in a separate location or in a study carrel
- Being seated in a specific location within the testing room or being seated at special furniture
- Having the test administered by a familiar test administrator
- Using a special pencil or pencil grip
- Using devices that allow the student to see the test: glasses, contacts, magnification, special lighting, and color overlays
- Using devices that allow the student to hear the test directions: hearing aids and amplification
- Wearing noise buffers after the scripted directions have been read
- Having the scripted directions included in the *Test Administration Directions* repeated (at student request) and having questions about the scripted directions or the directions that students read on their own answered.

Standard Accommodations

Injury

For students who were eligible to receive a standard accommodation due to an injury.

1 = Have answers transferred from a test book into an answer document
2 = Record or dictate multiple-choice responses to a scribe (not available for writing)
3 = Use assistive technology with spell check, grammar check, and predict ahead functions turned off (not available for reading, mathematics, or science)

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ELL/FEP

For students who were eligible to receive a standard accommodation due to their classification as an English Language Learner student or as a Fluent English Proficient (Year 1 or Year 2) student.

4 = More breaks and/or several shorter sessions
5 = Simplified language for the scripted directions in English
6 = Read aloud in English the writing prompt, mathematics test items, or science test items, as needed upon student request
7 = Provide a word-for-word published, paper translation dictionary
8 = Exact oral translation of the scripted directions or the directions that students read on their own as needed upon student request

IEP/504

For students who were eligible to receive a standard accommodation due to their IEP or 504 plan.

9 = Place marker used
10 = More breaks and/or several shorter sessions
11 = Test at a different time of day
12 = Simplify language for the scripted directions in English
13 = Read aloud or sign the directions that students read on their own
14 = Read aloud in English or sign the writing prompt, mathematics test items, or science test items
15 = Large print edition of test
16 = For a student who is blind, use of an abacus for mathematics test items
17 = For a student who is blind, use of an electronic dictionary and thesaurus with grammar check, spell check, encyclopedia, and internet access turned off (not available for reading, mathematics, or science)
18 = For student who is blind, Braille writers
19 = Have answers transferred from the test book into an answer document
20 = Record or dictate multiple-choice responses to a scribe (not available for writing)
21 = Use assistive technology with spell check, grammar check, and predict ahead functions turned off (not available for reading, mathematics, or science)
22 = For the mathematics sections, use of a personal whiteboard which can be seen by only the student and is erased after every problem (not available for reading, writing, or science)
Braille = use of a Braille edition of the test

5.1.4 Reporting Results of Assessments Taken with Accommodations

The use of standard accommodations results in scores that are considered valid for comparison and accountability purposes. Students who received standard accommodations on AIMS 3-8 and AIMS HS will count as having tested for federal accountability (AYP) purposes. Their AIMS results will be included in aggregate results at the school, district, and state level on the paper reports provided by the testing contractor.

Students who receive standard testing accommodations while participating in Stanford 10, AIMS 3-8, or AIMS HS must have their accommodations appropriately identified on their answer

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document as directed in the corresponding *Test Administration Directions*. It is not necessary to identify students who received universal test administration conditions while participating in the Stanford 10, AIMS 3-8, or AIMS HS assessments.

5.2 Test Security

All AIMS tests were administered under secure testing conditions. Figure 5.2.1 includes the security agreement signed by the superintendent/charter representative and district test coordinator involved with the testing administration. Figure 5.2.2 includes the security agreement signed by personnel involved with the testing administration.

District test coordinators are responsible for establishing and enforcing test security procedures that comply with the Test Security Agreement, the State Board of Education Rule regarding test security, and Test Security guidance provided in the Pre-Test Workshop package and included in the *AIMS Test Administration Directions.*

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Figure 5.2.1
Spring 2013 AIMS Test security agreement for Superintendents/Charter Representatives and District Test Coordinators

AIMS/Stanford 10 Spring 2013 Test Security Agreement
For Superintendents/Charter Representatives and AIMS District Test Coordinators

As Superintendent/Charter Representative or AIMS District Test Coordinator, I acknowledge that AIMS and Stanford 10 are secure tests and agree to the following conditions of use to ensure the security of the tests.

1. Superintendents/Charter Representatives are responsible for all testing activities within their district/charter. Superintendents/Charter Representatives are allowed to designate an AIMS District Test Coordinator to act on their behalf.
   a. An accurate Test Coordinator Information Sheet for school year 2012-2013 must be on file with the Assessment Section of the Arizona Department of Education (ADE).
   b. If the designated AIMS District Test Coordinator is unable to attend a Spring 2013 Pre-Test Workshop in January, the Superintendent/Charter Representative is the only substitute permitted to attend in his/her place.
2. All necessary security precautions shall be in place to safeguard test materials.
   a. Access to test books and answer documents shall be restricted.
   b. The names of all persons having access to the test books and answer documents shall be kept on file by the designated AIMS District Test Coordinator.
   c. All persons having access to the Spring 2013 AIMS and/or Stanford 10 test materials, other than students to whom the tests are administered, shall sign a Spring 2013 Test Security Agreement. Signed Test Security Agreements shall be kept on file for 6 years.
      i. Building administrators shall maintain the agreements signed by building staff.
      ii. Superintendents/Charter Representatives shall maintain the agreements signed by building administrators.
      iii. The Assessment Section of ADE shall maintain the agreements signed by Superintendents/Charter Representatives.
   d. All test books and answer documents shall be kept under lock and key except during actual test times.
      i. Test books and answer documents shall be delivered to test administrators no sooner than the date of testing and returned at the end of each day of testing.
      ii. Test books and answer documents shall be kept secure until they are distributed to students.
      iii. Students shall not be permitted to remove test material from the testing room except under supervision of staff.
   e. The AIMS and Stanford 10 tests shall not be examined, read, or reviewed.
      i. No content of the test shall be disclosed nor allowed to be disclosed.
      ii. No test item shall be discussed at any time.
      iii. No student responses shall be examined, read, or reviewed.
   f. Upon completion of testing, all AIMS and Stanford 10 test materials shall be returned to the designated AIMS District Test Coordinator.
3. The Superintendent/Charter Representative shall develop, distribute, and enforce disciplinary procedures for the violation of test security by staff.
4. *Test Preparation and Administration Practices,* guidelines approved by the State Board of Education in January 2003 and updated December 2007, shall be followed.
5. **All instructions in the *Test Coordinator's Manual, AIMS Test Administration Directions*, and *Stanford 10 Directions for Administering*, which include reading the directions to students, shall be followed.**

By signing my name to this document, I am assuring the Arizona Department of Education that I will abide by the above conditions and that anyone I supervise, who will have access to the Spring 2013 AIMS and/or Stanford 10 tests will also sign a Test Security Agreement.

Superintendent/Charter Representative Signature: _____ Date: _____

Printed Name: _____ Title: _____

AIMS District Test Coordinator Signature: _____ Date: _____

Printed Name: _____

District/Charter: _____ Entity #: _____

Address: _____

City, State, Zip: _____

Fax with Superintendent/Charter Representative signature to 602-542-5467 **Due: February 1, 2013**

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Figure 5.2.2
Spring 2013 AIMS Test security agreement for all school/district/charter personnel

AIMS/Stanford 10
Spring 2013 Test Security Agreement

I acknowledge that AIMS and Stanford 10 tests are secure tests and agree to the following conditions of use to ensure the security of the test.

1. I shall take necessary precautions to safeguard test materials.
   a. I shall sign a Spring 2013 test security agreement.
   b. Access to test books and answer documents is restricted. I shall not attempt to gain access to test materials beyond that which is granted to me by my school/district AIMS Test Coordinator, Superintendent, or Charter Representative.
   c. If test books and answer documents are distributed to me, I shall keep them under lock and key except during actual test times.
   d. I shall not permit students to remove test material from the testing room except under the supervision of staff.
   e. I shall not examine, read, or review the AIMS and Stanford 10 tests.
      i. I shall not disclose, nor allow to be disclosed, the content of the test.
      ii. I shall not discuss any test item at any time.
      iii. I shall not examine, read, or review any student responses.
   f. If test books and answer documents are distributed to me, I shall return all AIMS and Stanford 10 test materials to the school/district AIMS Test Coordinator immediately upon the completion of testing.
2. I understand that the Superintendent/Charter Representative will develop, distribute, and enforce disciplinary procedures for the violation of test security by staff.

Individuals who will administer or proctor AIMS or Stanford 10 tests for the Spring 2013 must also agree to the following conditions to ensure the correct administration of the tests.

3. I shall participate in training activities prior to administering the tests.
4. I shall follow *Test Preparation and Administration Practices*, the guidelines approved by the State Board of Education in January 2003 and updated in December 2007.
5. I shall review the Spring 2013 *Test Administration Directions* and/or *Stanford 10 Directions for Administering*, as appropriate prior to administering the test.
6. I shall follow all instructions in the Spring 2013 *Test Administration Directions* and/or *Stanford 10 Directions for Administering* including **reading the directions to students exactly as scripted**.

By signing my name to this document, I am assuring my district/charter and the Arizona Department of Education that I will abide by the above conditions and that anyone I supervise, who will have access to the Spring 2013 AIMS and/or Stanford 10 tests will also sign a Test Security Agreement.

Signed By: _____ Date: _____

Printed Name: _____

Title: _____ School: _____

Please return signed copy as per instructions from your school/district AIMS Test Coordinator.
Signed copies will be maintained by school/district administrators for 6 years.
Do not send this copy to ADE.

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5.3 Test Administration

In order to ensure a standardized testing administration for all students, a *Test Coordinator's Manual* was made available to all test coordinators for the Fall 2012 and Spring 2013 administrations. The manual included the following topics:

- Responsibilities of the District Test Coordinator
  - Before Testing
  - During Testing
  - After Testing
- Procedures for Test Administration
  - Students to Be Tested
  - Test Administration Schedules
  - Required Test Materials
  - Test Security
  - Student Identification Information
  - Arrangements Prior to Test Administration
- Procedures for Handling Test Materials (before, during, and after testing)
  - Receiving Test Materials
  - Inventorying Test Materials
  - Precautions
  - Inspecting and Organizing Test Materials
  - Assembling Scorable Test Materials
  - Assembling Nonscorable Test Materials
  - Materials Retrieval
- State Board of Education Rule
- Important Dates for Spring 2013 Testing

Test Administration Directions were made available to all test administrators for the Fall 2012 and Spring 2013 assessments. The *Test Administration Directions* included the following topics:

- Overview for the Administration of AIMS
  - Test Administrator Responsibilities
  - Students to Be Tested
  - Test Administration Schedule
  - Test Materials
  - Precautions
- Before Testing Guidelines
  - Training and Test Security
  - Preparing the Room for Testing
- During Testing Guidelines
  - Reading the Scripted Directions

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    - Student Identification Information
    - Monitoring Testing
    - Use of Resources
    - Use of Unacceptable Resources
    - Disruptive Students and Students Who Leave During Testing
    - Detailed Scripts for Administration of Each Part of Each Test
- After Testing
    - Inspecting Test Materials
    - Completing Student Identification Information
    - Transferring Student Responses
    - Returning Test Materials to the Test Coordinator

For specific information related to test administration, refer to the *Test Coordinator's Manual* and/or the *Test Administration Directions*.

Pre-Test Workshops were conducted online prior for each test administration, fall and spring. Every district test coordinator is required to view a 3-session online Pre-Test Workshop. The Pre-Test Workshop encompasses training related to test administration which includes test security, accommodations, test coordinator responsibility, and test schedule. Materials handling is included in these online workshops, covering ordering, receiving, preparing for retrieval, and the retrieval of test materials.

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PART 6: CLASSICAL ITEM ANALYSIS

Part 6 presents classical test statistics and item analysis statistics for each content area and grade level (CRT and NRT) computed from the data used for calibration and scaling. Addressed in this part of the technical report are the following AERA/APA/NCME standards: 1.5, 1.13, 2.4, 2.8, 3.18, 6.5, and 7.1. (See Appendix A for this information for the Fall 2012 AIMS administration.)

6.1 Data

Arizona had two test windows for operational testing in spring 2013. The Writing and Reading tests for high school were administered on February 25 and 26, respectively, with make-up testing days on March 4 and 5. The AIMS Mathematics tests for high school were administered on April 9 with a make-up testing day on April 16. High School Science was administered on April 10 (no makeup). The AIMS Reading, Writing, Mathematics, and Science tests for Grades 3-8 were administered between April 15 and April 26.

6.2 Descriptive Statistics by Test

Table 6.2.1 presents descriptive statistics by test (content area and grade level) which are computed with the calibration samples in reading, mathematics, science, and writing. Statistics are provided for both the CRT and NRT portions of the tests. The table shows the number of students (N), the maximum obtained raw score (Max RS), the raw score mean (RS M), the raw score standard deviation (RS SD), the average *p*-value (P-Value M), the average item-to-total correlation (rpb M) and the estimate of internal consistency. Cronbach's alpha is the measure of internal consistency used for the AIMS Reading, Mathematics and Science tests. Stratified alpha is used to estimate the internal consistence reliability of the AIMS Writing tests. The item-to-total correlation is computed as a point biserial correlation for dichotomous items and as a Pearson product-moment correlation for polytomous items. The point biserial correlation reported is the correlation of the item scores and the total test score. The Pearson product-moment correlation reported is the correlation of the polytomous item and the total test score.

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Table 6.2.1
Spring 2013 AIMS Classical Test Analysis Statistics

	Content	Grade	Prompt	N	Max RS Obtained	RS M	RS SD	P-Value M	rpb M	Internal Consistency
CRT										
	Math									
		3		83196	66	42.84	13.21	0.65	0.42	0.94
		4		83048	68	45.19	12.80	0.66	0.40	0.93
		5		82223	67	42.98	12.54	0.64	0.39	0.93
		6		82587	68	41.83	13.05	0.62	0.39	0.93
		7		82491	68	42.80	13.77	0.63	0.41	0.94
		8		81432	68	41.86	13.29	0.62	0.40	0.93
		HS		105757	85	45.78	15.53	0.58	0.36	0.93
	Reading									
		3		83187	54	34.94	10.34	0.65	0.39	0.91
		4		83045	54	35.55	10.44	0.66	0.40	0.92
		5		82223	54	36.16	10.30	0.67	0.40	0.92
		6		82598	54	36.01	9.81	0.67	0.38	0.91
		7		82502	54	35.70	10.18	0.66	0.38	0.91
		8		81433	54	36.44	9.54	0.67	0.36	0.90
		HS		91745	54	33.47	9.85	0.65	0.36	0.90
	Writing									
		5		81573	69	501.94	45.65	0.77	0.38	0.85
		6		81711	69	500.27	46.60	0.77	0.36	0.85
		7		81525	69	497.32	42.66	0.77	0.38	0.85
		HS	A	94448	138	496.98	48.87	0.87	0.35	0.85
		HS	T	2953	134	479.16	45.00	0.77	0.33	0.87
	Science									
		4		83028	54	32.61	10.15	0.60	0.37	0.90
		8		81485	58	35.98	9.68	0.62	0.32	0.88
		HS		76744	65	38.22	13.23	0.55	0.40	0.93

Note: CRT = Criterion-referenced test, NRT = Norm-referenced test, HS-A = High School Prompt A, HS-T = High School Prompt T. High school writing tests have a maximum raw score of 138 because the essay is weighted 60% and the multiple-choice are weighted 40%.

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Table 6.2.1 (continued)
Spring 2013 AIMS Classical Test Analysis Statistics

	Content	Grade	Form	N	Max RS Obtained	RS M	RS SD	P-Value M	rpb M	Internal Consistency
NRT										
	Math									
		3		83196	25	18.75	4.88	0.75	0.41	0.86
		4		83048	25	17.28	4.93	0.69	0.39	0.84
		5		82223	25	15.68	5.19	0.63	0.38	0.84
		6		82587	25	15.88	5.58	0.64	0.41	0.86
		7		82491	25	15.49	5.79	0.62	0.44	0.87
		8		81432	25	14.97	5.79	0.60	0.43	0.87
	Reading									
		3		83187	25	16.87	5.04	0.67	0.40	0.84
		4		83045	25	16.40	4.96	0.66	0.37	0.83
		5		82223	25	16.68	5.00	0.67	0.37	0.82
		6		82598	25	16.09	4.45	0.64	0.31	0.78
		7		82502	25	16.54	4.47	0.66	0.32	0.78
		8		81433	25	17.63	4.23	0.71	0.32	0.78
	Writing									
		3		83187	20	12.33	4.18	0.62	0.36	0.79
		4		83045	20	13.61	4.18	0.68	0.39	0.81
		5		82223	20	13.89	4.07	0.69	0.36	0.80
		6		82598	20	14.48	3.67	0.72	0.34	0.77
		7		82502	20	13.71	3.88	0.69	0.35	0.78
		8		81433	20	14.52	3.56	0.73	0.31	0.74

Note: CRT = Criterion-referenced test, NRT = Norm-referenced test
.

6.3 Classical Item Analysis

Classical item analysis was conducted for all grades and content areas. Tables 6.3.1—6.3.22 present item statistics for the CRT tests. Note that operational CRT items are reported in sequence without embedded field test and non-dual purpose NRT/CRT items. Tables 6.3.23—6.3.40 present item statistics for the NRT tests. The tables show the number of students (N), the item difficulty (P-Value), point biserial correlation (rpb) and biserial correlation (rbi) for dichotomous items, item-to-total Pearson product-moment correlation (r) for polytomous items, percentage of students who omitted the item (% Omit), and the percentage of students responding to and point biserial for each response option. The keyed response has a percent responding that matches the *p*-value and a positive point biserial correlation while the incorrect response options have a negative point biserial correlation. The item-to-total Pearson product-moment correlation reported is the Pearson product moment correlation of the item and total score on the test. The point biserial correlation (rpb) reported is the correlation between student performance on an item and the total score on a test. The biserial correlation (rbi) is an adjusted point-biserial correlation intended to estimate the value of a Pearson correlation between the item and total score as if the item scores were normally distributed rather than binary.

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Table 6.3.1
Spring 2013 AIMS Classical Item Analysis
Mathematics CRT Grade 3

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83198	0.79	0.34	0.47	0.21	78.64	0.34	6.93	-0.17	9.50	-0.17	4.72	-0.21
2	83198	0.83	0.45	0.66	0.18	5.41	-0.20	82.94	0.45	5.30	-0.25	6.18	-0.28
3	83198	0.76	0.45	0.61	0.80	12.44	-0.36	6.16	-0.25	75.82	0.45	4.79	-0.07
4	83198	0.63	0.43	0.54	0.93	17.81	-0.24	14.61	-0.22	63.44	0.43	3.21	-0.20
5	83198	0.69	0.59	0.75	0.40	18.40	-0.44	8.85	-0.27	3.54	-0.13	68.81	0.59
6	83198	0.63	0.48	0.60	0.53	11.69	-0.35	19.28	-0.15	5.54	-0.26	62.95	0.48
7	83198	0.52	0.33	0.40	0.31	6.13	-0.14	26.40	-0.19	51.55	0.33	15.62	-0.12
8	83198	0.57	0.45	0.56	0.21	10.53	-0.25	57.30	0.45	14.29	-0.20	17.67	-0.20
9	83198	0.43	0.50	0.62	0.28	23.06	-0.30	43.05	0.50	29.70	-0.21	3.91	-0.11
10	83198	0.69	0.42	0.54	0.29	12.75	-0.25	8.43	-0.23	68.57	0.42	9.95	-0.17
11	83198	0.43	0.32	0.40	0.64	16.50	-0.05	24.60	-0.36	15.00	0.04	43.26	0.32
12	83198	0.89	0.20	0.30	1.69	0.73	-0.10	88.89	0.20	8.25	-0.15	0.44	-0.10
13	83198	0.58	0.49	0.61	0.37	21.90	-0.26	10.34	-0.18	9.06	-0.27	58.33	0.49
14	83198	0.46	0.35	0.43	0.31	6.64	-0.17	30.17	-0.15	16.89	-0.16	45.99	0.35
15	83198	0.65	0.46	0.58	0.34	12.51	-0.20	64.71	0.46	10.67	-0.16	11.78	-0.32
16	83198	0.40	0.17	0.22	0.52	17.31	-0.13	19.89	-0.16	39.82	0.17	22.45	0.07
17	83198	0.52	0.46	0.57	0.25	28.12	-0.41	52.48	0.46	6.80	-0.12	12.35	-0.05
18	83198	0.71	0.54	0.70	0.38	70.81	0.54	4.37	-0.19	5.77	-0.22	18.67	-0.40
19	83198	0.62	0.52	0.64	0.30	7.28	-0.18	20.61	-0.36	62.00	0.52	9.82	-0.19
20	83198	0.68	0.56	0.72	0.17	10.97	-0.41	11.74	-0.26	67.69	0.56	9.43	-0.17
21	83198	0.73	0.42	0.56	0.40	8.29	-0.25	12.26	-0.22	73.11	0.42	5.94	-0.19
22	83198	0.46	0.35	0.43	0.24	46.30	0.35	11.09	-0.09	34.81	-0.20	7.56	-0.18
23	83198	0.31	0.28	0.36	0.31	25.41	0.03	20.29	-0.21	30.74	0.28	23.26	-0.13
24	83198	0.54	0.35	0.43	0.14	40.58	-0.25	53.94	0.35	3.29	-0.15	2.04	-0.16
25	83198	0.61	0.49	0.61	0.38	11.95	-0.33	15.21	-0.16	11.54	-0.23	60.92	0.49
26	83198	0.89	0.32	0.52	0.29	1.40	-0.17	1.15	-0.14	8.29	-0.23	88.87	0.32
27	83198	0.59	0.58	0.72	0.40	4.67	-0.18	59.29	0.58	3.71	-0.18	31.94	-0.45
28	83198	0.83	0.40	0.58	0.27	2.27	-0.21	6.69	-0.21	83.02	0.40	7.75	-0.24
29	83198	0.69	0.52	0.66	0.44	14.76	-0.32	8.09	-0.21	69.24	0.52	7.47	-0.25
30	83198	0.71	0.52	0.68	0.50	17.03	-0.39	3.69	-0.23	7.40	-0.16	71.38	0.52
31	83198	0.47	0.46	0.57	0.45	21.52	-0.17	18.04	-0.21	12.58	-0.24	47.42	0.46
32	83198	0.76	0.45	0.61	0.33	9.45	-0.25	9.78	-0.26	76.21	0.45	4.24	-0.20
33	83198	0.78	0.50	0.69	0.36	9.04	-0.26	5.64	-0.18	78.17	0.50	6.80	-0.36
34	83198	0.79	0.49	0.69	0.29	8.43	-0.32	7.08	-0.24	4.91	-0.22	79.29	0.49
35	83198	0.71	0.43	0.56	0.36	10.79	-0.24	4.67	-0.27	13.50	-0.19	70.68	0.43
36	83198	0.27	0.39	0.52	0.23	26.25	-0.30	7.79	-0.17	27.35	0.39	38.37	0.00
37	83198	0.85	0.46	0.70	0.22	85.48	0.46	8.04	-0.29	3.22	-0.22	3.04	-0.25
38	83198	0.68	0.43	0.55	0.32	8.23	-0.21	11.71	-0.22	68.02	0.43	11.73	-0.22
39	83198	0.37	0.40	0.51	1.25	29.13	-0.13	15.87	-0.18	17.22	-0.17	36.54	0.40
40	83198	0.67	0.50	0.64	0.36	9.25	-0.23	9.51	-0.31	13.93	-0.23	66.96	0.50

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.1 (continued)
Spring 2013 AIMS Classical Item Analysis
Mathematics CRT Grade 3

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	83198	0.68	0.48	0.61	0.25	16.82	-0.26	67.95	0.48	10.85	-0.24	4.12	-0.27
42	83198	0.88	0.40	0.65	0.27	88.45	0.40	3.77	-0.23	3.39	-0.21	4.11	-0.22
43	83198	0.42	0.42	0.52	0.59	27.97	-0.33	15.41	-0.10	41.71	0.42	14.32	-0.05
44	83198	0.76	0.30	0.41	0.19	7.31	-0.23	5.82	-0.12	10.20	-0.13	76.48	0.30
45	83198	0.47	0.40	0.50	0.22	46.86	0.40	25.34	-0.25	16.30	-0.17	11.28	-0.09
46	83198	0.84	0.46	0.68	0.25	6.32	-0.28	3.86	-0.25	5.41	-0.21	84.16	0.46
47	83198	0.79	0.25	0.36	0.16	79.33	0.25	2.45	-0.17	8.97	-0.15	9.10	-0.12
48	83198	0.73	0.39	0.52	0.16	72.97	0.39	14.51	-0.24	10.60	-0.21	1.77	-0.20
49	83198	0.51	0.42	0.52	0.40	30.08	-0.25	7.71	-0.14	10.69	-0.19	51.13	0.42
50	83198	0.93	0.22	0.42	0.48	93.40	0.22	2.59	-0.13	2.97	-0.13	0.56	-0.12
51	83198	0.50	0.40	0.49	0.31	17.24	-0.34	26.59	-0.14	49.66	0.40	6.19	-0.04
52	83198	0.81	0.49	0.69	0.17	80.74	0.49	4.06	-0.13	2.49	-0.17	12.54	-0.42
53	83198	0.71	0.49	0.63	0.67	10.04	-0.26	71.43	0.49	11.49	-0.30	6.36	-0.18
54	83198	0.60	0.39	0.48	0.32	13.09	-0.19	59.97	0.39	9.73	-0.27	16.88	-0.12
55	83198	0.65	0.50	0.64	0.20	8.90	-0.30	8.74	-0.29	64.63	0.50	17.53	-0.19
56	83198	0.55	0.47	0.58	0.33	18.43	-0.26	13.83	-0.22	12.72	-0.18	54.69	0.47
57	83198	0.91	0.26	0.46	0.39	1.91	-0.12	91.33	0.26	2.00	-0.15	4.36	-0.17
58	83198	0.45	0.34	0.43	0.22	2.53	-0.11	44.78	0.34	32.05	-0.11	20.43	-0.26
59	83198	0.77	0.39	0.52	0.22	2.00	-0.19	3.79	-0.23	76.65	0.39	17.34	-0.24
60	83198	0.84	0.36	0.53	0.19	3.44	-0.19	83.75	0.36	8.98	-0.23	3.65	-0.16
61	83198	0.52	0.36	0.44	0.66	22.80	-0.17	51.72	0.36	15.34	-0.18	9.47	-0.13
62	83198	0.61	0.45	0.56	0.37	12.92	-0.24	11.95	-0.21	60.71	0.45	14.06	-0.20
63	83198	0.59	0.44	0.54	0.28	58.90	0.44	17.66	-0.17	12.06	-0.23	11.10	-0.23
64	83198	0.53	0.43	0.53	0.30	12.33	-0.28	14.36	-0.25	20.06	-0.08	52.94	0.43
65	83198	0.89	0.44	0.70	0.33	4.38	-0.28	3.50	-0.22	3.18	-0.22	88.61	0.44
66	83198	0.71	0.37	0.48	0.22	6.60	-0.23	10.64	-0.24	71.29	0.37	11.25	-0.11

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.2
Spring 2013 AIMS Classical Item Analysis
Mathematics CRT Grade 4

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83048	0.83	0.37	0.54	0.03	83.21	0.37	6.06	-0.20	7.17	-0.23	3.52	-0.17
2	83048	0.73	0.47	0.62	0.03	73.50	0.47	22.94	-0.38	2.17	-0.21	1.36	-0.16
3	83048	0.77	0.49	0.67	0.08	7.35	-0.28	8.59	-0.26	77.19	0.49	6.79	-0.23
4	83048	0.78	0.47	0.64	0.07	3.19	-0.18	77.76	0.47	7.88	-0.24	11.09	-0.31
5	83048	0.37	0.42	0.53	0.05	26.14	-0.23	37.30	0.42	11.92	-0.16	24.58	-0.13
6	83048	0.73	0.51	0.68	0.06	3.07	-0.23	16.68	-0.39	7.28	-0.16	72.92	0.51
7	83048	0.69	0.42	0.55	0.08	10.48	-0.21	69.19	0.42	8.38	-0.25	11.88	-0.19
8	83048	0.79	0.31	0.44	0.05	1.73	-0.15	18.04	-0.25	1.02	-0.11	79.16	0.31
9	83048	0.49	0.35	0.43	0.04	15.72	-0.14	48.64	0.35	6.24	-0.12	29.37	-0.21
10	83048	0.83	0.46	0.68	0.06	4.83	-0.26	83.06	0.46	4.16	-0.23	7.90	-0.26
11	83048	0.46	0.33	0.41	0.13	46.46	0.33	14.35	-0.23	14.80	-0.13	24.26	-0.09
12	83048	0.77	0.41	0.56	0.06	77.15	0.41	7.08	-0.24	10.27	-0.19	5.44	-0.23
13	83048	0.49	0.33	0.41	0.06	19.15	-0.14	48.87	0.33	15.94	-0.17	15.98	-0.14
14	83048	0.41	0.43	0.53	0.06	47.04	-0.38	40.78	0.43	4.55	-0.09	7.57	-0.01
15	83048	0.68	0.48	0.61	0.07	68.04	0.48	16.83	-0.23	8.13	-0.24	6.94	-0.29
16	83048	0.62	0.27	0.34	0.08	4.26	-0.22	28.98	-0.10	62.11	0.27	4.57	-0.20
17	83048	0.76	0.39	0.53	0.09	6.53	-0.24	10.59	-0.18	6.76	-0.21	76.03	0.39
18	83048	0.63	0.50	0.63	0.06	12.18	-0.30	15.55	-0.22	62.88	0.50	9.33	-0.22
19	83048	0.84	0.36	0.54	0.07	84.14	0.36	7.13	-0.18	5.58	-0.25	3.08	-0.16
20	83048	0.72	0.51	0.66	0.09	9.08	-0.25	71.58	0.51	13.68	-0.27	5.57	-0.28
21	83048	0.49	0.39	0.48	0.09	8.07	-0.25	23.09	-0.22	48.64	0.39	20.11	-0.09
22	83048	0.29	0.17	0.22	0.16	39.87	0.13	16.30	-0.18	14.34	-0.21	29.33	0.17
23	83048	0.73	0.47	0.62	0.14	9.47	-0.26	8.75	-0.29	73.06	0.47	8.59	-0.19
24	83048	0.73	0.52	0.68	0.61	7.25	-0.23	72.76	0.52	8.47	-0.26	10.91	-0.32
25	83048	0.48	0.41	0.51	0.04	25.32	-0.19	48.00	0.41	15.30	-0.17	11.35	-0.20
26	83048	0.78	0.47	0.64	0.04	5.87	-0.23	77.55	0.47	8.95	-0.18	7.59	-0.34
27	83048	0.83	0.43	0.63	0.06	83.07	0.43	3.15	-0.23	3.30	-0.24	10.43	-0.25
28	83048	0.44	0.21	0.27	0.09	40.57	-0.06	44.42	0.21	8.39	-0.14	6.52	-0.16
29	83048	0.65	0.47	0.59	0.06	15.71	-0.40	8.15	-0.19	11.29	-0.08	64.79	0.47
30	83048	0.88	0.42	0.68	0.06	87.87	0.42	4.23	-0.21	2.88	-0.24	4.95	-0.26
31	83048	0.48	0.34	0.42	0.08	24.66	-0.11	48.43	0.34	15.11	-0.18	11.72	-0.18
32	83048	0.45	0.38	0.47	0.11	45.45	0.38	16.60	-0.20	21.33	-0.15	16.50	-0.14
33	83048	0.62	0.46	0.58	0.08	62.01	0.46	15.00	-0.17	11.36	-0.26	11.55	-0.26
34	83048	0.85	0.40	0.60	0.02	5.79	-0.23	84.68	0.40	5.83	-0.20	3.69	-0.22
35	83048	0.89	0.32	0.53	0.04	5.91	-0.17	2.99	-0.20	88.70	0.32	2.36	-0.18
36	83048	0.80	0.42	0.58	0.06	79.55	0.42	3.19	-0.25	5.24	-0.23	11.96	-0.23
37	83048	0.85	0.37	0.57	0.05	85.36	0.37	4.00	-0.22	7.51	-0.19	3.07	-0.23
38	83048	0.77	0.41	0.55	0.07	76.80	0.41	4.64	-0.18	11.60	-0.21	6.89	-0.25
39	83048	0.84	0.46	0.68	0.10	4.60	-0.25	4.67	-0.24	6.50	-0.26	84.13	0.46
40	83048	0.52	0.52	0.64	0.06	26.87	-0.37	14.32	-0.16	52.13	0.52	6.61	-0.17

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.2 (continued)
Spring 2013 AIMS Classical Item Analysis
Mathematics CRT Grade 4

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	83048	0.81	0.45	0.64	0.05	80.64	0.45	7.70	-0.27	8.95	-0.26	2.66	-0.19
42	83048	0.60	0.21	0.27	0.09	5.12	-0.15	59.66	0.21	5.58	-0.18	29.54	-0.06
43	83048	0.41	0.42	0.52	0.11	30.32	-0.28	17.21	-0.08	11.20	-0.14	41.16	0.42
44	83048	0.52	0.42	0.52	0.27	19.42	-0.23	19.04	-0.16	9.21	-0.19	52.05	0.42
45	83048	0.78	0.42	0.58	0.04	78.30	0.42	19.14	-0.34	1.62	-0.21	0.90	-0.12
46	83048	0.56	0.38	0.47	0.04	31.75	-0.29	2.28	-0.10	55.81	0.38	10.12	-0.14
47	83048	0.85	0.41	0.62	0.04	6.19	-0.26	85.03	0.41	5.41	-0.20	3.34	-0.21
48	83048	0.74	0.35	0.46	0.05	6.03	-0.14	11.27	-0.29	74.00	0.35	8.65	-0.09
49	83048	0.54	0.36	0.45	0.03	6.17	-0.24	53.55	0.36	27.80	-0.07	12.45	-0.28
50	83048	0.60	0.38	0.47	0.06	18.31	-0.19	60.10	0.38	9.95	-0.19	11.58	-0.17
51	83048	0.79	0.50	0.70	0.05	3.26	-0.22	14.51	-0.36	3.66	-0.23	78.53	0.50
52	83048	0.86	0.32	0.50	0.05	4.00	-0.18	4.65	-0.17	4.80	-0.17	86.50	0.32
53	83048	0.77	0.45	0.61	0.06	4.82	-0.17	76.79	0.45	7.62	-0.24	10.71	-0.29
54	83048	0.68	0.16	0.21	0.03	10.06	-0.07	7.34	0.00	68.35	0.16	14.22	-0.15
55	83048	0.53	0.36	0.44	0.08	16.26	-0.13	14.47	-0.18	15.88	-0.18	53.31	0.36
56	83048	0.81	0.47	0.66	0.07	6.43	-0.29	6.31	-0.22	80.52	0.47	6.66	-0.24
57	83048	0.64	0.34	0.43	0.06	19.68	-0.24	14.08	-0.10	2.31	-0.21	63.87	0.34
58	83048	0.46	0.35	0.44	0.12	18.88	-0.09	45.68	0.35	11.00	-0.19	24.33	-0.19
59	83048	0.66	0.44	0.57	0.07	16.39	-0.25	7.89	-0.20	9.51	-0.22	66.14	0.44
60	83048	0.71	0.42	0.55	0.08	15.88	-0.23	4.68	-0.23	8.44	-0.21	70.92	0.42
61	83048	0.77	0.46	0.62	0.11	8.90	-0.26	77.00	0.46	8.89	-0.21	5.11	-0.27
62	83048	0.31	0.26	0.33	0.06	31.50	0.26	8.45	-0.10	22.83	-0.08	37.16	-0.12
63	83048	0.77	0.46	0.62	0.13	10.86	-0.26	77.26	0.46	5.35	-0.26	6.41	-0.22
64	83048	0.56	0.30	0.38	0.06	55.63	0.30	16.72	-0.10	16.68	-0.17	10.90	-0.16
65	83048	0.74	0.28	0.38	0.07	17.83	-0.10	3.54	-0.23	4.94	-0.21	73.61	0.28
66	83048	0.72	0.38	0.50	0.11	4.33	-0.24	17.11	-0.16	71.68	0.38	6.78	-0.25
67	83048	0.67	0.39	0.49	0.11	8.91	-0.26	9.26	-0.21	66.73	0.39	14.99	-0.13
68	83048	0.58	0.44	0.55	0.26	20.55	-0.23	8.95	-0.20	11.89	-0.21	58.36	0.44

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.3
Spring 2013 AIMS Classical Item Analysis
Mathematics CRT Grade 5

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82222	0.90	0.32	0.54	0.01	2.37	-0.14	89.59	0.32	2.52	-0.17	5.51	-0.23
2	82222	0.86	0.50	0.77	0.02	4.22	-0.21	86.41	0.50	5.93	-0.32	3.42	-0.28
3	82222	0.76	0.54	0.73	0.05	76.16	0.54	4.64	-0.19	12.57	-0.39	6.58	-0.24
4	82222	0.48	0.31	0.38	0.11	48.05	0.31	19.85	-0.18	14.29	-0.15	17.70	-0.08
5	82222	0.25	0.32	0.43	0.06	55.00	-0.24	11.20	-0.04	8.70	-0.02	25.05	0.32
6	82222	0.76	0.52	0.70	0.04	11.77	-0.32	4.88	-0.18	7.74	-0.31	75.57	0.52
7	82222	0.55	0.47	0.58	0.02	6.54	-0.28	33.01	-0.25	5.16	-0.21	55.26	0.47
8	82222	0.74	0.39	0.52	0.05	73.73	0.39	21.99	-0.31	2.37	-0.12	1.86	-0.18
9	82222	0.73	0.07	0.09	0.09	1.80	-0.17	2.18	-0.16	73.30	0.07	22.62	0.04
10	82222	0.46	0.44	0.54	0.04	10.17	-0.11	45.65	0.44	19.68	-0.16	24.47	-0.29
11	82222	0.68	0.39	0.50	0.05	68.09	0.39	6.42	-0.24	15.50	-0.18	9.95	-0.19
12	82222	0.64	0.25	0.32	0.06	12.87	-0.02	15.75	-0.18	7.76	-0.18	63.56	0.25
13	82222	0.70	0.41	0.53	0.04	11.33	-0.22	6.19	-0.24	70.36	0.41	12.08	-0.19
14	82222	0.76	0.44	0.60	0.09	7.19	-0.23	75.86	0.44	12.06	-0.24	4.80	-0.24
15	82222	0.78	0.41	0.57	0.02	8.08	-0.24	7.18	-0.27	78.00	0.41	6.71	-0.15
16	82222	0.70	0.47	0.61	0.05	10.28	-0.41	7.29	-0.16	70.20	0.47	12.18	-0.15
17	82222	0.38	0.23	0.29	0.11	18.87	-0.05	17.30	-0.21	37.81	0.23	25.90	-0.02
18	82222	0.66	0.41	0.53	0.17	66.44	0.41	24.47	-0.28	6.68	-0.20	2.25	-0.15
19	82222	0.60	0.38	0.48	0.08	60.03	0.38	26.18	-0.14	8.79	-0.28	4.92	-0.22
20	82222	0.35	0.30	0.38	0.09	34.75	-0.06	8.23	-0.21	21.98	-0.13	34.96	0.30
21	82222	0.64	0.49	0.61	0.12	63.80	0.49	11.99	-0.24	15.87	-0.25	8.22	-0.24
22	82222	0.57	0.39	0.48	0.20	15.76	-0.34	56.71	0.39	18.61	0.00	8.71	-0.25
23	82222	0.67	0.39	0.51	0.25	7.70	-0.28	67.29	0.39	18.76	-0.16	5.99	-0.20
24	82222	0.42	0.46	0.57	0.03	42.60	-0.27	42.48	0.46	10.49	-0.27	4.40	-0.06
25	82222	0.79	0.47	0.66	0.03	6.88	-0.29	8.73	-0.23	5.44	-0.23	78.91	0.47
26	82222	0.91	0.25	0.44	0.03	1.92	-0.12	2.29	-0.14	91.13	0.25	4.63	-0.16
27	82222	0.68	0.41	0.53	0.02	68.25	0.41	18.04	-0.27	8.57	-0.18	5.12	-0.15
28	82222	0.89	0.36	0.60	0.02	89.00	0.36	4.69	-0.19	3.08	-0.19	3.21	-0.23
29	82222	0.50	0.36	0.45	0.09	13.14	-0.17	21.24	-0.24	50.35	0.36	15.19	-0.07
30	82222	0.48	0.33	0.41	0.03	16.41	-0.22	47.77	0.33	11.37	-0.18	24.41	-0.06
31	82222	0.81	0.47	0.67	0.04	80.59	0.47	5.94	-0.27	7.64	-0.30	5.79	-0.19
32	82222	0.51	0.40	0.49	0.05	8.78	-0.22	18.50	-0.07	21.60	-0.27	51.08	0.40
33	82222	0.84	0.40	0.60	0.04	6.42	-0.24	84.10	0.40	5.20	-0.22	4.25	-0.19
34	82222	0.62	0.45	0.56	0.05	26.46	-0.28	6.35	-0.19	62.33	0.45	4.81	-0.23
35	82222	0.73	0.54	0.71	0.04	73.12	0.54	9.72	-0.33	7.47	-0.26	9.65	-0.24
36	82222	0.79	0.48	0.67	0.03	79.39	0.48	5.02	-0.27	9.23	-0.25	6.33	-0.26
37	82222	0.71	0.34	0.44	0.03	70.57	0.34	9.34	-0.19	15.75	-0.14	4.31	-0.22
38	82222	0.73	0.47	0.62	0.02	12.61	-0.18	72.59	0.47	4.69	-0.25	10.08	-0.33
39	82222	0.67	0.37	0.47	0.07	11.33	-0.34	67.35	0.37	14.76	-0.02	6.49	-0.24
40	82222	0.77	0.43	0.58	0.03	8.15	-0.24	8.41	-0.20	76.74	0.43	6.66	-0.23

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.3 (continued)
Spring 2013 AIMS Classical Item Analysis
Mathematics CRT Grade 5

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	82222	0.40	0.19	0.24	0.03	12.68	-0.14	15.41	-0.16	31.66	0.02	40.22	0.19
42	82222	0.69	0.51	0.66	0.07	11.15	-0.33	10.21	-0.23	9.43	-0.22	69.15	0.51
43	82222	0.70	0.46	0.60	0.05	8.12	-0.32	6.62	-0.30	70.03	0.46	15.18	-0.14
44	82222	0.56	0.44	0.55	0.06	8.18	-0.14	10.47	-0.24	55.77	0.44	25.52	-0.24
45	82222	0.67	0.36	0.46	0.21	15.48	-0.25	67.21	0.36	8.51	-0.16	8.59	-0.11
46	82222	0.76	0.48	0.64	0.04	10.31	-0.21	75.68	0.48	8.03	-0.28	5.95	-0.27
47	82222	0.96	0.27	0.57	0.01	1.48	-0.15	1.88	-0.16	95.53	0.27	1.10	-0.14
48	82222	0.61	0.47	0.58	0.07	60.58	0.47	8.26	-0.29	21.20	-0.20	9.89	-0.22
49	82222	0.72	0.53	0.70	0.06	12.20	-0.34	72.30	0.53	11.83	-0.27	3.61	-0.22
50	82222	0.79	0.43	0.60	0.02	79.08	0.43	6.95	-0.17	5.81	-0.25	8.14	-0.26
51	82222	0.66	0.28	0.36	0.03	9.49	-0.24	6.90	-0.12	66.28	0.28	17.30	-0.08
52	82222	0.55	0.38	0.48	0.06	55.19	0.38	15.74	-0.25	16.12	-0.17	12.89	-0.11
53	82222	0.35	0.18	0.23	0.02	30.44	-0.01	34.52	0.18	20.75	-0.18	14.26	-0.03
54	82222	0.61	0.39	0.49	0.07	11.87	-0.23	15.61	-0.10	11.45	-0.26	61.00	0.39
55	82222	0.75	0.34	0.45	0.02	9.84	-0.21	75.31	0.34	5.32	-0.23	9.52	-0.10
56	82222	0.41	0.42	0.52	0.07	42.40	-0.26	12.47	-0.11	40.86	0.42	4.21	-0.21
57	82222	0.77	0.47	0.65	0.05	77.43	0.47	6.76	-0.26	8.15	-0.22	7.61	-0.26
58	82222	0.70	0.44	0.58	0.05	8.92	-0.22	10.44	-0.22	70.03	0.44	10.56	-0.23
59	82222	0.68	0.30	0.39	0.02	2.08	-0.17	24.07	-0.16	68.30	0.30	5.53	-0.20
60	82222	0.55	0.26	0.33	0.06	9.79	-0.16	18.59	-0.15	16.32	-0.07	55.24	0.26
61	82222	0.78	0.34	0.47	0.04	2.30	-0.14	78.29	0.34	13.47	-0.29	5.90	-0.09
62	82222	0.51	0.43	0.53	0.06	34.56	-0.32	7.99	-0.14	50.53	0.43	6.85	-0.08
63	82222	0.26	0.16	0.22	0.08	55.55	0.07	10.75	-0.19	25.57	0.16	8.05	-0.17
64	82222	0.73	0.50	0.66	0.05	73.18	0.50	12.30	-0.32	7.22	-0.25	7.26	-0.20
65	82222	0.25	0.26	0.35	0.11	26.22	-0.10	28.93	-0.09	19.69	-0.07	25.05	0.26
66	82222	0.61	0.48	0.60	0.07	14.14	-0.33	14.19	-0.20	61.00	0.48	10.60	-0.16
67	82222	0.47	0.32	0.40	0.22	5.07	-0.21	7.52	-0.26	40.34	-0.10	46.85	0.32

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.4
Spring 2013 AIMS Classical Item Analysis
Mathematics CRT Grade 6

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82586	0.89	0.28	0.47	0.02	3.97	-0.18	89.16	0.28	2.84	-0.09	4.01	-0.19
2	82586	0.54	0.33	0.41	0.10	14.34	-0.17	9.41	-0.19	54.34	0.33	21.81	-0.12
3	82586	0.43	0.37	0.46	0.12	22.51	-0.13	10.93	-0.14	42.53	0.37	23.92	-0.20
4	82586	0.69	0.42	0.55	0.11	10.92	-0.14	9.92	-0.26	9.59	-0.25	69.46	0.42
5	82586	0.60	0.45	0.56	0.06	60.43	0.45	14.52	-0.26	13.34	-0.16	11.64	-0.22
6	82586	0.73	0.49	0.64	0.03	9.44	-0.28	3.39	-0.15	14.20	-0.31	72.94	0.49
7	82586	0.77	0.48	0.66	0.07	10.71	-0.31	77.09	0.48	6.82	-0.21	5.30	-0.24
8	82586	0.56	0.40	0.50	0.09	28.31	-0.23	56.00	0.40	6.59	-0.17	9.01	-0.19
9	82586	0.55	0.42	0.52	0.08	10.27	-0.21	22.41	-0.15	11.87	-0.24	55.37	0.42
10	82586	0.54	0.38	0.47	0.13	7.09	-0.18	24.23	-0.16	54.02	0.38	14.53	-0.21
11	82586	0.38	0.50	0.63	0.05	26.22	-0.29	9.69	-0.19	26.13	-0.15	37.91	0.50
12	82586	0.89	0.38	0.63	0.05	2.11	-0.17	2.08	-0.16	6.74	-0.28	89.02	0.38
13	82586	0.53	0.28	0.34	0.07	14.52	-0.11	53.36	0.28	18.14	-0.13	13.91	-0.14
14	82586	0.53	0.38	0.47	0.06	21.40	-0.16	52.69	0.38	18.65	-0.18	7.20	-0.22
15	82586	0.60	0.35	0.44	0.09	59.65	0.35	18.87	-0.26	11.26	-0.13	10.12	-0.10
16	82586	0.84	0.39	0.58	0.09	2.43	-0.19	84.25	0.39	11.14	-0.28	2.09	-0.16
17	82586	0.49	0.41	0.50	0.05	11.26	-0.27	22.88	-0.17	17.12	-0.13	48.69	0.41
18	82586	0.55	0.43	0.54	0.17	11.71	-0.15	16.14	-0.11	54.84	0.43	17.14	-0.34
19	82586	0.63	0.20	0.25	0.09	4.92	-0.18	63.42	0.20	20.74	-0.01	10.83	-0.16
20	82586	0.59	0.34	0.42	0.10	9.40	-0.15	16.81	-0.19	58.99	0.34	14.72	-0.16
21	82586	0.71	0.40	0.52	0.09	6.98	-0.30	9.99	-0.21	11.68	-0.13	71.25	0.40
22	82586	0.78	0.52	0.71	0.09	3.02	-0.23	3.89	-0.28	15.08	-0.34	77.92	0.52
23	82586	0.80	0.49	0.68	0.18	6.45	-0.28	4.03	-0.25	79.62	0.49	9.73	-0.27
24	82586	0.77	0.43	0.59	0.03	6.40	-0.27	10.65	-0.21	6.31	-0.22	76.61	0.43
25	82586	0.83	0.40	0.59	0.03	83.01	0.40	9.86	-0.26	4.41	-0.24	2.69	-0.17
26	82586	0.56	0.42	0.53	0.05	9.31	-0.29	24.53	-0.11	9.76	-0.26	56.35	0.42
27	82586	0.87	0.39	0.61	0.04	2.92	-0.11	6.81	-0.32	3.33	-0.17	86.90	0.39
28	82586	0.60	0.47	0.59	0.05	8.28	-0.23	19.69	-0.26	12.09	-0.19	59.89	0.47
29	82586	0.63	0.39	0.49	0.02	62.62	0.39	6.17	-0.21	21.70	-0.19	9.49	-0.20
30	82586	0.60	0.37	0.47	0.08	17.03	-0.16	59.86	0.37	16.45	-0.21	6.57	-0.18
31	82586	0.75	0.29	0.39	0.03	9.67	-0.18	2.89	-0.14	74.56	0.29	12.85	-0.14
32	82586	0.71	0.52	0.68	0.09	13.38	-0.29	7.28	-0.26	8.70	-0.26	70.55	0.52
33	82586	0.47	0.25	0.31	0.02	24.89	-0.04	46.66	0.25	13.93	-0.16	14.50	-0.15
34	82586	0.76	0.36	0.49	0.05	5.45	-0.24	11.43	-0.25	75.70	0.36	7.37	-0.08
35	82586	0.72	0.45	0.59	0.06	13.71	-0.27	72.30	0.45	8.63	-0.22	5.30	-0.19
36	82586	0.81	0.40	0.57	0.02	81.19	0.40	10.07	-0.24	3.36	-0.19	5.36	-0.21
37	82586	0.44	0.30	0.37	0.05	12.31	-0.27	25.97	-0.04	17.24	-0.11	44.43	0.30
38	82586	0.75	0.53	0.72	0.06	8.78	-0.27	75.27	0.53	8.64	-0.30	7.24	-0.27
39	82586	0.68	0.36	0.47	0.04	68.15	0.36	10.35	-0.20	16.16	-0.19	5.29	-0.17
40	82586	0.49	0.42	0.52	0.02	28.86	-0.20	16.03	-0.22	48.76	0.42	6.33	-0.17

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.4 (continued)
Spring 2013 AIMS Classical Item Analysis
Mathematics CRT Grade 6

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	82586	0.58	0.45	0.56	0.06	11.33	-0.26	58.25	0.45	22.04	-0.19	8.32	-0.21
42	82586	0.37	0.21	0.27	0.09	36.54	0.21	17.69	-0.19	18.64	-0.18	27.05	0.09
43	82586	0.46	0.21	0.26	0.07	26.37	-0.10	16.69	-0.06	45.73	0.21	11.15	-0.13
44	82586	0.48	0.22	0.27	0.06	47.73	0.22	7.79	-0.15	13.58	-0.19	30.84	-0.01
45	82586	0.51	0.44	0.55	0.14	15.02	-0.17	17.25	-0.21	16.57	-0.22	51.02	0.44
46	82586	0.77	0.42	0.58	0.01	18.57	-0.36	2.75	-0.14	77.31	0.42	1.36	-0.13
47	82586	0.35	0.34	0.43	0.08	5.72	-0.12	11.03	-0.16	35.19	0.34	47.98	-0.17
48	82586	0.75	0.44	0.59	0.06	75.40	0.44	10.08	-0.23	4.85	-0.22	9.61	-0.24
49	82586	0.76	0.54	0.73	0.04	6.47	-0.25	11.35	-0.32	6.54	-0.28	75.60	0.54
50	82586	0.32	0.01	0.02	0.02	32.47	0.01	12.37	-0.20	9.71	-0.13	45.43	0.20
51	82586	0.53	0.37	0.46	0.04	15.53	-0.20	16.27	-0.12	14.75	-0.20	53.41	0.37
52	82586	0.53	0.52	0.64	0.05	31.13	-0.46	7.70	-0.17	7.96	0.00	53.16	0.52
53	82586	0.66	0.52	0.67	0.04	12.31	-0.29	66.17	0.52	16.98	-0.31	4.49	-0.17
54	82586	0.43	0.42	0.53	0.10	14.80	-0.13	20.53	-0.16	21.27	-0.24	43.30	0.42
55	82586	0.78	0.54	0.73	0.02	6.78	-0.23	77.55	0.54	13.62	-0.42	2.03	-0.17
56	82586	0.37	0.22	0.29	0.09	36.55	0.22	12.70	-0.18	38.36	0.00	12.29	-0.15
57	82586	0.69	0.41	0.53	0.03	69.03	0.41	8.14	-0.15	19.53	-0.32	3.27	-0.12
58	82586	0.83	0.47	0.69	0.01	82.86	0.47	7.23	-0.28	4.51	-0.25	5.39	-0.23
59	82586	0.46	0.31	0.38	0.05	21.82	-0.18	28.31	-0.09	45.83	0.31	3.99	-0.18
60	82586	0.38	0.27	0.34	0.07	13.79	-0.11	25.42	-0.04	22.78	-0.18	37.94	0.27
61	82586	0.84	0.43	0.64	0.04	5.40	-0.20	5.57	-0.28	84.23	0.43	4.76	-0.22
62	82586	0.43	0.31	0.39	0.04	42.77	0.31	14.38	-0.24	13.62	-0.07	29.20	-0.10
63	82586	0.68	0.46	0.59	0.05	11.30	-0.23	12.12	-0.22	8.97	-0.26	67.56	0.46
64	82586	0.67	0.49	0.62	0.06	66.72	0.49	16.37	-0.26	11.84	-0.29	5.01	-0.19
65	82586	0.49	0.42	0.51	0.06	15.35	-0.15	12.89	-0.19	23.06	-0.22	48.64	0.42
66	82586	0.52	0.34	0.43	0.05	52.32	0.34	23.77	-0.04	13.98	-0.24	9.88	-0.23
67	82586	0.55	0.39	0.49	0.07	17.22	-0.30	17.68	-0.15	54.96	0.39	10.07	-0.08
68	82586	0.59	0.38	0.48	0.16	15.46	-0.22	5.47	-0.21	59.21	0.38	19.70	-0.15

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.5
Spring 2013 AIMS Classical Item Analysis
Mathematics CRT Grade 7

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82491	0.42	0.12	0.15	0.25	24.37	0.05	21.85	-0.11	42.42	0.12	11.11	-0.10
2	82491	0.83	0.32	0.46	0.02	82.74	0.32	10.87	-0.20	1.74	-0.15	4.64	-0.18
3	82491	0.60	0.36	0.45	0.08	10.60	-0.14	11.81	-0.17	17.79	-0.20	59.72	0.36
4	82491	0.42	0.42	0.53	0.09	15.39	-0.20	18.09	-0.13	24.17	-0.20	42.25	0.42
5	82491	0.47	0.24	0.30	0.11	20.93	-0.14	47.08	0.24	19.08	-0.07	12.80	-0.10
6	82491	0.52	0.37	0.46	0.06	10.49	-0.20	18.94	-0.18	51.53	0.37	18.98	-0.14
7	82491	0.83	0.29	0.42	0.09	8.45	-0.11	5.59	-0.19	3.26	-0.19	82.61	0.29
8	82491	0.80	0.36	0.51	0.02	79.65	0.36	3.44	-0.22	3.68	-0.20	13.21	-0.20
9	82491	0.74	0.46	0.62	0.05	8.05	-0.23	74.36	0.46	11.47	-0.28	6.07	-0.22
10	82491	0.54	0.29	0.36	0.04	54.19	0.29	28.29	-0.04	2.96	-0.18	14.53	-0.27
11	82491	0.59	0.34	0.43	0.06	59.41	0.34	15.94	-0.07	13.03	-0.26	11.55	-0.17
12	82491	0.61	0.52	0.64	0.08	60.71	0.52	7.54	-0.22	11.15	-0.26	20.52	-0.28
13	82491	0.31	0.14	0.18	0.07	30.77	0.14	11.44	-0.15	25.66	-0.04	32.06	0.00
14	82491	0.67	0.44	0.56	0.06	6.80	-0.28	22.11	-0.21	66.55	0.44	4.47	-0.23
15	82491	0.71	0.45	0.58	0.06	10.21	-0.25	71.04	0.45	9.70	-0.24	8.98	-0.20
16	82491	0.62	0.39	0.49	0.04	21.34	-0.08	6.89	-0.25	62.27	0.39	9.46	-0.32
17	82491	0.48	0.43	0.53	0.05	16.71	-0.20	14.37	-0.25	21.06	-0.13	47.82	0.43
18	82491	0.76	0.49	0.66	0.05	9.41	-0.30	7.64	-0.26	75.54	0.49	7.37	-0.20
19	82491	0.54	0.54	0.66	0.07	18.08	-0.26	14.49	-0.18	13.28	-0.30	54.08	0.54
20	82491	0.51	0.38	0.47	0.13	17.37	-0.15	11.61	-0.22	20.27	-0.15	50.62	0.38
21	82491	0.52	0.38	0.46	0.07	36.31	-0.20	5.60	-0.21	52.24	0.38	5.78	-0.18
22	82491	0.49	0.42	0.52	0.08	48.84	0.42	20.22	-0.11	14.38	-0.24	16.48	-0.23
23	82491	0.77	0.44	0.61	0.02	9.37	-0.22	77.27	0.44	7.44	-0.29	5.90	-0.19
24	82491	0.77	0.44	0.61	0.04	77.07	0.44	9.76	-0.16	9.03	-0.32	4.10	-0.22
25	82491	0.69	0.47	0.60	0.04	7.16	-0.27	10.44	-0.22	13.68	-0.24	68.69	0.47
26	82491	0.68	0.37	0.48	0.09	12.64	-0.12	68.02	0.37	11.86	-0.21	7.38	-0.25
27	82491	0.63	0.38	0.48	0.10	16.07	-0.11	62.91	0.38	10.04	-0.25	10.89	-0.22
28	82491	0.65	0.15	0.19	0.03	65.15	0.15	5.17	-0.23	4.45	-0.20	25.20	0.05
29	82491	0.57	0.39	0.49	0.06	7.43	-0.10	56.67	0.39	24.77	-0.27	11.06	-0.17
30	82491	0.68	0.53	0.67	0.07	4.96	-0.16	67.61	0.53	13.20	-0.33	14.17	-0.29
31	82491	0.40	0.40	0.50	0.08	39.50	0.40	17.94	-0.11	21.56	-0.27	20.91	-0.10
32	82491	0.73	0.46	0.61	0.09	2.23	-0.18	73.38	0.46	14.63	-0.19	9.67	-0.37
33	82491	0.62	0.46	0.58	0.02	12.24	-0.14	11.99	-0.33	62.43	0.46	13.33	-0.21
34	82491	0.54	0.36	0.44	0.04	10.94	0.00	54.01	0.36	29.01	-0.31	6.01	-0.15
35	82491	0.86	0.49	0.75	0.03	4.66	-0.28	4.66	-0.28	4.83	-0.25	85.82	0.49
36	82491	0.68	0.39	0.50	0.04	17.62	-0.08	5.40	-0.27	9.06	-0.30	67.88	0.39
37	82491	0.60	0.44	0.55	0.05	18.94	-0.19	60.02	0.44	11.20	-0.27	9.79	-0.19
38	82491	0.47	0.41	0.50	0.06	21.03	-0.30	15.81	-0.14	46.94	0.41	16.16	-0.08
39	82491	0.53	0.49	0.61	0.05	9.48	-0.24	12.39	-0.25	25.21	-0.22	52.86	0.49
40	82491	0.35	0.16	0.21	0.06	23.32	-0.08	15.34	-0.15	26.36	0.02	34.93	0.16

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.5 (continued)
Spring 2013 AIMS Classical Item Analysis
Mathematics CRT Grade 7

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	82491	0.66	0.44	0.56	0.06	11.06	-0.19	12.42	-0.21	66.20	0.44	10.26	-0.25
42	82491	0.80	0.42	0.59	0.03	5.42	-0.25	79.57	0.42	8.44	-0.23	6.55	-0.19
43	82491	0.65	0.47	0.59	0.04	65.42	0.47	10.45	-0.25	8.72	-0.22	15.36	-0.24
44	82491	0.36	0.38	0.48	0.07	27.58	-0.20	28.97	-0.14	36.33	0.38	7.05	-0.12
45	82491	0.69	0.52	0.67	0.07	68.79	0.52	5.47	-0.27	8.36	-0.26	17.31	-0.28
46	82491	0.56	0.42	0.52	0.16	13.37	-0.25	20.60	-0.21	56.09	0.42	9.79	-0.13
47	82491	0.54	0.32	0.40	0.07	28.66	-0.25	9.50	-0.19	54.01	0.32	7.77	0.02
48	82491	0.82	0.35	0.50	0.02	4.90	-0.23	6.44	-0.19	7.11	-0.15	81.54	0.35
49	82491	0.67	0.53	0.68	0.05	21.86	-0.32	4.71	-0.25	67.00	0.53	6.38	-0.26
50	82491	0.56	0.37	0.45	0.11	18.77	-0.15	15.37	-0.22	55.85	0.37	9.91	-0.14
51	82491	0.79	0.28	0.39	0.03	78.88	0.28	2.48	-0.19	3.91	-0.21	14.72	-0.13
52	82491	0.76	0.49	0.66	0.04	7.13	-0.29	76.38	0.49	7.01	-0.22	9.44	-0.27
53	82491	0.57	0.43	0.54	0.11	10.51	-0.21	56.83	0.43	17.65	-0.27	14.90	-0.13
54	82491	0.61	0.55	0.68	0.05	12.96	-0.28	11.24	-0.29	14.86	-0.23	60.89	0.55
55	82491	0.79	0.45	0.63	0.02	79.45	0.45	5.29	-0.22	7.49	-0.20	7.75	-0.29
56	82491	0.67	0.51	0.65	0.04	4.80	-0.30	11.21	-0.15	66.92	0.51	17.03	-0.34
57	82491	0.85	0.52	0.79	0.04	6.38	-0.34	85.37	0.52	4.80	-0.27	3.41	-0.23
58	82491	0.72	0.51	0.67	0.02	7.20	-0.35	10.79	-0.28	9.95	-0.18	72.03	0.51
59	82491	0.59	0.43	0.53	0.04	7.42	-0.27	15.24	-0.36	58.53	0.43	18.78	-0.03
60	82491	0.66	0.47	0.59	0.04	18.58	-0.21	7.94	-0.26	65.71	0.47	7.74	-0.26
61	82491	0.67	0.53	0.68	0.04	12.42	-0.21	66.92	0.53	6.32	-0.25	14.30	-0.34
62	82491	0.56	0.36	0.45	0.08	29.02	-0.16	56.11	0.36	9.04	-0.24	5.75	-0.15
63	82491	0.76	0.47	0.64	0.08	3.88	-0.22	13.48	-0.29	6.37	-0.25	76.19	0.47
64	82491	0.60	0.54	0.67	0.08	17.31	-0.29	14.59	-0.24	8.07	-0.26	59.95	0.54
65	82491	0.66	0.43	0.54	0.04	6.42	-0.23	66.21	0.43	15.19	-0.20	12.15	-0.22
66	82491	0.58	0.38	0.48	0.06	19.67	-0.24	58.03	0.38	15.46	-0.14	6.78	-0.17
67	82491	0.84	0.45	0.66	0.04	6.06	-0.25	5.84	-0.23	83.52	0.45	4.54	-0.25
68	82491	0.64	0.45	0.57	0.05	11.41	-0.15	63.61	0.45	13.44	-0.23	11.49	-0.28

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.6
Spring 2013 AIMS Classical Item Analysis
Mathematics CRT Grade 8

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	81432	0.89	0.45	0.72	0.01	4.48	-0.30	2.70	-0.22	4.28	-0.23	88.53	0.45
2	81432	0.19	0.22	0.32	0.08	30.03	-0.02	13.02	-0.27	19.36	0.22	37.51	0.02
3	81432	0.52	0.27	0.34	0.25	18.54	-0.11	20.37	-0.17	51.58	0.27	9.25	-0.08
4	81432	0.74	0.55	0.73	0.12	73.95	0.55	11.25	-0.34	7.38	-0.29	7.29	-0.22
5	81432	0.73	0.46	0.61	0.04	73.34	0.46	8.00	-0.26	6.98	-0.24	11.63	-0.22
6	81432	0.70	0.19	0.25	0.10	11.45	-0.13	8.66	-0.16	70.00	0.19	9.79	0.00
7	81432	0.68	0.38	0.49	0.05	5.92	-0.15	17.08	-0.24	67.72	0.38	9.24	-0.18
8	81432	0.53	0.46	0.57	0.09	15.00	-0.16	16.54	-0.30	52.89	0.46	15.48	-0.17
9	81432	0.56	0.36	0.45	0.03	17.89	-0.13	10.21	-0.23	55.66	0.36	16.21	-0.16
10	81432	0.73	0.57	0.74	0.06	72.74	0.57	10.74	-0.32	10.13	-0.31	6.34	-0.24
11	81432	0.46	0.42	0.52	0.15	17.24	-0.11	14.21	-0.20	22.84	-0.24	45.57	0.42
12	81432	0.65	0.42	0.53	0.03	65.00	0.42	9.44	-0.17	9.30	-0.18	16.23	-0.27
13	81432	0.74	0.40	0.53	0.03	6.64	-0.20	6.29	-0.25	73.93	0.40	13.11	-0.19
14	81432	0.57	0.44	0.55	0.06	22.86	-0.15	12.14	-0.29	8.10	-0.23	56.84	0.44
15	81432	0.73	0.45	0.60	0.09	9.29	-0.22	73.48	0.45	11.93	-0.27	5.21	-0.22
16	81432	0.72	0.44	0.58	0.04	8.56	-0.13	71.96	0.44	7.94	-0.28	11.50	-0.27
17	81432	0.47	0.41	0.50	0.05	26.91	-0.13	15.27	-0.21	10.48	-0.23	47.29	0.41
18	81432	0.51	0.50	0.61	0.04	23.54	-0.33	14.40	-0.17	10.74	-0.16	51.28	0.50
19	81432	0.54	0.43	0.53	0.09	16.31	-0.21	19.56	-0.22	53.56	0.43	10.48	-0.17
20	81432	0.57	0.28	0.35	0.07	24.44	-0.04	8.55	-0.24	10.04	-0.17	56.90	0.28
21	81432	0.63	0.33	0.42	0.04	63.03	0.33	7.25	-0.19	9.75	-0.20	19.93	-0.13
22	81432	0.49	0.37	0.46	0.14	49.07	0.37	22.85	-0.19	19.51	-0.16	8.43	-0.15
23	81432	0.55	0.39	0.48	0.04	17.91	-0.17	54.66	0.39	15.62	-0.21	11.77	-0.16
24	81432	0.85	0.41	0.63	0.07	4.84	-0.24	4.50	-0.22	5.34	-0.22	85.24	0.41
25	81432	0.77	0.41	0.57	0.05	2.42	-0.20	6.76	-0.22	77.17	0.41	13.60	-0.25
26	81432	0.50	0.43	0.53	0.02	5.08	-0.26	3.90	-0.21	41.20	-0.23	49.80	0.43
27	81432	0.50	0.46	0.57	0.10	50.01	0.46	27.87	-0.16	10.77	-0.25	11.26	-0.26
28	81432	0.78	0.36	0.50	0.03	5.34	-0.20	8.74	-0.22	7.51	-0.16	78.39	0.36
29	81432	0.66	0.44	0.56	0.06	8.83	-0.12	66.27	0.44	15.25	-0.22	9.59	-0.32
30	81432	0.69	0.56	0.71	0.09	6.08	-0.24	12.86	-0.30	12.12	-0.31	68.84	0.56
31	81432	0.68	0.45	0.57	0.02	8.81	-0.20	5.69	-0.27	17.94	-0.23	67.53	0.45
32	81432	0.43	0.38	0.48	0.04	27.22	-0.09	19.58	-0.17	42.86	0.38	10.30	-0.27
33	81432	0.40	0.34	0.43	0.05	33.26	-0.14	10.58	-0.20	15.70	-0.12	40.40	0.34
34	81432	0.87	0.41	0.64	0.03	4.36	-0.20	86.94	0.41	5.37	-0.26	3.31	-0.22
35	81432	0.69	0.35	0.45	0.04	5.82	-0.21	69.21	0.35	18.61	-0.18	6.32	-0.17
36	81432	0.35	0.18	0.23	0.04	9.66	-0.17	46.37	0.00	34.79	0.18	9.14	-0.12
37	81432	0.85	0.41	0.62	0.03	85.38	0.41	6.22	-0.28	5.58	-0.18	2.79	-0.22
38	81432	0.60	0.41	0.51	0.02	9.99	-0.17	15.73	-0.15	59.72	0.41	14.54	-0.27
39	81432	0.71	0.48	0.62	0.04	12.81	-0.23	70.55	0.48	10.69	-0.27	5.91	-0.25
40	81432	0.61	0.43	0.54	0.02	3.00	-0.23	5.47	-0.28	30.72	-0.24	60.79	0.43

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.6 (continued)
Spring 2013 AIMS Classical Item Analysis
Mathematics CRT Grade 8

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	81432	0.77	0.46	0.62	0.02	9.54	-0.29	10.18	-0.25	76.84	0.46	3.42	-0.17
42	81432	0.31	0.37	0.47	0.03	45.10	-0.21	11.92	-0.21	31.30	0.37	11.65	0.02
43	81432	0.70	0.46	0.60	0.02	3.66	-0.23	13.19	-0.25	69.68	0.46	13.46	-0.24
44	81432	0.53	0.40	0.49	0.05	15.78	-0.22	53.33	0.40	19.24	-0.22	11.60	-0.10
45	81432	0.57	0.27	0.34	0.03	24.36	-0.14	57.29	0.27	8.08	-0.17	10.24	-0.09
46	81432	0.75	0.42	0.57	0.03	10.97	-0.22	6.78	-0.24	75.27	0.42	6.95	-0.22
47	81432	0.67	0.49	0.63	0.06	67.22	0.49	11.99	-0.25	10.02	-0.28	10.71	-0.22
48	81432	0.59	0.37	0.46	0.13	9.87	-0.17	20.38	-0.23	59.19	0.37	10.42	-0.13
49	81432	0.57	0.42	0.52	0.05	9.43	-0.20	18.99	-0.21	56.85	0.42	14.68	-0.19
50	81432	0.30	0.36	0.47	0.09	15.64	-0.13	20.84	-0.09	33.46	-0.17	29.97	0.36
51	81432	0.40	0.23	0.29	0.02	42.98	0.03	39.64	0.23	8.28	-0.22	9.08	-0.22
52	81432	0.38	0.31	0.39	0.07	20.15	-0.18	29.13	-0.03	38.23	0.31	12.42	-0.19
53	81432	0.73	0.47	0.62	0.02	7.50	-0.26	11.94	-0.24	73.34	0.47	7.19	-0.24
54	81432	0.67	0.39	0.50	0.06	5.94	-0.23	8.70	-0.25	66.80	0.39	18.51	-0.16
55	81432	0.49	0.28	0.34	0.02	9.65	-0.18	20.02	-0.09	48.53	0.28	21.79	-0.12
56	81432	0.67	0.20	0.25	0.03	16.08	-0.04	9.32	-0.17	7.90	-0.11	66.67	0.20
57	81432	0.69	0.49	0.64	0.03	69.30	0.49	10.43	-0.18	5.84	-0.21	14.40	-0.35
58	81432	0.44	0.45	0.56	0.03	13.18	-0.18	25.79	-0.32	43.58	0.45	17.41	-0.06
59	81432	0.81	0.44	0.63	0.04	7.14	-0.24	7.43	-0.25	81.34	0.44	4.05	-0.22
60	81432	0.59	0.40	0.50	0.08	12.92	-0.14	12.79	-0.18	58.86	0.40	15.35	-0.25
61	81432	0.64	0.33	0.42	0.05	8.76	-0.21	9.19	-0.22	18.12	-0.09	63.88	0.33
62	81432	0.77	0.51	0.69	0.04	4.79	-0.21	76.65	0.51	10.81	-0.31	7.72	-0.27
63	81432	0.84	0.33	0.50	0.06	4.01	-0.19	9.29	-0.18	2.43	-0.19	84.21	0.33
64	81432	0.80	0.28	0.40	0.03	80.11	0.28	4.55	-0.18	12.59	-0.15	2.73	-0.15
65	81432	0.61	0.44	0.54	0.06	13.41	-0.19	18.54	-0.25	60.87	0.44	7.12	-0.20
66	81432	0.73	0.44	0.57	0.04	4.16	-0.23	14.13	-0.30	9.08	-0.16	72.60	0.44
67	81432	0.61	0.42	0.53	0.04	61.43	0.42	20.59	-0.16	12.21	-0.26	5.73	-0.24
68	81432	0.41	0.37	0.46	0.07	36.42	-0.20	40.69	0.37	13.93	-0.13	8.89	-0.13

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.7
Spring 2013 AIMS Classical Item Analysis
Mathematics CRT High School

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	76459	0.72	0.41	0.52	0.04	12.06	-0.24	8.45	-0.27	72.50	0.41	6.96	-0.10
2	76459	0.64	0.13	0.16	0.15	6.09	-0.18	13.18	-0.15	63.68	0.13	16.90	0.11
3	76459	0.74	0.25	0.33	0.14	14.36	-0.08	74.08	0.25	6.99	-0.21	4.42	-0.12
4	76459	0.69	0.31	0.40	0.20	7.72	-0.08	9.79	-0.13	13.67	-0.24	68.63	0.31
5	76459	0.50	0.31	0.39	0.19	14.24	-0.09	21.05	-0.17	15.00	-0.14	49.52	0.31
6	76459	0.76	0.33	0.43	0.05	9.73	-0.08	75.99	0.33	10.44	-0.26	3.79	-0.17
7	76459	0.53	0.27	0.33	0.08	16.84	-0.26	10.69	-0.15	53.23	0.27	19.16	0.05
8	76459	0.74	0.47	0.60	0.10	8.30	-0.23	10.98	-0.29	6.29	-0.19	74.33	0.47
9	76459	0.57	0.40	0.50	0.14	25.56	-0.26	9.97	-0.17	57.02	0.40	7.32	-0.11
10	76459	0.57	0.58	0.71	0.10	7.69	-0.16	24.93	-0.40	9.93	-0.19	57.34	0.58
11	76459	0.45	0.34	0.43	0.20	16.66	-0.11	45.16	0.34	19.84	-0.18	18.14	-0.13
12	76459	0.50	0.45	0.56	0.08	10.85	-0.19	16.10	-0.10	22.85	-0.28	50.13	0.45
13	76459	0.73	0.36	0.46	0.06	2.54	-0.15	7.92	-0.18	72.84	0.36	16.64	-0.23
14	76459	0.78	0.31	0.41	0.07	7.42	-0.12	10.88	-0.20	3.61	-0.17	78.02	0.31
15	76459	0.49	0.38	0.47	0.16	17.74	-0.12	23.08	-0.23	49.20	0.38	9.83	-0.13
16	76459	0.45	0.34	0.43	0.10	16.70	-0.12	44.91	0.34	31.81	-0.23	6.47	-0.05
17	76459	0.40	0.27	0.34	0.11	39.86	0.27	20.69	-0.13	27.83	-0.08	11.50	-0.11
18	76459	0.49	0.50	0.62	0.10	14.18	-0.27	16.01	-0.20	20.52	-0.16	49.18	0.50
19	76459	0.77	0.42	0.55	0.05	76.75	0.42	6.65	-0.18	5.36	-0.24	11.18	-0.24
20	76459	0.60	0.29	0.37	0.03	5.53	-0.27	7.75	-0.31	60.43	0.29	26.27	0.03
21	76459	0.24	0.25	0.36	0.10	34.21	-0.20	19.98	-0.07	24.13	0.25	21.57	0.05
22	76459	0.36	0.08	0.10	0.11	26.68	0.01	12.92	-0.16	35.87	0.08	24.42	0.03
23	76459	0.84	0.43	0.59	0.05	8.14	-0.24	3.99	-0.23	84.35	0.43	3.46	-0.23
24	76459	0.70	0.41	0.51	0.10	14.25	-0.16	69.80	0.41	10.97	-0.26	4.88	-0.22
25	76459	0.54	0.35	0.44	0.13	16.08	-0.19	53.88	0.35	19.70	-0.17	10.21	-0.10
26	76459	0.60	0.36	0.45	0.03	27.44	-0.16	60.09	0.36	8.68	-0.24	3.76	-0.15
27	76459	0.41	0.36	0.46	0.13	22.58	-0.10	40.71	0.36	20.98	-0.24	15.60	-0.07
28	76459	0.49	0.35	0.43	0.10	48.84	0.35	12.49	-0.25	14.66	-0.17	23.91	-0.05
29	76459	0.43	0.27	0.34	0.30	42.81	0.27	20.62	-0.15	26.50	-0.06	9.77	-0.14
30	76459	0.53	0.43	0.53	0.13	19.45	-0.16	53.48	0.43	19.27	-0.25	7.67	-0.17
31	76459	0.65	0.41	0.51	0.13	9.42	-0.22	17.10	-0.19	65.41	0.41	7.94	-0.20
32	76459	0.70	0.43	0.54	0.10	15.32	-0.22	8.75	-0.26	70.28	0.43	5.55	-0.18
33	76459	0.58	0.42	0.52	0.13	14.49	-0.19	58.28	0.42	12.41	-0.28	14.70	-0.11
34	76459	0.28	0.25	0.34	0.08	19.11	-0.10	25.34	-0.06	27.12	-0.10	28.35	0.25
35	76459	0.59	0.43	0.53	0.10	14.58	-0.21	58.71	0.43	20.21	-0.21	6.40	-0.19
36	76459	0.84	0.48	0.65	0.12	4.67	-0.25	5.15	-0.27	6.06	-0.26	84.00	0.48
37	76459	0.79	0.48	0.62	0.07	78.50	0.48	14.82	-0.31	4.46	-0.25	2.15	-0.20
38	76459	0.85	0.44	0.61	0.06	5.01	-0.25	84.74	0.44	6.35	-0.26	3.85	-0.20
39	76459	0.31	0.27	0.36	0.53	15.23	-0.12	17.50	-0.13	35.55	-0.05	31.19	0.27
40	76459	0.56	0.39	0.48	0.06	13.32	-0.23	56.13	0.39	21.94	-0.15	8.55	-0.16

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.7 (continued)
Spring 2013 AIMS Classical Item Analysis
Mathematics CRT High School

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	76459	0.57	0.27	0.34	0.11	6.19	-0.24	31.00	-0.06	57.43	0.27	5.27	-0.18
42	76459	0.66	0.42	0.52	0.08	65.82	0.42	9.99	-0.18	11.26	-0.22	12.85	-0.20
43	76459	0.13	0.25	0.43	0.10	18.24	-0.16	4.85	-0.21	64.10	0.07	12.71	0.25
44	76459	0.42	0.16	0.19	0.78	26.84	-0.06	42.20	0.16	12.10	-0.03	18.07	-0.11
45	76459	0.67	0.44	0.54	0.13	15.40	-0.20	66.50	0.44	10.07	-0.22	7.90	-0.22
46	76459	0.46	0.34	0.43	0.38	29.10	-0.14	15.26	-0.16	45.74	0.34	9.52	-0.15
47	76459	0.70	0.37	0.46	0.09	9.84	-0.18	69.62	0.37	12.83	-0.20	7.63	-0.17
48	76459	0.59	0.34	0.42	0.15	17.11	-0.17	58.90	0.34	18.73	-0.17	5.11	-0.15
49	76459	0.57	0.33	0.40	0.08	56.57	0.33	18.20	-0.18	10.32	-0.23	14.83	-0.05
50	76459	0.68	0.44	0.55	0.13	14.71	-0.22	7.65	-0.26	68.22	0.44	9.30	-0.19
51	76459	0.61	0.29	0.36	0.12	17.53	-0.07	8.44	-0.22	61.09	0.29	12.83	-0.15
52	76459	0.52	0.50	0.62	0.24	51.54	0.50	28.72	-0.24	12.86	-0.25	6.65	-0.17
53	76459	0.63	0.61	0.74	0.09	25.71	-0.45	7.40	-0.21	63.47	0.61	3.33	-0.17
54	76459	0.91	0.28	0.46	0.06	6.01	-0.18	1.63	-0.16	1.42	-0.15	90.88	0.28
55	76459	0.36	0.24	0.32	0.36	26.37	-0.01	24.35	-0.21	36.38	0.24	12.53	-0.06
56	76459	0.75	0.43	0.54	0.04	10.40	-0.22	74.86	0.43	11.07	-0.25	3.63	-0.19
57	76459	0.75	0.32	0.42	0.04	6.71	-0.20	75.46	0.32	13.34	-0.16	4.46	-0.15
58	76459	0.51	0.25	0.32	0.23	19.82	-0.04	9.88	-0.22	51.11	0.25	18.96	-0.10
59	76459	0.44	0.20	0.26	0.08	21.93	-0.17	9.07	-0.14	43.95	0.20	24.97	0.03
60	76459	0.49	0.29	0.37	0.11	49.16	0.29	37.06	-0.13	10.98	-0.17	2.69	-0.16
61	76459	0.72	0.47	0.59	0.08	7.65	-0.22	71.85	0.47	10.21	-0.20	10.22	-0.28
62	76459	0.39	0.46	0.59	0.29	18.24	-0.22	14.73	-0.17	27.41	-0.14	39.32	0.46
63	76459	0.76	0.38	0.49	0.13	76.21	0.38	12.83	-0.18	6.50	-0.22	4.34	-0.21
64	76459	0.71	0.43	0.53	0.08	12.10	-0.19	71.36	0.43	11.50	-0.26	4.96	-0.19
65	76459	0.74	0.45	0.56	0.07	5.47	-0.16	13.78	-0.26	6.88	-0.25	73.80	0.45
66	76459	0.39	0.38	0.48	0.18	18.31	-0.10	18.72	-0.17	23.30	-0.17	39.49	0.38
67	76459	0.58	0.38	0.46	0.12	57.86	0.38	17.36	-0.17	10.97	-0.16	13.68	-0.18
68	76459	0.77	0.51	0.64	0.09	7.67	-0.27	8.14	-0.27	7.45	-0.24	76.66	0.51
69	76459	0.60	0.41	0.50	0.22	59.61	0.41	17.94	-0.18	16.04	-0.22	6.19	-0.18
70	76459	0.46	0.26	0.32	0.15	45.97	0.26	29.24	0.00	16.59	-0.15	8.04	-0.23
71	76459	0.33	0.15	0.19	0.06	36.54	0.03	11.82	-0.14	32.92	0.15	18.66	-0.09
72	76459	0.51	0.34	0.42	0.21	50.81	0.34	22.27	-0.15	18.80	-0.15	7.91	-0.14
73	76459	0.63	0.51	0.63	0.15	63.47	0.51	13.38	-0.18	16.74	-0.32	6.25	-0.21
74	76459	0.77	0.55	0.70	0.13	5.74	-0.31	11.43	-0.30	5.63	-0.25	77.08	0.55
75	76459	0.33	0.16	0.21	0.31	15.89	-0.02	36.85	-0.04	33.43	0.16	13.51	-0.14
76	76459	0.62	0.37	0.46	0.11	61.82	0.37	21.88	-0.13	11.50	-0.24	4.70	-0.22
77	76459	0.58	0.38	0.47	0.24	11.65	-0.24	24.78	-0.14	57.77	0.38	5.57	-0.19
78	76459	0.60	0.23	0.28	0.12	59.58	0.23	17.36	-0.17	16.00	0.00	6.94	-0.17
79	76459	0.60	0.49	0.60	0.10	59.63	0.49	10.86	-0.23	12.86	-0.27	16.56	-0.18
80	76459	0.65	0.44	0.54	0.12	8.52	-0.20	12.26	-0.21	13.71	-0.22	65.39	0.44
81	76459	0.74	0.46	0.58	0.07	4.99	-0.24	11.17	-0.22	10.20	-0.24	73.56	0.46
82	76459	0.36	0.09	0.12	0.15	22.74	0.03	36.28	0.09	27.14	-0.03	13.70	-0.12
83	76459	0.80	0.47	0.61	0.07	80.06	0.47	5.89	-0.25	11.17	-0.29	2.79	-0.20
84	76459	0.44	0.28	0.36	0.09	25.15	-0.05	20.43	-0.14	43.92	0.28	10.42	-0.19
85	76459	0.52	0.32	0.39	0.10	12.16	-0.18	51.72	0.32	16.28	-0.18	19.73	-0.06

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.8
Spring 2013 AIMS Classical Item Analysis
Reading CRT Grade 3

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83191	0.79	0.45	0.63	0.05	6.41	-0.25	9.75	-0.25	4.91	-0.23	78.88	0.45
2	83191	0.89	0.42	0.69	0.14	5.14	-0.27	89.02	0.42	4.47	-0.25	1.24	-0.19
3	83191	0.73	0.49	0.64	0.18	14.54	-0.35	6.65	-0.21	72.93	0.49	5.70	-0.18
4	83191	0.91	0.36	0.62	0.12	90.57	0.36	4.08	-0.25	4.00	-0.19	1.22	-0.18
5	83191	0.74	0.45	0.59	0.29	8.86	-0.23	9.49	-0.29	7.30	-0.17	74.07	0.45
6	83191	0.47	0.36	0.44	0.26	24.06	-0.10	19.39	-0.18	9.09	-0.23	47.20	0.36
7	83191	0.89	0.48	0.79	0.36	89.39	0.48	2.18	-0.20	1.90	-0.24	6.17	-0.35
8	83191	0.71	0.29	0.38	0.19	2.96	-0.22	71.27	0.29	3.29	-0.23	22.30	-0.13
9	83191	0.84	0.55	0.81	0.27	9.35	-0.37	84.12	0.55	3.51	-0.30	2.76	-0.22
10	83191	0.58	0.45	0.56	0.28	9.88	-0.16	16.54	-0.20	58.49	0.45	14.82	-0.27
11	83191	0.75	0.51	0.67	0.36	10.34	-0.25	74.58	0.51	11.52	-0.31	3.20	-0.26
12	83191	0.65	0.44	0.56	0.09	21.97	-0.26	10.69	-0.23	2.14	-0.23	65.12	0.44
13	83191	0.47	0.40	0.49	0.21	19.38	-0.26	30.12	-0.10	3.38	-0.26	46.91	0.40
14	83191	0.72	0.38	0.50	0.35	71.96	0.38	2.43	-0.24	4.93	-0.25	20.33	-0.20
15	83191	0.47	0.35	0.43	0.23	47.10	0.35	5.14	-0.25	13.21	-0.24	34.32	-0.08
16	83191	0.86	0.42	0.65	0.35	4.86	-0.33	5.84	-0.13	2.76	-0.25	86.20	0.42
17	83191	0.60	0.33	0.42	0.22	11.31	-0.27	6.50	-0.23	22.22	-0.05	59.75	0.33
18	83191	0.50	0.21	0.26	0.21	31.88	-0.09	50.36	0.21	4.50	-0.14	13.05	-0.10
19	83191	0.74	0.41	0.54	0.38	73.55	0.41	7.39	-0.26	12.81	-0.16	5.86	-0.24
20	83191	0.59	0.30	0.37	0.49	11.28	-0.25	9.00	-0.17	20.32	-0.04	58.91	0.30
21	83191	0.89	0.50	0.82	0.11	2.91	-0.23	5.07	-0.34	88.98	0.50	2.93	-0.24
22	83191	0.77	0.53	0.72	0.16	5.11	-0.27	13.21	-0.34	76.87	0.53	4.64	-0.23
23	83191	0.72	0.53	0.69	0.16	11.38	-0.36	71.78	0.53	7.36	-0.27	9.32	-0.19
24	83191	0.67	0.43	0.55	0.37	9.46	-0.23	8.14	-0.29	14.66	-0.15	67.36	0.43
25	83191	0.50	0.30	0.37	0.14	36.50	-0.08	50.45	0.30	4.15	-0.19	8.76	-0.26
26	83191	0.79	0.48	0.66	0.31	7.44	-0.28	7.94	-0.26	79.39	0.48	4.92	-0.21
27	83191	0.62	0.45	0.56	0.43	14.59	-0.19	11.94	-0.18	61.72	0.45	11.33	-0.29
28	83191	0.53	0.44	0.54	0.15	35.10	-0.26	8.42	-0.19	53.36	0.44	2.97	-0.26
29	83191	0.40	0.24	0.30	0.74	39.99	0.24	21.96	-0.11	19.52	-0.12	17.79	-0.06
30	83191	0.63	0.53	0.66	0.16	14.04	-0.30	10.24	-0.29	12.78	-0.19	62.79	0.53
31	83191	0.77	0.41	0.56	0.05	3.67	-0.24	12.37	-0.21	76.54	0.41	7.36	-0.23
32	83191	0.82	0.48	0.68	0.14	7.62	-0.30	7.94	-0.25	2.38	-0.25	81.91	0.48
33	83191	0.88	0.40	0.63	0.21	87.88	0.40	2.34	-0.23	6.93	-0.23	2.65	-0.22
34	83191	0.51	0.40	0.49	0.24	15.22	-0.34	17.54	-0.10	15.66	-0.11	51.34	0.40
35	83191	0.72	0.33	0.44	0.18	6.43	-0.15	71.98	0.33	5.64	-0.17	15.77	-0.20
36	83191	0.57	0.28	0.35	0.25	57.31	0.28	19.23	-0.17	8.12	-0.25	15.09	-0.01
37	83191	0.56	0.29	0.36	0.20	55.58	0.29	11.01	-0.30	9.75	-0.24	23.46	0.04
38	83191	0.74	0.39	0.52	0.23	16.80	-0.18	4.85	-0.26	73.67	0.39	4.46	-0.24
39	83191	0.39	0.33	0.41	0.38	39.30	0.33	9.10	-0.14	7.98	-0.15	43.23	-0.16
40	83191	0.71	0.44	0.58	0.20	9.57	-0.28	71.30	0.44	3.57	-0.24	15.36	-0.20

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.8 (continued)
Spring 2013 AIMS Classical Item Analysis
Reading CRT Grade 3

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	83191	0.39	0.28	0.36	0.48	26.42	-0.07	18.56	-0.17	15.56	-0.12	38.98	0.28
42	83191	0.65	0.41	0.51	1.10	16.77	-0.27	64.62	0.41	6.51	-0.21	11.00	-0.14
43	83191	0.77	0.40	0.54	1.53	77.21	0.40	8.94	-0.25	3.17	-0.22	9.16	-0.19
44	83191	0.44	0.43	0.53	0.16	17.89	-0.22	22.27	-0.27	43.89	0.43	15.79	-0.05
45	83191	0.41	0.28	0.35	0.24	26.48	-0.08	21.71	-0.10	10.46	-0.20	41.11	0.28
46	83191	0.46	0.32	0.40	0.40	21.27	-0.07	8.78	-0.25	46.19	0.32	23.36	-0.14
47	83191	0.65	0.38	0.48	1.37	65.18	0.38	9.56	-0.24	15.43	-0.18	8.46	-0.16
48	83191	0.50	0.43	0.52	0.43	49.84	0.43	26.51	-0.24	8.02	-0.22	15.20	-0.13
49	83191	0.78	0.37	0.51	0.41	13.85	-0.18	78.20	0.37	3.96	-0.22	3.58	-0.24
50	83191	0.44	0.27	0.34	0.32	8.24	-0.21	6.72	-0.17	43.69	0.27	41.03	-0.07
51	83191	0.77	0.38	0.52	0.38	11.99	-0.22	76.81	0.38	3.03	-0.26	7.78	-0.16
52	83191	0.28	0.11	0.14	0.97	33.88	-0.14	27.94	0.11	7.33	-0.25	29.88	0.19
53	83191	0.66	0.51	0.64	0.50	66.02	0.51	11.71	-0.26	9.99	-0.30	11.78	-0.21
54	83191	0.64	0.50	0.63	0.51	5.87	-0.31	23.32	-0.24	64.09	0.50	6.20	-0.27

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.9
Spring 2013 AIMS Classical Item Analysis
Reading CRT Grade 4

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83043	0.87	0.29	0.45	0.02	86.50	0.29	1.32	-0.19	5.71	-0.20	6.45	-0.13
2	83043	0.62	0.37	0.46	0.03	61.62	0.37	2.34	-0.21	30.51	-0.24	5.51	-0.17
3	83043	0.69	0.41	0.53	0.03	20.08	-0.28	69.32	0.41	6.67	-0.16	3.89	-0.20
4	83043	0.75	0.35	0.46	0.06	21.48	-0.26	2.03	-0.16	74.86	0.35	1.56	-0.16
5	83043	0.52	0.44	0.55	0.04	51.54	0.44	15.81	-0.37	10.26	-0.14	22.35	-0.11
6	83043	0.51	0.29	0.36	0.05	29.75	-0.07	51.41	0.29	9.29	-0.15	9.50	-0.24
7	83043	0.85	0.41	0.62	0.07	2.64	-0.21	7.93	-0.25	84.95	0.41	4.41	-0.22
8	83043	0.73	0.49	0.64	0.11	8.43	-0.24	13.05	-0.28	5.57	-0.24	72.85	0.49
9	83043	0.85	0.51	0.76	0.03	4.28	-0.28	7.07	-0.29	4.07	-0.27	84.55	0.51
10	83043	0.46	0.27	0.34	0.03	4.16	-0.26	46.25	0.27	5.19	-0.21	44.36	-0.08
11	83043	0.76	0.43	0.59	0.05	9.91	-0.27	76.46	0.43	4.43	-0.29	9.16	-0.15
12	83043	0.68	0.38	0.48	0.06	67.92	0.38	11.92	-0.28	10.99	-0.02	9.11	-0.27
13	83043	0.32	0.25	0.33	0.07	37.67	-0.05	7.87	-0.22	31.75	0.25	22.65	-0.08
14	83043	0.91	0.44	0.76	0.13	2.93	-0.26	2.94	-0.26	3.15	-0.22	90.84	0.44
15	83043	0.81	0.51	0.72	0.03	5.14	-0.27	7.87	-0.29	81.02	0.51	5.95	-0.26
16	83043	0.79	0.40	0.55	0.05	5.27	-0.29	3.95	-0.26	12.06	-0.15	78.66	0.40
17	83043	0.72	0.28	0.37	0.10	4.91	-0.19	71.87	0.28	17.77	-0.10	5.35	-0.21
18	83043	0.55	0.02	0.03	0.07	2.96	-0.23	36.79	0.17	4.98	-0.25	55.20	0.02
19	83043	0.68	0.38	0.49	0.10	11.27	-0.27	3.51	-0.25	67.62	0.38	17.50	-0.12
20	83043	0.78	0.53	0.73	0.07	6.20	-0.29	6.23	-0.27	78.31	0.53	9.19	-0.28
21	83043	0.78	0.45	0.62	0.05	2.86	-0.25	15.92	-0.31	78.13	0.45	3.04	-0.18
22	83043	0.55	0.46	0.56	0.02	10.04	-0.28	21.77	-0.18	55.14	0.46	13.03	-0.20
23	83043	0.25	0.21	0.29	0.08	25.27	0.21	15.75	-0.09	14.02	-0.15	44.89	-0.01
24	83043	0.69	0.46	0.60	0.07	13.58	-0.27	69.46	0.46	6.45	-0.22	10.44	-0.22
25	83043	0.89	0.46	0.74	0.07	4.06	-0.25	3.56	-0.25	3.66	-0.27	88.66	0.46
26	83043	0.73	0.47	0.61	0.08	72.59	0.47	13.95	-0.28	3.89	-0.26	9.49	-0.21
27	83043	0.61	0.37	0.47	0.07	3.34	-0.27	5.11	-0.25	30.01	-0.17	61.47	0.37
28	83043	0.81	0.51	0.73	0.03	11.30	-0.36	81.46	0.51	4.40	-0.24	2.81	-0.21
29	83043	0.78	0.56	0.77	0.05	78.39	0.56	9.00	-0.28	6.17	-0.30	6.39	-0.31
30	83043	0.90	0.45	0.75	0.06	3.72	-0.27	89.93	0.45	3.75	-0.26	2.54	-0.21
31	83043	0.71	0.46	0.60	0.06	16.27	-0.18	5.55	-0.30	7.27	-0.29	70.85	0.46
32	83043	0.28	0.23	0.30	0.06	53.08	-0.03	11.37	-0.10	27.94	0.23	7.54	-0.22
33	83043	0.58	0.49	0.60	0.05	14.80	-0.26	20.46	-0.23	6.84	-0.23	57.86	0.49
34	83043	0.54	0.33	0.41	0.03	9.55	-0.13	32.34	-0.17	53.74	0.33	4.34	-0.24
35	83043	0.76	0.46	0.61	0.06	13.77	-0.21	75.59	0.46	6.33	-0.29	4.25	-0.26
36	83043	0.78	0.46	0.63	0.03	8.13	-0.35	9.89	-0.19	78.02	0.46	3.93	-0.19
37	83043	0.76	0.52	0.70	0.04	5.46	-0.26	8.74	-0.27	76.22	0.52	9.54	-0.30
38	83043	0.74	0.30	0.39	0.05	2.37	-0.16	73.61	0.30	12.62	-0.14	11.34	-0.19
39	83043	0.50	0.28	0.35	0.08	49.71	0.28	9.67	-0.15	12.17	-0.29	28.36	-0.01
40	83043	0.71	0.53	0.69	0.10	14.25	-0.38	6.92	-0.23	7.26	-0.18	71.46	0.53

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.9 (continued)
Spring 2013 AIMS Classical Item Analysis
Reading CRT Grade 4

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	83043	0.46	0.26	0.32	0.02	38.48	-0.11	46.04	0.26	10.88	-0.11	4.57	-0.20
42	83043	0.64	0.45	0.56	0.05	25.89	-0.29	6.03	-0.19	3.68	-0.23	64.34	0.45
43	83043	0.49	0.45	0.55	0.05	23.36	-0.09	19.72	-0.28	48.96	0.45	7.91	-0.27
44	83043	0.65	0.36	0.46	0.07	6.01	-0.25	9.76	-0.19	65.09	0.36	19.08	-0.14
45	83043	0.70	0.31	0.40	0.04	15.23	-0.17	69.53	0.31	8.59	-0.16	6.61	-0.14
46	83043	0.75	0.43	0.57	0.05	10.88	-0.23	5.11	-0.26	9.40	-0.20	74.56	0.43
47	83043	0.53	0.40	0.49	0.08	18.34	-0.28	15.76	-0.16	52.58	0.40	13.23	-0.10
48	83043	0.49	0.31	0.38	0.09	48.74	0.31	14.80	-0.27	15.81	-0.14	20.56	-0.01
49	83043	0.60	0.40	0.50	0.08	20.07	-0.11	10.46	-0.25	60.49	0.40	8.90	-0.25
50	83043	0.78	0.52	0.72	0.08	8.45	-0.29	78.17	0.52	6.77	-0.29	6.52	-0.25
51	83043	0.58	0.46	0.56	0.11	11.79	-0.27	12.05	-0.20	18.48	-0.19	57.57	0.46
52	83043	0.48	0.44	0.54	0.05	18.98	-0.25	27.60	-0.14	47.53	0.44	5.84	-0.25
53	83043	0.64	0.53	0.67	0.08	13.97	-0.24	8.59	-0.31	13.64	-0.26	63.72	0.53
54	83043	0.59	0.43	0.53	0.20	59.07	0.43	14.11	-0.19	19.57	-0.18	7.05	-0.29

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.10
Spring 2013 AIMS Classical Item Analysis
Reading CRT Grade 5

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82220	0.26	0.06	0.08	0.03	8.39	-0.29	51.62	0.15	14.11	-0.06	25.84	0.06
2	82220	0.75	0.42	0.57	0.03	12.90	-0.25	5.09	-0.22	75.12	0.42	6.85	-0.20
3	82220	0.52	0.27	0.33	0.06	10.11	-0.17	11.04	-0.26	26.39	0.00	52.41	0.27
4	82220	0.40	0.07	0.09	0.03	4.80	-0.23	39.68	0.07	49.86	0.13	5.63	-0.22
5	82220	0.77	0.40	0.55	0.03	5.64	-0.20	15.19	-0.25	76.64	0.40	2.49	-0.23
6	82220	0.39	0.28	0.35	0.03	32.13	-0.14	38.83	0.28	6.87	-0.19	22.13	-0.06
7	82220	0.56	0.30	0.38	0.03	7.28	-0.34	56.04	0.30	5.89	-0.20	30.77	-0.04
8	82220	0.64	0.35	0.44	0.05	9.96	-0.28	63.90	0.35	17.54	-0.10	8.55	-0.17
9	82220	0.63	0.46	0.58	0.08	63.18	0.46	11.19	-0.27	10.95	-0.25	14.60	-0.17
10	82220	0.78	0.41	0.57	0.05	5.67	-0.19	77.73	0.41	6.75	-0.33	9.80	-0.15
11	82220	0.87	0.51	0.80	0.09	86.97	0.51	3.97	-0.26	3.93	-0.28	5.03	-0.31
12	82220	0.52	0.40	0.50	0.04	22.68	-0.19	14.02	-0.15	11.75	-0.21	51.51	0.40
13	82220	0.81	0.59	0.83	0.06	80.88	0.59	7.81	-0.39	6.13	-0.32	5.11	-0.24
14	82220	0.74	0.51	0.67	0.08	6.92	-0.34	10.86	-0.19	73.85	0.51	8.30	-0.28
15	82220	0.63	0.40	0.50	0.12	9.91	-0.32	62.52	0.40	9.01	-0.22	18.44	-0.10
16	82220	0.38	0.28	0.35	0.08	25.85	-0.23	11.29	-0.25	37.70	0.28	25.09	0.10
17	82220	0.65	0.38	0.48	0.11	65.19	0.38	12.07	-0.19	8.42	-0.28	14.22	-0.11
18	82220	0.62	0.38	0.47	0.06	7.93	-0.33	4.51	-0.28	25.06	-0.08	62.45	0.38
19	82220	0.82	0.46	0.66	0.02	11.59	-0.31	81.71	0.46	3.19	-0.19	3.50	-0.26
20	82220	0.48	0.26	0.33	0.03	48.09	0.26	4.24	-0.23	43.06	-0.07	4.58	-0.24
21	82220	0.76	0.46	0.62	0.04	10.86	-0.18	4.88	-0.29	75.59	0.46	8.63	-0.28
22	82220	0.55	0.38	0.47	0.05	32.69	-0.13	54.83	0.38	7.45	-0.25	4.98	-0.29
23	82220	0.89	0.52	0.84	0.05	4.47	-0.32	3.81	-0.28	88.65	0.52	3.02	-0.26
24	82220	0.64	0.34	0.43	0.05	64.39	0.34	10.73	-0.27	5.93	-0.28	18.90	-0.03
25	82220	0.79	0.61	0.85	0.06	5.03	-0.29	6.55	-0.33	78.99	0.61	9.37	-0.36
26	82220	0.79	0.59	0.82	0.03	8.64	-0.34	6.02	-0.29	6.54	-0.31	78.77	0.59
27	82220	0.75	0.50	0.66	0.05	75.13	0.50	9.86	-0.25	5.74	-0.30	9.23	-0.24
28	82220	0.78	0.47	0.65	0.04	78.17	0.47	6.44	-0.31	9.49	-0.31	5.87	-0.12
29	82220	0.74	0.53	0.70	0.06	4.76	-0.29	17.90	-0.34	73.81	0.53	3.47	-0.22
30	82220	0.57	0.39	0.49	0.07	57.06	0.39	14.99	-0.16	11.99	-0.28	15.90	-0.13
31	82220	0.77	0.51	0.70	0.03	6.97	-0.32	7.61	-0.22	8.02	-0.27	77.38	0.51
32	82220	0.63	0.35	0.45	0.02	26.35	-0.15	4.78	-0.23	63.01	0.35	5.85	-0.25
33	82220	0.64	0.20	0.25	0.04	19.23	0.03	63.86	0.20	13.65	-0.23	3.22	-0.17
34	82220	0.75	0.40	0.54	0.03	74.93	0.40	5.14	-0.28	12.79	-0.20	7.11	-0.18
35	82220	0.83	0.42	0.61	0.03	10.79	-0.22	83.37	0.42	2.47	-0.21	3.33	-0.29
36	82220	0.57	0.29	0.36	0.06	11.27	-0.16	10.33	-0.20	56.61	0.29	21.73	-0.08
37	82220	0.52	0.18	0.22	0.02	9.92	-0.14	9.13	-0.09	52.23	0.18	28.70	-0.05
38	82220	0.91	0.36	0.62	0.02	5.41	-0.21	1.90	-0.22	90.68	0.36	1.98	-0.19
39	82220	0.80	0.50	0.70	0.04	7.53	-0.28	6.87	-0.29	80.22	0.50	5.35	-0.22
40	82220	0.86	0.41	0.63	0.04	85.53	0.41	6.90	-0.19	2.56	-0.23	4.97	-0.28

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.10 (continued)
Spring 2013 AIMS Classical Item Analysis
Reading CRT Grade 5

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	82220	0.76	0.49	0.66	0.04	12.17	-0.30	5.51	-0.21	75.77	0.49	6.50	-0.26
42	82220	0.29	0.04	0.05	0.05	25.43	0.05	31.07	0.05	29.06	0.04	14.40	-0.18
43	82220	0.74	0.48	0.63	0.05	4.83	-0.33	17.74	-0.22	73.63	0.48	3.76	-0.30
44	82220	0.87	0.47	0.75	0.02	2.93	-0.25	5.92	-0.27	87.50	0.47	3.63	-0.26
45	82220	0.81	0.49	0.69	0.04	81.29	0.49	4.62	-0.26	6.20	-0.28	7.85	-0.25
46	82220	0.86	0.51	0.79	0.04	4.71	-0.32	86.21	0.51	6.22	-0.26	2.83	-0.28
47	82220	0.65	0.43	0.54	0.04	64.65	0.43	8.03	-0.26	5.96	-0.30	21.32	-0.16
48	82220	0.44	0.23	0.28	0.06	44.36	0.23	23.02	-0.07	23.53	-0.04	9.04	-0.22
49	82220	0.75	0.56	0.75	0.05	6.89	-0.28	75.17	0.56	8.36	-0.28	9.53	-0.31
50	82220	0.69	0.55	0.71	0.08	9.69	-0.33	13.60	-0.27	69.41	0.55	7.22	-0.25
51	82220	0.57	0.44	0.54	0.07	20.84	-0.20	15.24	-0.15	6.51	-0.32	57.34	0.44
52	82220	0.67	0.53	0.67	0.10	14.46	-0.26	8.77	-0.28	10.04	-0.26	66.62	0.53
53	82220	0.61	0.43	0.54	0.05	8.21	-0.29	15.32	-0.15	15.19	-0.21	61.22	0.43
54	82220	0.71	0.47	0.61	0.09	11.41	-0.22	70.53	0.47	12.45	-0.26	5.52	-0.25

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.11
Spring 2013 AIMS Classical Item Analysis
Reading CRT Grade 6

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82595	0.88	0.39	0.64	0.03	4.53	-0.19	3.22	-0.25	88.22	0.39	4.01	-0.22
2	82595	0.57	0.31	0.38	0.07	27.35	-0.09	57.12	0.31	4.52	-0.24	10.94	-0.20
3	82595	0.97	0.28	0.64	0.03	1.52	-0.19	0.62	-0.13	96.51	0.28	1.33	-0.16
4	82595	0.57	0.28	0.35	0.03	57.32	0.28	16.47	-0.11	14.64	-0.14	11.54	-0.15
5	82595	0.87	0.48	0.74	0.03	4.29	-0.26	4.21	-0.28	86.69	0.48	4.78	-0.25
6	82595	0.90	0.50	0.83	0.04	3.18	-0.28	4.67	-0.31	89.57	0.50	2.54	-0.25
7	82595	0.91	0.46	0.78	0.06	90.57	0.46	4.23	-0.26	2.63	-0.28	2.51	-0.23
8	82595	0.48	0.31	0.38	0.08	18.29	-0.04	16.88	-0.27	16.27	-0.10	48.48	0.31
9	82595	0.36	0.17	0.22	0.05	20.95	-0.19	19.21	-0.17	35.86	0.17	23.94	0.15
10	82595	0.68	0.36	0.46	0.08	23.52	-0.18	5.78	-0.23	67.94	0.36	2.68	-0.22
11	82595	0.68	0.51	0.65	0.10	9.52	-0.23	8.59	-0.26	13.38	-0.28	68.41	0.51
12	82595	0.62	0.41	0.52	0.11	12.07	-0.29	10.68	-0.22	62.32	0.41	14.82	-0.11
13	82595	0.77	0.48	0.65	0.02	7.63	-0.32	1.85	-0.19	76.74	0.48	13.76	-0.27
14	82595	0.71	0.32	0.42	0.02	15.74	-0.19	3.64	-0.25	70.90	0.32	9.70	-0.10
15	82595	0.74	0.47	0.62	0.01	3.05	-0.24	6.24	-0.33	16.51	-0.23	74.19	0.47
16	82595	0.72	0.43	0.56	0.02	5.42	-0.23	8.66	-0.22	13.41	-0.23	72.48	0.43
17	82595	0.63	0.35	0.44	0.02	8.33	-0.25	9.60	-0.14	18.59	-0.15	63.45	0.35
18	82595	0.73	0.51	0.67	0.03	9.93	-0.23	13.75	-0.36	3.27	-0.19	73.03	0.51
19	82595	0.80	0.46	0.65	0.03	4.11	-0.28	4.48	-0.29	11.16	-0.22	80.21	0.46
20	82595	0.76	0.44	0.59	0.01	5.52	-0.21	76.06	0.44	14.39	-0.26	4.01	-0.24
21	82595	0.50	0.29	0.36	0.06	10.01	-0.28	50.09	0.29	31.63	-0.01	8.21	-0.20
22	82595	0.51	0.36	0.44	0.08	11.09	-0.16	27.54	-0.14	10.52	-0.22	50.77	0.36
23	82595	0.56	0.35	0.44	0.05	55.75	0.35	20.34	-0.08	17.60	-0.22	6.26	-0.24
24	82595	0.50	0.32	0.39	0.11	18.85	-0.24	50.32	0.32	7.71	-0.22	23.01	-0.02
25	82595	0.66	0.37	0.48	0.03	17.90	-0.24	66.48	0.37	8.80	-0.15	6.79	-0.16
26	82595	0.58	0.21	0.26	0.05	57.87	0.21	11.04	-0.20	11.17	-0.13	19.88	0.00
27	82595	0.70	0.24	0.31	0.07	16.82	-0.07	6.52	-0.22	6.79	-0.11	69.81	0.24
28	82595	0.89	0.47	0.78	0.06	3.85	-0.28	3.85	-0.27	89.33	0.47	2.92	-0.22
29	82595	0.61	0.46	0.57	0.08	24.77	-0.25	5.64	-0.28	9.02	-0.18	60.50	0.46
30	82595	0.75	0.51	0.68	0.06	6.19	-0.28	15.19	-0.28	3.91	-0.28	74.64	0.51
31	82595	0.60	0.37	0.46	0.08	12.75	-0.19	15.07	-0.10	60.08	0.37	12.03	-0.26
32	82595	0.78	0.33	0.46	0.02	10.66	-0.14	77.70	0.33	3.96	-0.19	7.67	-0.22
33	82595	0.76	0.43	0.58	0.02	9.33	-0.25	75.79	0.43	8.44	-0.24	6.42	-0.19
34	82595	0.56	0.42	0.52	0.05	28.76	-0.16	9.86	-0.28	55.70	0.42	5.63	-0.22
35	82595	0.75	0.41	0.55	0.03	2.76	-0.23	2.15	-0.22	75.38	0.41	19.68	-0.27
36	82595	0.34	0.34	0.44	0.06	19.06	-0.16	33.94	0.34	8.61	-0.23	38.34	-0.08
37	82595	0.52	0.29	0.36	0.04	11.28	-0.15	5.66	-0.28	30.75	-0.07	52.26	0.29
38	82595	0.55	0.37	0.45	0.02	5.08	-0.25	54.88	0.37	12.05	-0.20	27.96	-0.14
39	82595	0.83	0.51	0.74	0.02	8.94	-0.30	4.22	-0.26	3.80	-0.27	83.01	0.51
40	82595	0.72	0.47	0.62	0.04	13.10	-0.31	72.32	0.47	8.52	-0.20	6.02	-0.21

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.11 (continued)
Spring 2013 AIMS Classical Item Analysis
Reading CRT Grade 6

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	82595	0.79	0.30	0.42	0.04	2.72	-0.26	78.84	0.30	2.70	-0.21	15.71	-0.12
42	82595	0.75	0.42	0.56	0.03	10.14	-0.28	7.32	-0.17	7.59	-0.19	74.92	0.42
43	82595	0.68	0.52	0.66	0.06	9.91	-0.24	9.78	-0.27	12.07	-0.27	68.18	0.52
44	82595	0.75	0.43	0.58	0.06	11.43	-0.20	6.09	-0.24	75.29	0.43	7.13	-0.25
45	82595	0.83	0.47	0.69	0.02	83.06	0.47	4.41	-0.27	4.07	-0.25	8.43	-0.27
46	82595	0.85	0.45	0.68	0.16	84.72	0.45	5.63	-0.25	4.96	-0.27	4.53	-0.23
47	82595	0.49	0.20	0.25	0.02	49.15	0.20	8.40	-0.24	24.55	-0.09	17.87	0.02
48	82595	0.25	0.12	0.16	0.05	8.19	-0.28	52.96	0.09	14.03	-0.06	24.78	0.12
49	82595	0.75	0.38	0.50	0.05	9.45	-0.25	7.67	-0.18	74.54	0.38	8.29	-0.15
50	82595	0.66	0.35	0.44	0.04	65.84	0.35	10.30	-0.19	10.41	-0.19	13.41	-0.14
51	82595	0.67	0.34	0.44	0.14	17.46	-0.15	4.74	-0.28	67.21	0.34	10.45	-0.14
52	82595	0.48	0.36	0.44	0.03	28.05	-0.20	48.44	0.36	9.32	-0.17	14.15	-0.12
53	82595	0.60	0.39	0.48	0.05	14.95	-0.24	14.82	-0.19	59.83	0.39	10.35	-0.12
54	82595	0.44	0.21	0.26	0.12	43.67	0.21	35.86	-0.06	16.76	-0.08	3.59	-0.26

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.12
Spring 2013 AIMS Classical Item Analysis
Reading CRT Grade 7

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82501	0.89	0.41	0.68	0.02	7.27	-0.31	2.18	-0.21	89.40	0.41	1.13	-0.14
2	82501	0.71	0.13	0.17	0.05	70.86	0.13	17.03	0.01	5.16	-0.16	6.90	-0.11
3	82501	0.91	0.34	0.59	0.01	3.10	-0.16	90.56	0.34	4.33	-0.19	2.00	-0.25
4	82501	0.75	0.37	0.49	0.08	74.55	0.37	7.67	-0.22	10.62	-0.16	7.08	-0.20
5	82501	0.36	0.43	0.53	0.05	26.87	-0.32	12.38	-0.05	36.31	0.43	24.39	-0.11
6	82501	0.82	0.46	0.67	0.03	81.98	0.46	8.32	-0.28	4.48	-0.23	5.18	-0.23
7	82501	0.64	0.38	0.48	0.02	9.99	-0.16	10.60	-0.18	15.00	-0.21	64.39	0.38
8	82501	0.53	0.54	0.66	0.03	14.70	-0.16	3.07	-0.20	29.51	-0.39	52.69	0.54
9	82501	0.65	0.38	0.48	0.04	14.02	-0.17	14.81	-0.20	65.16	0.38	5.97	-0.22
10	82501	0.67	0.29	0.37	0.03	21.31	-0.12	66.65	0.29	7.05	-0.15	4.96	-0.21
11	82501	0.75	0.35	0.47	0.03	12.97	-0.22	7.67	-0.14	4.29	-0.21	75.04	0.35
12	82501	0.73	0.41	0.54	0.08	8.25	-0.20	5.24	-0.21	72.89	0.41	13.53	-0.24
13	82501	0.58	0.47	0.58	0.02	12.56	-0.19	12.97	-0.31	16.81	-0.18	57.64	0.47
14	82501	0.68	0.44	0.57	0.02	9.56	-0.27	8.41	-0.29	68.30	0.44	13.70	-0.13
15	82501	0.57	0.24	0.29	0.02	12.01	-0.09	6.60	-0.16	24.31	-0.10	57.05	0.24
16	82501	0.60	0.33	0.41	0.04	16.25	-0.12	59.76	0.33	10.76	-0.20	13.20	-0.17
17	82501	0.70	0.34	0.43	0.02	15.72	-0.22	69.70	0.34	3.34	-0.22	11.22	-0.10
18	82501	0.69	0.40	0.51	0.05	9.30	-0.21	14.55	-0.22	68.71	0.40	7.39	-0.17
19	82501	0.63	0.21	0.27	0.03	19.43	0.00	62.84	0.21	7.73	-0.19	9.96	-0.18
20	82501	0.54	0.19	0.24	0.03	5.61	-0.20	18.36	-0.19	21.94	0.05	54.07	0.19
21	82501	0.82	0.33	0.47	0.03	81.96	0.33	2.00	-0.19	4.34	-0.25	11.67	-0.15
22	82501	0.63	0.45	0.57	0.03	28.45	-0.33	2.07	-0.22	62.68	0.45	6.77	-0.16
23	82501	0.81	0.43	0.62	0.02	80.98	0.43	3.83	-0.20	5.98	-0.29	9.19	-0.22
24	82501	0.77	0.37	0.50	0.02	77.01	0.37	14.65	-0.14	4.26	-0.24	4.07	-0.28
25	82501	0.73	0.30	0.40	0.02	73.32	0.30	8.87	-0.21	12.11	-0.10	5.67	-0.19
26	82501	0.50	0.35	0.43	0.09	20.63	-0.23	17.41	-0.09	11.69	-0.15	50.19	0.35
27	82501	0.63	0.36	0.45	0.03	11.41	-0.21	62.56	0.36	17.00	-0.10	9.00	-0.24
28	82501	0.62	0.49	0.61	0.01	12.95	-0.21	13.64	-0.30	61.73	0.49	11.66	-0.20
29	82501	0.67	0.24	0.31	0.03	23.92	-0.05	3.53	-0.22	5.71	-0.22	66.81	0.24
30	82501	0.58	0.33	0.41	0.04	58.24	0.33	12.12	-0.18	3.30	-0.26	26.30	-0.13
31	82501	0.58	0.42	0.51	0.03	17.96	-0.17	5.68	-0.20	18.56	-0.24	57.77	0.42
32	82501	0.77	0.53	0.72	0.09	11.22	-0.32	7.57	-0.29	76.62	0.53	4.50	-0.23
33	82501	0.81	0.49	0.69	0.03	8.34	-0.28	5.94	-0.28	81.15	0.49	4.54	-0.22
34	82501	0.68	0.49	0.63	0.03	7.49	-0.30	7.11	-0.27	17.04	-0.21	68.33	0.49
35	82501	0.76	0.49	0.65	0.04	6.87	-0.28	6.01	-0.27	75.83	0.49	11.26	-0.24
36	82501	0.77	0.52	0.70	0.05	6.81	-0.30	7.95	-0.27	76.90	0.52	8.28	-0.24
37	82501	0.62	0.21	0.26	0.03	62.16	0.21	11.60	-0.12	3.25	-0.19	22.96	-0.07
38	82501	0.46	0.31	0.39	0.04	45.94	0.31	36.30	-0.08	7.28	-0.28	10.45	-0.14
39	82501	0.32	0.30	0.38	0.04	55.31	-0.04	6.68	-0.30	6.03	-0.18	31.94	0.30
40	82501	0.62	0.33	0.42	0.04	7.44	-0.20	19.72	-0.19	61.82	0.33	10.98	-0.11

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.12 (continued)
Spring 2013 AIMS Classical Item Analysis
Reading CRT Grade 7

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	82501	0.56	0.24	0.30	0.05	9.25	-0.17	56.41	0.24	21.64	-0.07	12.65	-0.12
42	82501	0.55	0.40	0.49	0.07	7.17	-0.22	16.20	-0.20	21.07	-0.17	55.49	0.40
43	82501	0.80	0.50	0.70	0.02	13.28	-0.33	3.41	-0.25	79.88	0.50	3.41	-0.24
44	82501	0.40	0.10	0.13	0.03	12.34	-0.20	15.38	0.01	32.14	0.03	40.12	0.10
45	82501	0.71	0.54	0.70	0.03	14.23	-0.36	3.32	-0.28	11.18	-0.22	71.23	0.54
46	82501	0.78	0.56	0.76	0.05	8.47	-0.32	6.46	-0.29	77.98	0.56	7.04	-0.27
47	82501	0.69	0.43	0.54	0.04	9.57	-0.19	10.02	-0.25	11.86	-0.21	68.53	0.43
48	82501	0.63	0.53	0.66	0.03	6.92	-0.28	10.64	-0.30	19.85	-0.23	62.57	0.53
49	82501	0.85	0.47	0.70	0.03	7.93	-0.29	84.93	0.47	4.58	-0.25	2.53	-0.23
50	82501	0.58	0.42	0.52	0.04	57.65	0.42	12.85	-0.25	16.15	-0.17	13.31	-0.18
51	82501	0.74	0.40	0.53	0.03	8.80	-0.22	13.71	-0.19	3.77	-0.26	73.68	0.40
52	82501	0.84	0.43	0.64	0.03	4.17	-0.27	8.25	-0.19	3.70	-0.27	83.83	0.43
53	82501	0.65	0.40	0.50	0.02	16.43	-0.14	11.99	-0.26	6.41	-0.22	65.15	0.40
54	82501	0.41	0.33	0.41	0.06	46.77	-0.12	5.56	-0.20	40.53	0.33	7.08	-0.22

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.13
Spring 2013 AIMS Classical Item Analysis
Reading CRT Grade 8

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	81434	0.57	0.26	0.33	0.05	18.09	-0.09	21.30	-0.15	3.72	-0.18	56.84	0.26
2	81434	0.73	0.41	0.54	0.02	3.93	-0.20	19.83	-0.30	72.95	0.41	3.26	-0.14
3	81434	0.85	0.31	0.47	0.04	3.17	-0.18	9.78	-0.19	2.28	-0.17	84.72	0.31
4	81434	0.86	0.29	0.45	0.06	5.69	-0.12	86.33	0.29	2.36	-0.17	5.57	-0.19
5	81434	0.92	0.22	0.39	0.01	4.19	-0.12	91.91	0.22	2.71	-0.10	1.18	-0.18
6	81434	0.51	0.24	0.29	0.04	7.80	-0.15	11.59	0.02	29.63	-0.19	50.95	0.24
7	81434	0.81	0.39	0.55	0.04	6.69	-0.24	81.02	0.39	10.38	-0.24	1.88	-0.15
8	81434	0.64	0.37	0.47	0.03	26.79	-0.24	63.60	0.37	6.46	-0.16	3.12	-0.21
9	81434	0.86	0.45	0.69	0.01	2.82	-0.21	3.63	-0.16	85.77	0.45	7.77	-0.34
10	81434	0.28	0.06	0.08	0.05	18.99	-0.04	13.27	-0.21	28.10	0.06	39.58	0.12
11	81434	0.81	0.34	0.48	0.06	12.59	-0.20	5.03	-0.21	80.72	0.34	1.60	-0.16
12	81434	0.50	0.26	0.32	0.03	50.04	0.26	29.16	-0.11	16.00	-0.12	4.77	-0.16
13	81434	0.78	0.35	0.49	0.03	5.93	-0.17	78.30	0.35	7.53	-0.13	8.22	-0.26
14	81434	0.90	0.38	0.64	0.03	3.63	-0.18	5.11	-0.27	89.75	0.38	1.48	-0.19
15	81434	0.81	0.41	0.58	0.03	10.85	-0.25	5.10	-0.20	81.27	0.41	2.74	-0.23
16	81434	0.68	0.48	0.61	0.03	12.94	-0.21	12.80	-0.28	5.81	-0.24	68.42	0.48
17	81434	0.62	0.38	0.47	0.03	21.79	-0.14	8.09	-0.19	62.33	0.38	7.76	-0.27
18	81434	0.69	0.41	0.52	0.02	4.65	-0.27	20.00	-0.24	69.07	0.41	6.26	-0.14
19	81434	0.76	0.38	0.51	0.04	4.39	-0.21	75.71	0.38	8.53	-0.21	11.33	-0.20
20	81434	0.70	0.33	0.42	0.03	24.05	-0.20	69.89	0.33	4.31	-0.19	1.72	-0.21
21	81434	0.69	0.24	0.31	0.01	68.91	0.24	26.76	-0.11	2.40	-0.22	1.92	-0.23
22	81434	0.75	0.30	0.40	0.03	3.96	-0.25	18.64	-0.12	74.64	0.30	2.73	-0.22
23	81434	0.85	0.46	0.68	0.03	3.15	-0.28	84.55	0.46	6.07	-0.27	6.20	-0.22
24	81434	0.69	0.32	0.41	0.02	5.86	-0.25	68.82	0.32	7.75	-0.23	17.55	-0.07
25	81434	0.50	0.19	0.23	0.03	7.07	-0.29	35.76	0.05	7.13	-0.16	50.01	0.19
26	81434	0.66	0.37	0.47	0.02	5.83	-0.30	15.31	-0.18	66.16	0.37	12.68	-0.13
27	81434	0.64	0.45	0.56	0.04	10.73	-0.23	63.83	0.45	5.55	-0.30	19.85	-0.18
28	81434	0.58	0.25	0.31	0.03	16.74	-0.13	20.51	-0.07	58.31	0.25	4.41	-0.23
29	81434	0.57	0.35	0.44	0.02	57.27	0.35	21.59	-0.15	12.30	-0.22	8.82	-0.14
30	81434	0.65	0.32	0.41	0.04	65.48	0.32	8.28	-0.14	17.06	-0.17	9.14	-0.18
31	81434	0.70	0.27	0.35	0.02	70.12	0.27	7.63	-0.21	7.39	-0.12	14.84	-0.10
32	81434	0.53	0.35	0.44	0.03	16.78	-0.02	18.89	-0.25	11.65	-0.22	52.64	0.35
33	81434	0.67	0.45	0.57	0.05	7.90	-0.19	19.56	-0.28	66.93	0.45	5.55	-0.22
34	81434	0.56	0.42	0.51	0.04	9.30	-0.17	55.99	0.42	23.58	-0.26	11.09	-0.15
35	81434	0.76	0.50	0.67	0.03	6.99	-0.28	7.74	-0.26	76.02	0.50	9.22	-0.24
36	81434	0.71	0.40	0.51	0.03	9.50	-0.23	13.35	-0.14	70.60	0.40	6.52	-0.26
37	81434	0.55	0.40	0.49	0.04	8.76	-0.27	24.19	-0.14	11.79	-0.19	55.21	0.40
38	81434	0.85	0.44	0.66	0.02	4.89	-0.29	5.56	-0.27	84.66	0.44	4.87	-0.17
39	81434	0.47	0.39	0.48	0.03	32.55	-0.09	47.34	0.39	7.15	-0.26	12.94	-0.26
40	81434	0.76	0.44	0.59	0.02	7.71	-0.31	6.82	-0.26	75.95	0.44	9.51	-0.14

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.13 (continued)
Spring 2013 AIMS Classical Item Analysis
Reading CRT Grade 8

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	81434	0.67	0.45	0.57	0.04	18.15	-0.28	4.77	-0.24	10.05	-0.18	66.99	0.45
42	81434	0.77	0.36	0.49	0.01	2.55	-0.24	3.19	-0.25	17.25	-0.18	76.99	0.36
43	81434	0.49	0.38	0.47	0.02	49.20	0.38	39.11	-0.21	6.74	-0.20	4.93	-0.17
44	81434	0.70	0.38	0.48	0.02	7.01	-0.29	3.37	-0.19	19.89	-0.17	69.71	0.38
45	81434	0.81	0.46	0.65	0.02	10.35	-0.31	3.27	-0.24	81.15	0.46	5.20	-0.19
46	81434	0.59	0.40	0.49	0.01	10.10	-0.19	7.82	-0.31	59.28	0.40	22.78	-0.13
47	81434	0.71	0.37	0.48	0.03	9.57	-0.25	70.93	0.37	16.94	-0.16	2.52	-0.22
48	81434	0.81	0.46	0.64	0.03	3.43	-0.26	3.72	-0.26	80.55	0.46	12.27	-0.26
49	81434	0.74	0.35	0.47	0.04	15.67	-0.22	74.39	0.35	6.04	-0.19	3.86	-0.15
50	81434	0.50	0.36	0.44	0.02	50.18	0.36	21.17	-0.22	7.88	-0.18	20.76	-0.10
51	81434	0.57	0.36	0.45	0.03	16.97	-0.25	57.16	0.36	8.91	-0.22	16.93	-0.06
52	81434	0.44	0.29	0.36	0.02	13.41	-0.13	43.59	0.29	9.94	-0.21	33.04	-0.08
53	81434	0.70	0.37	0.47	0.04	17.77	-0.12	70.48	0.37	7.91	-0.29	3.80	-0.23
54	81434	0.52	0.25	0.30	0.04	26.73	0.02	14.97	-0.20	51.82	0.25	6.44	-0.25

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.14
Spring 2013 AIMS Classical Item Analysis
Reading CRT High School

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	76888	0.52	0.23	0.28	0.06	51.98	0.23	1.39	-0.23	14.12	-0.21	32.45	-0.01
2	76888	0.74	0.27	0.36	0.05	12.48	-0.09	10.71	-0.19	2.42	-0.18	74.34	0.27
3	76888	0.36	0.08	0.10	0.16	35.60	0.08	8.88	-0.15	27.95	0.09	27.41	-0.07
4	76888	0.70	0.28	0.36	0.06	12.83	-0.20	70.12	0.28	7.51	-0.15	9.48	-0.07
5	76888	0.77	0.42	0.54	0.09	76.78	0.42	8.12	-0.29	9.88	-0.20	5.13	-0.15
6	76888	0.88	0.28	0.43	0.07	3.55	-0.18	88.15	0.28	4.70	-0.14	3.52	-0.15
7	76888	0.70	0.42	0.53	0.13	70.44	0.42	14.38	-0.23	13.87	-0.24	1.19	-0.21
8	76888	0.74	0.45	0.58	0.07	1.67	-0.22	73.97	0.45	23.00	-0.34	1.29	-0.20
9	76888	0.64	0.25	0.31	0.12	64.09	0.25	7.67	-0.09	17.21	-0.16	10.91	-0.11
10	76888	0.78	0.57	0.72	0.02	3.13	-0.26	11.94	-0.38	7.07	-0.24	77.84	0.57
11	76888	0.64	0.35	0.44	0.03	5.58	-0.15	6.23	-0.22	63.58	0.35	24.58	-0.18
12	76888	0.75	0.33	0.43	0.08	74.96	0.33	7.54	-0.28	1.70	-0.26	15.72	-0.07
13	76888	0.77	0.50	0.65	0.07	7.54	-0.28	6.71	-0.21	8.40	-0.29	77.29	0.50
14	76888	0.81	0.44	0.58	0.06	4.67	-0.23	3.47	-0.27	11.19	-0.22	80.60	0.44
15	76888	0.55	0.40	0.49	0.04	21.56	-0.21	10.46	-0.18	55.13	0.40	12.81	-0.15
16	76888	0.64	0.38	0.47	0.14	14.33	-0.21	6.92	-0.15	64.17	0.38	14.43	-0.18
17	76888	0.39	0.18	0.23	0.06	10.48	-0.22	47.32	0.04	39.28	0.18	2.86	-0.18
18	76888	0.62	0.35	0.44	0.11	11.09	-0.18	62.28	0.35	14.63	-0.17	11.89	-0.16
19	76888	0.88	0.44	0.64	0.04	2.33	-0.25	5.29	-0.32	88.02	0.44	4.31	-0.15
20	76888	0.55	0.38	0.46	0.08	8.46	-0.31	55.22	0.38	17.88	-0.13	18.36	-0.11
21	76888	0.67	0.50	0.61	0.06	12.15	-0.23	9.63	-0.23	67.33	0.50	10.83	-0.27
22	76888	0.72	0.55	0.68	0.07	5.11	-0.27	7.49	-0.30	14.86	-0.28	72.47	0.55
23	76888	0.90	0.50	0.75	0.11	2.85	-0.26	3.29	-0.29	3.75	-0.28	90.01	0.50
24	76888	0.93	0.43	0.71	0.08	1.65	-0.23	2.65	-0.27	92.87	0.43	2.75	-0.22
25	76888	0.71	0.36	0.46	0.08	7.88	-0.20	10.75	-0.18	10.34	-0.16	70.94	0.36
26	76888	0.52	0.43	0.53	0.13	51.76	0.43	22.42	-0.24	15.04	-0.14	10.66	-0.20
27	76888	0.42	0.30	0.38	0.11	6.25	-0.19	41.64	0.30	20.20	-0.15	31.81	-0.07
28	76888	0.75	-0.03	-0.04	0.06	20.32	0.19	74.97	-0.03	2.94	-0.20	1.71	-0.15
29	76888	0.44	0.22	0.28	0.15	20.66	0.10	44.28	0.22	11.61	-0.19	23.30	-0.20
30	76888	0.82	0.50	0.68	0.14	3.89	-0.28	11.02	-0.28	2.63	-0.27	82.32	0.50
31	76888	0.60	0.41	0.50	0.05	16.49	-0.25	12.82	-0.15	60.49	0.41	10.15	-0.18
32	76888	0.56	0.35	0.43	0.07	9.98	-0.21	6.92	-0.28	56.23	0.35	26.80	-0.08
33	76888	0.48	0.32	0.40	0.14	47.70	0.32	20.09	-0.10	15.29	-0.18	16.79	-0.14
34	76888	0.68	0.51	0.63	0.07	15.24	-0.25	68.08	0.51	6.39	-0.24	10.23	-0.27
35	76888	0.73	0.44	0.55	0.11	4.43	-0.24	12.96	-0.23	9.41	-0.21	73.08	0.44
36	76888	0.79	0.40	0.54	0.06	79.45	0.40	4.75	-0.26	2.20	-0.23	13.54	-0.20
37	76888	0.70	0.48	0.60	0.09	70.09	0.48	6.99	-0.24	16.44	-0.26	6.39	-0.24
38	76888	0.54	0.39	0.48	0.14	10.46	-0.26	18.03	-0.12	17.52	-0.17	53.86	0.39
39	76888	0.45	0.24	0.31	0.09	36.87	0.00	12.70	-0.24	45.28	0.24	5.07	-0.17
40	76888	0.40	0.22	0.28	0.10	41.66	0.06	7.30	-0.19	40.27	0.22	10.68	-0.26

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.14 (continued)
Spring 2013 AIMS Classical Item Analysis
Reading CRT High School

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	76888	0.62	0.35	0.44	0.10	61.66	0.35	3.79	-0.29	20.78	-0.15	13.67	-0.14
42	76888	0.59	0.31	0.38	0.16	15.89	-0.08	14.05	-0.18	11.24	-0.18	58.66	0.31
43	76888	0.76	0.36	0.46	0.11	75.54	0.36	11.26	-0.21	9.99	-0.16	3.09	-0.21
44	76888	0.58	0.35	0.43	0.11	8.33	-0.22	20.25	-0.08	13.53	-0.23	57.77	0.35
45	76888	0.69	0.27	0.35	0.09	12.41	-0.11	69.26	0.27	11.58	-0.16	6.66	-0.15
46	76888	0.38	0.30	0.38	0.16	37.74	0.30	20.69	-0.10	28.39	-0.11	13.02	-0.15
47	76888	0.80	0.32	0.43	0.11	3.52	-0.25	79.60	0.32	14.62	-0.12	2.16	-0.22
48	76888	0.87	0.48	0.68	0.09	2.90	-0.27	86.78	0.48	5.00	-0.31	5.23	-0.21
49	76888	0.61	0.35	0.43	0.12	12.38	-0.19	22.10	-0.11	60.88	0.35	4.51	-0.27
50	76888	0.47	0.26	0.32	0.24	46.85	0.26	9.15	-0.25	12.78	-0.26	30.97	0.09
51	76888	0.77	0.50	0.64	0.18	5.74	-0.28	76.79	0.50	12.58	-0.28	4.71	-0.24
52	76888	0.30	0.17	0.23	0.10	10.86	-0.20	29.95	0.17	29.57	-0.01	29.52	-0.02
53	76888	0.75	0.42	0.54	0.09	11.90	-0.17	9.11	-0.25	74.75	0.42	4.15	-0.25
54	76888	0.61	0.34	0.42	0.11	3.32	-0.22	61.27	0.34	27.46	-0.08	7.84	-0.30

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.15
Spring 2013 AIMS Classical Item Analysis
Science CRT Grade 4

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83023	0.53	0.38	0.47	0.04	11.86	-0.18	17.18	-0.24	17.54	-0.12	53.37	0.38
2	83023	0.44	0.31	0.38	0.03	29.03	-0.16	43.58	0.31	18.46	-0.07	8.90	-0.17
3	83023	0.66	0.40	0.51	0.04	18.23	-0.22	6.72	-0.21	65.98	0.40	9.03	-0.19
4	83023	0.81	0.44	0.62	0.04	4.81	-0.24	3.70	-0.19	81.19	0.44	10.26	-0.27
5	83023	0.37	0.25	0.31	0.04	11.83	-0.13	16.04	-0.11	37.45	0.25	34.64	-0.07
6	83023	0.49	0.31	0.38	0.07	23.85	-0.18	49.35	0.31	14.34	-0.13	12.39	-0.10
7	83023	0.62	0.35	0.43	0.05	13.23	-0.20	11.72	-0.08	61.51	0.35	13.48	-0.22
8	83023	0.55	0.40	0.49	0.06	22.69	-0.16	8.93	-0.27	55.22	0.40	13.09	-0.16
9	83023	0.97	0.19	0.46	0.05	0.89	-0.12	0.70	-0.12	1.66	-0.10	96.70	0.19
10	83023	0.93	0.17	0.33	0.02	4.46	-0.08	1.47	-0.14	93.00	0.17	1.05	-0.11
11	83023	0.74	0.37	0.49	0.04	6.07	-0.22	74.06	0.37	8.16	-0.26	11.66	-0.12
12	83023	0.59	0.39	0.48	0.05	14.01	-0.26	17.66	-0.13	59.45	0.39	8.84	-0.18
13	83023	0.63	0.32	0.40	0.04	4.43	-0.23	62.66	0.32	25.26	-0.09	7.62	-0.25
14	83023	0.79	0.43	0.61	0.06	4.72	-0.23	7.82	-0.21	8.17	-0.26	79.24	0.43
15	83023	0.62	0.44	0.55	0.08	61.74	0.44	9.77	-0.26	23.04	-0.21	5.38	-0.22
16	83023	0.56	0.48	0.59	0.03	7.36	-0.26	5.77	-0.25	56.47	0.48	30.37	-0.24
17	83023	0.64	0.45	0.57	0.07	15.43	-0.24	63.69	0.45	13.70	-0.23	7.11	-0.21
18	83023	0.40	0.38	0.47	0.07	25.62	-0.10	39.93	0.38	21.21	-0.05	13.17	-0.35
19	83023	0.52	0.41	0.50	0.05	13.39	-0.19	15.91	-0.20	51.79	0.41	18.86	-0.16
20	83023	0.63	0.41	0.51	0.07	8.58	-0.17	8.62	-0.21	20.07	-0.23	62.66	0.41
21	83023	0.46	0.42	0.52	0.07	8.48	-0.18	35.94	-0.22	46.48	0.42	9.02	-0.19
22	83023	0.45	0.29	0.35	0.06	18.33	-0.17	15.78	-0.15	20.38	-0.06	45.45	0.29
23	83023	0.41	0.42	0.52	0.07	11.52	-0.17	41.34	0.42	29.97	-0.27	17.10	-0.07
24	83023	0.75	0.41	0.55	0.09	75.11	0.41	8.94	-0.24	11.46	-0.19	4.40	-0.23
25	83023	0.68	0.50	0.64	0.08	10.47	-0.29	14.59	-0.22	7.11	-0.26	67.75	0.50
26	83023	0.57	0.31	0.39	0.13	3.02	-0.22	6.43	-0.26	33.31	-0.11	57.10	0.31
27	83023	0.51	0.29	0.36	0.27	6.17	-0.23	50.68	0.29	8.81	-0.20	34.07	-0.07
28	83023	0.78	0.17	0.23	0.03	78.27	0.17	10.42	-0.10	4.54	-0.07	6.75	-0.10
29	83023	0.61	0.47	0.58	0.03	8.89	-0.20	14.47	-0.25	61.44	0.47	15.16	-0.23
30	83023	0.55	0.37	0.45	0.06	14.22	-0.12	12.20	-0.26	18.27	-0.15	55.25	0.37
31	83023	0.57	0.28	0.35	0.07	10.05	-0.17	19.83	-0.09	13.35	-0.15	56.69	0.28
32	83023	0.65	0.44	0.56	0.05	9.81	-0.26	8.40	-0.28	64.89	0.44	16.84	-0.15
33	83023	0.74	0.35	0.47	0.02	12.35	-0.19	73.99	0.35	4.67	-0.20	8.98	-0.18
34	83023	0.71	0.46	0.60	0.03	4.81	-0.23	11.15	-0.17	70.86	0.46	13.15	-0.32
35	83023	0.43	0.25	0.32	0.10	20.96	-0.10	15.71	-0.13	20.03	-0.10	43.20	0.25
36	83023	0.58	0.39	0.48	0.05	6.52	-0.12	22.51	-0.16	13.27	-0.28	57.66	0.39
37	83023	0.54	0.32	0.40	0.07	19.20	-0.18	20.25	-0.07	6.03	-0.25	54.44	0.32
38	83023	0.44	0.06	0.07	0.07	44.24	0.06	18.07	-0.04	13.34	-0.13	24.28	0.08
39	83023	0.86	0.45	0.69	0.07	86.16	0.45	5.39	-0.25	4.38	-0.24	4.00	-0.24
40	83023	0.57	0.46	0.56	0.05	56.81	0.46	10.62	-0.19	22.83	-0.24	9.69	-0.22

Note. Item number is not the item number in test booklet as some items might have been suppressed. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.15 (continued)
Spring 2013 AIMS Classical Item Analysis
Science CRT Grade 4

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	83023	0.83	0.42	0.61	0.08	4.11	-0.23	6.24	-0.24	6.40	-0.21	83.16	0.42
42	83023	0.71	0.46	0.59	0.03	71.11	0.46	5.08	-0.24	17.19	-0.25	6.59	-0.24
43	83023	0.40	0.37	0.46	0.05	16.56	-0.21	29.72	-0.15	39.88	0.37	13.79	-0.10
44	83023	0.73	0.42	0.55	0.08	8.93	-0.27	6.82	-0.24	10.79	-0.15	73.39	0.42
45	83023	0.48	0.34	0.42	0.07	17.37	-0.17	13.89	-0.20	20.25	-0.09	48.42	0.34
46	83023	0.78	0.44	0.61	0.05	9.29	-0.25	77.66	0.44	8.12	-0.25	4.88	-0.20
47	83023	0.78	0.52	0.71	0.06	78.07	0.52	7.48	-0.26	5.50	-0.27	8.90	-0.29
48	83023	0.69	0.48	0.62	0.03	68.60	0.48	8.75	-0.25	13.55	-0.22	9.08	-0.28
49	83023	0.39	0.31	0.38	0.08	23.56	-0.06	26.45	-0.11	10.70	-0.24	39.22	0.31
50	83023	0.64	0.50	0.62	0.09	5.91	-0.24	63.61	0.50	7.63	-0.25	22.76	-0.28
51	83023	0.36	0.15	0.19	0.20	10.47	-0.21	13.11	-0.23	35.66	0.15	40.56	0.15
52	83023	0.59	0.27	0.33	0.11	8.70	-0.12	58.57	0.27	9.55	-0.17	23.07	-0.12
53	83023	0.47	0.31	0.38	0.15	5.89	-0.24	6.23	-0.24	47.33	0.31	40.40	-0.08
54	83023	0.40	0.39	0.49	0.38	25.75	-0.15	39.68	0.39	17.84	-0.19	16.35	-0.14

Note. Item number is not the item number in test booklet as some items might have been suppressed. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.16
Spring 2013 AIMS Classical Item Analysis
Science CRT Grade 8

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	81484	0.51	0.32	0.39	0.03	30.71	-0.15	9.11	-0.18	51.30	0.32	8.86	-0.14
2	81484	0.54	0.48	0.59	0.02	53.80	0.48	21.45	-0.23	22.63	-0.31	2.10	-0.12
3	81484	0.79	0.36	0.50	0.02	4.88	-0.20	79.09	0.36	5.40	-0.19	10.61	-0.19
4	81484	0.84	0.45	0.67	0.03	5.97	-0.26	6.14	-0.28	4.06	-0.20	83.80	0.45
5	81484	0.88	0.24	0.39	0.03	6.12	-0.17	2.96	-0.12	88.43	0.24	2.46	-0.10
6	81484	0.90	0.38	0.64	0.00	0.48	-0.12	0.88	-0.16	8.70	-0.32	89.93	0.38
7	81484	0.27	0.32	0.43	0.09	26.69	0.32	14.69	-0.08	29.05	-0.21	29.49	-0.04
8	81484	0.89	0.38	0.62	0.02	2.37	-0.16	6.45	-0.27	88.68	0.38	2.47	-0.19
9	81484	0.69	0.27	0.35	0.01	12.83	-0.08	11.79	-0.23	68.78	0.27	6.58	-0.10
10	81484	0.65	0.35	0.44	0.04	14.92	-0.12	8.66	-0.21	65.50	0.35	10.88	-0.21
11	81484	0.75	0.22	0.30	0.04	3.18	-0.19	75.30	0.22	4.77	-0.20	16.71	-0.05
12	81484	0.82	0.31	0.45	0.02	3.16	-0.22	3.00	-0.22	11.93	-0.13	81.89	0.31
13	81484	0.65	0.19	0.25	0.03	64.50	0.19	14.46	-0.13	14.33	-0.03	6.68	-0.14
14	81484	0.40	0.16	0.21	0.04	13.18	-0.19	39.80	0.16	15.11	-0.29	31.88	0.19
15	81484	0.76	0.40	0.55	0.01	7.22	-0.19	76.14	0.40	5.01	-0.23	11.63	-0.22
16	81484	0.47	0.20	0.24	0.03	46.58	0.20	18.76	-0.04	21.22	-0.16	13.41	-0.04
17	81484	0.64	0.36	0.45	0.04	12.38	-0.22	64.29	0.36	10.49	-0.16	12.81	-0.15
18	81484	0.63	0.42	0.53	0.03	18.31	-0.22	63.38	0.42	10.51	-0.21	7.77	-0.20
19	81484	0.69	0.40	0.51	0.03	68.59	0.40	9.73	-0.24	8.95	-0.21	12.70	-0.16
20	81484	0.65	0.42	0.53	0.02	65.04	0.42	3.19	-0.20	18.35	-0.22	13.39	-0.24
21	81484	0.83	0.41	0.61	0.01	5.43	-0.20	83.39	0.41	4.80	-0.22	6.36	-0.24
22	81484	0.67	0.37	0.47	0.02	20.14	-0.16	3.76	-0.20	8.68	-0.24	67.39	0.37
23	81484	0.44	0.12	0.15	0.04	34.09	0.06	43.87	0.12	18.65	-0.14	3.36	-0.21
24	81484	0.54	0.33	0.40	0.03	4.80	-0.26	8.44	-0.26	54.43	0.33	32.29	-0.07
25	81484	0.68	0.37	0.47	0.05	9.84	-0.21	13.70	-0.13	8.88	-0.23	67.53	0.37
26	81484	0.51	0.23	0.29	0.03	14.47	-0.23	17.50	-0.07	51.04	0.23	16.97	-0.02
27	81484	0.47	0.27	0.33	0.03	27.14	0.03	47.38	0.27	13.76	-0.30	11.68	-0.14
28	81484	0.39	0.15	0.19	0.03	9.18	-0.17	18.83	-0.03	38.91	0.15	33.05	-0.03
29	81484	0.49	0.40	0.48	0.06	12.73	-0.18	49.30	0.40	16.04	-0.20	21.88	-0.15
30	81484	0.69	0.39	0.50	0.09	68.93	0.39	9.44	-0.21	13.66	-0.26	7.88	-0.11
31	81484	0.45	0.33	0.41	0.04	9.92	-0.24	12.76	-0.15	31.80	-0.09	45.48	0.33
32	81484	0.79	0.32	0.44	0.04	8.68	-0.18	79.17	0.32	4.71	-0.19	7.40	-0.14
33	81484	0.51	0.21	0.26	0.07	5.19	-0.19	14.06	-0.19	51.17	0.21	29.51	0.01
34	81484	0.72	0.44	0.57	0.06	72.11	0.44	14.08	-0.20	6.67	-0.24	7.07	-0.26
35	81484	0.60	0.30	0.37	0.03	19.99	-0.10	15.08	-0.18	59.57	0.30	5.33	-0.19
36	81484	0.55	0.39	0.48	0.11	8.18	-0.28	14.95	-0.24	22.16	-0.07	54.61	0.39
37	81484	0.71	0.25	0.33	0.04	11.12	-0.01	70.69	0.25	15.06	-0.20	3.09	-0.23
38	81484	0.62	0.30	0.37	0.04	8.21	-0.26	5.10	-0.26	24.49	-0.04	62.15	0.30
39	81484	0.88	0.44	0.70	0.07	3.22	-0.25	4.86	-0.26	87.96	0.44	3.88	-0.22
40	81484	0.58	0.43	0.53	0.03	13.33	-0.21	25.68	-0.25	57.82	0.43	3.14	-0.17

Note. Item number is not the item number in test booklet as some items might have been suppressed. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.16 (continued)
Spring 2013 AIMS Classical Item Analysis
Science CRT Grade 8

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	81484	0.63	0.46	0.57	0.03	20.88	-0.23	62.61	0.46	5.95	-0.28	10.53	-0.20
42	81484	0.55	0.37	0.46	0.04	11.71	-0.26	8.58	-0.27	55.33	0.37	24.34	-0.06
43	81484	0.31	0.11	0.14	0.10	24.02	-0.02	20.64	-0.14	30.62	0.11	24.63	0.04
44	81484	0.83	0.51	0.75	0.04	5.52	-0.28	5.81	-0.28	5.17	-0.27	83.47	0.51
45	81484	0.74	0.31	0.42	0.04	4.70	-0.22	74.03	0.31	5.60	-0.27	15.63	-0.08
46	81484	0.52	0.24	0.30	0.02	35.97	-0.04	5.06	-0.22	52.28	0.24	6.67	-0.21
47	81484	0.60	0.33	0.41	0.06	20.93	-0.05	9.45	-0.25	59.56	0.33	9.99	-0.21
48	81484	0.59	0.47	0.58	0.04	20.03	-0.28	7.49	-0.20	12.95	-0.20	59.49	0.47
49	81484	0.48	0.09	0.11	0.03	30.15	0.05	10.85	-0.09	10.99	-0.12	47.97	0.09
50	81484	0.78	0.52	0.71	0.05	5.61	-0.26	6.35	-0.32	9.73	-0.26	78.27	0.52
51	81484	0.65	0.36	0.46	0.06	15.50	-0.16	8.29	-0.26	64.96	0.36	11.18	-0.14
52	81484	0.60	0.16	0.21	0.03	13.43	-0.10	20.15	0.01	60.01	0.16	6.37	-0.19
53	81484	0.53	0.31	0.39	0.11	15.75	-0.06	15.05	-0.23	15.78	-0.14	53.31	0.31
54	81484	0.51	0.19	0.23	0.04	28.66	0.12	8.78	-0.22	11.21	-0.27	51.31	0.19
55	81484	0.58	0.35	0.43	0.05	16.27	-0.20	6.71	-0.29	18.84	-0.07	58.13	0.35
56	81484	0.58	0.46	0.57	0.06	9.08	-0.27	58.40	0.46	20.42	-0.20	12.04	-0.21
57	81484	0.60	0.31	0.39	0.05	21.44	-0.11	8.19	-0.23	59.62	0.31	10.69	-0.14
58	81484	0.34	0.20	0.26	0.09	17.85	-0.09	23.23	-0.14	34.00	0.20	24.84	-0.01

Note. Item number is not the item number in test booklet as some items might have been suppressed. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.17
Spring 2013 AIMS Classical Item Analysis
Science CRT High School

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	52646	0.39	0.30	0.37	0.02	1.17	-0.08	38.60	0.30	1.15	-0.08	59.06	-0.26
2	52646	0.50	0.44	0.55	0.11	4.18	-0.13	27.48	-0.22	17.89	-0.28	50.34	0.44
3	52646	0.58	0.32	0.40	0.10	10.25	-0.17	8.81	-0.20	22.49	-0.13	58.35	0.32
4	52646	0.84	0.27	0.42	0.04	2.33	-0.18	83.72	0.27	9.57	-0.15	4.34	-0.15
5	52646	0.72	0.30	0.41	0.06	9.02	-0.13	8.21	-0.17	72.17	0.30	10.54	-0.17
6	52646	0.80	0.42	0.62	0.06	8.86	-0.24	79.81	0.42	7.28	-0.24	3.98	-0.20
7	52646	0.61	0.44	0.56	0.13	3.57	-0.16	11.73	-0.20	23.61	-0.29	60.96	0.44
8	52646	0.52	0.21	0.26	0.08	52.18	0.21	23.69	0.03	19.53	-0.20	4.51	-0.19
9	52646	0.74	0.45	0.62	0.10	5.95	-0.26	13.08	-0.23	73.79	0.45	7.09	-0.24
10	52646	0.64	0.41	0.53	0.10	11.92	-0.20	64.38	0.41	11.84	-0.22	11.77	-0.20
11	52646	0.62	0.42	0.53	0.05	15.42	-0.20	9.09	-0.25	62.03	0.42	13.40	-0.19
12	52646	0.55	0.44	0.55	0.09	10.55	-0.18	21.45	-0.21	54.99	0.44	12.92	-0.25
13	52646	0.42	0.36	0.45	0.12	16.14	-0.23	13.76	-0.24	42.32	0.36	27.65	-0.05
14	52646	0.40	0.40	0.50	0.16	10.74	-0.23	40.20	0.40	27.52	-0.19	21.39	-0.13
15	52646	0.39	0.22	0.27	0.13	38.79	0.22	20.45	-0.14	9.33	-0.24	31.31	0.02
16	52646	0.81	0.49	0.75	0.07	5.79	-0.27	5.30	-0.27	7.88	-0.27	80.96	0.49
17	52646	0.37	0.31	0.39	0.13	12.42	-0.19	18.99	-0.18	30.95	-0.06	37.50	0.31
18	52646	0.65	0.52	0.68	0.17	64.61	0.52	12.86	-0.26	11.12	-0.26	11.24	-0.27
19	52646	0.67	0.48	0.64	0.12	12.92	-0.23	10.44	-0.27	9.77	-0.24	66.76	0.48
20	52646	0.60	0.45	0.58	0.05	11.53	-0.22	11.58	-0.24	16.42	-0.21	60.41	0.45
21	52646	0.58	0.37	0.46	0.09	16.40	-0.15	58.24	0.37	15.80	-0.24	9.47	-0.14
22	52646	0.46	0.33	0.41	0.11	14.63	-0.12	29.34	-0.10	10.06	-0.28	45.85	0.33
23	52646	0.52	0.43	0.54	0.09	51.90	0.43	12.17	-0.30	15.16	-0.27	20.68	-0.07
24	52646	0.45	0.47	0.58	0.12	16.12	-0.18	16.01	-0.25	22.39	-0.20	45.35	0.47
25	52646	0.53	0.32	0.40	0.09	20.26	-0.18	16.71	-0.11	53.34	0.32	9.59	-0.18
26	52646	0.50	0.40	0.49	0.13	50.09	0.40	16.91	-0.22	18.83	-0.23	14.04	-0.09
27	52646	0.70	0.55	0.75	0.11	70.46	0.55	10.31	-0.30	10.68	-0.30	8.44	-0.26
28	52646	0.49	0.36	0.44	0.12	17.71	-0.14	49.03	0.36	13.57	-0.23	19.57	-0.12
29	52646	0.62	0.46	0.59	0.11	11.81	-0.28	62.33	0.46	7.80	-0.30	17.96	-0.15
30	52646	0.68	0.47	0.62	0.14	8.78	-0.21	13.58	-0.28	68.14	0.47	9.36	-0.23
31	52646	0.73	0.47	0.66	0.11	9.12	-0.23	11.80	-0.28	72.98	0.47	5.99	-0.24
32	52646	0.22	0.40	0.51	0.15	3.02	-0.21	21.96	0.40	4.10	-0.22	70.76	-0.22
33	52646	0.42	0.42	0.52	0.12	42.01	0.42	10.88	-0.19	21.64	-0.25	25.35	-0.13
34	52646	0.47	0.28	0.34	0.08	18.63	-0.18	13.43	-0.29	46.81	0.28	21.05	0.06
35	52646	0.64	0.47	0.60	0.07	24.83	-0.30	63.64	0.47	6.12	-0.26	5.34	-0.17
36	52646	0.61	0.50	0.64	0.14	11.86	-0.17	12.85	-0.26	13.91	-0.31	61.23	0.50
37	52646	0.36	0.39	0.48	0.15	16.26	-0.18	16.53	-0.22	31.40	-0.09	35.65	0.39
38	52646	0.59	0.48	0.61	0.11	6.54	-0.26	14.00	-0.32	20.62	-0.17	58.73	0.48
39	52646	0.66	0.54	0.71	0.12	10.51	-0.30	9.86	-0.30	13.67	-0.24	65.84	0.54
40	52646	0.67	0.40	0.53	0.12	11.24	-0.20	13.42	-0.21	67.23	0.40	7.99	-0.20

Note. Item number is not the item number in test booklet as some items might have been suppressed. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.17 (continued)
Spring 2013 AIMS Classical Item Analysis
Science CRT High School

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	52646	0.69	0.33	0.44	0.11	9.79	-0.18	68.84	0.33	10.39	-0.20	10.87	-0.13
42	52646	0.60	0.51	0.65	0.13	9.92	-0.27	16.82	-0.26	13.30	-0.23	59.84	0.51
43	52646	0.78	0.47	0.69	0.15	9.96	-0.27	7.00	-0.28	78.04	0.47	4.85	-0.21
44	52646	0.72	0.53	0.74	0.13	7.86	-0.30	72.05	0.53	8.45	-0.27	11.51	-0.28
45	52646	0.74	0.48	0.67	0.08	8.63	-0.31	13.60	-0.26	74.16	0.48	3.54	-0.21
46	52646	0.71	0.54	0.74	0.11	71.14	0.54	10.77	-0.30	9.20	-0.31	8.79	-0.23
47	52646	0.55	0.46	0.58	0.18	13.38	-0.21	17.20	-0.16	14.02	-0.30	55.23	0.46
48	52646	0.37	0.32	0.40	0.16	6.94	-0.18	39.08	-0.20	37.14	0.32	16.68	-0.05
49	52646	0.67	0.49	0.66	0.15	11.10	-0.26	17.77	-0.31	66.88	0.49	4.10	-0.19
50	52646	0.39	0.26	0.33	0.12	36.40	-0.02	16.43	-0.23	38.73	0.26	8.32	-0.16
51	52646	0.39	0.42	0.51	0.18	15.03	-0.24	20.91	-0.13	24.61	-0.18	39.27	0.42
52	52646	0.60	0.33	0.42	0.12	59.56	0.33	22.38	-0.09	9.58	-0.24	8.36	-0.21
53	52646	0.42	0.40	0.50	0.18	42.06	0.40	30.07	-0.11	17.38	-0.25	10.31	-0.21
54	52646	0.39	0.33	0.41	0.15	15.77	-0.14	38.59	0.33	30.61	-0.13	14.88	-0.16
55	52646	0.37	0.12	0.15	0.19	15.12	-0.25	12.80	-0.20	37.01	0.12	34.88	0.19
56	52646	0.29	0.35	0.44	0.16	22.72	-0.05	28.00	-0.18	19.63	-0.16	29.49	0.35
57	52646	0.72	0.50	0.68	0.10	10.80	-0.34	71.91	0.50	11.47	-0.23	5.73	-0.21
58	52646	0.35	0.35	0.44	0.13	29.07	-0.15	34.56	0.35	23.32	-0.18	12.92	-0.09
59	52646	0.53	0.49	0.60	0.17	11.21	-0.25	52.83	0.49	15.79	-0.26	19.99	-0.19
60	52646	0.55	0.33	0.42	0.18	8.18	-0.20	15.46	-0.21	55.30	0.33	20.89	-0.10
61	52646	0.33	0.23	0.29	0.13	9.47	-0.21	32.83	0.23	6.30	-0.23	51.27	0.00
62	52646	0.52	0.43	0.54	0.22	17.49	-0.19	17.53	-0.28	52.33	0.43	12.42	-0.13
63	52646	0.42	0.40	0.49	0.14	30.86	-0.09	16.01	-0.27	11.23	-0.21	41.77	0.40
64	52646	0.56	0.52	0.65	0.14	56.03	0.52	22.91	-0.25	13.46	-0.32	7.46	-0.21
65	52646	0.61	0.50	0.64	0.14	12.25	-0.24	15.57	-0.26	61.02	0.50	11.03	-0.24

Note. Item number is not the item number in test booklet as some items might have been suppressed. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.18
Spring 2013 AIMS Classical Item Analysis
Writing CRT Grade 5

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82380	0.92	0.36	0.65	0.22	5.17	-0.25	0.97	-0.15	1.83	-0.20	91.81	0.36
2	82380	0.67	0.31	0.39	0.22	2.49	-0.18	66.67	0.31	20.76	-0.21	9.86	-0.11
3	82380	0.61	0.40	0.49	0.21	5.50	-0.26	9.06	-0.23	60.75	0.40	24.48	-0.16
4	82380	0.76	0.43	0.56	0.29	10.44	-0.23	6.89	-0.19	6.86	-0.25	75.53	0.43
5	82380	0.56	0.30	0.37	0.32	8.90	-0.25	56.23	0.30	28.40	-0.10	6.16	-0.16
6	82380	0.47	0.36	0.44	0.36	21.83	-0.21	9.61	-0.20	21.09	-0.08	47.10	0.36
7	82380	0.79	0.45	0.62	0.39	5.26	-0.25	4.36	-0.25	78.71	0.45	11.28	-0.25
8	82380	0.64	0.33	0.41	0.22	7.76	-0.17	15.74	-0.12	63.66	0.33	12.61	-0.21
9	82380	0.47	0.08	0.09	0.24	22.26	-0.06	47.35	0.08	4.21	-0.19	25.94	0.06
10	82380	0.37	0.33	0.40	0.24	11.53	-0.20	36.79	0.33	17.96	-0.08	33.48	-0.13
11	82380	0.81	0.48	0.67	0.24	7.61	-0.25	3.57	-0.28	7.92	-0.25	80.66	0.48
12	82380	0.82	0.43	0.60	0.24	81.66	0.43	4.77	-0.26	5.16	-0.23	8.18	-0.21
13	82380	0.60	0.40	0.49	0.24	59.53	0.40	11.78	-0.28	22.66	-0.12	5.79	-0.25
14	82380	0.74	0.44	0.57	0.21	74.28	0.44	8.73	-0.27	8.50	-0.23	8.28	-0.18
15	82380	0.71	0.45	0.57	0.22	8.06	-0.27	14.06	-0.26	70.77	0.45	6.89	-0.16
16	82380	0.56	0.45	0.54	0.25	11.35	-0.29	7.87	-0.26	24.20	-0.15	56.32	0.45
17	82380	0.64	0.32	0.39	0.26	63.57	0.32	7.80	-0.25	5.28	-0.26	23.09	-0.06
18	82380	0.84	0.40	0.59	0.24	83.70	0.40	4.32	-0.25	6.22	-0.17	5.53	-0.24
19	82380	0.80	0.22	0.30	0.23	79.53	0.22	15.64	-0.06	2.67	-0.22	1.93	-0.22
20	82380	0.56	0.41	0.49	0.25	30.10	-0.16	55.98	0.41	6.47	-0.27	7.20	-0.25
21	82380	0.38	0.17	0.21	0.26	41.95	0.12	38.36	0.17	11.12	-0.26	8.31	-0.22
22	82380	0.66	0.45	0.56	0.26	11.20	-0.22	13.07	-0.22	9.20	-0.24	66.27	0.45
23	82380	0.60	0.44	0.53	0.25	59.60	0.44	12.62	-0.22	8.80	-0.22	18.73	-0.20
24	82380	0.71	0.37	0.48	0.22	71.40	0.37	3.97	-0.25	5.00	-0.26	19.41	-0.16
25	82380	0.82	0.40	0.56	0.25	3.47	-0.23	81.82	0.40	3.98	-0.22	10.48	-0.22
26	82380	0.79	0.45	0.62	0.25	11.05	-0.24	5.87	-0.26	78.70	0.45	4.13	-0.26
27	82380	0.60	0.42	0.51	0.25	11.21	-0.21	15.80	-0.20	59.80	0.42	12.95	-0.20

Note. This test included a writing prompt scored on the holistic six-point rubric (see Appendix D). Summary data for the prompt can be found in Table 6.3.22.1. Blank responses were treated as omit. Illegible responses, non-English responses, and off-topic responses were treated as 0. Note that the N count in this table is higher than that in the test statistics table, due to the inclusion of students omitting a response in computations. The statistics presented in this table are based on census data.

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Table 6.3.19
Spring 2013 AIMS Classical Item Analysis
Writing CRT Grade 6

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82719	0.80	0.34	0.48	0.24	2.95	-0.14	9.11	-0.20	80.02	0.34	7.68	-0.21
2	82719	0.94	0.28	0.60	0.21	0.84	-0.11	94.50	0.28	1.40	-0.13	3.06	-0.21
3	82719	0.83	0.33	0.48	0.23	83.15	0.33	6.23	-0.15	6.00	-0.15	4.38	-0.25
4	82719	0.79	0.43	0.59	0.22	78.57	0.43	8.56	-0.28	3.12	-0.17	9.53	-0.24
5	82719	0.66	0.37	0.46	0.25	2.15	-0.17	66.11	0.37	25.60	-0.26	5.89	-0.15
6	82719	0.71	0.37	0.47	0.23	9.83	-0.21	15.02	-0.20	71.48	0.37	3.44	-0.18
7	82719	0.41	0.06	0.08	0.26	40.91	0.06	4.66	-0.20	31.47	-0.01	22.70	0.03
8	82719	0.68	0.17	0.21	0.25	68.22	0.17	17.52	0.00	3.68	-0.21	10.33	-0.12
9	82719	0.51	0.37	0.44	0.23	36.55	-0.22	4.84	-0.19	50.91	0.37	7.46	-0.14
10	82719	0.82	0.35	0.51	0.21	3.40	-0.21	82.46	0.35	2.74	-0.21	11.19	-0.19
11	82719	0.68	0.32	0.41	0.22	3.92	-0.17	25.12	-0.19	2.62	-0.21	68.13	0.32
12	82719	0.57	0.31	0.38	0.26	3.90	-0.24	56.87	0.31	8.47	-0.10	30.50	-0.17
13	82719	0.56	0.28	0.34	0.22	56.40	0.28	24.03	-0.19	4.30	-0.23	15.05	-0.04
14	82719	0.69	0.36	0.45	0.22	4.37	-0.21	13.90	-0.15	68.52	0.36	12.99	-0.21
15	82719	0.77	0.39	0.52	0.23	4.61	-0.28	14.29	-0.17	4.10	-0.24	76.77	0.39
16	82719	0.58	0.36	0.43	0.23	13.38	-0.21	16.22	-0.22	58.23	0.36	11.94	-0.08
17	82719	0.70	0.45	0.57	0.27	7.32	-0.28	16.94	-0.19	5.89	-0.27	69.58	0.45
18	82719	0.58	0.42	0.51	0.24	11.36	-0.22	19.14	-0.14	11.60	-0.26	57.65	0.42
19	82719	0.83	0.47	0.68	0.24	3.56	-0.25	6.76	-0.27	5.97	-0.24	83.47	0.47
20	82719	0.27	0.19	0.25	0.23	26.70	0.19	4.03	-0.24	52.70	0.11	16.36	-0.25
21	82719	0.48	0.30	0.37	0.24	10.33	-0.26	16.29	-0.16	25.28	-0.03	47.86	0.30
22	82719	0.72	0.39	0.50	0.21	16.87	-0.20	6.93	-0.20	4.30	-0.25	71.69	0.39
23	82719	0.63	0.47	0.57	0.25	14.85	-0.27	62.65	0.47	7.72	-0.29	14.53	-0.15
24	82719	0.50	0.27	0.33	0.27	14.50	-0.17	50.24	0.27	15.33	-0.15	19.65	-0.05
25	82719	0.66	0.42	0.52	0.24	17.61	-0.19	9.15	-0.23	66.09	0.42	6.92	-0.23
26	82719	0.73	0.43	0.56	0.25	8.84	-0.18	5.90	-0.26	73.27	0.43	11.74	-0.24
27	82719	0.78	0.50	0.67	0.25	4.94	-0.29	10.33	-0.28	6.68	-0.24	77.81	0.50

Note. This test included a writing prompt scored on the holistic six-point rubric (see Appendix D). Summary data for the prompt can be found in Table 6.3.22.1. Blank responses were treated as omit. Illegible responses, non-English responses, and off-topic responses were treated as 0. Note that the N count in this table is higher than that in the test statistics table, due to the inclusion of students omitting a response in computations. The statistics presented in this table are based on census data.

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Table 6.3.20
Spring 2013 AIMS Classical Item Analysis
Writing CRT Grade 7

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82681	0.63	0.33	0.41	0.31	20.01	-0.12	6.40	-0.18	9.85	-0.22	63.44	0.33
2	82681	0.20	0.09	0.12	0.27	14.43	-0.16	32.67	0.08	32.47	-0.04	20.17	0.09
3	82681	0.38	0.13	0.16	0.32	7.21	-0.24	21.06	-0.06	33.45	0.04	37.96	0.13
4	82681	0.67	0.34	0.43	0.26	3.94	-0.24	66.72	0.34	17.25	-0.08	11.84	-0.26
5	82681	0.78	0.41	0.57	0.31	6.17	-0.19	78.28	0.41	5.06	-0.22	10.18	-0.25
6	82681	0.68	0.42	0.53	0.36	67.90	0.42	9.76	-0.26	2.66	-0.21	19.31	-0.22
7	82681	0.80	0.36	0.50	0.34	10.19	-0.19	3.63	-0.21	79.81	0.36	6.04	-0.20
8	82681	0.84	0.33	0.49	0.23	11.24	-0.25	2.00	-0.14	84.11	0.33	2.42	-0.13
9	82681	0.81	0.43	0.61	0.26	2.56	-0.19	4.18	-0.26	11.83	-0.26	81.17	0.43
10	82681	0.72	0.45	0.58	0.23	10.93	-0.27	9.10	-0.21	7.54	-0.20	72.19	0.45
11	82681	0.84	0.35	0.51	0.24	83.58	0.35	3.43	-0.18	2.99	-0.18	9.75	-0.22
12	82681	0.83	0.42	0.60	0.23	6.49	-0.27	8.36	-0.23	82.65	0.42	2.28	-0.19
13	82681	0.62	0.35	0.43	0.26	7.40	-0.26	7.38	-0.19	23.41	-0.12	61.56	0.35
14	82681	0.62	0.46	0.56	0.26	13.60	-0.23	14.19	-0.20	10.16	-0.25	61.78	0.46
15	82681	0.47	0.30	0.37	0.25	30.59	0.00	11.65	-0.25	10.36	-0.22	47.15	0.30
16	82681	0.74	0.41	0.54	0.25	15.46	-0.18	74.08	0.41	5.02	-0.30	5.20	-0.23
17	82681	0.85	0.49	0.74	0.25	4.84	-0.25	3.97	-0.28	5.90	-0.28	85.04	0.49
18	82681	0.61	0.37	0.46	0.28	60.74	0.37	8.30	-0.27	12.50	-0.16	18.18	-0.14
19	82681	0.62	0.41	0.51	0.25	14.32	-0.21	61.77	0.41	8.58	-0.23	15.09	-0.18
20	82681	0.69	0.50	0.63	0.24	5.40	-0.31	20.71	-0.28	4.79	-0.24	68.86	0.50
21	82681	0.67	0.43	0.54	0.30	66.86	0.43	8.37	-0.23	8.08	-0.28	16.39	-0.17
22	82681	0.56	0.37	0.45	0.23	56.32	0.37	4.62	-0.25	7.02	-0.24	31.81	-0.15
23	82681	0.73	0.45	0.58	0.26	9.21	-0.21	72.78	0.45	13.05	-0.26	4.70	-0.24
24	82681	0.36	0.11	0.14	0.27	35.75	0.11	4.76	-0.27	29.11	0.01	30.12	0.00
25	82681	0.47	0.23	0.28	0.26	36.02	0.00	8.43	-0.26	46.62	0.23	8.67	-0.15
26	82681	0.76	0.42	0.57	0.25	9.16	-0.23	76.28	0.42	6.42	-0.25	7.90	-0.19
27	82681	0.80	0.47	0.65	0.26	79.61	0.47	7.01	-0.26	6.27	-0.25	6.86	-0.25

Note. This test included a writing prompt scored on the holistic six-point rubric (see Appendix D). Summary data for the prompt can be found in Table 6.3.22.1. Blank responses were treated as omit. Illegible responses, non-English responses, and off-topic responses were treated as 0. Note that the N count in this table is higher than that in the test statistics table, due to the inclusion of students omitting a response in computations. The statistics presented in this table are based on census data.

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Table 6.3.21
Spring 2013 AIMS Classical Item Analysis
Writing CRT High School Prompt A

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	76589	0.76	0.24	0.31	0.01	75.70	0.24	6.50	-0.03	6.68	-0.09	11.12	-0.23
2	76589	0.62	0.20	0.24	0.05	61.67	0.20	4.03	-0.16	29.78	-0.06	4.47	-0.15
3	76589	0.77	0.28	0.36	0.03	5.89	-0.13	76.83	0.28	3.56	-0.14	13.69	-0.17
4	76589	0.63	0.46	0.55	0.09	13.14	-0.25	8.00	-0.20	15.81	-0.21	62.97	0.46
5	76589	0.87	0.32	0.45	0.03	2.98	-0.20	6.38	-0.11	3.93	-0.22	86.68	0.32
6	76589	0.28	0.29	0.38	0.05	4.89	-0.20	38.34	-0.16	28.25	0.00	28.48	0.29
7	76589	0.59	0.41	0.49	0.04	30.31	-0.31	58.76	0.41	5.99	-0.09	4.90	-0.17
8	76589	0.49	0.34	0.42	0.03	49.24	0.34	37.78	-0.11	11.26	-0.28	1.69	-0.18
9	76589	0.84	0.34	0.47	0.02	8.62	-0.17	2.71	-0.15	84.37	0.34	4.27	-0.23
10	76589	0.58	0.35	0.42	0.07	11.53	-0.19	58.22	0.35	21.70	-0.17	8.47	-0.14
11	76589	0.46	0.30	0.37	0.03	4.59	-0.12	44.79	-0.19	46.29	0.30	4.29	-0.13
12	76589	0.75	0.34	0.43	0.10	5.64	-0.15	75.32	0.34	3.19	-0.24	15.75	-0.18
13	76589	0.89	0.37	0.53	0.04	8.07	-0.29	1.74	-0.14	1.43	-0.16	88.72	0.37
14	76589	0.66	0.24	0.29	0.06	17.89	-0.05	10.30	-0.16	66.17	0.24	5.58	-0.17
15	76589	0.66	0.35	0.42	0.08	15.54	-0.14	65.95	0.35	6.14	-0.22	12.29	-0.17
16	76589	0.37	0.33	0.41	0.10	9.13	-0.12	36.99	-0.19	36.64	0.33	17.14	-0.08
17	76589	0.78	0.41	0.52	0.03	9.55	-0.30	78.30	0.41	2.72	-0.14	9.40	-0.19
18	76589	0.72	0.30	0.38	0.02	71.91	0.30	9.40	-0.23	16.14	-0.11	2.53	-0.17
19	76589	0.80	0.18	0.24	0.02	80.14	0.18	4.55	-0.13	12.44	-0.07	2.85	-0.12
20	76589	0.83	0.34	0.46	0.05	2.52	-0.25	82.53	0.34	11.53	-0.15	3.37	-0.22
21	76589	0.89	0.39	0.58	0.02	1.49	-0.17	89.16	0.39	5.00	-0.22	4.32	-0.25
22	76589	0.49	0.37	0.44	0.06	48.52	0.37	12.29	-0.12	12.13	-0.26	27.00	-0.11
23	76589	0.76	0.34	0.43	0.06	6.93	-0.16	12.45	-0.18	76.11	0.34	4.44	-0.20
24	76589	0.69	0.36	0.44	0.05	13.70	-0.26	1.75	-0.18	15.77	-0.14	68.72	0.36
25	76589	0.46	0.34	0.42	0.14	19.02	0.00	26.77	-0.24	7.78	-0.21	46.29	0.34
26	76589	0.61	0.41	0.50	0.18	6.41	-0.26	61.50	0.41	25.88	-0.15	6.03	-0.26
27	76589	0.55	0.31	0.37	0.95	6.87	-0.07	12.67	-0.18	54.67	0.31	24.84	-0.16

Note. This test included a writing prompt scored on the holistic six-point rubric (see Appendix D). Summary data for the prompt can be found in Table 6.3.22.2. Blank responses were treated as omit. Illegible responses, non-English responses, and off-topic responses were treated as 0. Note that the N count in this table is higher than that in the test statistics table, due to the inclusion of students omitting a response in computations. The statistics presented in this table are based on census data.

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Table 6.3.22.1
Spring 2013 AIMS Classical Item Analysis
Writing Prompts Grade 5-7

					Percentages							
Grade	N	P-value	Pbs	Omit	0	1	2	3	4	5	6	Invalid
5	82233	0.60	0.56	0.25	0.55	0.88	8.19	33.00	46.77	9.13	1.23	0.00
6	82599	0.58	0.57	0.26	0.82	2.66	11.67	31.74	41.79	9.66	1.41	0.00
7	82509	0.60	0.56	0.24	0.95	1.30	8.85	31.73	44.19	10.91	1.83	0.00

Note. Blank responses were treated as omit. Illegible responses, non-English responses, and off-topic responses were treated as 0. Note that the N count in this table is higher than that in the test statistics table, due to the inclusion of students omitting a response in computations. The statistics presented in this table are based on census data.
P-value = Sum of all students' scores /(N*6).

Table 6.3.22.2
Spring 2013 AIMS Classical Item Analysis
Writing Prompts High School

					Percentages												
Prompt	N	P-value	Pbs	Omit	0	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	Invalid
A	95323	0.62	0.65	0.49	0.43	0.51	0.52	3.57	4.56	19.47	18.38	33.20	10.75	5.81	1.77	0.54	0.00
T	3041	0.55	0.65	1.25	1.68	2.14	2.50	7.56	8.68	25.88	16.28	22.46	6.35	4.08	0.92	0.23	0.00

Note. Blank responses were treated as omit. Illegible responses, non-English responses, and off-topic responses were treated as 0. Note that the N count in this table is higher than that in the test statistics table, due to the inclusion of students omitting a response in computations. The statistics presented in this table are based on census data.
P-value = Sum of all students' scores /(N*6). Prompt A is the regular assessment prompt and prompt T is the make-up prompt.

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Table 6.3.23
Spring 2013 AIMS Classical Item Analysis
Mathematics NRT Grade 3

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83196	0.63	0.40	0.49	0.93	17.81	-0.21	14.61	-0.20	63.44	0.40	3.21	-0.22
2	83196	0.86	0.48	0.71	0.29	85.87	0.48	3.21	-0.25	5.88	-0.24	4.76	-0.31
3	83196	0.89	0.21	0.31	1.69	0.73	-0.12	88.89	0.21	8.25	-0.16	0.44	-0.11
4	83196	0.87	0.34	0.52	0.44	86.55	0.34	3.01	-0.27	2.07	-0.22	7.93	-0.14
5	83196	0.52	0.42	0.50	0.25	28.12	-0.38	52.48	0.42	6.80	-0.11	12.35	-0.04
6	83196	0.66	0.43	0.53	0.40	13.06	-0.24	9.40	-0.20	65.95	0.43	11.19	-0.20
7	83196	0.73	0.41	0.53	0.40	8.29	-0.24	12.26	-0.21	73.11	0.41	5.94	-0.21
8	83196	0.46	0.30	0.37	0.24	46.30	0.30	11.09	-0.09	34.81	-0.16	7.56	-0.19
9	83196	0.87	0.51	0.76	0.15	86.64	0.51	3.33	-0.22	9.54	-0.43	0.35	-0.10
10	83196	0.85	0.42	0.62	0.53	3.56	-0.23	85.05	0.42	6.02	-0.22	4.83	-0.25
11	83196	0.59	0.54	0.64	0.40	4.67	-0.18	59.29	0.54	3.71	-0.18	31.94	-0.41
12	83196	0.69	0.49	0.62	0.44	14.76	-0.29	8.09	-0.21	69.24	0.49	7.48	-0.25
13	83196	0.71	0.49	0.62	0.50	17.03	-0.36	3.69	-0.24	7.40	-0.16	71.38	0.49
14	83196	0.77	0.48	0.63	0.32	5.24	-0.24	9.77	-0.28	77.26	0.48	7.41	-0.23
15	83196	0.85	0.48	0.71	0.22	85.48	0.48	8.04	-0.29	3.22	-0.23	3.04	-0.28
16	83196	0.68	0.46	0.57	0.25	16.82	-0.23	67.95	0.46	10.85	-0.22	4.12	-0.29
17	83196	0.88	0.42	0.67	0.27	88.45	0.42	3.77	-0.24	3.39	-0.22	4.11	-0.24
18	83196	0.84	0.46	0.67	0.25	6.32	-0.28	3.86	-0.27	5.41	-0.22	84.16	0.46
19	83196	0.93	0.24	0.45	0.48	93.40	0.24	2.59	-0.15	2.97	-0.14	0.56	-0.13
20	83196	0.81	0.49	0.67	0.17	80.74	0.49	4.06	-0.12	2.49	-0.18	12.54	-0.42
21	83196	0.53	0.35	0.42	0.36	10.24	-0.16	24.75	-0.15	11.56	-0.19	53.09	0.35
22	83196	0.77	0.32	0.42	0.21	9.64	-0.20	76.78	0.32	7.74	-0.20	5.62	-0.09
23	83196	0.91	0.26	0.45	0.39	1.91	-0.12	91.33	0.26	2.00	-0.15	4.36	-0.16
24	83196	0.81	0.46	0.63	0.17	5.59	-0.32	7.28	-0.19	80.94	0.46	6.02	-0.24
25	83196	0.61	0.36	0.43	0.20	10.43	-0.15	10.25	-0.11	61.16	0.36	17.97	-0.24

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.24
Spring 2013 AIMS Classical Item Analysis
Mathematics NRT Grade 4

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83048	0.37	0.39	0.48	0.05	26.14	-0.21	37.31	0.39	11.92	-0.15	24.58	-0.12
2	83048	0.65	0.45	0.55	0.07	7.77	-0.31	10.19	-0.23	17.31	-0.16	64.66	0.45
3	83048	0.91	0.33	0.56	0.04	6.22	-0.27	90.79	0.33	0.95	-0.12	2.01	-0.12
4	83048	0.77	0.39	0.53	0.06	77.15	0.39	7.08	-0.24	10.27	-0.18	5.43	-0.21
5	83048	0.41	0.39	0.48	0.06	47.05	-0.35	40.78	0.39	4.55	-0.09	7.57	0.00
6	83048	0.80	0.46	0.63	0.08	3.37	-0.19	3.95	-0.20	80.43	0.46	12.18	-0.33
7	83048	0.73	0.46	0.58	0.14	9.47	-0.25	8.75	-0.28	73.06	0.46	8.58	-0.18
8	83048	0.78	0.45	0.60	0.04	5.87	-0.23	77.55	0.45	8.95	-0.17	7.59	-0.33
9	83048	0.91	0.37	0.63	0.02	90.92	0.37	2.76	-0.18	4.40	-0.26	1.90	-0.17
10	83048	0.65	0.45	0.55	0.06	15.71	-0.39	8.15	-0.18	11.29	-0.07	64.79	0.45
11	83048	0.88	0.41	0.64	0.06	87.87	0.41	4.23	-0.20	2.88	-0.23	4.95	-0.25
12	83048	0.65	0.39	0.48	0.04	24.51	-0.35	4.20	-0.09	65.42	0.39	5.82	-0.08
13	83048	0.64	0.44	0.54	0.06	7.47	-0.31	64.35	0.44	9.57	-0.23	18.56	-0.16
14	83048	0.45	0.35	0.42	0.11	45.45	0.35	16.60	-0.19	21.33	-0.14	16.50	-0.13
15	83048	0.80	0.41	0.56	0.06	79.55	0.41	3.19	-0.24	5.24	-0.22	11.96	-0.23
16	83048	0.84	0.43	0.63	0.10	4.60	-0.23	4.67	-0.22	6.50	-0.25	84.13	0.43
17	83048	0.62	0.38	0.47	0.08	62.41	0.38	5.91	-0.21	21.58	-0.15	10.02	-0.24
18	83048	0.81	0.44	0.61	0.05	80.64	0.44	7.70	-0.26	8.95	-0.26	2.66	-0.19
19	83048	0.64	0.44	0.54	0.12	13.01	-0.27	12.26	-0.19	64.19	0.44	10.42	-0.20
20	83048	0.86	0.30	0.47	0.05	4.00	-0.17	4.65	-0.17	4.80	-0.16	86.50	0.30
21	83048	0.57	0.38	0.46	0.04	9.48	-0.12	15.45	-0.08	17.74	-0.31	57.29	0.38
22	83048	0.86	0.26	0.39	0.03	7.82	-0.20	85.77	0.26	4.51	-0.10	1.88	-0.12
23	83048	0.64	0.30	0.37	0.06	19.68	-0.20	14.08	-0.10	2.31	-0.20	63.87	0.30
24	83048	0.31	0.22	0.28	0.06	31.50	0.22	8.45	-0.09	22.83	-0.07	37.16	-0.10
25	83048	0.72	0.36	0.46	0.11	4.33	-0.22	17.11	-0.15	71.68	0.36	6.78	-0.24

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.25
Spring 2013 AIMS Classical Item Analysis
Mathematics NRT Grade 5

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82223	0.25	0.31	0.41	0.06	55.00	-0.24	11.20	-0.03	8.70	-0.02	25.05	0.31
2	82223	0.61	0.36	0.43	0.04	30.09	-0.22	60.60	0.36	4.54	-0.16	4.74	-0.19
3	82223	0.46	0.42	0.50	0.04	10.16	-0.10	45.65	0.42	19.68	-0.15	24.47	-0.28
4	82223	0.68	0.37	0.46	0.05	68.09	0.37	6.42	-0.23	15.50	-0.17	9.95	-0.18
5	82223	0.73	0.38	0.49	0.04	73.22	0.38	12.88	-0.21	5.98	-0.24	7.87	-0.15
6	82223	0.66	0.38	0.48	0.17	66.44	0.38	24.47	-0.26	6.68	-0.19	2.25	-0.14
7	82223	0.55	0.45	0.54	0.09	21.02	-0.27	14.30	-0.18	55.32	0.45	9.27	-0.17
8	82223	0.57	0.37	0.45	0.20	15.76	-0.33	56.71	0.37	18.61	0.00	8.71	-0.23
9	82223	0.41	0.21	0.26	0.07	13.38	-0.14	40.73	0.21	14.63	-0.06	31.19	-0.08
10	82223	0.68	0.40	0.50	0.02	68.25	0.40	18.04	-0.27	8.57	-0.18	5.12	-0.14
11	82223	0.58	0.49	0.59	0.04	24.96	-0.35	11.31	-0.16	58.05	0.49	5.64	-0.18
12	82223	0.81	0.44	0.60	0.04	80.59	0.44	5.94	-0.25	7.64	-0.27	5.79	-0.18
13	82223	0.62	0.41	0.50	0.04	26.46	-0.26	6.35	-0.17	62.33	0.41	4.81	-0.21
14	82223	0.88	0.36	0.56	0.02	4.99	-0.22	3.92	-0.21	87.95	0.36	3.12	-0.16
15	82223	0.79	0.45	0.62	0.03	79.39	0.45	5.02	-0.25	9.23	-0.24	6.33	-0.24
16	82223	0.51	0.39	0.46	0.04	31.54	-0.19	6.29	-0.23	11.41	-0.15	50.71	0.39
17	82223	0.40	0.18	0.22	0.03	12.68	-0.13	15.41	-0.14	31.66	0.02	40.22	0.18
18	82223	0.79	0.41	0.56	0.02	79.08	0.41	6.95	-0.16	5.81	-0.24	8.14	-0.25
19	82223	0.70	0.47	0.59	0.03	5.24	-0.19	10.43	-0.27	14.29	-0.26	70.01	0.47
20	82223	0.61	0.37	0.45	0.07	11.87	-0.22	15.61	-0.09	11.45	-0.24	61.00	0.37
21	82223	0.63	0.52	0.63	0.05	19.22	-0.27	6.87	-0.27	10.82	-0.24	63.04	0.52
22	82223	0.75	0.31	0.41	0.02	9.84	-0.20	75.31	0.31	5.32	-0.21	9.52	-0.09
23	82223	0.78	0.31	0.43	0.04	2.30	-0.13	78.29	0.31	13.47	-0.27	5.90	-0.08
24	82223	0.51	0.42	0.50	0.06	34.56	-0.32	7.99	-0.14	50.53	0.42	6.85	-0.07
25	82223	0.71	0.28	0.37	0.05	4.57	-0.09	1.93	-0.15	71.01	0.28	22.44	-0.21

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.26
Spring 2013 AIMS Classical Item Analysis
Mathematics NRT Grade 6

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82587	0.65	0.39	0.48	0.12	65.46	0.39	11.22	-0.25	6.36	-0.21	16.85	-0.14
2	82587	0.74	0.50	0.65	0.05	12.06	-0.32	7.99	-0.24	6.21	-0.20	73.69	0.50
3	82587	0.38	0.49	0.60	0.05	26.22	-0.29	9.69	-0.18	26.13	-0.13	37.90	0.49
4	82587	0.73	0.36	0.47	0.10	9.93	-0.10	9.46	-0.24	7.43	-0.23	73.09	0.36
5	82587	0.84	0.36	0.53	0.09	2.43	-0.18	84.25	0.36	11.14	-0.26	2.09	-0.16
6	82587	0.55	0.41	0.49	0.17	11.71	-0.14	16.14	-0.09	54.84	0.41	17.14	-0.33
7	82587	0.59	0.32	0.40	0.10	9.40	-0.14	16.81	-0.18	58.99	0.32	14.72	-0.15
8	82587	0.71	0.39	0.50	0.09	6.98	-0.29	9.99	-0.20	11.69	-0.13	71.25	0.39
9	82587	0.60	0.26	0.32	0.19	59.85	0.26	7.34	-0.16	24.15	-0.10	8.47	-0.14
10	82587	0.71	0.51	0.64	0.09	13.38	-0.28	7.28	-0.25	8.70	-0.25	70.55	0.51
11	82587	0.47	0.24	0.29	0.02	24.89	-0.03	46.66	0.24	13.93	-0.15	14.50	-0.15
12	82587	0.59	0.59	0.70	0.05	11.66	-0.26	15.28	-0.31	14.06	-0.26	58.95	0.59
13	82587	0.68	0.44	0.56	0.04	4.15	-0.22	5.27	-0.21	68.27	0.44	22.27	-0.28
14	82587	0.44	0.29	0.35	0.05	12.31	-0.26	25.97	-0.04	17.23	-0.10	44.43	0.29
15	82587	0.75	0.51	0.67	0.06	8.78	-0.25	75.27	0.51	8.64	-0.29	7.24	-0.26
16	82587	0.64	0.48	0.59	0.09	63.73	0.48	13.43	-0.26	15.45	-0.21	7.30	-0.26
17	82587	0.58	0.45	0.54	0.06	11.33	-0.26	58.25	0.45	22.04	-0.19	8.32	-0.21
18	82587	0.76	0.53	0.69	0.04	6.47	-0.25	11.35	-0.31	6.54	-0.27	75.60	0.53
19	82587	0.53	0.52	0.62	0.05	31.13	-0.46	7.69	-0.17	7.96	0.00	53.16	0.52
20	82587	0.66	0.51	0.63	0.04	12.31	-0.28	66.17	0.51	16.98	-0.31	4.49	-0.16
21	82587	0.78	0.53	0.70	0.02	6.78	-0.22	77.55	0.53	13.62	-0.41	2.03	-0.16
22	82587	0.71	0.43	0.55	0.04	8.79	-0.24	12.28	-0.28	70.75	0.43	8.14	-0.14
23	82587	0.46	0.30	0.36	0.05	21.82	-0.18	28.31	-0.09	45.83	0.30	3.99	-0.17
24	82587	0.86	0.24	0.37	0.04	85.72	0.24	5.09	-0.17	5.22	-0.11	3.93	-0.12
25	82587	0.48	0.34	0.41	0.08	11.27	-0.19	47.68	0.34	27.44	-0.16	13.53	-0.11

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.27
Spring 2013 AIMS Classical Item Analysis
Mathematics NRT Grade 7

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82491	0.83	0.30	0.44	0.02	82.74	0.30	10.86	-0.20	1.74	-0.14	4.64	-0.16
2	82491	0.45	0.39	0.48	0.17	7.27	-0.12	44.76	0.39	19.20	-0.07	28.59	-0.30
3	82491	0.80	0.33	0.46	0.02	79.65	0.33	3.44	-0.19	3.68	-0.18	13.21	-0.20
4	82491	0.61	0.49	0.60	0.08	60.71	0.49	7.54	-0.20	11.15	-0.24	20.52	-0.28
5	82491	0.54	0.47	0.57	0.09	16.04	-0.27	7.80	-0.15	54.22	0.47	21.85	-0.22
6	82491	0.61	0.54	0.65	0.12	16.17	-0.36	13.82	-0.23	60.88	0.54	9.01	-0.17
7	82491	0.54	0.52	0.62	0.07	18.07	-0.25	14.49	-0.17	13.28	-0.29	54.08	0.52
8	82491	0.59	0.55	0.67	0.16	17.98	-0.29	16.00	-0.31	59.00	0.55	6.86	-0.19
9	82491	0.74	0.38	0.51	0.05	9.01	-0.25	74.40	0.38	12.54	-0.21	4.00	-0.15
10	82491	0.57	0.39	0.47	0.06	7.43	-0.08	56.67	0.39	24.77	-0.28	11.06	-0.16
11	82491	0.68	0.52	0.65	0.07	4.96	-0.14	67.60	0.52	13.20	-0.32	14.17	-0.30
12	82491	0.86	0.44	0.67	0.03	4.66	-0.26	4.66	-0.25	4.83	-0.22	85.82	0.44
13	82491	0.76	0.54	0.71	0.02	16.78	-0.44	75.75	0.54	4.68	-0.21	2.77	-0.15
14	82491	0.66	0.41	0.52	0.06	11.06	-0.18	12.42	-0.20	66.20	0.41	10.26	-0.23
15	82491	0.80	0.39	0.53	0.03	5.42	-0.23	79.57	0.39	8.44	-0.21	6.55	-0.18
16	82491	0.36	0.40	0.49	0.07	27.58	-0.20	28.97	-0.16	36.33	0.40	7.05	-0.11
17	82491	0.45	0.33	0.40	0.04	45.44	0.33	22.66	-0.15	11.68	-0.11	20.17	-0.16
18	82491	0.34	0.43	0.53	0.04	46.55	-0.17	7.79	-0.28	11.22	-0.14	34.41	0.43
19	82491	0.67	0.48	0.60	0.04	4.80	-0.26	11.21	-0.15	66.92	0.48	17.03	-0.33
20	82491	0.85	0.46	0.70	0.04	6.38	-0.31	85.37	0.46	4.80	-0.24	3.41	-0.20
21	82491	0.59	0.42	0.50	0.04	7.42	-0.25	15.24	-0.34	58.53	0.42	18.78	-0.04
22	82491	0.56	0.38	0.46	0.03	56.23	0.38	25.36	-0.23	13.63	-0.16	4.75	-0.16
23	82491	0.60	0.54	0.65	0.08	17.31	-0.30	14.59	-0.24	8.07	-0.24	59.95	0.54
24	82491	0.58	0.36	0.44	0.06	19.67	-0.23	58.03	0.36	15.46	-0.13	6.78	-0.16
25	82491	0.46	0.42	0.51	0.12	46.22	0.42	7.03	-0.25	19.53	-0.27	27.10	-0.09

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.28
Spring 2013 AIMS Classical Item Analysis
Mathematics NRT Grade 8

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	81432	0.73	0.44	0.57	0.04	73.34	0.44	8.00	-0.25	6.98	-0.22	11.63	-0.22
2	81432	0.72	0.47	0.61	0.05	4.40	-0.19	9.90	-0.21	72.47	0.47	13.18	-0.32
3	81432	0.56	0.43	0.51	0.06	21.34	-0.27	55.99	0.43	14.98	-0.13	7.64	-0.21
4	81432	0.57	0.43	0.52	0.06	22.86	-0.15	12.14	-0.27	8.10	-0.21	56.84	0.43
5	81432	0.72	0.42	0.54	0.04	8.56	-0.11	71.96	0.42	7.94	-0.26	11.50	-0.27
6	81432	0.36	0.31	0.39	0.09	10.86	-0.02	39.85	-0.11	12.71	-0.27	36.49	0.31
7	81432	0.77	0.40	0.54	0.05	2.42	-0.19	6.76	-0.21	77.17	0.40	13.60	-0.26
8	81432	0.64	0.47	0.57	0.10	15.59	-0.27	64.17	0.47	8.53	-0.21	11.60	-0.21
9	81432	0.66	0.43	0.54	0.06	8.83	-0.11	66.27	0.43	15.25	-0.22	9.59	-0.32
10	81432	0.69	0.54	0.68	0.09	6.08	-0.24	12.86	-0.29	12.12	-0.30	68.84	0.54
11	81432	0.55	0.39	0.47	0.08	55.24	0.39	27.37	-0.22	9.29	-0.16	8.03	-0.19
12	81432	0.40	0.33	0.41	0.05	33.27	-0.14	10.57	-0.19	15.70	-0.11	40.40	0.33
13	81432	0.60	0.39	0.48	0.02	9.99	-0.16	15.73	-0.14	59.72	0.39	14.54	-0.26
14	81432	0.80	0.41	0.57	0.02	5.64	-0.24	8.55	-0.21	80.29	0.41	5.50	-0.21
15	81432	0.77	0.44	0.58	0.02	9.54	-0.28	10.18	-0.24	76.84	0.44	3.42	-0.16
16	81432	0.31	0.36	0.45	0.03	45.10	-0.22	11.92	-0.20	31.30	0.36	11.65	0.02
17	81432	0.59	0.36	0.43	0.13	9.87	-0.16	20.38	-0.22	59.19	0.36	10.42	-0.13
18	81432	0.50	0.52	0.62	0.07	38.44	-0.39	49.90	0.52	7.40	-0.18	4.19	-0.11
19	81432	0.69	0.48	0.60	0.03	69.30	0.48	10.43	-0.17	5.84	-0.19	14.40	-0.35
20	81432	0.59	0.39	0.48	0.08	12.92	-0.14	12.79	-0.17	58.86	0.39	15.35	-0.25
21	81432	0.59	0.54	0.65	0.04	59.30	0.54	7.60	-0.28	11.50	-0.23	21.56	-0.28
22	81432	0.59	0.49	0.59	0.07	18.01	-0.33	11.21	-0.17	12.04	-0.19	58.66	0.49
23	81432	0.77	0.49	0.65	0.04	4.79	-0.20	76.65	0.49	10.81	-0.31	7.72	-0.26
24	81432	0.37	0.45	0.55	0.06	12.80	-0.23	16.82	-0.33	33.01	-0.04	37.32	0.45
25	81432	0.41	0.36	0.44	0.07	36.41	-0.20	40.69	0.36	13.93	-0.12	8.90	-0.13

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.29
Spring 2013 AIMS Classical Item Analysis
Reading NRT Grade 3

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83187	0.79	0.45	0.60	0.05	6.40	-0.25	9.75	-0.24	4.91	-0.23	78.88	0.45
2	83187	0.89	0.42	0.68	0.14	5.14	-0.26	89.02	0.42	4.47	-0.25	1.24	-0.19
3	83187	0.73	0.48	0.61	0.18	14.54	-0.34	6.65	-0.20	72.93	0.48	5.70	-0.18
4	83187	0.83	0.32	0.46	0.11	2.75	-0.18	83.48	0.32	9.00	-0.17	4.67	-0.18
5	83187	0.70	0.35	0.44	0.23	69.82	0.35	9.09	-0.25	2.43	-0.25	18.43	-0.13
6	83187	0.91	0.36	0.61	0.12	90.57	0.36	4.08	-0.24	4.00	-0.19	1.22	-0.18
7	83187	0.83	0.49	0.70	0.22	5.31	-0.28	82.71	0.49	5.74	-0.24	6.02	-0.28
8	83187	0.74	0.44	0.57	0.29	8.86	-0.23	9.49	-0.29	7.29	-0.17	74.07	0.44
9	83187	0.47	0.33	0.40	0.26	24.06	-0.09	19.39	-0.17	9.09	-0.22	47.20	0.33
10	83187	0.89	0.48	0.78	0.36	89.40	0.48	2.18	-0.20	1.90	-0.24	6.16	-0.34
11	83187	0.63	0.51	0.62	0.16	14.04	-0.29	10.24	-0.28	12.78	-0.19	62.79	0.51
12	83187	0.81	0.48	0.67	0.38	81.30	0.48	5.09	-0.29	9.11	-0.25	4.12	-0.26
13	83187	0.79	0.41	0.55	0.53	9.31	-0.15	6.12	-0.27	4.86	-0.26	79.17	0.41
14	83187	0.63	0.26	0.33	0.40	62.64	0.26	11.95	-0.15	19.17	-0.06	5.85	-0.24
15	83187	0.69	0.44	0.55	0.68	10.40	-0.25	10.85	-0.18	68.92	0.44	9.14	-0.24
16	83187	0.41	0.31	0.38	0.17	22.82	-0.13	19.53	-0.13	16.54	-0.12	40.94	0.31
17	83187	0.71	0.43	0.55	0.20	9.57	-0.27	71.30	0.43	3.57	-0.23	15.36	-0.20
18	83187	0.39	0.26	0.33	0.48	26.42	-0.06	18.56	-0.16	15.56	-0.11	38.98	0.26
19	83187	0.65	0.39	0.48	1.10	16.76	-0.26	64.62	0.39	6.51	-0.20	11.00	-0.13
20	83187	0.77	0.39	0.52	1.53	77.21	0.39	8.94	-0.24	3.17	-0.22	9.16	-0.18
21	83187	0.44	0.41	0.49	0.16	17.89	-0.20	22.27	-0.26	43.89	0.41	15.79	-0.04
22	83187	0.41	0.27	0.33	0.24	26.48	-0.08	21.71	-0.09	10.46	-0.19	41.11	0.27
23	83187	0.46	0.30	0.37	0.40	21.27	-0.07	8.78	-0.24	46.19	0.30	23.36	-0.13
24	83187	0.51	0.41	0.49	1.22	17.85	-0.14	50.65	0.41	10.50	-0.30	19.79	-0.15
25	83187	0.79	0.52	0.68	1.88	5.86	-0.30	79.49	0.52	7.64	-0.28	5.13	-0.27

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.30
Spring 2013 AIMS Classical Item Analysis
Reading NRT Grade 4

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83045	0.87	0.27	0.42	0.02	86.50	0.27	1.32	-0.17	5.71	-0.19	6.45	-0.12
2	83045	0.62	0.35	0.42	0.03	61.61	0.35	2.34	-0.20	30.51	-0.23	5.51	-0.15
3	83045	0.69	0.39	0.49	0.03	20.08	-0.27	69.33	0.39	6.67	-0.15	3.89	-0.19
4	83045	0.75	0.33	0.44	0.06	21.48	-0.25	2.03	-0.15	74.87	0.33	1.56	-0.15
5	83045	0.52	0.42	0.50	0.04	51.54	0.42	15.81	-0.36	10.26	-0.13	22.35	-0.10
6	83045	0.51	0.28	0.34	0.05	29.75	-0.06	51.41	0.28	9.29	-0.15	9.50	-0.24
7	83045	0.59	0.19	0.23	0.09	19.32	-0.13	9.96	-0.15	58.54	0.19	12.09	0.00
8	83045	0.90	0.36	0.60	0.08	89.68	0.36	4.12	-0.26	3.75	-0.17	2.37	-0.17
9	83045	0.85	0.40	0.59	0.07	2.64	-0.21	7.93	-0.24	84.95	0.40	4.41	-0.21
10	83045	0.73	0.46	0.59	0.11	8.43	-0.23	13.05	-0.26	5.57	-0.23	72.85	0.46
11	83045	0.71	0.42	0.54	0.06	16.27	-0.16	5.55	-0.28	7.27	-0.27	70.85	0.42
12	83045	0.28	0.22	0.28	0.06	53.08	-0.03	11.37	-0.09	27.94	0.22	7.54	-0.21
13	83045	0.58	0.46	0.55	0.05	14.80	-0.24	20.46	-0.21	6.84	-0.22	57.86	0.46
14	83045	0.54	0.32	0.39	0.03	9.55	-0.11	32.34	-0.17	53.74	0.32	4.34	-0.22
15	83045	0.76	0.42	0.56	0.06	13.77	-0.20	75.59	0.42	6.33	-0.27	4.25	-0.23
16	83045	0.71	0.50	0.64	0.10	14.25	-0.36	6.92	-0.23	7.26	-0.17	71.46	0.50
17	83045	0.46	0.25	0.30	0.02	38.48	-0.11	46.05	0.25	10.88	-0.10	4.57	-0.19
18	83045	0.59	0.25	0.30	0.04	3.93	-0.28	34.48	-0.07	2.30	-0.21	59.24	0.25
19	83045	0.70	0.45	0.57	0.06	11.06	-0.25	70.46	0.45	13.86	-0.23	4.56	-0.24
20	83045	0.87	0.50	0.75	0.07	4.88	-0.31	3.83	-0.24	4.46	-0.27	86.76	0.50
21	83045	0.70	0.51	0.64	0.07	7.78	-0.32	69.73	0.51	15.08	-0.27	7.33	-0.19
22	83045	0.81	0.36	0.51	0.06	6.78	-0.23	5.07	-0.22	81.49	0.36	6.60	-0.14
23	83045	0.39	0.26	0.32	0.07	7.48	-0.27	31.26	-0.04	22.13	-0.09	39.07	0.26
24	83045	0.55	0.33	0.40	0.05	22.59	-0.11	55.07	0.33	14.32	-0.16	7.96	-0.22
25	83045	0.74	0.52	0.67	0.05	4.74	-0.24	73.76	0.52	6.04	-0.27	15.40	-0.31

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.31
Spring 2013 AIMS Classical Item Analysis
Reading NRT Grade 5

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82223	0.63	0.39	0.47	0.12	9.91	-0.31	62.52	0.39	9.01	-0.21	18.44	-0.09
2	82223	0.81	0.41	0.57	0.06	5.18	-0.18	9.12	-0.23	80.70	0.41	4.94	-0.26
3	82223	0.38	0.27	0.33	0.08	25.85	-0.22	11.29	-0.23	37.70	0.27	25.09	0.10
4	82223	0.65	0.36	0.45	0.11	65.19	0.36	12.07	-0.18	8.42	-0.27	14.22	-0.11
5	82223	0.58	0.23	0.28	0.07	4.23	-0.29	15.22	-0.20	22.54	0.04	57.94	0.23
6	82223	0.62	0.37	0.45	0.06	7.92	-0.33	4.51	-0.28	25.06	-0.08	62.45	0.37
7	82223	0.73	0.44	0.57	0.03	11.13	-0.32	73.11	0.44	6.97	-0.16	8.76	-0.19
8	82223	0.82	0.45	0.63	0.02	11.59	-0.30	81.71	0.45	3.19	-0.19	3.50	-0.25
9	82223	0.48	0.26	0.31	0.03	48.09	0.26	4.24	-0.23	43.06	-0.07	4.58	-0.23
10	82223	0.76	0.45	0.59	0.04	10.86	-0.18	4.88	-0.28	75.59	0.45	8.63	-0.27
11	82223	0.43	0.16	0.20	0.06	11.20	-0.12	30.61	0.08	43.12	0.16	15.02	-0.22
12	82223	0.71	0.55	0.69	0.05	9.56	-0.25	13.97	-0.30	5.53	-0.31	70.90	0.55
13	82223	0.66	0.40	0.50	0.04	17.70	-0.27	14.94	-0.19	65.75	0.40	1.57	-0.17
14	82223	0.62	0.26	0.32	0.05	10.82	-0.17	14.88	-0.09	61.73	0.26	12.51	-0.12
15	82223	0.65	0.21	0.26	0.03	5.68	-0.17	10.52	-0.19	64.51	0.21	19.26	0.00
16	82223	0.78	0.45	0.60	0.04	78.17	0.45	6.44	-0.29	9.49	-0.30	5.87	-0.12
17	82223	0.65	0.40	0.49	0.06	5.52	-0.28	10.02	-0.24	19.02	-0.14	65.38	0.40
18	82223	0.74	0.50	0.65	0.06	4.77	-0.28	17.90	-0.32	73.81	0.50	3.47	-0.21
19	82223	0.57	0.38	0.46	0.07	57.05	0.38	14.99	-0.16	11.99	-0.26	15.90	-0.12
20	82223	0.80	0.47	0.65	0.10	9.24	-0.28	79.92	0.47	6.97	-0.27	3.77	-0.21
21	82223	0.77	0.47	0.63	0.03	6.97	-0.30	7.61	-0.20	8.02	-0.25	77.38	0.47
22	82223	0.63	0.34	0.42	0.02	26.35	-0.14	4.78	-0.22	63.01	0.34	5.85	-0.24
23	82223	0.64	0.19	0.23	0.04	19.23	0.03	63.86	0.19	13.65	-0.22	3.22	-0.16
24	82223	0.75	0.38	0.50	0.03	74.93	0.38	5.14	-0.27	12.79	-0.19	7.11	-0.17
25	82223	0.83	0.39	0.57	0.03	10.79	-0.22	83.36	0.39	2.47	-0.19	3.33	-0.27

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.32
Spring 2013 AIMS Classical Item Analysis
Reading NRT Grade 6

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82598	0.88	0.37	0.59	0.03	4.53	-0.18	3.22	-0.24	88.22	0.37	4.01	-0.21
2	82598	0.75	0.35	0.46	0.03	10.72	-0.16	6.03	-0.26	8.47	-0.15	74.76	0.35
3	82598	0.57	0.28	0.34	0.07	27.35	-0.08	57.12	0.28	4.52	-0.22	10.94	-0.18
4	82598	0.97	0.26	0.61	0.03	1.52	-0.17	0.62	-0.12	96.51	0.26	1.33	-0.15
5	82598	0.51	0.31	0.37	0.08	3.79	-0.21	6.97	-0.14	50.86	0.31	38.31	-0.16
6	82598	0.68	0.32	0.41	0.08	23.52	-0.16	5.78	-0.22	67.94	0.32	2.68	-0.20
7	82598	0.75	0.37	0.48	0.10	7.40	-0.19	74.84	0.37	4.85	-0.23	12.82	-0.17
8	82598	0.27	0.10	0.14	0.06	55.59	0.10	11.17	-0.12	6.43	-0.23	26.74	0.10
9	82598	0.68	0.46	0.57	0.10	9.52	-0.21	8.59	-0.24	13.38	-0.26	68.41	0.46
10	82598	0.62	0.38	0.47	0.11	12.07	-0.26	10.68	-0.21	62.32	0.38	14.82	-0.11
11	82598	0.64	0.29	0.36	0.03	9.68	-0.21	11.32	-0.25	64.20	0.29	14.78	0.01
12	82598	0.51	0.26	0.32	0.08	50.51	0.26	4.51	-0.26	32.42	-0.04	12.48	-0.18
13	82598	0.76	0.46	0.60	0.05	75.81	0.46	3.56	-0.22	10.14	-0.22	10.45	-0.29
14	82598	0.49	0.33	0.39	0.05	24.59	-0.08	18.44	-0.18	7.57	-0.22	49.35	0.33
15	82598	0.82	0.51	0.71	0.04	5.94	-0.28	5.83	-0.29	81.79	0.51	6.40	-0.26
16	82598	0.50	0.29	0.36	0.11	18.85	-0.22	50.32	0.29	7.71	-0.21	23.01	-0.01
17	82598	0.66	0.34	0.43	0.03	17.91	-0.22	66.48	0.34	8.80	-0.14	6.79	-0.16
18	82598	0.58	0.20	0.25	0.05	57.87	0.20	11.04	-0.20	11.17	-0.12	19.88	0.00
19	82598	0.70	0.23	0.30	0.07	16.82	-0.07	6.52	-0.21	6.79	-0.11	69.81	0.23
20	82598	0.76	0.33	0.44	0.05	12.85	-0.16	76.20	0.33	3.76	-0.23	7.13	-0.17
21	82598	0.85	0.41	0.61	0.16	84.72	0.41	5.63	-0.23	4.96	-0.25	4.53	-0.20
22	82598	0.49	0.18	0.22	0.02	49.15	0.18	8.40	-0.23	24.55	-0.09	17.87	0.03
23	82598	0.25	0.11	0.15	0.05	8.19	-0.27	52.96	0.09	14.02	-0.05	24.78	0.11
24	82598	0.75	0.35	0.45	0.05	9.45	-0.23	7.67	-0.17	74.54	0.35	8.29	-0.14
25	82598	0.66	0.33	0.40	0.04	65.85	0.33	10.30	-0.17	10.41	-0.18	13.41	-0.13

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.33
Spring 2013 AIMS Classical Item Analysis
Reading NRT Grade 7

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82502	0.89	0.37	0.61	0.02	7.27	-0.27	2.18	-0.19	89.41	0.37	1.13	-0.13
2	82502	0.71	0.13	0.16	0.05	70.86	0.13	17.03	0.01	5.16	-0.15	6.90	-0.11
3	82502	0.91	0.32	0.54	0.01	3.10	-0.15	90.55	0.32	4.33	-0.17	2.00	-0.23
4	82502	0.75	0.33	0.44	0.08	74.55	0.33	7.67	-0.20	10.62	-0.14	7.08	-0.18
5	82502	0.70	0.30	0.38	0.02	15.72	-0.20	69.70	0.30	3.34	-0.21	11.22	-0.09
6	82502	0.69	0.36	0.45	0.05	9.30	-0.19	14.55	-0.19	68.71	0.36	7.39	-0.16
7	82502	0.67	0.28	0.35	0.05	19.94	-0.10	5.22	-0.18	8.13	-0.19	66.66	0.28
8	82502	0.63	0.20	0.25	0.03	19.43	0.00	62.84	0.20	7.73	-0.18	9.96	-0.17
9	82502	0.54	0.19	0.23	0.03	5.61	-0.19	18.36	-0.17	21.94	0.04	54.07	0.19
10	82502	0.62	0.20	0.25	0.03	62.16	0.20	11.60	-0.12	3.25	-0.18	22.96	-0.07
11	82502	0.46	0.29	0.35	0.04	45.93	0.29	36.30	-0.07	7.28	-0.27	10.45	-0.13
12	82502	0.32	0.28	0.35	0.04	55.31	-0.04	6.68	-0.28	6.03	-0.18	31.94	0.28
13	82502	0.62	0.31	0.38	0.04	7.44	-0.19	19.72	-0.17	61.81	0.31	10.98	-0.11
14	82502	0.56	0.22	0.27	0.05	9.25	-0.16	56.41	0.22	21.64	-0.07	12.65	-0.11
15	82502	0.90	0.43	0.70	0.02	4.18	-0.25	89.84	0.43	4.02	-0.26	1.94	-0.20
16	82502	0.71	0.37	0.47	0.03	10.43	-0.24	13.60	-0.11	5.25	-0.25	70.68	0.37
17	82502	0.41	0.30	0.37	0.06	46.77	-0.09	5.56	-0.21	40.53	0.30	7.08	-0.22
18	82502	0.44	0.33	0.40	0.04	33.89	-0.13	43.69	0.33	10.19	-0.13	12.19	-0.19
19	82502	0.80	0.37	0.51	0.04	4.60	-0.24	6.37	-0.21	8.53	-0.17	80.46	0.37
20	82502	0.59	0.36	0.43	0.04	6.72	-0.28	28.88	-0.12	5.37	-0.22	58.98	0.36
21	82502	0.76	0.41	0.54	0.02	76.41	0.41	3.14	-0.24	6.16	-0.25	14.27	-0.20
22	82502	0.84	0.49	0.71	0.02	4.02	-0.24	2.78	-0.23	9.10	-0.33	84.08	0.49
23	82502	0.82	0.48	0.68	0.06	8.85	-0.30	5.38	-0.25	82.33	0.48	3.38	-0.24
24	82502	0.73	0.35	0.46	0.04	3.09	-0.23	72.88	0.35	12.29	-0.22	11.69	-0.14
25	82502	0.49	0.37	0.44	0.05	8.61	-0.24	22.23	-0.23	48.74	0.37	20.38	-0.05

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.34
Spring 2013 AIMS Classical Item Analysis
Reading NRT Grade 8

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	81433	0.57	0.25	0.30	0.05	18.09	-0.08	21.30	-0.14	3.72	-0.18	56.84	0.25
2	81433	0.73	0.38	0.49	0.02	3.93	-0.20	19.83	-0.27	72.96	0.38	3.26	-0.14
3	81433	0.85	0.30	0.44	0.04	3.17	-0.17	9.78	-0.17	2.28	-0.17	84.72	0.30
4	81433	0.86	0.28	0.43	0.06	5.69	-0.12	86.33	0.28	2.36	-0.17	5.57	-0.18
5	81433	0.92	0.22	0.39	0.01	4.19	-0.12	91.92	0.22	2.71	-0.10	1.18	-0.18
6	81433	0.51	0.21	0.26	0.04	7.80	-0.14	11.59	0.01	29.63	-0.16	50.95	0.21
7	81433	0.81	0.32	0.45	0.06	12.59	-0.19	5.03	-0.20	80.72	0.32	1.60	-0.16
8	81433	0.50	0.23	0.28	0.03	50.04	0.23	29.17	-0.10	16.00	-0.11	4.77	-0.15
9	81433	0.78	0.33	0.45	0.03	5.93	-0.16	78.30	0.33	7.53	-0.13	8.22	-0.23
10	81433	0.90	0.37	0.61	0.03	3.63	-0.17	5.11	-0.26	89.74	0.37	1.48	-0.18
11	81433	0.74	0.34	0.44	0.01	10.57	-0.08	6.93	-0.20	8.36	-0.27	74.13	0.34
12	81433	0.58	0.23	0.28	0.03	16.74	-0.11	20.51	-0.07	58.31	0.23	4.41	-0.22
13	81433	0.54	0.26	0.32	0.04	53.91	0.26	3.80	-0.27	39.40	-0.09	2.84	-0.22
14	81433	0.77	0.36	0.48	0.02	4.17	-0.21	5.26	-0.22	76.59	0.36	13.96	-0.18
15	81433	0.46	0.23	0.28	0.03	15.10	0.04	15.62	-0.14	23.22	-0.19	46.03	0.23
16	81433	0.43	0.26	0.32	0.10	43.37	0.26	15.10	-0.20	16.56	-0.10	24.86	-0.04
17	81433	0.94	0.33	0.67	0.02	1.61	-0.18	1.05	-0.18	2.86	-0.21	94.46	0.33
18	81433	0.78	0.42	0.57	0.04	10.83	-0.22	5.67	-0.23	78.49	0.42	4.96	-0.24
19	81433	0.44	0.24	0.29	0.05	22.36	-0.10	44.48	0.24	5.14	-0.12	27.97	-0.11
20	81433	0.57	0.28	0.34	0.01	28.13	-0.08	9.49	-0.20	5.28	-0.20	57.08	0.28
21	81433	0.71	0.35	0.44	0.03	9.58	-0.23	70.93	0.35	16.94	-0.15	2.52	-0.22
22	81433	0.81	0.43	0.59	0.03	3.43	-0.26	3.72	-0.26	80.55	0.43	12.27	-0.23
23	81433	0.74	0.33	0.43	0.04	15.67	-0.20	74.39	0.33	6.04	-0.18	3.85	-0.15
24	81433	0.79	0.50	0.67	0.07	79.27	0.50	8.88	-0.24	7.07	-0.27	4.72	-0.30
25	81433	0.88	0.45	0.71	0.02	4.93	-0.26	4.20	-0.24	2.56	-0.24	88.28	0.45

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.35
Spring 2013 AIMS Classical Item Analysis
Language NRT Grade 3

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83187	0.91	0.30	0.52	0.12	3.06	-0.24	90.91	0.30	2.28	-0.17	3.63	-0.10
2	83187	0.76	0.30	0.40	0.26	4.12	-0.25	3.16	-0.26	75.58	0.30	16.88	-0.09
3	83187	0.77	0.35	0.47	0.48	77.20	0.35	4.41	-0.23	6.74	-0.28	11.18	-0.09
4	83187	0.46	0.35	0.41	0.77	11.22	-0.36	36.13	-0.01	5.61	-0.25	46.28	0.35
5	83187	0.50	0.31	0.38	0.19	17.17	-0.21	8.14	-0.32	50.40	0.31	24.09	0.02
6	83187	0.73	0.40	0.52	0.44	3.94	-0.26	73.38	0.40	13.93	-0.24	8.31	-0.15
7	83187	0.66	0.47	0.57	0.60	14.83	-0.24	9.58	-0.26	8.58	-0.21	66.40	0.47
8	83187	0.86	0.46	0.68	0.30	85.91	0.46	3.61	-0.26	5.31	-0.28	4.87	-0.22
9	83187	0.62	0.48	0.58	0.42	17.28	-0.16	12.59	-0.33	7.38	-0.23	62.32	0.48
10	83187	0.37	0.22	0.28	0.35	21.86	-0.22	37.30	0.22	10.64	-0.19	29.84	0.09
11	83187	0.51	0.40	0.47	0.14	7.63	-0.21	11.45	-0.19	30.12	-0.18	50.66	0.40
12	83187	0.58	0.38	0.46	0.22	15.30	-0.14	9.65	-0.25	17.18	-0.17	57.65	0.38
13	83187	0.59	0.37	0.45	0.86	7.18	-0.27	22.24	-0.13	10.59	-0.19	59.14	0.37
14	83187	0.74	0.49	0.62	0.23	7.04	-0.28	8.90	-0.29	73.51	0.49	10.32	-0.20
15	83187	0.44	0.28	0.34	0.28	12.42	-0.31	23.11	-0.05	19.92	-0.04	44.27	0.28
16	83187	0.69	0.39	0.49	0.20	69.47	0.39	9.34	-0.28	15.31	-0.15	5.68	-0.19
17	83187	0.52	0.32	0.38	0.73	11.84	-0.21	51.90	0.32	17.05	-0.15	18.48	-0.09
18	83187	0.67	0.30	0.38	0.63	7.21	-0.20	19.98	-0.08	66.92	0.30	5.27	-0.25
19	83187	0.49	0.31	0.38	0.41	35.65	-0.12	10.10	-0.18	48.97	0.31	4.87	-0.21
20	83187	0.45	0.30	0.37	0.65	13.37	-0.20	17.76	-0.09	44.72	0.30	23.51	-0.12

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.36
Spring 2013 AIMS Classical Item Analysis
Language NRT Grade 4

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83045	0.88	0.46	0.70	0.12	6.40	-0.31	3.22	-0.22	2.64	-0.22	87.62	0.46
2	83045	0.48	0.29	0.35	0.03	10.62	-0.25	14.18	-0.10	47.72	0.29	27.45	-0.07
3	83045	0.80	0.40	0.55	0.07	11.48	-0.16	3.88	-0.28	4.31	-0.27	80.26	0.40
4	83045	0.46	0.30	0.36	0.12	16.28	-0.05	46.15	0.30	21.78	-0.10	15.68	-0.25
5	83045	0.66	0.35	0.43	0.07	65.96	0.35	4.09	-0.29	5.38	-0.18	24.49	-0.15
6	83045	0.46	0.31	0.37	0.07	5.14	-0.28	45.67	0.31	9.72	-0.25	39.40	-0.04
7	83045	0.77	0.44	0.58	0.11	76.68	0.44	3.75	-0.26	8.49	-0.25	10.97	-0.22
8	83045	0.69	0.47	0.58	0.04	6.57	-0.27	68.88	0.47	7.48	-0.24	17.03	-0.23
9	83045	0.67	0.37	0.46	0.09	15.01	-0.23	4.63	-0.26	12.92	-0.11	67.35	0.37
10	83045	0.64	0.26	0.33	0.15	64.14	0.26	7.44	-0.17	3.11	-0.26	25.16	-0.09
11	83045	0.79	0.47	0.63	0.03	9.87	-0.25	5.82	-0.25	5.66	-0.25	78.63	0.47
12	83045	0.69	0.40	0.50	0.06	13.12	-0.17	68.82	0.40	5.94	-0.27	12.06	-0.20
13	83045	0.70	0.43	0.54	0.04	13.62	-0.22	70.25	0.43	5.47	-0.20	10.62	-0.25
14	83045	0.52	0.26	0.31	0.08	14.02	-0.23	6.26	-0.27	27.48	0.04	52.15	0.26
15	83045	0.79	0.45	0.61	0.05	78.60	0.45	4.61	-0.26	7.42	-0.24	9.32	-0.23
16	83045	0.88	0.46	0.72	0.05	87.85	0.46	4.95	-0.26	4.24	-0.26	2.92	-0.24
17	83045	0.59	0.29	0.36	0.10	8.39	-0.22	24.57	-0.04	58.91	0.29	8.02	-0.25
18	83045	0.82	0.50	0.71	0.03	8.71	-0.33	82.46	0.50	5.39	-0.26	3.43	-0.22
19	83045	0.79	0.48	0.64	0.06	78.78	0.48	6.36	-0.26	6.64	-0.29	8.16	-0.21
20	83045	0.55	0.35	0.42	0.14	13.13	-0.25	25.00	-0.07	54.57	0.35	7.16	-0.23

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.37
Spring 2013 AIMS Classical Item Analysis
Language NRT Grade 5

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82223	0.92	0.38	0.67	0.03	5.18	-0.27	0.97	-0.16	1.83	-0.21	91.99	0.38
2	82223	0.79	0.34	0.45	0.03	78.60	0.34	9.57	-0.17	1.93	-0.21	9.87	-0.20
3	82223	0.67	0.34	0.43	0.05	67.41	0.34	19.29	-0.10	3.16	-0.23	10.09	-0.26
4	82223	0.81	0.38	0.52	0.03	3.76	-0.17	12.44	-0.22	3.27	-0.25	80.51	0.38
5	82223	0.52	0.18	0.22	0.04	38.76	-0.01	3.88	-0.21	5.50	-0.22	51.82	0.18
6	82223	0.69	0.22	0.28	0.02	9.48	-0.19	12.12	0.00	69.11	0.22	9.27	-0.16
7	82223	0.56	0.33	0.39	0.03	6.18	-0.22	56.31	0.33	7.69	-0.24	29.79	-0.10
8	82223	0.68	0.35	0.44	0.03	6.96	-0.24	68.49	0.35	6.30	-0.17	18.21	-0.15
9	82223	0.67	0.31	0.38	0.03	2.49	-0.19	66.80	0.31	20.80	-0.20	9.88	-0.11
10	82223	0.61	0.40	0.48	0.02	5.51	-0.27	9.08	-0.23	60.86	0.40	24.53	-0.16
11	82223	0.76	0.37	0.49	0.01	15.16	-0.20	76.09	0.37	2.45	-0.18	6.29	-0.23
12	82223	0.60	0.40	0.48	0.02	13.85	-0.20	59.61	0.40	5.68	-0.22	20.84	-0.19
13	82223	0.64	0.33	0.41	0.03	7.78	-0.17	15.78	-0.13	63.78	0.33	12.64	-0.21
14	82223	0.81	0.47	0.64	0.04	7.63	-0.25	3.58	-0.27	7.93	-0.25	80.82	0.47
15	82223	0.82	0.42	0.58	0.05	81.82	0.42	4.78	-0.25	5.17	-0.23	8.19	-0.20
16	82223	0.70	0.43	0.53	0.05	6.11	-0.23	16.90	-0.21	69.66	0.43	7.28	-0.24
17	82223	0.60	0.39	0.46	0.04	59.65	0.39	11.80	-0.27	22.71	-0.11	5.80	-0.24
18	82223	0.74	0.42	0.54	0.02	74.43	0.42	8.75	-0.26	8.51	-0.22	8.29	-0.17
19	82223	0.71	0.44	0.55	0.03	8.08	-0.27	14.08	-0.25	70.90	0.44	6.91	-0.14
20	82223	0.60	0.39	0.46	0.05	16.03	-0.20	60.11	0.39	17.61	-0.15	6.21	-0.24

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.38
Spring 2013 AIMS Classical Item Analysis
Language NRT Grade 6

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82598	0.80	0.35	0.48	0.05	2.96	-0.15	9.12	-0.20	80.18	0.35	7.69	-0.21
2	82598	0.68	0.13	0.17	0.02	68.06	0.13	12.45	-0.09	3.07	-0.16	16.40	-0.02
3	82598	0.84	0.33	0.48	0.03	5.91	-0.15	3.28	-0.19	83.73	0.33	7.05	-0.22
4	82598	0.56	0.30	0.36	0.04	56.27	0.30	2.04	-0.21	14.69	-0.19	26.96	-0.12
5	82598	0.92	0.31	0.55	0.03	0.88	-0.15	0.89	-0.17	91.96	0.31	6.25	-0.22
6	82598	0.31	0.31	0.39	0.05	59.86	-0.11	6.38	-0.29	2.99	-0.10	30.72	0.31
7	82598	0.95	0.31	0.63	0.02	0.84	-0.14	94.68	0.31	1.40	-0.15	3.06	-0.23
8	82598	0.83	0.34	0.49	0.04	83.31	0.34	6.25	-0.15	6.02	-0.16	4.39	-0.26
9	82598	0.69	0.18	0.22	0.02	3.01	-0.21	1.54	-0.20	68.60	0.18	26.83	-0.05
10	82598	0.79	0.43	0.58	0.03	78.72	0.43	8.58	-0.28	3.13	-0.18	9.55	-0.23
11	82598	0.73	0.38	0.48	0.01	6.14	-0.23	7.38	-0.19	73.32	0.38	13.15	-0.18
12	82598	0.83	0.36	0.51	0.02	3.41	-0.22	82.61	0.36	2.75	-0.23	11.21	-0.19
13	82598	0.64	0.33	0.40	0.05	64.06	0.33	9.74	-0.20	13.72	-0.17	12.43	-0.12
14	82598	0.68	0.32	0.40	0.03	3.92	-0.18	25.17	-0.19	2.62	-0.21	68.25	0.32
15	82598	0.79	0.37	0.51	0.03	79.42	0.37	4.93	-0.18	4.85	-0.21	10.78	-0.22
16	82598	0.78	0.47	0.62	0.04	7.85	-0.25	78.41	0.47	5.43	-0.23	8.27	-0.26
17	82598	0.58	0.34	0.41	0.04	13.40	-0.19	16.25	-0.21	58.34	0.34	11.97	-0.08
18	82598	0.70	0.43	0.53	0.08	7.34	-0.27	16.97	-0.17	5.91	-0.26	69.71	0.43
19	82598	0.80	0.39	0.54	0.03	4.77	-0.27	80.33	0.39	5.25	-0.23	9.61	-0.16
20	82598	0.58	0.39	0.47	0.04	11.39	-0.21	19.18	-0.13	11.63	-0.24	57.76	0.39

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.39
Spring 2013 AIMS Classical Item Analysis
Language NRT Grade 7

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82502	0.78	0.36	0.48	0.08	77.95	0.36	3.06	-0.21	6.20	-0.25	12.70	-0.16
2	82502	0.67	0.49	0.59	0.09	5.12	-0.22	18.93	-0.30	8.99	-0.21	66.86	0.49
3	82502	0.78	0.42	0.57	0.10	6.18	-0.20	78.45	0.42	5.07	-0.23	10.20	-0.26
4	82502	0.83	0.39	0.57	0.10	2.84	-0.23	2.37	-0.23	83.28	0.39	11.42	-0.23
5	82502	0.58	0.21	0.25	0.12	10.84	-0.22	6.52	-0.08	57.91	0.21	24.60	-0.03
6	82502	0.68	0.41	0.51	0.14	68.06	0.41	9.79	-0.25	2.67	-0.23	19.35	-0.20
7	82502	0.80	0.37	0.50	0.12	10.21	-0.19	3.63	-0.22	79.99	0.37	6.05	-0.20
8	82502	0.35	0.19	0.23	0.11	35.20	0.19	14.01	-0.19	3.70	-0.23	46.98	0.04
9	82502	0.76	0.36	0.48	0.11	15.75	-0.16	3.51	-0.26	75.80	0.36	4.83	-0.23
10	82502	0.31	0.33	0.41	0.11	56.79	-0.04	31.49	0.33	3.95	-0.28	7.66	-0.29
11	82502	0.84	0.34	0.49	0.02	11.27	-0.26	2.00	-0.15	84.29	0.34	2.42	-0.13
12	82502	0.56	0.24	0.29	0.02	56.15	0.24	6.19	-0.14	4.90	-0.22	32.74	-0.08
13	82502	0.66	0.28	0.34	0.03	65.99	0.28	9.80	-0.11	9.24	-0.17	14.93	-0.14
14	82502	0.59	0.33	0.40	0.03	20.81	-0.31	16.66	-0.01	3.46	-0.19	59.04	0.33
15	82502	0.81	0.41	0.57	0.04	2.56	-0.19	4.19	-0.25	11.86	-0.25	81.35	0.41
16	82502	0.72	0.43	0.54	0.02	10.96	-0.27	9.12	-0.20	7.56	-0.19	72.35	0.43
17	82502	0.84	0.34	0.49	0.02	83.77	0.34	3.44	-0.17	3.00	-0.18	9.77	-0.21
18	82502	0.83	0.40	0.57	0.01	6.51	-0.26	8.38	-0.22	82.83	0.40	2.28	-0.20
19	82502	0.69	0.32	0.41	0.02	14.93	-0.21	13.48	-0.15	68.78	0.32	2.80	-0.15
20	82502	0.62	0.34	0.42	0.04	7.41	-0.25	7.39	-0.18	23.46	-0.13	61.69	0.34

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.40
Spring 2013 AIMS Classical Item Analysis
Language NRT Grade 8

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	81433	0.91	0.31	0.53	0.02	2.25	-0.22	1.44	-0.19	90.86	0.31	5.42	-0.15
2	81433	0.70	0.31	0.39	0.03	26.76	-0.22	1.12	-0.17	69.99	0.31	2.10	-0.20
3	81433	0.87	0.32	0.49	0.04	86.82	0.32	2.03	-0.19	3.46	-0.22	7.65	-0.15
4	81433	0.67	0.29	0.36	0.04	3.91	-0.21	2.23	-0.22	67.20	0.29	26.62	-0.14
5	81433	0.82	0.22	0.31	0.03	3.12	-0.22	82.39	0.22	2.07	-0.16	12.39	-0.07
6	81433	0.76	0.40	0.52	0.02	6.35	-0.28	76.18	0.40	4.60	-0.20	12.86	-0.17
7	81433	0.74	0.38	0.49	0.02	17.14	-0.24	4.52	-0.20	3.88	-0.18	74.43	0.38
8	81433	0.60	0.18	0.22	0.03	4.82	-0.12	60.42	0.18	12.13	-0.13	22.60	-0.04
9	81433	0.46	0.33	0.39	0.03	23.82	-0.20	12.49	-0.13	46.39	0.33	17.27	-0.10
10	81433	0.75	0.18	0.24	0.03	19.34	-0.07	2.50	-0.19	3.28	-0.14	74.84	0.18
11	81433	0.61	0.22	0.27	0.01	3.04	-0.11	17.67	-0.13	61.12	0.22	18.15	-0.09
12	81433	0.65	0.31	0.38	0.01	64.83	0.31	10.04	-0.17	11.63	-0.17	13.49	-0.13
13	81433	0.84	0.39	0.56	0.02	6.39	-0.20	5.12	-0.22	83.93	0.39	4.53	-0.22
14	81433	0.75	0.28	0.37	0.04	75.40	0.28	3.48	-0.15	6.64	-0.20	14.44	-0.12
15	81433	0.72	0.39	0.49	0.06	13.13	-0.22	72.33	0.39	3.52	-0.14	10.96	-0.23
16	81433	0.77	0.21	0.28	0.02	3.20	-0.23	77.48	0.21	1.21	-0.19	18.09	-0.07
17	81433	0.63	0.35	0.42	0.02	3.29	-0.14	30.19	-0.21	3.79	-0.24	62.70	0.35
18	81433	0.84	0.37	0.53	0.01	7.20	-0.23	3.95	-0.18	83.85	0.37	5.00	-0.18
19	81433	0.61	0.30	0.36	0.04	61.06	0.30	7.58	-0.20	18.11	-0.05	13.21	-0.21
20	81433	0.80	0.42	0.56	0.02	7.44	-0.25	6.28	-0.17	6.58	-0.24	79.68	0.42

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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PART 7: CALIBRATION, SCALING AND EQUATING

Part 7 of the technical report describes calibration and scaling procedures and results for the Spring 2013 AIMS assessments. All grade levels and content areas were calibrated and scaled with calibration samples that typically consisted of the entire student population. Part 7 of this report addresses the following AERA/APA/NCME standards: 1.13, 2.1, 2.2, 2.14, 4.1, 4.2, 4.3, 6.4, 6.5, and 13.6. Also note that the Fall 2012 AIMS assessment is described in Appendix A.

7.1 Ensuring Valid Records in Calibration Sample

In order to ensure valid calibration results, several data cleaning steps occurred upon receipt of raw data from the scanning and scoring processes. These steps allowed for calibration to be conducted on valid student responses at the targeted grade level. Records for students taking all field test forms of the tests were included.

The cleaning process removed the following records from the calibration datasets for each content area and grade level:

- records with invalid tests noted by a special invalidation code obtained from ADE and marked on the answer document;
- records with non-valid attempts noted by less than one response in any of the test sessions;
- records for Bureau of Indian Affairs schools, juvenile corrections centers, state hospital schools, private schools, and home schooled students;
- records for students in cohorts other than 2015(high school tests only);
- records which indicated the student took a test other than their grade level test; and
- duplicate records (score sheets were double scanned or students indicated as taking the test more than one time).

7.2 Calibration Methods

Item Response Theory (IRT) models were used in the item calibration for all AIMS Reading, Writing, Mathematics, and Science tests. All tests were calibrated separately by grade and content area. All calibration activities were replicated by ADE staff as an added quality control check.

7.2.1 Calibration Model

The AIMS mathematics, reading, and science criterion-reference components are composed of multiple-choice items. All Arizona items and selected Stanford 10 items that served dual purposes in reading and mathematics contributed to the AIMS CRT scores and were calibrated using the Rasch model to create the CRT scale. Historically, the AIMS mathematics, reading, and science CRT components have been developed and calibrated using the Rasch Model. The Rasch model (Rasch, 1960; Wright, 1977) can be conceptualized as a one-parameter IRT (1PL) model in which item difficulty and student ability are estimated on the same scale. The Rasch model defines a multiple-choice item in terms of one parameter: item difficulty. In the Rasch model, the probability that a student with an ability estimate (θ) responds correctly to item i is:

$$P_i(\theta) = \frac{\exp(\theta - b_i)}{1 + \exp(\theta - b_i)},$$

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where b_i is the item difficulty.

The criterion-reference components of the AIMS Writing tests in Grades 5, 6, 7 and high school are composed of multiple-choice items (both Arizona items and NRT dual purpose items at the elementary level) and one extended response essay scored on a six-point scale. The Rasch model is not applicable in this case, so the Partial Credit Model (Masters, 1982; Wright & Stone, 1979) is used to create the CRT scale. The Partial Credit Model is an extension of the Rasch model designed for use with items that have multiple response categories. The PCM reduces to the Rasch model for items with only two response categories, such as multiple-choice items. For an item involving m_i score categories, the general expression for the probability of scoring x on item i is given by:

$$P_{xi} = \exp \sum_{j=0}^{x} (\theta - D_{ij}) / \sum_{k=0}^{m_i} \left[\exp \sum_{j=0}^{k} (\theta - D_{ij}) \right] \qquad (6.1)$$

where $x = 0, 1, ..., m_i$, and by definition, $\sum_{j=0}^{0} (\theta - D_{ij}) = 0$.

The above equation gives the probability of scoring x on the i-th test item as a function of ability (θ) and the difficulty (D_{ij}) of the m_i steps of the task. According to this model, the probability of an examinee scoring in a particular category is the sum of the logit (log-odds) differences between θ and D_{ij} of all the completed steps, divided by the sum of the differences of all the steps of a task.

Norm-reference scores are reported based on the students' performance on the NRT component, and items contributing to the AIMS norm-referenced component were calibrated with the Rasch model. Norm-referenced items were calibrated during the national standardization of the Stanford 10 using the Rasch model, and the parameters used for scoring the AIMS NRT were those obtained during this standardization.

7.2.2 Calibration Software

Parameter estimation for items on the criterion-referenced tests was implemented using Winsteps 3.69.1 (Linacre, 2009). Winsteps uses joint maximum likelihood estimation (JMLE) as described by Wright and Masters (1982). Item parameters for the NRT assessment were obtained from the Stanford 10 standardization.

7.3 Calibration Results

7.3.1 IRT Item Statistics

Item statistics resulting from calibration of the AIMS CRT tests for all subjects are presented in Tables 7.3.1.1 through 7.3.1.22. All items for all AIMS tests converged during calibration using typical procedures for Winsteps software. Standard error of estimates for the Rasch difficulty measures indicated that the parameters were well estimated. Model-to-item data fit was monitored using weighted mean-square (MNSQ) and unweighted MNSQ statistics, which indicate the degree of accuracy and predictability with which the data fits the model (Linacre, 2002). In Winsteps and Rasch literature, weighted mean-square is also referred to as infit MNSQ and unweighted mean-square is referred to as outfit MNSQ. The infit MNSQ is sensitive to unexpected responses at or near the item's calibrated level; whereas, outfit MNSQ is sensitive to unexpected responses away from

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the item's calibrated level. Typically, values less than 0.6 and greater than 1.4 for infit MNSQ indicate misfit, and values greater than 1.4 for outfit MNSQ indicate misfit (Wright & Linacre, 1994). One item was flagged as having misfit as indicated by weighted MNSQ, and 43 items were flagged as having misfit as indicated by unweighted MNSQ. Items on 19 of the 21 CRT tests, with between one and four items flagged per test, had misfit as indicated by unweighted MNSQ.

The items that were flagged for unweighted and/or weighted MNSQ include:

1. MATH Grade 03 Item 12 unweighted mean-square 1.79
2. MATH Grade 03 Item 16 unweighted mean-square 1.55
3. MATH Grade 03 Item 23 unweighted mean-square 1.43
4. MATH Grade 03 Item 47 unweighted mean-square 1.48
5. MATH Grade 04 Item 22 unweighted mean-square 1.57
6. MATH Grade 05 Item 9 unweighted mean-square 1.60
7. MATH Grade 05 Item 63 unweighted mean-square 1.58
8. MATH Grade 06 Item 50 unweighted mean-square 1.76
9. MATH Grade 07 Item 1 unweighted mean-square 1.54
10. MATH Grade 07 Item 13 unweighted mean-square 1.60
11. MATH Grade 07 Item 28 unweighted mean-square 1.56
12. MATH Grade 07 Item 40 unweighted mean-square 1.51
13. MATH Grade 08 Item 2 unweighted mean-square 1.57
14. MATH Grade 08 Item 36 unweighted mean-square 1.46
15. MATH Grade 08 Item 56 unweighted mean-square 1.44
16. MATH Grade HS Item 2 unweighted mean-square 1.45
17. MATH Grade HS Item 22 unweighted mean-square 1.48
18. MATH Grade HS Item 82 unweighted mean-square 1.57
19. READ Grade 03 Item 29 unweighted mean-square 1.42
20. READ Grade 03 Item 52 unweighted mean-square 1.75
21. READ Grade 04 Item 18 unweighted mean-square 1.73, weighted mean-square 1.48
22. READ Grade 04 Item 23 unweighted mean-square 1.55
23. READ Grade 04 Item 32 unweighted mean-square 1.52
24. READ Grade 05 Item 1 unweighted mean-square 1.76
25. READ Grade 05 Item 4 unweighted mean-square 1.58
26. READ Grade 05 Item 42 unweighted mean-square 1.80
27. READ Grade 06 Item 48 unweighted mean-square 1.59
28. READ Grade 07 Item 2 unweighted mean-square 1.46
29. READ Grade 07 Item 44 unweighted mean-square 1.46
30. READ Grade 08 Item 10 unweighted mean-square 1.61
31. READ Grade HS Item 28 unweighted mean-square 1.85
32. WRIT Grade 05 Item 9 unweighted mean-square 1.55
33. WRIT Grade 05 Item 21 unweighted mean-square 1.42
34. WRIT Grade 06 Item 7 unweighted mean-square 1.51
35. WRIT Grade 06 Item 20 unweighted mean-square 1.44
36. WRIT Grade 07 Item 2 unweighted mean-square 1.98
37. WRIT Grade 07 Item 3 unweighted mean-square 1.47
38. WRIT Grade 07 Item 24 unweighted mean-square 1.55
39. SCIE Grade 04 Item 10 unweighted mean-square 1.58
40. SCIE Grade 04 Item 38 unweighted mean-square 1.48
41. SCIE Grade 04 Item 51 unweighted mean-square 1.46
42. SCIE Grade HS Item 55 unweighted mean-square 1.48
43. SCIE Grade HS Item 56 unweighted mean-square 1.43

None of the misfits were so extreme as to warrant corrective action during operational analysis.

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Table 7.3.1.1
Spring 2013 AIMS IRT Item Statistics
Mathematics Grade 3

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-1.33	0.01	1.10	1.30	34	-1.26	0.01	0.88	0.78
2	-1.47	0.01	0.86	0.79	35	-0.69	0.01	1.00	0.95
3	-1.01	0.01	0.94	0.97	36	1.73	0.01	0.95	1.14
4	-0.27	0.01	1.02	1.03	37	-1.77	0.01	0.87	0.71
5	-0.58	0.01	0.82	0.73	38	-0.49	0.01	1.00	0.94
6	-0.25	0.01	0.97	0.93	39	1.10	0.01	1.00	1.08
7	0.37	0.01	1.16	1.23	40	-0.46	0.01	0.92	0.86
8	0.07	0.01	1.00	0.98	41	-0.52	0.01	0.95	0.91
9	0.82	0.01	0.93	0.91	42	-2.07	0.01	0.91	0.73
10	-0.55	0.01	1.01	0.97	43	0.89	0.01	1.01	1.07
11	0.81	0.01	1.16	1.23	44	-1.06	0.01	1.11	1.26
12	-2.12	0.01	1.09	1.79	45	0.62	0.01	1.04	1.09
13	-0.20	0.01	0.99	0.97	46	-1.65	0.01	0.88	0.78
14	0.59	0.01	1.13	1.17	47	-1.26	0.01	1.13	1.48
15	-0.19	0.01	0.96	0.96	48	-0.83	0.01	1.02	1.08
16	0.99	0.01	1.36	1.55	49	0.39	0.01	1.03	1.05
17	0.32	0.01	0.99	0.98	50	-2.76	0.01	1.01	1.31
18	-0.69	0.01	0.87	0.76	51	0.47	0.01	1.07	1.10
19	-0.26	0.01	0.93	0.90	52	-1.37	0.01	0.88	0.75
20	-0.51	0.01	0.85	0.76	53	-0.73	0.01	0.93	0.88
21	-0.84	0.01	0.99	1.01	54	-0.08	0.01	1.07	1.09
22	0.65	0.01	1.11	1.20	55	-0.33	0.01	0.93	0.86
23	1.52	0.01	1.12	1.43	56	0.21	0.01	0.96	0.93
24	0.45	0.01	1.14	1.20	57	-2.43	0.01	1.00	1.11
25	-0.13	0.01	0.95	0.94	58	0.73	0.01	1.14	1.20
26	-2.12	0.01	0.98	0.99	59	-1.07	0.01	1.01	1.01
27	-0.04	0.01	0.84	0.79	60	-1.45	0.01	0.92	0.99
28	-1.55	0.01	0.96	0.88	61	0.43	0.01	1.11	1.15
29	-0.60	0.01	0.90	0.86	62	-0.12	0.01	1.00	0.97
30	-0.73	0.01	0.89	0.80	63	-0.02	0.01	1.01	0.99
31	0.59	0.01	0.97	1.00	64	0.30	0.01	1.03	1.07
32	-1.04	0.01	0.95	0.87	65	-2.09	0.01	0.87	0.61
33	-1.18	0.01	0.87	0.80	66	-0.72	0.01	1.06	1.21

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Table 7.3.1.2
Spring 2013 AIMS IRT Item Statistics
Mathematics Grade 4

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-1.22	0.01	0.98	0.91	35	-1.75	0.01	0.97	0.92
2	-0.50	0.01	0.91	0.88	36	-0.93	0.01	0.95	0.87
3	-0.77	0.01	0.89	0.77	37	-1.41	0.01	0.95	0.92
4	-0.81	0.01	0.90	0.84	38	-0.59	0.01	0.92	0.87
5	1.41	0.01	0.95	1.01	39	-1.30	0.01	0.88	0.73
6	-0.49	0.01	0.88	0.79	40	0.62	0.01	0.88	0.85
7	-0.27	0.01	0.98	0.95	41	-1.02	0.01	0.91	0.79
8	-0.91	0.01	1.06	1.12	42	0.25	0.01	1.24	1.35
9	0.82	0.01	1.07	1.11	43	1.20	0.01	0.97	1.03
10	-1.21	0.01	0.89	0.75	44	0.77	0.01	1.00	1.01
11	0.93	0.01	1.09	1.15	45	-0.85	0.01	0.95	0.95
12	-0.77	0.01	0.96	0.98	46	0.45	0.01	1.04	1.05
13	0.77	0.01	1.09	1.13	47	-1.38	0.01	0.92	0.82
14	1.22	0.01	0.95	1.00	48	-0.56	0.01	1.04	1.12
15	-0.20	0.01	0.92	0.91	49	0.57	0.01	1.07	1.11
16	0.12	0.01	1.17	1.26	50	0.23	0.01	1.05	1.03
17	-0.69	0.01	0.99	1.04	51	-0.86	0.01	0.87	0.73
18	0.08	0.01	0.91	0.84	52	-1.52	0.01	0.99	1.05
19	-1.33	0.01	0.99	0.98	53	-0.74	0.01	0.93	0.89
20	-0.34	0.01	0.87	0.78	54	-0.22	0.01	1.27	1.39
21	0.82	0.01	1.03	1.07	55	0.58	0.01	1.07	1.09
22	1.86	0.01	1.23	1.57	56	-1.01	0.01	0.89	0.83
23	-0.50	0.01	0.92	0.85	57	0.03	0.01	1.08	1.13
24	-0.70	0.01	0.95	0.90	58	0.80	0.01	1.07	1.11
25	0.85	0.01	1.00	1.02	59	-0.09	0.01	0.97	0.91
26	-0.79	0.01	0.90	0.89	60	-0.52	0.01	1.02	1.03
27	-0.95	0.01	0.81	0.71	61	-0.76	0.01	0.92	0.89
28	1.03	0.01	1.22	1.36	62	1.73	0.01	1.10	1.39
29	-0.02	0.01	0.94	0.97	63	-0.81	0.01	0.93	0.88
30	-1.66	0.01	0.88	0.74	64	0.46	0.01	1.14	1.18
31	0.83	0.01	1.08	1.11	65	-0.53	0.01	1.11	1.27
32	0.98	0.01	1.02	1.07	66	-0.42	0.01	1.02	1.04
33	0.13	0.01	0.95	0.92	67	-0.13	0.01	1.03	1.07
34	-1.35	0.01	0.93	0.91	68	0.33	0.01	0.97	0.95

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Table 7.3.1.3
Spring 2013 AIMS IRT Item Statistics
Mathematics Grade 5

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-1.53	0.01	0.96	0.87	35	-0.40	0.01	0.92	0.82
2	-1.19	0.01	0.82	0.57	36	-0.61	0.01	0.88	0.74
3	-0.39	0.01	0.83	0.70	37	0.01	0.01	1.04	1.10
4	1.14	0.01	1.11	1.16	38	-0.09	0.01	0.89	0.83
5	2.41	0.01	1.00	1.18	39	0.15	0.01	1.02	1.18
6	-0.22	0.01	0.81	0.69	40	-0.43	0.01	0.94	0.89
7	0.78	0.01	0.93	0.91	41	1.54	0.01	1.24	1.37
8	-0.23	0.01	0.99	0.97	42	0.04	0.01	0.88	0.81
9	-0.21	0.01	1.32	1.60	43	-0.01	0.01	0.93	0.89
10	1.27	0.01	0.95	0.97	44	0.76	0.01	0.97	0.95
11	0.10	0.01	1.01	1.02	45	0.15	0.01	1.05	1.07
12	0.35	0.01	1.17	1.23	46	-0.39	0.01	0.91	0.81
13	-0.06	0.01	0.99	0.95	47	-2.51	0.02	0.94	0.78
14	-0.42	0.01	0.95	0.92	48	0.68	0.01	0.92	0.89
15	-0.36	0.01	0.90	0.84	49	-0.38	0.01	0.95	0.82
16	-0.02	0.01	0.92	0.86	50	-0.59	0.01	0.93	0.84
17	1.67	0.01	1.15	1.32	51	0.20	0.01	1.13	1.27
18	0.19	0.01	0.99	0.99	52	0.64	0.01	1.05	1.05
19	0.37	0.01	1.07	1.10	53	1.69	0.01	1.20	1.35
20	1.83	0.01	1.09	1.20	54	0.49	0.01	1.02	1.04
21	0.46	0.01	0.90	0.84	55	-0.33	0.01	1.03	1.13
22	0.71	0.01	1.03	1.04	56	1.51	0.01	0.95	1.00
23	0.35	0.01	0.97	0.93	57	-0.47	0.01	0.90	0.80
24	1.43	0.01	0.92	0.94	58	-0.01	0.01	0.95	0.90
25	-0.58	0.01	0.89	0.77	59	0.09	0.01	1.10	1.13
26	-1.73	0.01	1.00	1.07	60	0.78	0.01	1.17	1.23
27	0.09	0.01	1.00	0.91	61	-0.53	0.01	1.02	1.01
28	-1.42	0.01	0.91	0.74	62	1.02	0.01	0.98	0.98
29	1.03	0.01	1.05	1.08	63	2.38	0.01	1.19	1.58
30	1.16	0.01	1.08	1.12	64	-0.20	0.01	0.89	0.78
31	-0.70	0.01	0.88	0.74	65	2.41	0.01	1.05	1.37
32	0.99	0.01	1.02	1.04	66	0.49	0.01	0.93	0.90
33	-0.98	0.01	0.92	0.87	67	1.21	0.01	1.10	1.15
34	0.42	0.01	0.96	0.95					

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Table 7.3.1.4
Spring 2013 AIMS IRT Item Statistics
Mathematics Grade 6

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-1.06	0.01	0.98	0.92	35	0.25	0.01	0.92	0.85
2	1.22	0.01	1.09	1.11	36	-0.34	0.01	0.93	0.86
3	1.77	0.01	1.03	1.06	37	1.71	0.01	1.13	1.19
4	0.42	0.01	0.96	0.91	38	0.07	0.01	0.83	0.69
5	0.91	0.01	0.96	0.91	39	0.32	0.01	1.08	1.09
6	0.42	0.01	0.84	0.75	40	1.50	0.01	0.98	0.98
7	-0.05	0.01	0.87	0.76	41	1.02	0.01	0.95	0.90
8	1.35	0.01	1.01	1.00	42	2.12	0.01	1.20	1.34
9	1.17	0.01	0.99	0.97	43	1.74	0.01	1.23	1.32
10	1.23	0.01	1.03	1.02	44	1.55	0.01	1.22	1.30
11	2.05	0.01	0.86	0.88	45	1.38	0.01	0.96	0.95
12	-1.05	0.01	0.89	0.76	46	-0.06	0.01	0.93	0.85
13	1.27	0.01	1.14	1.16	47	2.20	0.01	1.02	1.17
14	1.24	0.01	1.03	1.04	48	0.05	0.01	0.93	0.84
15	0.89	0.01	1.07	1.07	49	0.05	0.01	0.82	0.67
16	-0.58	0.01	0.92	0.81	50	2.35	0.01	1.39	1.76
17	1.21	0.01	1.02	1.02	51	1.26	0.01	1.04	1.05
18	1.19	0.01	0.97	0.96	52	1.28	0.01	0.89	0.87
19	0.75	0.01	1.21	1.31	53	0.60	0.01	0.87	0.78
20	0.98	0.01	1.07	1.12	54	1.77	0.01	0.96	0.99
21	0.32	0.01	0.97	1.01	55	-0.08	0.01	0.82	0.66
22	-0.10	0.01	0.83	0.69	56	2.12	0.01	1.17	1.33
23	-0.22	0.01	0.85	0.71	57	0.44	0.01	0.98	0.93
24	-0.01	0.01	0.92	0.86	58	-0.37	0.01	0.81	0.65
25	-0.48	0.01	0.91	0.81	59	1.64	0.01	1.12	1.17
26	1.12	0.01	0.98	0.97	60	2.05	0.01	1.14	1.23
27	-0.79	0.01	0.88	0.81	61	-0.58	0.01	0.89	0.75
28	0.94	0.01	0.93	0.89	62	1.80	0.01	1.09	1.16
29	0.79	0.01	1.01	1.01	63	0.60	0.01	0.91	0.86
30	0.94	0.01	1.03	1.04	64	0.57	0.01	0.90	0.85
31	0.13	0.01	1.06	1.15	65	1.50	0.01	0.99	0.99
32	0.36	0.01	0.85	0.77	66	1.32	0.01	1.08	1.13
33	1.60	0.01	1.17	1.23	67	1.19	0.01	1.02	1.02
34	-0.13	0.01	1.06	1.16	68	0.97	0.01	1.03	1.01

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Table 7.3.1.5
Spring 2013 AIMS IRT Item Statistics
Mathematics Grade 7

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	2.23	0.01	1.35	1.54	35	-0.35	0.01	0.83	0.57
2	-0.09	0.01	1.02	1.02	36	0.90	0.01	1.02	1.14
3	1.27	0.01	1.08	1.11	37	1.33	0.01	0.98	0.95
4	2.24	0.01	0.99	1.01	38	2.09	0.01	1.02	1.05
5	1.95	0.01	1.22	1.30	39	1.70	0.01	0.93	0.89
6	1.76	0.01	1.07	1.09	40	2.64	0.01	1.26	1.51
7	-0.08	0.01	1.03	1.23	41	0.99	0.01	0.97	0.97
8	0.15	0.01	0.99	0.99	42	0.16	0.01	0.94	0.87
9	0.51	0.01	0.92	0.84	43	0.82	0.01	1.00	1.03
10	1.63	0.01	1.16	1.23	44	2.56	0.01	1.00	1.11
11	1.36	0.01	1.10	1.19	45	0.85	0.01	0.88	0.81
12	1.29	0.01	0.90	0.86	46	1.53	0.01	1.02	1.04
13	2.88	0.01	1.28	1.60	47	1.82	0.01	1.12	1.16
14	0.97	0.01	0.97	0.94	48	-0.20	0.01	1.09	1.29
15	0.67	0.01	0.96	0.97	49	0.86	0.01	0.90	0.82
16	1.21	0.01	1.04	1.04	50	1.54	0.01	1.07	1.07
17	1.95	0.01	0.99	1.00	51	0.21	0.01	1.08	1.22
18	0.43	0.01	0.88	0.79	52	0.45	0.01	0.86	0.75
19	1.63	0.01	0.88	0.83	53	1.49	0.01	0.99	0.97
20	1.81	0.01	1.06	1.10	54	1.45	0.01	0.85	0.80
21	1.73	0.01	1.07	1.15	55	0.17	0.01	0.91	0.79
22	1.90	0.01	1.01	1.01	56	0.95	0.01	0.90	0.84
23	0.32	0.01	0.93	0.83	57	-0.31	0.01	0.80	0.55
24	0.33	0.01	0.93	0.86	58	0.62	0.01	0.88	0.81
25	0.85	0.01	0.93	0.90	59	1.40	0.01	1.00	0.99
26	0.89	0.01	1.04	1.10	60	1.02	0.01	0.94	0.91
27	1.17	0.01	1.05	1.06	61	0.95	0.01	0.87	0.77
28	1.05	0.01	1.29	1.56	62	1.53	0.01	1.08	1.09
29	1.50	0.01	1.04	1.04	63	0.39	0.01	0.89	0.84
30	0.91	0.01	0.88	0.78	64	1.33	0.01	0.87	0.81
31	2.39	0.01	1.01	1.07	65	0.99	0.01	0.99	0.95
32	0.57	0.01	0.93	0.87	66	1.43	0.01	1.05	1.06
33	1.20	0.01	0.96	0.96	67	-0.15	0.01	0.88	0.76
34	1.64	0.01	1.08	1.11	68	1.11	0.01	0.97	0.94

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Table 7.3.1.6
Spring 2013 AIMS IRT Item Statistics
Mathematics Grade 8

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-0.43	0.01	0.84	0.56	35	0.90	0.01	1.07	1.08
2	3.82	0.01	1.11	1.57	36	2.81	0.01	1.26	1.46
3	1.93	0.01	1.16	1.21	37	-0.12	0.01	0.89	0.86
4	0.72	0.01	0.82	0.69	38	1.52	0.01	1.00	0.96
5	0.76	0.01	0.91	0.83	39	0.93	0.01	0.90	0.84
6	0.96	0.01	1.20	1.32	40	1.46	0.01	0.98	0.94
7	1.09	0.01	1.01	1.01	41	0.54	0.01	0.90	0.82
8	1.83	0.01	0.96	0.94	42	3.01	0.01	1.03	1.15
9	1.50	0.01	1.09	1.17	43	0.98	0.01	0.92	0.88
10	0.67	0.01	0.85	0.70	44	1.84	0.01	1.02	1.01
11	2.24	0.01	0.99	1.00	45	1.64	0.01	1.16	1.23
12	1.24	0.01	0.98	0.94	46	0.73	0.01	0.91	0.84
13	0.72	0.01	0.97	0.93	47	1.12	0.01	0.90	0.82
14	1.66	0.01	0.98	1.00	48	1.54	0.01	1.05	1.01
15	0.82	0.01	0.89	0.86	49	1.66	0.01	1.00	0.99
16	0.84	0.01	0.93	0.94	50	3.09	0.01	1.01	1.17
17	2.15	0.01	1.01	1.03	51	2.55	0.01	1.23	1.37
18	1.91	0.01	0.91	0.88	52	2.62	0.01	1.11	1.22
19	1.81	0.01	0.99	0.96	53	0.76	0.01	0.90	0.84
20	1.67	0.01	1.16	1.24	54	1.08	0.01	1.02	1.03
21	1.34	0.01	1.08	1.13	55	2.09	0.01	1.16	1.22
22	2.06	0.01	1.06	1.07	56	1.14	0.01	1.21	1.44
23	1.77	0.01	1.03	1.03	57	1.00	0.01	0.89	0.85
24	-0.11	0.01	0.89	0.75	58	2.59	0.01	1.00	1.04
25	0.51	0.01	0.94	0.87	59	0.22	0.01	0.90	0.76
26	1.89	0.01	1.00	0.99	60	1.56	0.01	1.01	1.05
27	2.01	0.01	0.94	0.93	61	1.28	0.01	1.09	1.12
28	0.43	0.01	0.98	1.02	62	0.55	0.01	0.84	0.74
29	1.17	0.01	0.96	0.99	63	-0.01	0.01	0.97	1.00
30	1.02	0.01	0.83	0.71	64	0.31	0.01	1.05	1.19
31	1.10	0.01	0.95	0.92	65	1.68	0.01	0.96	0.92
32	2.39	0.01	1.04	1.08	66	0.80	0.01	0.93	0.93
33	2.51	0.01	1.08	1.15	67	1.39	0.01	0.99	0.98
34	-0.25	0.01	0.87	0.74	68	2.49	0.01	1.05	1.10

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Table 7.3.1.7
Spring 2013 AIMS IRT Item Statistics
Mathematics High School

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-0.06	0.01	0.87	0.82	44	1.22	0.01	1.21	1.30
2	0.15	0.01	1.24	1.45	45	0.01	0.01	0.93	0.90
3	-0.42	0.01	1.08	1.23	46	1.09	0.01	1.03	1.06
4	0.05	0.01	1.00	1.00	47	-0.16	0.01	0.98	0.96
5	0.86	0.01	1.05	1.05	48	0.40	0.01	1.04	1.06
6	-0.54	0.01	1.00	1.03	49	0.45	0.01	1.07	1.15
7	0.68	0.01	1.13	1.19	50	-0.09	0.01	0.91	0.82
8	-0.44	0.01	0.87	0.79	51	0.29	0.01	1.08	1.24
9	0.64	0.01	0.96	0.94	52	0.76	0.01	0.86	0.83
10	0.47	0.01	0.81	0.76	53	0.17	0.01	0.77	0.69
11	1.07	0.01	1.01	1.03	54	-1.81	0.01	0.94	0.86
12	0.83	0.01	0.92	0.90	55	1.52	0.01	1.12	1.21
13	-0.35	0.01	0.97	0.91	56	-0.47	0.01	0.91	0.84
14	-0.86	0.01	1.09	1.18	57	-0.51	0.01	1.00	1.06
15	0.87	0.01	0.99	0.98	58	0.78	0.01	1.13	1.16
16	1.08	0.01	1.01	1.03	59	0.91	0.01	1.18	1.27
17	1.34	0.01	1.10	1.16	60	0.88	0.01	1.08	1.09
18	0.87	0.01	0.87	0.85	61	-0.29	0.01	0.88	0.80
19	-0.57	0.01	0.89	0.84	62	1.36	0.01	0.89	0.90
20	0.32	0.01	1.09	1.22	63	-0.55	0.01	0.95	0.90
21	2.27	0.01	1.03	1.32	64	-0.26	0.01	0.92	0.88
22	1.54	0.01	1.30	1.48	65	-0.40	0.01	0.90	0.87
23	-1.14	0.01	0.87	0.68	66	1.36	0.01	0.97	1.01
24	-0.43	0.01	1.04	1.05	67	0.45	0.01	1.01	1.02
25	0.76	0.01	1.02	1.02	68	-0.58	0.01	0.83	0.72
26	0.34	0.01	1.00	0.95	69	0.36	0.01	0.96	0.93
27	1.23	0.01	0.98	1.01	70	1.03	0.01	1.14	1.20
28	0.89	0.01	1.04	1.06	71	1.70	0.01	1.19	1.38
29	1.19	0.01	1.10	1.14	72	0.80	0.01	1.05	1.06
30	0.66	0.01	0.93	0.90	73	0.17	0.01	0.86	0.80
31	0.06	0.01	0.96	0.92	74	-0.61	0.01	0.78	0.64
32	-0.11	0.01	0.89	0.79	75	1.67	0.01	1.18	1.35
33	0.43	0.01	0.95	0.91	76	0.05	0.01	1.03	1.03
34	2.18	0.01	1.18	1.36	77	0.45	0.01	0.99	0.97
35	0.41	0.01	0.94	0.90	78	0.36	0.01	1.16	1.32
36	-1.12	0.01	0.82	0.61	79	0.36	0.01	0.89	0.84
37	-0.70	0.01	0.85	0.75	80	0.07	0.01	0.93	0.90
38	-1.18	0.01	0.85	0.68	81	-0.39	0.01	0.88	0.82
39	1.80	0.01	1.07	1.18	82	1.74	0.01	1.32	1.57
40	0.45	0.01	1.01	1.06	83	-0.81	0.01	0.85	0.72
41	0.35	0.01	1.13	1.23	84	0.88	0.01	1.07	1.08
42	0.04	0.01	0.95	1.01	85	0.75	0.01	1.05	1.04
43	3.16	0.01	0.98	1.28					

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Table 7.3.1.8
Spring 2013 AIMS IRT Item Statistics
Reading Grade 3

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-0.30	0.01	0.91	0.84	28	1.17	0.01	0.96	0.95
2	-1.20	0.01	0.88	0.65	29	2.02	0.01	1.17	1.42
3	0.10	0.01	0.90	0.80	30	0.68	0.01	0.87	0.83
4	-1.39	0.01	0.91	0.82	31	-0.13	0.01	0.97	0.90
5	0.03	0.01	0.94	0.88	32	-0.54	0.01	0.88	0.70
6	1.49	0.01	1.05	1.09	33	-1.22	0.01	1.00	0.87
7	-1.25	0.01	0.82	0.53	34	1.24	0.01	1.02	1.04
8	0.25	0.01	1.10	1.15	35	0.16	0.01	1.07	1.12
9	-0.68	0.01	0.77	0.57	36	0.97	0.01	1.16	1.26
10	0.92	0.01	0.96	0.95	37	1.06	0.01	1.14	1.18
11	-0.01	0.01	0.88	0.74	38	0.05	0.01	0.99	0.99
12	0.56	0.01	0.96	0.93	39	1.89	0.01	1.05	1.19
13	1.50	0.01	1.01	1.05	40	0.20	0.01	0.95	0.89
14	0.16	0.01	1.01	1.05	41	1.91	0.01	1.10	1.24
15	1.49	0.01	1.05	1.12	42	0.58	0.01	1.00	0.98
16	-0.91	0.01	0.88	0.94	43	-0.18	0.01	0.98	0.95
17	0.84	0.01	1.09	1.14	44	1.66	0.01	0.96	0.99
18	1.33	0.01	1.22	1.35	45	1.80	0.01	1.13	1.21
19	0.06	0.01	0.99	0.94	46	1.54	0.01	1.09	1.17
20	0.89	0.01	1.13	1.23	47	0.55	0.01	1.04	1.00
21	-1.20	0.01	0.80	0.54	48	1.35	0.01	0.96	0.98
22	-0.16	0.01	0.84	0.70	49	-0.25	0.01	1.00	1.05
23	0.17	0.01	0.86	0.76	50	1.62	0.01	1.14	1.22
24	0.43	0.01	0.98	0.96	51	-0.15	0.01	0.99	1.00
25	1.32	0.01	1.12	1.17	52	2.53	0.01	1.24	1.75
26	-0.57	0.01	1.00	0.92	53	0.55	0.01	0.88	0.81
27	0.57	0.01	1.00	0.98	54	0.79	0.01	0.88	0.82

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Table 7.3.1.9
Spring 2013 AIMS IRT Item Statistics
Reading Grade 4

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-0.72	0.01	1.02	1.19	28	-0.28	0.01	0.85	0.68
2	0.97	0.01	1.06	1.05	29	-0.21	0.01	0.89	0.72
3	0.54	0.01	1.00	1.04	30	-1.10	0.01	0.85	0.60
4	0.19	0.01	1.05	1.10	31	0.45	0.01	0.94	0.93
5	1.49	0.01	0.97	0.98	32	2.77	0.01	1.09	1.52
6	1.50	0.01	1.14	1.21	33	1.17	0.01	0.92	0.88
7	-0.57	0.01	0.93	0.79	34	1.38	0.01	1.09	1.12
8	0.32	0.01	0.91	0.82	35	0.15	0.01	0.93	0.90
9	-0.54	0.01	0.83	0.63	36	-0.02	0.01	0.91	0.84
10	1.76	0.01	1.17	1.26	37	0.06	0.01	0.88	0.74
11	0.09	0.01	0.95	0.92	38	0.25	0.01	1.12	1.15
12	0.62	0.01	1.04	1.10	39	1.70	0.01	1.16	1.24
13	2.54	0.01	1.08	1.40	40	0.41	0.01	0.87	0.76
14	-1.22	0.01	0.84	0.61	41	1.77	0.01	1.14	1.27
15	-0.20	0.01	0.84	0.67	42	0.78	0.01	0.98	0.94
16	-0.07	0.01	0.96	1.05	43	1.63	0.01	0.96	0.97
17	0.38	0.01	1.13	1.38	44	0.64	0.01	1.10	1.13
18	1.30	0.01	1.48	1.73	45	0.44	0.01	1.14	1.17
19	0.64	0.01	1.04	1.04	46	0.21	0.01	0.97	0.93
20	-0.04	0.01	0.85	0.70	47	1.44	0.01	1.02	1.03
21	-0.03	0.01	0.92	0.91	48	1.64	0.01	1.12	1.19
22	1.31	0.01	0.95	0.94	49	1.03	0.01	1.03	1.03
23	2.94	0.01	1.11	1.55	50	-0.03	0.01	0.85	0.72
24	0.53	0.01	0.95	0.88	51	1.18	0.01	0.95	0.92
25	-0.95	0.01	0.85	0.59	52	1.74	0.01	0.96	0.98
26	0.46	0.01	0.90	0.83	53	0.87	0.01	0.87	0.82
27	1.00	0.01	1.05	1.10	54	1.10	0.01	0.99	0.96

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Table 7.3.1.10
Spring 2013 AIMS IRT Item Statistics
Reading Grade 5

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	2.76	0.01	1.25	1.76	28	-0.13	0.01	0.92	0.81
2	0.08	0.01	0.99	0.90	29	0.17	0.01	0.87	0.79
3	1.35	0.01	1.16	1.20	30	1.12	0.01	1.02	1.01
4	1.99	0.01	1.33	1.58	31	-0.07	0.01	0.88	0.77
5	-0.02	0.01	1.00	0.94	32	0.80	0.01	1.07	1.06
6	2.04	0.01	1.07	1.24	33	0.76	0.01	1.25	1.35
7	1.17	0.01	1.12	1.14	34	0.10	0.01	1.01	0.98
8	0.50	0.01	1.15	1.18	35	-0.54	0.01	0.94	0.93
9	0.53	0.01	1.03	0.98	36	1.39	0.01	1.12	1.18
10	-0.10	0.01	0.98	0.96	37	1.21	0.01	1.28	1.35
11	-0.88	0.01	0.83	0.58	38	-1.18	0.01	0.86	0.74
12	1.40	0.01	0.98	1.00	39	-0.28	0.01	0.88	0.75
13	-0.33	0.01	0.78	0.59	40	-0.73	0.01	0.93	0.86
14	0.17	0.01	0.89	0.80	41	0.04	0.01	0.90	0.82
15	0.83	0.01	1.02	1.01	42	2.57	0.01	1.31	1.80
16	2.10	0.01	1.07	1.22	43	0.18	0.01	0.92	0.87
17	0.68	0.01	1.04	1.04	44	-0.93	0.01	0.86	0.67
18	0.83	0.01	1.04	1.03	45	-0.37	0.01	0.89	0.77
19	-0.40	0.01	0.91	0.81	46	-0.80	0.01	0.82	0.64
20	1.57	0.01	1.15	1.21	47	0.84	0.01	0.96	0.93
21	0.05	0.01	0.94	0.89	48	1.82	0.01	1.17	1.32
22	1.05	0.01	1.06	1.06	49	0.18	0.01	0.80	0.70
23	-1.01	0.01	0.78	0.50	50	0.44	0.01	0.85	0.75
24	0.52	0.01	1.15	1.21	51	1.10	0.01	0.97	0.96
25	-0.02	0.01	0.71	0.55	52	0.60	0.01	0.88	0.80
26	0.04	0.01	0.72	0.58	53	0.90	0.01	0.98	0.97
27	0.18	0.01	0.87	0.79	54	0.37	0.01	0.94	0.88

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Table 7.3.1.11
Spring 2013 AIMS IRT Item Statistics
Reading Grade 6

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-0.95	0.01	0.92	0.76	28	-1.07	0.01	0.84	0.57
2	1.12	0.01	1.09	1.13	29	0.95	0.01	0.92	0.90
3	-2.37	0.02	0.93	0.68	30	0.15	0.01	0.87	0.75
4	1.12	0.01	1.11	1.14	31	0.97	0.01	1.02	1.03
5	-0.52	0.01	0.72	0.55	32	-0.05	0.01	1.03	1.10
6	-1.10	0.01	0.81	0.50	33	0.08	0.01	0.95	0.86
7	-1.16	0.01	0.79	0.55	34	1.20	0.01	0.96	0.96
8	1.55	0.01	1.07	1.10	35	0.10	0.01	0.97	0.89
9	2.19	0.01	1.17	1.38	36	2.29	0.01	0.97	1.12
10	0.55	0.01	1.03	1.02	37	1.37	0.01	1.11	1.14
11	0.53	0.01	0.88	0.81	38	1.24	0.01	1.02	1.02
12	0.86	0.01	0.98	0.97	39	-0.45	0.01	0.84	0.65
13	0.01	0.01	0.89	0.81	40	0.35	0.01	0.89	0.84
14	0.38	0.01	1.06	1.11	41	-0.13	0.01	1.05	1.16
15	0.18	0.01	0.91	0.84	42	0.29	0.01	0.91	0.87
16	0.29	0.01	0.95	0.94	43	0.54	0.01	0.87	0.78
17	0.80	0.01	1.05	1.10	44	0.11	0.01	0.95	0.88
18	0.07	0.01	0.95	0.86	45	-0.46	0.01	0.87	0.72
19	-0.20	0.01	0.88	0.79	46	-0.60	0.01	0.88	0.75
20	0.10	0.01	0.93	0.83	47	1.52	0.01	1.20	1.28
21	1.47	0.01	1.09	1.14	48	2.82	0.01	1.16	1.59
22	1.44	0.01	1.02	1.05	49	0.16	0.01	0.99	1.03
23	1.19	0.01	1.04	1.05	50	0.67	0.01	1.05	1.04
24	1.46	0.01	1.05	1.10	51	0.50	0.01	1.07	1.12
25	0.63	0.01	1.02	1.01	52	1.36	0.01	1.02	1.04
26	1.09	0.01	1.19	1.26	53	0.94	0.01	1.01	0.99
27	0.45	0.01	1.15	1.24	54	1.79	0.01	1.16	1.27

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Table 7.3.1.12
Spring 2013 AIMS IRT Item Statistics
Reading Grade 7

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-0.94	0.01	0.89	0.66	28	1.02	0.01	0.90	0.84
2	0.51	0.01	1.26	1.46	29	0.74	0.01	1.15	1.23
3	-1.08	0.01	0.92	0.90	30	1.20	0.01	1.07	1.08
4	0.29	0.01	1.01	0.98	31	1.22	0.01	0.98	0.96
5	2.31	0.01	0.92	0.93	32	0.15	0.01	0.84	0.69
6	-0.23	0.01	0.88	0.74	33	-0.17	0.01	0.87	0.70
7	0.88	0.01	1.02	1.00	34	0.66	0.01	0.90	0.84
8	1.48	0.01	0.84	0.80	35	0.21	0.01	0.89	0.78
9	0.84	0.01	1.01	1.01	36	0.14	0.01	0.85	0.73
10	0.75	0.01	1.11	1.11	37	1.00	0.01	1.20	1.30
11	0.26	0.01	1.01	1.16	38	1.81	0.01	1.07	1.12
12	0.38	0.01	0.97	0.94	39	2.54	0.01	1.04	1.16
13	1.27	0.01	0.92	0.89	40	1.01	0.01	1.07	1.05
14	0.71	0.01	0.93	0.92	41	1.29	0.01	1.16	1.23
15	1.26	0.01	1.17	1.22	42	1.34	0.01	0.99	0.99
16	1.12	0.01	1.07	1.12	43	-0.07	0.01	0.86	0.70
17	0.58	0.01	1.05	1.05	44	2.11	0.01	1.29	1.46
18	0.64	0.01	0.99	1.04	45	0.49	0.01	0.84	0.73
19	0.96	0.01	1.19	1.27	46	0.06	0.01	0.81	0.64
20	1.41	0.01	1.21	1.26	47	0.65	0.01	0.96	0.94
21	-0.35	0.01	1.07	1.10	48	0.97	0.01	0.86	0.80
22	0.88	0.01	0.96	0.92	49	-0.48	0.01	0.86	0.69
23	-0.17	0.01	0.91	0.85	50	1.23	0.01	0.97	0.95
24	0.13	0.01	0.99	1.03	51	0.12	0.01	1.06	1.08
25	0.60	0.01	1.01	1.03	52	-0.31	0.01	0.86	0.79
26	1.60	0.01	1.04	1.06	53	0.77	0.01	1.01	1.00
27	0.97	0.01	1.04	1.03	54	2.09	0.01	1.04	1.11

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Table 7.3.1.13
Spring 2013 AIMS IRT Item Statistics
Reading Grade 8

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	0.66	0.01	1.11	1.14	28	0.58	0.01	1.12	1.14
2	-0.21	0.01	0.95	0.91	29	0.64	0.01	1.02	1.04
3	-1.05	0.01	1.00	0.97	30	0.21	0.01	1.05	1.04
4	-1.20	0.01	1.00	1.07	31	-0.04	0.01	1.09	1.19
5	-1.85	0.01	1.00	1.20	32	0.86	0.01	1.01	1.03
6	0.95	0.01	1.13	1.18	33	0.14	0.01	0.92	0.87
7	-0.75	0.01	0.95	0.84	34	0.70	0.01	0.95	0.94
8	0.31	0.01	1.00	0.98	35	-0.49	0.01	0.91	0.80
9	-1.14	0.01	0.87	0.69	36	-0.13	0.01	0.99	0.99
10	2.12	0.01	1.21	1.61	37	0.77	0.01	0.97	0.97
11	-0.72	0.01	0.99	0.99	38	-1.04	0.01	0.88	0.74
12	0.99	0.01	1.11	1.16	39	1.12	0.01	0.95	0.98
13	-0.55	0.01	0.99	1.01	40	-0.40	0.01	0.92	0.85
14	-1.56	0.01	0.91	0.75	41	0.13	0.01	0.92	0.87
15	-0.77	0.01	0.93	0.85	42	-0.46	0.01	0.99	0.98
16	0.26	0.01	0.85	0.79	43	1.03	0.01	0.97	0.98
17	0.17	0.01	1.05	1.06	44	-0.02	0.01	0.99	0.97
18	0.13	0.01	0.94	0.89	45	-0.76	0.01	0.89	0.77
19	-0.21	0.01	0.92	0.88	46	0.54	0.01	0.98	0.95
20	0.09	0.01	1.01	1.01	47	-0.09	0.01	0.99	0.99
21	0.05	0.01	1.11	1.24	48	-0.71	0.01	0.89	0.76
22	-0.31	0.01	1.05	1.07	49	-0.30	0.01	1.00	0.97
23	-1.03	0.01	0.87	0.73	50	0.98	0.01	1.00	1.02
24	0.03	0.01	1.04	1.07	51	0.64	0.01	1.01	1.01
25	1.06	0.01	1.21	1.28	52	1.30	0.01	1.05	1.12
26	0.02	0.01	1.04	1.09	53	-0.06	0.01	1.00	1.07
27	0.14	0.01	0.97	0.93	54	0.90	0.01	1.12	1.15

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Table 7.3.1.14
Spring 2013 AIMS IRT Item Statistics
Reading High School

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	1.29	0.01	1.12	1.16	28	0.09	0.01	1.33	1.85
2	0.12	0.01	1.08	1.19	29	1.66	0.01	1.11	1.17
3	2.09	0.01	1.24	1.40	30	-0.42	0.01	0.85	0.70
4	0.37	0.01	1.07	1.10	31	0.88	0.01	0.95	0.92
5	-0.03	0.01	0.95	0.98	32	1.09	0.01	1.01	1.03
6	-0.95	0.01	1.01	1.20	33	1.50	0.01	1.02	1.05
7	0.35	0.01	0.95	0.92	34	0.69	0.01	0.83	0.76
8	0.15	0.01	0.92	0.82	35	0.07	0.01	0.99	0.94
9	0.70	0.01	1.12	1.16	36	-0.28	0.01	0.98	0.98
10	-0.10	0.01	0.82	0.70	37	0.37	0.01	0.90	0.82
11	0.72	0.01	1.03	1.07	38	1.20	0.01	0.97	0.97
12	0.09	0.01	1.03	1.08	39	1.61	0.01	1.09	1.16
13	-0.06	0.01	0.87	0.78	40	1.85	0.01	1.09	1.18
14	-0.29	0.01	0.91	0.83	41	0.82	0.01	1.01	1.01
15	1.14	0.01	0.96	0.96	42	0.97	0.01	1.06	1.06
16	0.69	0.01	0.98	0.94	43	0.05	0.01	1.00	1.05
17	1.90	0.01	1.13	1.24	44	1.01	0.01	1.02	1.04
18	0.79	0.01	1.02	1.02	45	0.42	0.01	1.09	1.12
19	-0.94	0.01	0.88	0.74	46	1.98	0.01	1.01	1.08
20	1.14	0.01	0.99	0.99	47	-0.44	0.01	1.14	1.35
21	0.77	0.01	0.84	0.80	48	-0.80	0.01	0.85	0.67
22	0.12	0.01	0.89	0.80	49	0.86	0.01	1.02	1.02
23	-1.29	0.01	0.91	0.59	50	1.54	0.01	1.09	1.13
24	-1.57	0.01	0.86	0.55	51	-0.28	0.01	1.00	0.85
25	0.32	0.01	1.00	0.97	52	2.44	0.01	1.05	1.35
26	1.30	0.01	0.92	0.91	53	0.01	0.01	0.98	0.92
27	1.79	0.01	1.03	1.10	54	0.95	0.01	1.01	0.99

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Table 7.3.1.15
Spring 2013 AIMS IRT Item Statistics
Science Grade 4

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	0.74	0.01	1.00	1.00	28	-0.64	0.01	1.13	1.40
2	1.22	0.01	1.08	1.12	29	0.33	0.01	0.92	0.88
3	0.09	0.01	0.97	0.93	30	0.64	0.01	1.02	1.03
4	-0.85	0.01	0.89	0.72	31	0.57	0.01	1.11	1.14
5	1.54	0.01	1.14	1.22	32	0.04	0.01	0.96	0.93
6	0.94	0.01	1.09	1.11	33	-0.36	0.01	0.99	1.03
7	0.52	0.01	1.02	1.02	34	-0.18	0.01	0.90	0.84
8	0.85	0.01	0.99	0.98	35	1.24	0.01	1.14	1.19
9	-2.76	0.02	0.84	0.76	36	0.52	0.01	1.00	1.00
10	-2.23	0.01	1.11	1.58	37	0.46	0.01	1.10	1.16
11	-0.23	0.01	0.93	0.95	38	1.19	0.01	1.35	1.48
12	0.43	0.01	0.99	0.99	39	-1.48	0.01	0.99	0.74
13	0.27	0.01	1.06	1.05	40	0.57	0.01	0.93	0.90
14	-0.91	0.01	1.00	0.90	41	-1.00	0.01	0.89	0.77
15	0.32	0.01	0.94	0.91	42	-0.19	0.01	0.90	0.85
16	0.60	0.01	0.91	0.86	43	1.41	0.01	0.99	1.04
17	0.31	0.01	0.91	0.86	44	-0.32	0.01	0.93	0.91
18	1.41	0.01	1.00	1.03	45	1.08	0.01	1.06	1.08
19	0.82	0.01	0.98	0.97	46	-0.83	0.01	1.01	0.90
20	0.27	0.01	0.97	0.92	47	-0.62	0.01	0.83	0.66
21	1.06	0.01	0.96	0.97	48	-0.05	0.01	0.89	0.81
22	1.37	0.01	1.15	1.21	49	1.44	0.01	1.08	1.14
23	1.34	0.01	0.95	0.98	50	0.22	0.01	0.88	0.82
24	-0.43	0.01	0.93	0.89	51	1.76	0.01	1.27	1.46
25	0.11	0.01	0.85	0.77	52	0.48	0.01	1.12	1.15
26	0.42	0.01	1.10	1.11	53	1.04	0.01	1.08	1.11
27	0.70	0.01	1.12	1.15	54	1.42	0.01	0.97	1.01

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Table 7.3.1.16
Spring 2013 AIMS IRT Item Statistics
Science Grade 8

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	0.86	0.01	1.01	1.01	30	-0.01	0.01	0.94	0.93
2	0.75	0.01	0.87	0.84	31	1.14	0.01	1.00	1.00
3	-0.81	0.01	1.05	1.05	32	-0.62	0.01	0.98	0.96
4	-0.97	0.01	0.86	0.69	33	0.87	0.01	1.11	1.13
5	-1.45	0.01	1.04	1.00	34	-0.06	0.01	0.87	0.80
6	-1.48	0.01	0.84	0.64	35	0.28	0.01	1.08	1.11
7	2.10	0.01	0.96	0.98	36	0.71	0.01	0.95	0.93
8	-1.29	0.01	0.82	0.67	37	-0.30	0.01	1.13	1.29
9	0.21	0.01	1.00	1.01	38	0.37	0.01	1.03	1.05
10	0.29	0.01	0.96	0.94	39	-1.23	0.01	0.79	0.58
11	-0.43	0.01	1.09	1.16	40	0.57	0.01	0.92	0.89
12	-0.66	0.01	0.89	0.92	41	0.51	0.01	0.87	0.84
13	0.23	0.01	1.12	1.18	42	0.67	0.01	0.97	0.96
14	1.41	0.01	1.14	1.20	43	1.88	0.01	1.14	1.33
15	-0.42	0.01	0.92	0.86	44	-0.97	0.01	0.84	0.63
16	1.09	0.01	1.12	1.17	45	-0.29	0.01	0.99	1.06
17	0.24	0.01	0.98	0.96	46	0.82	0.01	1.08	1.10
18	0.28	0.01	0.93	0.89	47	0.53	0.01	1.00	1.01
19	0.01	0.01	0.94	0.90	48	0.37	0.01	0.90	0.86
20	0.20	0.01	0.93	0.88	49	0.85	0.01	1.22	1.28
21	-0.93	0.01	0.90	0.76	50	-0.65	0.01	0.87	0.73
22	0.10	0.01	0.96	0.94	51	0.20	0.01	0.97	0.95
23	1.21	0.01	1.17	1.23	52	0.45	0.01	1.15	1.24
24	0.72	0.01	1.01	1.01	53	0.77	0.01	1.02	1.03
25	0.07	0.01	0.96	0.95	54	0.86	0.01	1.14	1.19
26	0.88	0.01	1.09	1.12	55	0.54	0.01	0.99	1.01
27	1.05	0.01	1.04	1.07	56	0.53	0.01	0.89	0.85
28	1.45	0.01	1.15	1.21	57	0.47	0.01	1.02	1.03
29	0.98	0.01	0.94	0.94	58	1.70	0.01	1.06	1.19

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Table 7.3.1.17
Spring 2013 AIMS IRT Item Statistics
Science Grade HS

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	0.97	0.01	1.12	1.21	34	0.73	0.01	1.20	1.25
2	0.38	0.01	0.98	0.97	35	-0.30	0.01	0.94	0.89
3	-0.02	0.01	1.08	1.11	36	-0.17	0.01	0.89	0.87
4	-1.35	0.01	0.91	0.95	37	1.05	0.01	1.02	1.08
5	-0.62	0.01	1.01	1.10	38	-0.04	0.01	0.91	0.90
6	-1.12	0.01	0.85	0.76	39	-0.41	0.01	0.85	0.77
7	-0.16	0.01	0.97	0.95	40	-0.44	0.01	0.95	0.96
8	0.29	0.01	1.20	1.32	41	-0.58	0.01	1.02	1.09
9	-0.86	0.01	0.89	0.85	42	-0.15	0.01	0.89	0.86
10	-0.10	0.01	0.94	0.93	43	-1.33	0.01	0.96	0.80
11	-0.21	0.01	0.98	0.96	44	-0.76	0.01	0.82	0.72
12	0.15	0.01	0.99	0.97	45	-0.89	0.01	0.86	0.77
13	0.78	0.01	1.07	1.11	46	-0.71	0.01	0.82	0.74
14	0.89	0.01	1.05	1.10	47	0.13	0.01	0.95	0.93
15	0.96	0.01	1.24	1.32	48	1.05	0.01	1.13	1.22
16	-1.40	0.01	0.84	0.65	49	-0.47	0.01	0.91	0.83
17	0.91	0.01	1.10	1.15	50	0.96	0.01	1.20	1.29
18	-0.35	0.01	0.88	0.81	51	0.93	0.01	1.02	1.05
19	-0.46	0.01	0.89	0.83	52	-0.08	0.01	1.07	1.12
20	-0.33	0.01	0.97	0.99	53	0.79	0.01	1.04	1.08
21	-0.26	0.01	1.07	1.17	54	1.00	0.01	1.10	1.19
22	0.60	0.01	1.08	1.12	55	1.06	0.01	1.33	1.48
23	0.30	0.01	0.97	0.97	56	1.76	0.01	1.17	1.43
24	0.63	0.01	0.95	0.94	57	-0.75	0.01	0.87	0.76
25	0.13	0.01	1.10	1.17	58	1.19	0.01	1.07	1.21
26	0.37	0.01	1.03	1.05	59	0.25	0.01	0.95	0.92
27	-0.67	0.01	0.81	0.72	60	0.13	0.01	1.09	1.13
28	0.44	0.01	1.06	1.09	61	1.28	0.01	1.19	1.35
29	-0.23	0.01	0.94	0.90	62	0.28	0.01	1.00	0.98
30	-0.54	0.01	0.90	0.87	63	0.81	0.01	1.03	1.06
31	-0.82	0.01	0.89	0.79	64	0.09	0.01	0.91	0.88
32	1.96	0.01	0.98	1.17	65	-0.16	0.01	0.91	0.85
33	0.79	0.01	1.00	1.02					

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Table 7.3.1.18
Spring 2013 AIMS IRT Item Statistics
Writing Grade 5

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-1.78	0.01	0.89	0.67	15	0.05	0.01	0.92	0.84
2	0.30	0.01	1.08	1.10	16	0.66	0.01	0.96	0.92
3	0.62	0.01	0.98	0.97	17	0.47	0.01	1.08	1.10
4	-0.25	0.01	0.93	0.88	18	-0.77	0.01	0.86	0.81
5	0.86	0.01	1.09	1.13	19	-0.53	0.01	1.11	1.38
6	1.45	0.01	1.02	1.06	20	0.87	0.01	0.97	0.96
7	-0.47	0.01	0.88	0.80	21	1.80	0.01	1.23	1.42
8	0.46	0.01	1.06	1.06	22	0.32	0.01	0.93	0.86
9	1.32	0.01	1.37	1.55	23	0.61	0.01	0.95	0.92
10	1.89	0.01	1.01	1.16	24	-0.04	0.01	1.02	1.00
11	-0.62	0.01	0.85	0.71	25	-0.62	0.01	0.89	0.82
12	-0.70	0.01	0.90	0.77	26	-0.28	0.01	0.82	0.72
13	0.69	0.01	0.98	0.98	27	0.62	0.01	0.97	0.92
14	-0.17	0.01	0.92	0.85					

Table 7.3.1.19
Spring 2013 AIMS IRT Item Statistics
Writing Grade 6

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-0.64	0.01	0.99	0.90	15	-0.39	0.01	0.94	0.93
2	-2.32	0.02	0.92	0.73	16	0.67	0.01	1.01	1.02
3	-0.89	0.01	0.98	0.96	17	0.05	0.01	0.90	0.85
4	-0.53	0.01	0.90	0.77	18	0.70	0.01	0.94	0.91
5	0.27	0.01	0.99	0.98	19	-1.07	0.01	0.93	0.74
6	-0.06	0.01	0.99	0.96	20	2.35	0.01	1.09	1.44
7	1.55	0.01	1.31	1.51	21	1.20	0.01	1.05	1.09
8	0.13	0.01	1.20	1.32	22	-0.08	0.01	0.96	0.93
9	1.05	0.01	0.99	1.00	23	0.37	0.01	0.90	0.85
10	-0.83	0.01	0.96	0.92	24	1.16	0.01	1.09	1.15
11	0.13	0.01	1.04	1.05	25	0.19	0.01	0.96	0.94
12	0.83	0.01	1.05	1.06	26	-0.17	0.01	0.92	0.85
13	0.77	0.01	1.09	1.12	27	-0.48	0.01	0.84	0.71
14	0.14	0.01	1.00	0.99					

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Table 7.3.1.20
Spring 2013 AIMS IRT Item Statistics
Writing Grade 7

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	0.55	0.01	1.06	1.06	15	1.36	0.01	1.08	1.14
2	2.95	0.01	1.16	1.98	16	-0.05	0.01	0.93	0.88
3	1.85	0.01	1.26	1.47	17	-1.23	0.01	0.98	0.72
4	0.32	0.01	1.04	1.05	18	0.77	0.01	1.00	0.99
5	-0.42	0.01	0.94	0.85	19	0.60	0.01	0.97	0.92
6	0.25	0.01	0.96	0.92	20	0.20	0.01	0.86	0.80
7	-0.53	0.01	0.98	0.94	21	0.36	0.01	0.94	0.88
8	-0.89	0.01	1.00	0.94	22	0.96	0.01	1.00	1.00
9	-0.64	0.01	0.91	0.77	23	-0.06	0.01	0.93	0.85
10	-0.01	0.01	0.92	0.85	24	1.97	0.01	1.26	1.55
11	-0.84	0.01	0.97	0.96	25	1.39	0.01	1.15	1.23
12	-0.76	0.01	0.91	0.79	26	-0.52	0.01	1.05	0.99
13	0.61	0.01	1.04	1.04	27	-0.54	0.01	0.89	0.72
14	0.60	0.01	0.92	0.87					

Table 7.3.1.21
Spring 2013 AIMS IRT Item Statistics
Writing Grade HS

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-0.13	0.01	1.07	1.10	15	0.44	0.01	0.99	0.97
2	0.66	0.01	1.15	1.22	16	1.92	0.01	0.96	1.04
3	-0.20	0.01	1.04	1.09	17	-0.30	0.01	0.92	0.85
4	0.60	0.01	0.90	0.85	18	0.11	0.01	1.03	1.08
5	-0.98	0.01	0.97	1.04	19	-0.43	0.01	1.11	1.34
6	2.37	0.01	1.02	1.08	20	-0.61	0.01	0.96	1.12
7	0.77	0.01	0.95	0.92	21	-1.24	0.01	0.89	0.69
8	1.25	0.01	0.99	0.99	22	1.27	0.01	0.99	0.99
9	-0.77	0.01	0.95	0.91	23	-0.04	0.01	0.95	0.90
10	0.78	0.01	0.99	0.98	24	0.32	0.01	0.97	0.94
11	1.43	0.01	1.04	1.06	25	1.43	0.01	1.01	1.03
12	-0.10	0.01	0.99	1.06	26	0.67	0.01	0.94	0.94
13	-1.19	0.01	0.91	0.82	27	1.12	0.01	1.04	1.06
14	0.43	0.01	1.08	1.08					

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Table 7.3.1.22
Spring 2013 AIMS IRT Item Statistics
Writing Prompt

Grade	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Step1	Step2	Step3	Step4	Step5	Step6	Step7	Step8	Step9	Step10
5	1.3714	0.01	0.45	0.44	-3.3176	-1.3172	0.7767	4.0082	6.7069					
6	1.3714	0.01	0.45	0.44	-3.3176	-1.3172	0.7767	4.0082	6.7069					
7	1.2750	0.01	0.42	0.41	-2.8909	-1.1460	0.8154	3.6908	5.9058					
HS A	1.0643	0.00	0.43	0.42	-1.3771	-2.8176	-0.6920	-1.4845	0.5459	0.4588	2.8775	3.0986	4.4885	5.5450
HS T	1.3347	0.02	0.39	0.39	-1.4470	-1.5680	-0.3802	-0.9936	1.0034	0.4977	2.7147	2.7952	4.5505	6.1742

The Steps in the table are the step difficulty estimates from the Partial Credit IRT model for the writing prompt at each grade level. There is one less step parameter than there are score categories. For Grades 5, 6, and 7, there are six score categories (1 through 6) resulting in five-step parameters. For the high school prompts, there are eleven score categories (2 through 12) resulting in ten-step parameters. Prompt A is the regular assessment prompt and prompt T is the make-up prompt.

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7.4 Scaling Methods

7.4.1 Reading

In 2005, a scale of measurement was determined for each of the AIMS CRT reading tests. The AIMS CRT reading in Grades 3-8 were placed on a vertical scale through the use of external anchor items composed of *TerraNova* NRT items for which item parameters had been obtained during national standardization. The desired AIMS scales for Grades 3-8 reading ranged from 200 to 800. The high school reading test was placed on a separate scale that ranged from 500 to 900 with an approximate mean of 700. The standard deviation was set to 50 for high school reading. The AIMS high school assessment was not placed on the Grades 3-8 vertical scale. A detailed description concerning the development of the scale of measurement for the AIMS Reading tests can be found in section 7.2.1 of the *2005 AIMS Technical Report* and is available from the Arizona Department of Education: http://www.azed.gov/standards-development-assessment/files/2011/12/aimstechreport2005.pdf and http://www.azed.gov/standards-development-assessment/files/2013/12/az-aims-reading-math-ss-report-2005.pdf.

7.4.2 Science

A scale of measurement was determined for science using Spring 2008 operational test results and cut scores were determined during standard setting meetings. A detailed description concerning the development of the scale of measurement can be found in Appendix B of the *2008 AIMS Technical Report*. (http://www.azed.gov/standards-development-assessment/files/2011/12/aimstechreport2008.pdf and http://www.azed.gov/standards-development-assessment/files/2011/12/aims2008sciencerevisedstandardsettingtechnicalreport.pdf) The AIMS CRT science scales for Grades 4, 8, and high school ranged from 200 to 800. The science scales are not on a vertical scale. Each grade has its own unique scale so that the scale scores for different grades can NOT be compared.

7.4.3 Mathematics

A new scale was created for the mathematics tests in 2010 using the operational test results. The tests were built to the 2008 content standards using a new test blueprint. Performance standards were also set on the new tests in spring 2010. The procedures used to set performance standards are described in a report available from the Arizona Department of Education, available on the ADE website. (http://www.azed.gov/standards-development-assessment/files/2011/12/azaimsmathssreport2010.pdf) The high school test was scaled to have a mean of 500 and a standard deviation of 50. The scale scores range from 300 to 700. A vertical scale was created for the tests in Grades 3 through 8. The tests were scaled across the grades to have a mean of 400 and a standard deviation of 55. The scale scores range from 100 to 640.

7.4.4 Writing

New writing tests were implemented for Grades 5, 6, 7, and high school in spring 2011. The tests consist of multiple-choice items and an extended response essay. Performance standards were also set on the new tests in spring 2011.The test for each grade was scaled such that scores range from 300 to 700 and have a mean of 500 and a standard deviation of 50. A detailed description concerning the development of the scale of measurement can be found in Section 7.5.2 of this *Technical Report* and in the writing standard setting report available at: http://www.azed.gov/standards-development-assessment/files/2011/12/az-aims-writing-ss-report-

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final.pdf. Each grade has its own unique scale so that the scale scores for different grades can NOT be compared.

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7.5 Equating

7.5.1 Reading, Mathematics, and Science

The 2013 AIMS Reading, Mathematics, and Science tests were equated and placed on the operational AIMS scale using a common-item, non-equivalent groups design. A set of anchor items was selected from the 2012 and previous operational assessments before the item selection workshop. The anchor items were selected with two principles in mind. First, the subset of anchor items should represent the content covered by the full AIMS assessment. Second, the subset of anchor items should be representative of the distribution of item difficulties for the full assessment. The only items eligible to be considered for anchor items were AIMS items. No dual purpose or NRT items served as anchors.

Table 7.5.1.1 presents the number of anchor/common items for each grade/subject area. Tables 7.5.1.2 through 7.5.1.5 show the content representation for the 2013 anchor items compared to the 2013 operational form. Tables 7.5.1.6 through 7.5.1.9 present descriptive statistics for the 2013 anchor/common item difficulties and the 2013 operational form.

Table 7.5.1.1
Spring 2013 AIMS Anchor Items

Content	Grade	CRT Total	Anchor
Mathematics	3	66	14
	4	68	15
	5	67	17
	6	68	15
	7	68	14
	8	68	17
	HS	85	22
Reading	3	54	13
	4	54	13
	5	54	14
	6	54	13
	7	54	10
	8	54	12
	HS	54	12
Science	4	54	19
	8	58	24
	HS	65	20
Writing (MC)	5	27	8
	6	27	9
	7	27	9
	HS	27	7

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Table 7.5.1.2
Representation of Content by 2013 Anchor Sets, Mathematics

		Strand																	
		1			2				3				4				5		
		Concept			Concept				Concept				Concept				Concept		Total
		1	2	3	1	2	3	4	1	2	3	4	1	2	3	4	1	2	
MA03	N	11	13	4	4	0	2	2	4	3	4		4	2	0	6	0	7	66
All	Pct	16.67	19.7	6.06	6.06	0	3.03	3.03	6.06	4.55	6.06		6.06	3.03	0	9.09	0	10.61	100
Anchor	N	3	3	1	1	0	1		2	0	1		0	0	0	1	0	1	14
	Pct	21.43	21.43	7.14	7.14	0	7.14		14.29	0	7.14		0	0	0	7.14	0	7.14	100
MA04	N	11	12	4	4	0	2	2	5	0	4	3	5	0	4	4	1	7	68
All	Pct	16.18	17.65	5.88	5.88	0	2.94	2.94	7.35	0	5.88	4.41	7.35	0	5.88	5.88	1.47	10.29	100
Anchor	N	2	2		1	0	1	1	2	0	1	1	1	0	1	1	0	1	15
	Pct	13.33	13.33		6.67	0	6.67	6.67	13.33	0	6.67	6.67	6.67	0	6.67	6.67	0	6.67	100
MA05	N	11	10	4	4	4	4		4	0	0	7	5	0	0	5	1	8	67
All	Pct	16.42	14.93	5.97	5.97	5.97	5.97		5.97	0	0	10.45	7.46	0	0	7.46	1.49	11.94	100
Anchor	N	3	2	1	2	1	1		1	0	0	2	1	0	0	1	1	1	17
	Pct	17.65	11.76	5.88	11.76	5.88	5.88		5.88	0	0	11.76	5.88	0	0	5.88	5.88	5.88	100
MA06	N	9	10	4	4	4	2	2	0	4	6	1	2	2	4	5	1	8	68
All	Pct	13.24	14.71	5.88	5.88	5.88	2.94	2.94	0	5.88	8.82	1.47	2.94	2.94	5.88	7.35	1.47	11.76	100
Anchor	N	1	2	1	1	1	1		0	2	2		1	1	0	1	0	1	15
	Pct	6.67	13.33	6.67	6.67	6.67	6.67		0	13.33	13.33		6.67	6.67	0	6.67	0	6.67	100
MA07	N	5	8	4	4	5	4		4	0	7	2	6	3	0	6	1	9	68
All	Pct	7.35	11.76	5.88	5.88	7.35	5.88		5.88	0	10.29	2.94	8.82	4.41	0	8.82	1.47	13.24	100
Anchor	N	1	1	1	1	1	1		0	0	1		0	2	0	3	0	2	14
	Pct	7.14	7.14	7.14	7.14	7.14	7.14		0	0	7.14		0	14.29	0	21.43	0	14.29	100
MA08	N	4	4	4	4	4	3	1	2	4	8	4	4	4	4	4	1	9	68
All	Pct	5.88	5.88	5.88	5.88	5.88	4.41	1.47	2.94	5.88	11.76	5.88	5.88	5.88	5.88	5.88	1.47	13.24	100
Anchor	N	1	1	1	1	1	1		0	1	3		2	1	1	1	1	1	17
	Pct	5.88	5.88	5.88	5.88	5.88	5.88		0	5.88	17.65		11.76	5.88	5.88	5.88	5.88	5.88	100
MAHS	N	1	2	2	4	4	4		4	6	14	4	11	4	7	6	2	10	85
All	Pct	1.18	2.35	2.35	4.71	4.71	4.71		4.71	7.06	16.47	4.71	12.94	4.71	8.24	7.06	2.35	11.76	100
Anchor	N	0	1	1	2	0	1		1	2	3	1	2	1	2	1	1	3	22
	Pct	0	4.55	4.55	9.09	0	4.55		4.55	9.09	13.64	4.55	9.09	4.55	9.09	4.55	4.55	13.64	100

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Table 7.5.1.3
Representation of Content by 2013 Anchor Sets, Reading

		Strand									
		1				2		3			
		Concept				Concept		Concept			Total
		1	3	4	6	1	2	1	2	3	
RD03	N	4	5	6	9	12		6	6	6	54
All	Pct	7.41	9.26	11.11	16.67	22.22		11.11	11.11	11.11	100
Anchor	N	1	2	1	2	2		2	1	2	13
	Pct	7.69	15.38	7.69	15.38	15.38		15.38	7.69	15.38	100
RD04	N	0	0	4	8	17		13	6	6	54
All	Pct	0	0	7.41	14.81	31.48		24.07	11.11	11.11	100
Anchor	N	0	0	1	1	4		2	2	3	13
	Pct	0	0	7.69	7.69	30.77		15.38	15.38	23.08	100
RD05	N	0	0	6	6	17		13	6	6	54
All	Pct	0	0	11.11	11.11	31.48		24.07	11.11	11.11	100
Anchor	N	0	0	2	1	3		3	2	3	14
	Pct	0	0	14.29	7.14	21.43		21.43	14.29	21.43	100
RD06	N	0	0	6	6	17		13	6	6	54
All	Pct	0	0	11.11	11.11	31.48		24.07	11.11	11.11	100
Anchor	N	0	0	2	2	3		4	1	1	13
	Pct	0	0	15.38	15.38	23.08		30.77	7.69	7.69	100
RD07	N	0	0	6	6	13	4	12	7	6	54
All	Pct	0	0	11.11	11.11	24.07	7.41	22.22	12.96	11.11	100
Anchor	N	0	0	2	1	2	1	2	1	1	10
	Pct	0	0	20	10	20	10	20	10	10	100
RD08	N	0	0	3	6	14	4	13	8	6	54
All	Pct	0	0	5.56	11.11	25.93	7.41	24.07	14.81	11.11	100
Anchor	N	0	0	2	1	3	2	1	2	1	12
	Pct	0	0	16.67	8.33	25	16.67	8.33	16.67	8.33	100
RDHS	N	0	0	4	4	14	4	12	8	8	54
All	Pct	0	0	7.41	7.41	25.93	7.41	22.22	14.81	14.81	100
Anchor	N	0	0	1		5	1	3	2		12
	Pct	0	0	8.33		41.67	8.33	25	16.67		100

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Table 7.5.1.4
Representation of Content by 2013 Anchor Sets, Science

		Strand																			
		1 Concept				2 Concept		3 Concept			4 Concept					5 Concept			6 Concept		Total
		1	2	3	4	1	2	1	2	3	1	2	3	4	5	1	2	3	2	3	
SC04	N	6	6	6		1	5	4	2		2	0	3	1		0	0	6	6	6	54
All	Pct	11.11	11.11	11.11		1.85	9.26	7.41	3.7		3.7	0	5.56	1.85		0	0	11.11	11.11	11.11	100
Anchor	N	3	1	2		0	3	3			2					0	0	3	2		19
	Pct	15.79	5.26	10.53		0	15.79	15.79			10.53					0	0	15.79	10.53		100
SC08	N	6	4	6	4	4	2	2	4		0	3	0	5		10	8				58
All	Pct	10.34	6.9	10.34	6.9	6.9	3.45	3.45	6.9		0	5.17	0	8.62		17.24	13.79				100
Anchor	N	2	2	2	1	2	1	0	3		0	0	0	3		4	4				24
	Pct	8.33	8.33	8.33	4.17	8.33	4.17	0	12.5		0	0	0	12.5		16.67	16.67				100
SCHS	N	6	6	6	4	3	3	4	2	1	6	6	6	6	6						65
All	Pct	9.23	9.23	9.23	6.15	4.62	4.62	6.15	3.08	1.54	9.23	9.23	9.23	9.23	9.23						100
Anchor	N	3	2	1	1	1	1	2	1		2	2	1	2	1						20
	Pct	15	10	5	5	5	5	10	5		10	10	5	10	5						100

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Table 7.5.1.5
Representation of Content by 2013 Anchor Sets, Writing MC

		Strand						
		2 Concept						Total
		1	2	3	4	5	6	
WR05	N	4	5	0	1	5	12	27
All	Pct	14.81	18.52	0	3.7	18.52	44.44	100
Anchor	N	1	1	0	0	2	4	8
	Pct	12.5	12.5	0	0	25	50	100
WR06	N	5	6	1	2	4	9	27
All	Pct	18.52	22.22	3.7	7.41	14.81	33.33	100
Anchor	N	3	1	1	1	1	2	9
	Pct	33.33	11.11	11.11	11.11	11.11	22.22	100
WR07	N	5	6	3	1	3	9	27
All	Pct	18.52	22.22	11.11	3.7	11.11	33.33	100
Anchor	N	2	2	2	0	0	3	9
	Pct	22.22	22.22	22.22	0	0	33.33	100
WRHS	N	6	6	5	2	2	6	27
All	Pct	22.22	22.22	18.52	7.41	7.41	22.22	100
Anchor	N	2	2	1	1	1	2	9
	Pct	22.22	22.22	11.11	11.11	11.11	22.22	100

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Table 7.5.1.6 Representation of Difficulty by 2013 Anchor Sets, Mathematics

			Difficulty Parameter		P-Value	
Content	**Grade**	**Statistic**	**Entire 2013 Test**	**All Anchor Items**	**Entire 2013 Test**	**All Anchor Items**
MA	3	N	66	14	66	14
		Mean	-0.4400	-0.3000	0.6500	0.6300
		Std Dev	0.9800	0.7800	0.1600	0.1400
		Min	-2.7600	-1.4700	0.2700	0.3700
		Max	1.7300	1.1000	0.9300	0.8400
MA	4	N	68	15	68	15
		Mean	-0.1900	-0.1900	0.6600	0.6700
		Std Dev	0.8800	0.7900	0.1500	0.1400
		Min	-1.7500	-1.3300	0.2900	0.4600
		Max	1.8600	0.8500	0.8900	0.8400
MA	5	N	67	17	67	17
		Mean	0.2400	0.0400	0.6400	0.6800
		Std Dev	0.9700	0.6600	0.1600	0.1200
		Min	-2.5100	-1.4200	0.2500	0.3500
		Max	2.4100	1.6900	0.9600	0.8900
MA	6	N	68	15	68	15
		Mean	0.7900	0.5600	0.6200	0.6600
		Std Dev	0.8500	0.7800	0.1500	0.1400
		Min	-1.0600	-0.7900	0.3200	0.4300
		Max	2.3500	1.7700	0.8900	0.8700
MA	7	N	68	14	68	14
		Mean	1.1200	1.0400	0.6300	0.6500
		Std Dev	0.7400	0.6300	0.1300	0.1000
		Min	-0.3500	-0.2000	0.3100	0.4700
		Max	2.8800	2.0900	0.8600	0.8200
MA	8	N	68	17	68	17
		Mean	1.3700	1.4100	0.6200	0.6100
		Std Dev	0.8600	0.7000	0.1500	0.1200
		Min	-0.4300	-0.2500	0.1900	0.4300
		Max	3.8200	2.5900	0.8900	0.8700
MA	HS	N	85	22	85	22
		Mean	0.4000	0.6300	0.5800	0.5400
		Std Dev	0.8600	1.0500	0.1600	0.1900
		Min	-1.8100	-1.1400	0.1300	0.1300
		Max	3.1600	3.1600	0.9100	0.8400

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Table 7.5.1.7
Representation of Difficulty by 2013 Anchor Sets, Reading

			Difficulty Parameter		P-Value	
Content	**Grade**	**Statistic**	**Entire 2013 Test**	**All Anchor Items**	**Entire 2013 Test**	**All Anchor Items**
RD	3	N	54	13	54	13
		Mean	0.4900	0.4700	0.6500	0.6500
		Std Dev	0.9500	0.9800	0.1600	0.1500
		Min	-1.3900	-1.2200	0.2800	0.4000
		Max	2.5300	2.0200	0.9100	0.8800
RD	4	N	54	13	54	13
		Mean	0.6600	0.4900	0.6600	0.6900
		Std Dev	0.9200	0.8000	0.1500	0.1200
		Min	-1.2200	-1.2200	0.2500	0.4800
		Max	2.9400	1.7400	0.9100	0.9100
RD	5	N	54	14	54	14
		Mean	0.4900	0.4300	0.6700	0.6800
		Std Dev	0.9100	0.8400	0.1500	0.1400
		Min	-1.1800	-1.1800	0.2600	0.4400
		Max	2.7600	1.8200	0.9100	0.9100
RD	6	N	54	13	54	13
		Mean	0.5200	0.2700	0.6700	0.7100
		Std Dev	0.9500	0.8900	0.1500	0.1500
		Min	-2.3700	-1.1600	0.2500	0.4400
		Max	2.8200	1.7900	0.9700	0.9100
RD	7	N	54	10	54	10
		Mean	0.7200	0.3900	0.6600	0.7200
		Std Dev	0.7600	0.5500	0.1300	0.0900
		Min	-1.0800	-0.3500	0.3200	0.5800
		Max	2.5400	1.2700	0.9100	0.8400
RD	8	N	54	12	54	12
		Mean	0.0300	0.1600	0.6700	0.6600
		Std Dev	0.7900	0.4100	0.1300	0.0800
		Min	-1.8500	-0.4900	0.2800	0.5000
		Max	2.1200	1.0600	0.9200	0.7600
RD	HS	N	54	12	54	12
		Mean	0.5600	0.1600	0.6500	0.7200
		Std Dev	0.8900	0.9700	0.1500	0.1500
		Min	-1.5700	-1.2900	0.3000	0.3000
		Max	2.4400	2.4400	0.9300	0.9000

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Table 7.5.1.8
Representation of Difficulty by 2013 Anchor Sets, Science

			Difficulty Parameter		P-Value	
Content	**Grade**	**Statistic**	**Entire 2013 Test**	**All Anchor Items**	**Entire 2013 Test**	**All Anchor Items**
SC	4	N	54	19	54	19
		Mean	0.3100	0.0400	0.6000	0.6400
		Std Dev	0.9300	1.2000	0.1500	0.1700
		Min	-2.7600	-2.7600	0.3600	0.3600
		Max	1.7600	1.7600	0.9700	0.9700
SC	8	N	58	24	58	24
		Mean	0.2900	-0.1500	0.6200	0.7000
		Std Dev	0.8200	0.7600	0.1500	0.1300
		Min	-1.4800	-1.4800	0.2700	0.4800
		Max	2.1000	0.9800	0.9000	0.9000
SC	HS	N	65	20	65	20
		Mean	0.1100	-0.0400	0.5500	0.5800
		Std Dev	0.7600	0.9000	0.1400	0.1700
		Min	-1.4000	-1.4000	0.2200	0.2900
		Max	1.9600	1.7600	0.8400	0.8400

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Table 7.5.1.9
Representation of Difficulty by 2013 Anchor Sets, Writing MC

			Difficulty Parameter		P-Value	
Content	**Grade**	**Statistic**	**Entire 2013 Test**	**All Anchor Items**	**Entire 2013 Test**	**All Anchor Items**
WR	5	N	27	8	27	8
		Mean	0.2500	0.2000	0.6600	0.6700
		Std Dev	0.8500	0.7600	0.1400	0.1300
		Min	-1.7800	-0.7700	0.3700	0.4700
		Max	1.8900	1.4500	0.9200	0.8400
WR	6	N	27	9	27	9
		Mean	0.1500	0.2500	0.6600	0.6500
		Std Dev	0.9400	0.6700	0.1500	0.1000
		Min	-2.3200	-1.0700	0.2700	0.5000
		Max	2.3500	1.1600	0.9400	0.8300
WR	7	N	27	9	27	9
		Mean	0.3100	0.0300	0.6600	0.7100
		Std Dev	0.9900	0.7100	0.1600	0.0900
		Min	-1.2300	-1.2300	0.2000	0.5600
		Max	2.9500	0.9600	0.8500	0.8500
WR	HS	N	27	7	27	7
		Mean	0.3500	0.7800	0.6600	0.5900
		Std Dev	0.9300	0.4900	0.1600	0.1000
		Min	-1.2400	-0.0400	0.2800	0.4900
		Max	2.3700	1.2700	0.8900	0.7600

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A fixed-parameter equating was implemented within WINSTEPS in order to link the 2013 reading, mathematics, and science tests to the operational reporting scale. This is implemented by constraining the 2013 parameter estimates for the common anchor items to equal the final parameter estimates obtained in the original AIMS calibration analyses. The displacement statistic, which estimates the difference between the fixed parameter and the estimate had the item parameter not been constrained, was evaluated for each anchor item. Displacement statistic greater than 0.5 or less than -0.5 are considered significant in the Rasch literature and caused the anchor item to be removed from the anchor set. The following procedure was used to examine anchor item performance and determine whether to remove anchor items that exhibited significant displacement statistics from the annual equating:

1. All anchor items with displacement statistics greater than 0.3 or less than -0.3 were flagged. Any anchor item with displacement statistic greater than 0.5 or less than -0.5 was dropped from the anchor item set. If more than one item was observed with a displacement statistic greater than 0.5 or less than -0.5, then only the first item with the largest displacement value was dropped from the anchor set. The displacement values of the remaining anchor items were re-estimated by equating the test again using the remaining anchor items. This process of equating and dropping the anchor item with the largest displacement greater than 0.5 or less than -0.5 was repeated until all displacements were acceptable. All items with displacement values greater than 0.5 or less than -0.5 were noted to be carried over for removal from the anchor set for next year.
2. Anchor items with displacement statistics greater than 0.3 and less than 0.5 or less than -0.3 and greater than -0.5 were investigated using infit MNSQ, outfit MNSQ, item difficulty, and point-biserial correlation. If either infit MNSQ or outfit MNSQ was flagged for the anchor item, the removal of this item was considered. Also, if any item showed point-biserial correlation less than 0.3, the removal of this item was considered.
3. Whenever an anchor item was removed, content and difficulty representativeness of the remaining anchor set was examined. In instances where more than one anchor item was considered for removal for a given content and grade, the content strand and difficulty level of the item was considered to prevent removal of more than one item from the same content strand and difficulty level.
4. If more than one item was removed from the same content strand, a note was made to address the problem in the setup of anchors for the succeeding year's assessment.

This procedure resulted in removing from the anchor sets for Grades 3 through 8 a total of seven items in the reading tests and a total of nine items in the mathematics tests. No items were removed from the Grade 4 and Grade 8 science tests. Two items were removed from the anchor sets for high school mathematics and and no items were removed for the science test. One item was removed from the linking set for the high school reading test and two items were removed for the high school writing test.

7.5.2 Writing

New writing assessments were implemented in Grades 5, 6, 7, and high school in spring 2011. The assessments are composed of multiple-choice items and an essay prompt. There are 27 multiple-choice items and a single essay prompt contributing to a student's AIMS score at each grade. The test blueprint is shown in Table 3.2.6. In Grades 5, 6, and 7, eighteen of the multiple-choice items are AIMS items, nine are dual purpose AIMS and NRT items, and there are an additional eleven NRT items to allow for the creation of a Stanford 10 norm-referenced score. The high school test contains 27 AIMS multiple-choice items. The essay prompt is scored holistically using a 6-point scoring rubric. In Grades 5, 6, and 7, the essay prompt is scored by one reader, while at the high

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school level, the essay prompt is scored by two readers with identical or adjacent scores being summed to produce a final essay score. Non-adjacent scores are reviewed and scored by a supervisor whose score becomes the final score. The AIMS test scores are constructed such that the 27 multiple-choice items account for approximately 40% of the total test score and the score on the essay response counts for approximately 60% of the total test score. The high school writing multiple-choice items are embedded in a single test along with the prompt, while the elementary tests combine the writing multiple-choice along with the reading multiple-choice items. These items are administered in three sessions with the prompt administered during a separate session.
The writing tests in Grades 5, 6, and 7 contain 27 multiple-choice items and one essay prompt, which is scored holistically on a six-point scale. Combining the two components without weighting results in 33 total score points. In this case, the multiple-choice items account for 27/33 of the total score, or 82 percent, and the essay accounts for the remaining 18 percent. In order to implement a weighting scheme such that the multiple-choice items account for approximately 40 percent and the essay approximately 60 percent of the total score, the essay score is weighted by a factor of 7. In this way, the test score is composed of 27 points for the multiple-choice items and 42 points for the essay item for a total of 69 points. This results in the multiple-choice component accounting for 27/69 of the total score, or 39 percent, and the essay component accounting for 42/69 of the total score, or 61 percent.

7.5.2.1 **Weighting the Multiple-Choice and Essay Components**

The writing test at the high school level consists of 27 multiple-choice items and an essay prompt. The essay is scored by two raters with exact or adjacent scores being summed for a final essay score ranging from 2 to 12 points. In order to achieve the desired weighting of the multiple-choice and essay components, the multiple-choice score is multiplied by 2 and the essay score is multiplied by 7. In this way, there are 2*27 + 7*12, or 138 total points for the test with the multiple-choice items accounting for 54/138, or 39 percent of the total score, and the essay accounting for 84/138, or 61 percent of the total score.

7.5.2.2 **Calibration**

Calibration of the writing tests is performed using Winsteps, version 3.69. A two-step process is used in which the multiple-choice items are calibrated first without including the essay score. Then the multiple-choice item parameters from the initial calibration are held fixed and the essay is calibrated. During this second step, the IWEIGHT command is used with a weight of 7 for the essay response for Grades 5, 6, and 7, and for the high school test, the IWEIGHT command is used with a weight of 2 for the multiple-choice items and a weight of 7 for the essay response.

7.5.2.3 **Standard Setting**

Performance standards were determined separately for the multiple-choice and essay components of the writing tests. The Item Mapping method of standard setting was used to identify the standard on the theta scale for each performance level for the multiple-choice component. The performance standards were set for the essay component such that the theta value for each performance level corresponded approximately to a specific raw score on the essay. For Grades 5, 6, and 7, the value of theta corresponding raw scores of 3, 4, and 5.5 were used as the cut points for Approaches, Meets, and Exceeds, respectively. For the high school test, the value of theta corresponding raw scores of 5, 7, and 11 were used as the cut points for Approaches, Meets, and Exceeds, respectively. The final theta cut points were determined by weighting the multiple-choice theta at each cut point by 40%

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and the essay theta at each cut by 60% and combining them into a final theta cut point for each performance level.

7.5.3 Scoring and Standard Error of Measurement

Item response theory makes available two types of scoring: number-correct and item-pattern. With number-correct scoring, the value of theta corresponding to each number-correct score (or raw score) is converted to a scale score. Item-pattern scoring produces a scale score, taking into account not only how many items were answered correctly but also which items and the characteristics of those items. For groups of 25 or more students, the two methods produce tau-equivalent results (Yen, 1984.) Tau-equivalent means that examinees are expected to receive the same score on average between the two methods. Number-correct scoring was used to derive scales scores for both the AIMS CRT tests and the AIMS NRT tests.

Typically, a test score is obtained from a single observation of performance and represents an estimate of the trait being measured. As an estimate, an observed test score contains some measurement error and does not perfectly reflect an individual's true score. The degree of measurement error in a test score can be estimated using a statistic called the standard error of measurement (SEM).

A student's exact true score cannot be known. The true score is defined as the average test score that would result if the test could be administered repeatedly without the effects of practice or fatigue. The standard error of measurement is an estimate of the standard deviation of an individual's observed scores from these repeated administrations. For practical purposes, this statistic can be used to obtain a range within which a student's true score is likely to fall. Using item response theory, the standard error of measurement can be calculated for every possible scale score.

Tables 7.5.3.1 through 7.5.3.22 present raw score to scale score conversion tables and IRT conditional standard errors of measurement for all AIMS CRT tests. The values in bold represent the scale score with the smallest value greater than or equal to the established cut score for each grade level and content area. The "greater than" rule is evoked when the actual scale score is not observed in any given table. Note that the scores for writing in Grades 5, 6, and 7 (Tables 7.5.3.15 – 7.5.3.17) range from 0 to 69, and the scores for writing in high school (Tables 7.5.3.18 and 7.5.3.19) range from 0 to 138. This is because of the differential weighting of the multiple-choice items and the essay described above. Tables 7.5.3.23 through 7.5.3.28 present IRT conditional standard errors of measurement for all AIMS NRT tests.

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Table 7.5.3.1
Spring 2013 AIMS Raw Score to Scale Score Table
Mathematics CRT Grade 3

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	100	60	34	338	11
1	138	43	35	341	11
2	169	31	36	344	11
3	187	26	**37**	**347**	**12**
4	201	23	38	350	12
5	212	20	39	353	12
6	221	19	40	357	12
7	229	18	41	360	12
8	236	17	42	363	12
9	242	16	43	366	12
10	248	15	44	370	12
11	254	15	45	373	12
12	259	14	46	377	12
13	264	14	47	380	12
14	268	14	48	384	13
15	273	13	49	388	13
16	277	13	50	392	13
17	281	13	51	396	13
18	285	13	52	400	14
19	288	13	53	405	14
20	292	12	**54**	**410**	**14**
21	296	12	55	415	15
22	299	12	56	420	15
23	**303**	**12**	57	426	16
24	306	12	58	432	17
25	309	12	59	439	18
26	313	12	60	447	19
27	316	12	61	456	20
28	319	12	62	467	22
29	322	12	63	480	26
30	325	12	64	499	31
31	328	11	65	529	43
32	332	11	66	540	60
33	335	11			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.2
Spring 2013 AIMS Raw Score to Scale Score Table
Mathematics CRT Grade 4

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	120	60	35	347	11
1	153	43	36	350	11
2	183	31	37	353	11
3	201	25	38	356	11
4	215	22	39	359	11
5	225	20	40	362	11
6	234	19	41	365	11
7	241	17	**42**	**368**	**11**
8	248	16	43	371	12
9	254	16	44	374	12
10	260	15	45	378	12
11	265	15	46	381	12
12	270	14	47	384	12
13	274	14	48	388	12
14	279	13	49	391	12
15	283	13	50	395	13
16	287	13	51	399	13
17	290	13	52	403	13
18	294	12	53	407	13
19	298	12	54	411	14
20	301	12	55	415	14
21	304	12	**56**	**420**	**14**
22	308	12	57	425	15
23	311	12	58	430	15
24	314	12	59	436	16
25	317	11	60	442	17
26	320	11	61	449	18
27	323	11	62	457	19
28	326	11	63	466	20
29	329	11	64	477	22
30	**332**	**11**	65	490	26
31	335	11	66	509	31
32	338	11	67	539	43
33	341	11	68	560	60
34	344	11			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.3
Spring 2013 AIMS Raw Score to Scale Score Table
Mathematics CRT Grade 5

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	140	61	34	364	11
1	166	43	35	367	11
2	197	31	36	370	11
3	216	26	37	373	11
4	230	23	38	376	11
5	241	21	39	379	11
6	250	19	**40**	**382**	**12**
7	258	18	41	386	12
8	265	17	42	389	12
9	271	16	43	392	12
10	277	15	44	395	12
11	282	15	45	399	12
12	288	14	46	402	12
13	292	14	47	406	12
14	297	14	48	409	12
15	301	13	49	413	13
16	305	13	50	417	13
17	309	13	51	421	13
18	313	13	52	425	13
19	316	12	53	429	14
20	320	12	54	434	14
21	323	12	**55**	**439**	**14**
22	327	12	56	444	15
23	330	12	57	449	15
24	333	12	58	455	16
25	337	12	59	461	17
26	340	12	60	468	18
27	343	11	61	476	19
28	346	11	62	486	20
29	**349**	**11**	63	496	23
30	352	11	64	510	26
31	355	11	65	529	31
32	358	11	66	560	43
33	361	11	67	580	60

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.4
Spring 2013 AIMS Raw Score to Scale Score Table
Mathematics CRT Grade 6

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	160	60	35	390	11
1	193	43	36	393	11
2	224	31	37	395	11
3	242	25	**38**	**398**	**11**
4	256	22	39	401	11
5	266	20	40	404	11
6	275	19	41	407	11
7	283	18	42	410	11
8	290	17	43	413	11
9	296	16	44	416	11
10	302	15	45	420	12
11	307	15	46	423	12
12	312	14	47	426	12
13	316	14	48	429	12
14	321	13	49	433	12
15	325	13	50	436	12
16	329	13	51	440	13
17	333	13	52	444	13
18	337	12	**53**	**448**	**13**
19	340	12	54	452	13
20	344	12	55	456	14
21	347	12	56	461	14
22	350	12	57	465	15
23	354	12	58	471	15
24	357	12	59	476	16
25	360	11	60	482	16
26	363	11	61	489	17
27	**366**	**11**	62	497	19
28	369	11	63	505	20
29	372	11	64	516	22
30	375	11	65	529	25
31	378	11	66	547	31
32	381	11	67	578	43
33	384	11	68	600	60
34	387	11			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.5
Spring 2013 AIMS Raw Score to Scale Score Table
Mathematics CRT Grade 7

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	180	60	35	403	11
1	211	43	36	406	11
2	242	31	37	409	11
3	260	25	**38**	**412**	**11**
4	273	22	39	415	11
5	284	20	40	417	11
6	292	19	41	420	11
7	300	17	42	423	11
8	307	16	43	426	11
9	313	16	44	429	11
10	318	15	45	432	11
11	323	14	46	435	12
12	328	14	47	439	12
13	333	14	48	442	12
14	337	13	49	445	12
15	341	13	50	449	12
16	345	13	51	452	12
17	348	12	52	456	13
18	352	12	**53**	**460**	**13**
19	356	12	54	464	13
20	359	12	55	468	14
21	362	12	56	473	14
22	365	12	57	478	14
23	369	11	58	483	15
24	372	11	59	488	16
25	375	11	60	494	16
26	378	11	61	501	17
27	381	11	62	509	19
28	**383**	**11**	63	517	20
29	386	11	64	528	22
30	389	11	65	541	25
31	392	11	66	559	31
32	395	11	67	590	43
33	398	11	68	620	60
34	400	11			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.6
Spring 2013 AIMS Raw Score to Scale Score Table
Mathematics CRT Grade 8

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	200	60	35	414	11
1	219	43	36	416	11
2	250	31	37	419	11
3	268	25	38	422	11
4	281	22	39	425	11
5	292	20	**40**	**428**	**11**
6	301	19	41	431	11
7	308	17	42	434	11
8	315	16	43	437	11
9	321	16	44	440	12
10	327	15	45	444	12
11	332	15	46	447	12
12	337	14	47	450	12
13	341	14	48	454	12
14	346	13	49	457	12
15	350	13	50	461	12
16	354	13	51	464	13
17	357	13	52	468	13
18	361	12	53	472	13
19	365	12	**54**	**476**	**13**
20	368	12	55	481	14
21	371	12	56	485	14
22	375	12	57	490	15
23	378	12	58	496	15
24	381	11	59	501	16
25	384	11	60	508	17
26	387	11	61	515	18
27	390	11	62	522	19
28	393	11	63	531	20
29	396	11	64	542	22
30	399	11	65	556	26
31	402	11	66	574	31
32	405	11	67	605	43
33	408	11	68	640	60
34	**411**	**11**			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.7
Spring 2013 AIMS Raw Score to Scale Score Table
Mathematics CRT High School

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	300	59	43	483	10
1	300	42	44	485	10
2	315	30	**45**	**488**	**10**
3	333	25	46	490	10
4	345	22	47	492	10
5	355	19	48	494	10
6	364	18	49	497	10
7	371	17	50	499	10
8	378	16	51	501	10
9	383	15	52	504	10
10	389	14	53	506	10
11	393	14	54	508	10
12	398	13	55	511	10
13	402	13	56	513	10
14	406	13	57	516	10
15	410	12	58	518	10
16	413	12	59	521	10
17	417	12	60	524	11
18	420	12	61	526	11
19	423	11	62	529	11
20	426	11	63	532	11
21	429	11	64	535	11
22	432	11	**65**	**538**	**11**
23	435	11	66	541	11
24	438	11	67	544	12
25	440	10	68	548	12
26	443	10	69	551	12
27	446	10	70	555	12
28	448	10	71	559	13
29	451	10	72	563	13
30	453	10	73	567	14
31	456	10	74	572	14
32	458	10	75	576	15
33	460	10	76	582	15
34	463	10	77	588	16
35	465	10	78	594	17
36	467	10	79	602	18
37	470	10	80	610	20
38	**472**	**10**	81	621	22
39	474	10	82	634	25
40	476	10	83	652	30
41	479	10	84	681	42
42	481	10	85	700	59

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.8
Spring 2013 AIMS Raw Score to Scale Score Table
Reading CRT Grade 3

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	200	59	**28**	**432**	**12**
1	248	42	29	436	12
2	278	30	30	440	12
3	297	25	31	443	12
4	310	22	32	447	12
5	321	20	33	451	12
6	330	19	34	455	13
7	338	17	35	459	13
8	345	17	36	463	13
9	351	16	37	467	13
10	357	15	38	471	13
11	363	15	39	475	13
12	368	14	40	480	14
13	373	14	41	484	14
14	377	14	42	489	14
15	**382**	**14**	43	494	15
16	386	13	44	500	15
17	391	13	45	506	16
18	395	13	46	512	17
19	399	13	**47**	**519**	**17**
20	403	13	48	527	18
21	406	13	49	536	20
22	410	12	50	546	22
23	414	12	51	560	25
24	418	12	52	578	30
25	421	12	53	608	42
26	425	12	54	640	59
27	429	12			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.9
Spring 2013 AIMS Raw Score to Scale Score Table
Reading CRT Grade 4

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	220	54	**28**	**452**	**11**
1	286	38	29	456	11
2	314	28	30	459	11
3	330	23	31	462	11
4	342	20	32	466	11
5	352	18	33	469	11
6	360	17	34	473	12
7	367	16	35	476	12
8	374	15	36	480	12
9	379	14	37	484	12
10	385	14	38	487	12
11	390	13	39	491	12
12	394	13	40	496	13
13	399	13	41	500	13
14	**403**	**12**	42	504	13
15	407	12	43	509	14
16	411	12	44	514	14
17	415	12	45	520	15
18	419	12	46	526	15
19	422	12	47	532	16
20	426	11	**48**	**539**	**17**
21	429	11	49	548	18
22	432	11	50	558	20
23	436	11	51	570	23
24	439	11	52	587	28
25	442	11	53	615	38
26	446	11	54	660	54
27	449	11			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.10
Spring 2013 AIMS Raw Score to Scale Score Table
Reading CRT Grade 5

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	240	57	**28**	**470**	**12**
1	294	41	29	473	12
2	323	29	30	477	12
3	341	24	31	480	12
4	354	21	32	484	12
5	364	19	33	488	12
6	372	18	34	491	12
7	380	17	35	495	12
8	387	16	36	499	13
9	393	15	37	503	13
10	398	15	38	507	13
11	404	14	39	511	13
12	408	14	40	516	13
13	413	14	41	520	14
14	418	13	42	525	14
15	422	13	43	530	15
16	**426**	**13**	44	536	15
17	430	13	45	542	16
18	434	12	46	548	16
19	438	12	47	555	17
20	441	12	**48**	**563**	**18**
21	445	12	49	572	20
22	449	12	50	582	22
23	452	12	51	595	25
24	456	12	52	613	30
25	459	12	53	643	41
26	463	12	54	675	57
27	466	12			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.11
Spring 2013 AIMS Raw Score to Scale Score Table
Reading CRT Grade 6

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	250	58	**28**	**481**	**12**
1	297	42	29	484	12
2	327	30	30	488	12
3	346	25	31	492	12
4	359	22	32	495	12
5	370	20	33	499	12
6	379	19	34	503	12
7	387	17	35	506	12
8	394	17	36	510	13
9	401	16	37	514	13
10	407	15	38	518	13
11	412	15	39	523	13
12	418	14	40	527	13
13	422	14	41	532	14
14	427	14	42	536	14
15	432	13	43	541	15
16	**436**	**13**	44	547	15
17	440	13	45	553	16
18	444	13	46	559	16
19	448	13	47	566	17
20	452	12	**48**	**574**	**18**
21	456	12	49	583	20
22	459	12	50	593	22
23	463	12	51	606	25
24	467	12	52	624	30
25	470	12	53	654	41
26	474	12	54	690	58
27	477	12			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.12
Spring 2013 AIMS Raw Score to Scale Score Table
Reading CRT Grade 7

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	260	62	28	503	13
1	315	44	29	507	13
2	347	32	30	511	13
3	366	26	31	514	13
4	380	23	32	518	13
5	391	21	33	522	13
6	400	19	34	526	13
7	408	18	35	529	13
8	415	17	36	533	13
9	422	17	37	538	13
10	428	16	38	542	14
11	434	15	39	546	14
12	439	15	40	551	14
13	**444**	**15**	41	555	15
14	449	14	42	560	15
15	453	14	43	566	15
16	457	14	44	571	16
17	462	13	45	577	17
18	466	13	46	584	17
19	470	13	**47**	**591**	**18**
20	474	13	48	599	19
21	478	13	49	609	21
22	481	13	50	620	23
23	485	13	51	634	26
24	**489**	**13**	52	653	32
25	492	13	53	684	44
26	496	13	54	720	62
27	500	13			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.13
Spring 2013 AIMS Raw Score to Scale Score Table
Reading CRT Grade 8

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	270	70	28	483	14
1	270	50	29	487	14
2	304	36	30	492	14
3	326	30	31	496	14
4	342	26	**32**	**500**	**15**
5	354	24	33	504	15
6	365	22	34	509	15
7	374	21	35	513	15
8	383	20	36	518	15
9	390	19	37	523	15
10	397	18	38	527	16
11	403	18	39	532	16
12	409	17	40	538	16
13	415	17	41	543	17
14	421	16	42	549	17
15	426	16	43	555	17
16	431	16	44	561	18
17	436	15	45	568	19
18	440	15	46	575	20
19	445	15	47	584	21
20	449	15	48	593	22
21	**454**	**15**	**49**	**603**	**24**
22	458	15	50	616	26
23	462	14	51	632	30
24	467	14	52	654	36
25	471	14	53	689	50
26	475	14	54	800	70
27	479	14			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.14
Spring 2013 AIMS Raw Score to Scale Score Table
Reading CRT High School

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	500	61	28	684	13
1	500	44	29	688	13
2	525	32	30	692	13
3	544	26	31	696	13
4	558	23	32	699	13
5	569	21	33	703	13
6	579	19	34	707	13
7	587	18	35	711	13
8	594	17	36	715	13
9	601	17	37	719	13
10	607	16	38	724	14
11	613	15	39	728	14
12	618	15	40	733	14
13	623	15	41	738	15
14	**628**	**14**	42	743	15
15	633	14	43	748	15
16	637	14	44	754	16
17	641	14	45	760	16
18	646	13	46	766	17
19	650	13	**47**	**773**	**18**
20	654	13	48	782	19
21	658	13	49	791	21
22	662	13	50	802	23
23	665	13	51	816	26
24	669	13	52	835	31
25	673	13	53	866	44
26	**677**	**13**	54	900	61
27	680	13			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.15
Spring 2013 AIMS Raw Score to Scale Score Table
Writing CRT Grade 5

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	300	42	35	468	10
1	300	42	36	471	10
2	300	42	37	474	10
3	300	42	38	478	10
4	300	42	39	481	10
5	300	42	40	484	10
6	300	42	41	488	10
7	300	42	42	491	10
8	309	30	**43**	**495**	**10**
9	331	22	44	499	11
10	346	19	45	503	11
11	356	17	46	507	11
12	366	16	47	511	11
13	373	15	48	515	12
14	381	14	49	520	12
15	387	13	50	525	12
16	393	13	51	531	13
17	398	12	52	537	13
18	404	12	53	543	14
19	409	12	54	550	14
20	413	11	55	557	15
21	418	11	56	565	15
22	422	11	57	573	16
23	426	11	58	582	16
24	430	11	59	592	17
25	434	10	**60**	**601**	**17**
26	437	10	61	612	18
27	**441**	**10**	62	623	18
28	444	10	63	634	18
29	448	10	64	646	19
30	451	10	65	658	19
31	455	10	66	671	21
32	458	10	67	688	24
33	461	10	68	700	31
34	464	10	69	700	42

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.16
Spring 2013 AIMS Raw Score to Scale Score Table
Writing CRT Grade 6

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	300	45	35	468	10
1	300	45	36	472	10
2	300	45	37	475	10
3	300	45	38	478	10
4	300	45	39	482	10
5	300	45	40	485	10
6	300	45	41	488	11
7	300	45	42	492	11
8	320	32	**43**	**496**	**11**
9	343	23	44	500	11
10	357	19	45	504	11
11	367	17	46	508	11
12	376	15	47	512	12
13	383	14	48	517	12
14	389	14	49	521	12
15	395	13	50	527	13
16	400	12	51	532	13
17	405	12	52	538	14
18	409	12	53	544	14
19	413	11	54	551	15
20	418	11	55	558	15
21	421	11	56	565	15
22	425	11	57	573	16
23	429	11	**58**	**581**	**16**
24	432	10	59	590	17
25	436	10	60	599	17
26	439	10	61	609	17
27	443	10	62	619	18
28	446	10	63	629	18
29	**449**	**10**	64	641	19
30	452	10	65	653	20
31	456	10	66	666	22
32	459	10	67	683	25
33	462	10	68	700	33
34	465	10	69	700	45

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.17
Spring 2013 AIMS Raw Score to Scale Score Table
Writing CRT Grade 7

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	300	40	35	465	9
1	300	40	36	468	9
2	300	40	37	472	9
3	300	40	38	475	9
4	300	40	39	478	9
5	300	40	40	481	10
6	300	40	41	484	10
7	300	40	42	488	10
8	323	29	43	491	10
9	344	21	**44**	**495**	**10**
10	357	17	45	499	10
11	367	16	46	502	10
12	375	14	47	506	11
13	382	13	48	511	11
14	388	13	49	515	11
15	393	12	50	520	12
16	398	12	51	525	12
17	403	11	52	530	12
18	408	11	53	535	12
19	412	11	54	541	13
20	416	10	55	547	13
21	420	10	56	554	13
22	423	10	57	560	14
23	427	10	58	567	14
24	431	10	59	574	14
25	434	10	60	582	15
26	437	10	61	590	15
27	440	9	**62**	**598**	**15**
28	444	9	63	607	16
29	447	9	64	616	16
30	**450**	**9**	65	626	17
31	453	9	66	638	19
32	456	9	67	653	22
33	459	9	68	675	29
34	462	9	69	700	40

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.18
Spring 2013 AIMS Raw Score to Scale Score Table
Writing CRT High School Prompt A

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	300	54	35	386	9	70	458	9	105	544	11
1	300	54	36	388	9	71	460	9	106	547	11
2	300	54	37	390	9	72	462	9	107	551	11
3	300	54	38	392	9	73	464	9	108	554	11
4	300	54	39	395	9	74	466	9	109	557	12
5	300	54	40	397	9	75	468	9	110	561	12
6	300	54	41	399	9	76	470	9	111	564	12
7	300	54	42	401	9	77	472	9	112	568	12
8	300	54	43	403	9	78	474	9	113	571	12
9	300	54	44	405	9	79	476	9	114	575	12
10	300	54	45	407	9	80	479	9	115	578	12
11	300	54	46	409	9	**81**	**481**	**9**	116	582	12
12	300	54	47	411	9	82	483	9	117	586	12
13	300	54	48	413	9	83	485	9	**118**	**590**	**13**
14	300	54	49	415	9	84	487	9	119	594	13
15	300	38	50	417	9	85	490	9	120	598	13
16	301	26	51	419	9	86	492	10	121	603	13
17	315	21	52	421	9	87	494	10	122	607	13
18	325	18	53	423	9	88	497	10	123	612	14
19	332	16	54	425	9	89	499	10	124	617	14
20	338	15	55	427	9	90	501	10	125	622	14
21	343	14	56	429	9	91	504	10	126	627	15
22	348	13	57	431	9	92	506	10	127	633	15
23	352	12	**58**	**433**	**9**	93	509	10	128	639	16
24	356	12	59	435	9	94	512	10	129	646	16
25	359	11	60	437	9	95	514	10	130	652	17
26	363	11	61	439	9	96	517	10	131	660	17
27	366	11	62	441	9	97	520	11	132	668	18
28	368	10	63	443	9	98	523	11	133	677	20
29	371	10	64	445	9	99	526	11	134	688	21
30	374	10	65	447	9	100	529	11	135	700	24
31	376	10	66	450	9	101	532	11	136	700	29
32	379	10	67	452	9	102	535	11	137	700	40
33	381	10	68	454	9	103	538	11	138	700	56
34	384	10	69	456	9	104	541	11			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.19
Spring 2013 AIMS Raw Score to Scale Score Table
Writing CRT High School Prompt T

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	300	55	35	399	9	70	463	9	105	542	11
1	300	55	36	402	9	71	465	9	106	545	11
2	300	55	37	404	9	72	467	9	107	548	11
3	300	55	38	406	9	73	469	9	108	551	11
4	300	55	39	408	9	74	471	9	109	554	11
5	300	55	40	410	9	75	473	9	110	557	11
6	300	55	41	411	9	76	475	9	111	560	11
7	300	55	42	413	9	77	477	9	112	564	12
8	300	55	43	415	8	78	479	9	113	567	12
9	300	55	44	417	8	**79**	**480**	**9**	114	571	12
10	300	55	45	419	8	80	482	9	115	574	12
11	300	55	46	421	8	81	484	9	116	578	12
12	300	55	47	422	8	82	486	9	117	582	13
13	300	55	48	424	8	83	488	9	118	586	13
14	300	55	49	426	8	84	490	9	**119**	**591**	**13**
15	300	39	50	428	8	85	492	9	120	595	14
16	305	28	51	429	8	86	495	9	121	600	14
17	321	22	52	431	8	87	497	9	122	605	15
18	332	19	**53**	**433**	**8**	88	499	9	123	611	15
19	341	17	54	435	8	89	501	9	124	617	16
20	348	16	55	436	8	90	503	9	125	623	16
21	354	15	56	438	8	91	505	9	126	630	17
22	359	14	57	440	8	92	508	10	127	637	17
23	364	13	58	442	8	93	510	10	128	645	18
24	368	13	59	444	8	94	512	10	129	653	18
25	372	12	60	445	8	95	515	10	130	662	19
26	375	12	61	447	8	96	517	10	131	671	19
27	379	11	62	449	8	97	520	10	132	681	20
28	382	11	63	451	8	98	522	10	133	692	21
29	385	10	64	452	8	99	525	10	134	700	23
30	387	10	65	454	8	100	528	10	135	700	26
31	390	10	66	456	8	101	530	10	136	700	30
32	392	10	67	458	8	102	533	10	137	700	41
33	395	10	68	460	8	103	536	11	138	700	57
34	397	9	69	462	8	104	539	11			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.20
Spring 2013 AIMS Raw Score to Scale Score Table
Science CRT Grade 4

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	200	71	28	490	14
1	263	51	29	494	14
2	300	37	30	498	14
3	323	31	**31**	**502**	**14**
4	340	27	32	507	15
5	354	25	33	511	15
6	365	23	34	515	15
7	375	21	35	520	15
8	384	20	36	524	15
9	392	19	37	529	15
10	400	19	38	534	15
11	406	18	39	539	16
12	413	17	40	544	16
13	419	17	**41**	**549**	**16**
14	425	17	42	555	17
15	430	16	43	561	17
16	435	16	44	567	18
17	440	16	45	574	19
18	445	15	46	581	19
19	450	15	47	589	20
20	455	15	48	598	22
21	459	15	49	609	24
22	**464**	**15**	50	621	26
23	468	15	51	637	30
24	473	15	52	658	36
25	477	14	53	693	50
26	481	14	54	800	70
27	485	14			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.21
Spring 2013 AIMS Raw Score to Scale Score Table
Science CRT Grade 8

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	200	69	30	490	14
1	276	49	31	494	14
2	311	35	32	498	14
3	332	29	**33**	**502**	**14**
4	347	26	34	506	14
5	359	23	35	510	14
6	370	21	36	513	14
7	379	20	37	518	14
8	387	19	38	522	14
9	394	18	39	526	14
10	401	18	40	530	14
11	407	17	**41**	**534**	**15**
12	413	16	42	539	15
13	418	16	43	544	15
14	423	16	44	549	15
15	428	15	45	554	16
16	433	15	46	559	16
17	438	15	47	565	17
18	442	15	48	571	17
19	447	14	49	577	18
20	451	14	50	585	19
21	455	14	51	592	20
22	459	14	52	601	21
23	463	14	53	611	23
24	467	14	54	624	25
25	471	14	55	639	29
26	**475**	**14**	56	660	35
27	479	14	57	694	49
28	483	14	58	800	68
29	486	14			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.22
Spring 2013 AIMS Raw Score to Scale Score Table
Science CRT High School

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	200	74	33	471	14
1	240	53	**34**	**475**	**14**
2	277	38	35	479	14
3	300	31	36	482	14
4	316	27	37	486	14
5	329	25	38	490	14
6	339	23	39	493	14
7	349	21	40	497	14
8	357	20	**41**	**501**	**14**
9	365	19	42	505	14
10	371	18	43	509	14
11	378	18	44	513	15
12	384	17	45	517	15
13	389	17	46	521	15
14	395	16	47	526	15
15	400	16	48	530	15
16	404	16	49	535	16
17	409	15	**50**	**540**	**16**
18	414	15	51	545	16
19	418	15	52	550	17
20	422	15	53	556	17
21	426	15	54	562	18
22	430	14	55	568	19
23	434	14	56	575	19
24	438	14	57	583	20
25	442	14	58	591	21
26	446	14	59	600	23
27	450	14	60	611	25
28	453	14	61	624	27
29	457	14	62	641	31
30	461	14	63	663	38
31	464	14	64	701	53
32	468	14	65	800	74

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.23
Spring 2013 AIMS NRT SEM Table
Grade 3

	Reading		Language		Mathematics	
Raw Score	Scale Score	IRT SEM	Scale Score	IRT SEM	Scale Score	IRT SEM
0	446	49	449	49	430	49
1	469	36	473	36	453	36
2	496	26	500	27	480	26
3	513	22	517	23	496	22
4	526	20	531	21	509	20
5	536	18	542	19	519	18
6	545	17	552	18	528	17
7	554	17	561	18	536	16
8	561	16	569	17	543	16
9	569	16	578	17	550	15
10	576	16	586	17	557	15
11	582	15	594	17	563	15
12	589	15	602	17	569	15
13	596	15	611	18	576	15
14	603	15	621	18	582	15
15	610	16	631	19	588	15
16	617	16	642	21	595	15
17	624	16	656	23	602	16
18	632	17	674	27	609	16
19	641	18	702	37	617	17
20	650	19	725	49	626	18
21	661	20			636	20
22	674	23			649	22
23	691	27			665	26
24	718	36			692	36
25	741	49			715	49

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Table 7.5.3.24
Spring 2013 AIMS NRT SEM Table
Grade 4

	Reading		Language		Mathematics	
Raw Score	Scale Score	IRT SEM	Scale Score	IRT SEM	Scale Score	IRT SEM
0	464	49	460	49	452	49
1	488	36	484	37	475	36
2	514	26	512	27	502	26
3	531	22	530	23	519	22
4	543	20	543	21	531	20
5	554	18	554	19	542	18
6	563	17	564	18	551	17
7	571	17	573	17	559	17
8	579	16	582	17	567	16
9	586	16	590	17	574	16
10	592	15	598	17	582	16
11	599	15	606	17	589	16
12	605	15	614	17	595	16
13	612	15	622	17	602	16
14	618	15	631	18	609	16
15	625	15	641	19	617	16
16	632	16	651	20	624	16
17	639	16	664	23	632	17
18	646	16	681	27	640	17
19	654	17	708	36	649	18
20	663	18	732	49	659	19
21	674	20			670	21
22	686	22			684	23
23	703	26			702	27
24	730	36			729	37
25	753	49			753	49

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Table 7.5.3.25
Spring 2013 AIMS NRT SEM Table
Grade 5

	Reading		Language		Mathematics	
Raw Score	Scale Score	IRT SEM	Scale Score	IRT SEM	Scale Score	IRT SEM
0	484	49	477	50	496	49
1	507	36	502	37	519	36
2	534	26	530	27	546	26
3	550	22	548	23	562	22
4	562	20	561	21	574	20
5	572	18	572	19	584	18
6	581	17	582	18	593	17
7	589	16	591	17	601	16
8	596	16	599	17	608	16
9	603	15	607	16	615	15
10	609	15	614	16	621	15
11	616	15	622	16	627	15
12	622	15	629	16	634	15
13	628	15	637	17	640	15
14	634	15	646	17	646	15
15	640	15	655	18	652	15
16	647	15	665	20	659	15
17	653	16	678	22	665	16
18	660	16	694	26	673	16
19	668	17	721	36	680	17
20	677	18	744	49	689	18
21	687	20			699	20
22	699	22			711	22
23	715	26			728	26
24	742	36			754	36
25	765	49			777	49

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Table 7.5.3.26
Spring 2013 AIMS NRT SEM Table
Grade 6

	Reading		Language		Mathematics	
Raw Score	Scale Score	IRT SEM	Scale Score	IRT SEM	Scale Score	IRT SEM
0	493	49	487	49	516	49
1	516	36	510	36	539	36
2	544	27	537	26	565	26
3	561	23	553	22	581	22
4	574	20	566	20	593	19
5	584	19	577	19	602	18
6	594	18	586	18	611	17
7	602	17	595	17	619	16
8	610	16	603	17	626	15
9	617	16	611	16	632	15
10	624	15	618	16	638	15
11	630	15	626	16	644	14
12	637	15	634	17	650	14
13	644	15	642	17	656	14
14	650	15	650	18	662	14
15	657	15	660	19	668	15
16	663	16	671	20	675	15
17	671	16	684	23	681	15
18	678	17	701	27	688	16
19	686	17	728	36	696	17
20	695	18	752	49	704	18
21	706	20			714	19
22	718	22			726	22
23	735	26			742	26
24	762	36			768	36
25	785	49			791	49

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Table 7.5.3.27
Spring 2013 AIMS NRT SEM Table
Grade 7

	Reading		Language		Mathematics	
Raw Score	Scale Score	IRT SEM	Scale Score	IRT SEM	Scale Score	IRT SEM
0	497	49	507	49	521	49
1	521	36	530	36	544	36
2	547	26	557	26	570	26
3	564	22	574	22	587	22
4	577	20	586	20	599	20
5	587	18	597	19	609	18
6	597	17	606	18	617	17
7	605	17	615	17	625	16
8	612	16	623	17	632	16
9	620	16	630	16	639	15
10	627	15	638	16	646	15
11	633	15	645	16	652	15
12	640	15	653	17	658	15
13	646	15	661	17	664	15
14	653	15	670	18	671	15
15	660	15	680	19	677	15
16	667	16	691	20	683	15
17	674	16	704	23	690	16
18	682	17	721	27	698	16
19	690	17	748	37	705	17
20	699	19	772	49	714	18
21	710	20			724	20
22	722	22			737	22
23	739	27			753	26
24	766	36			780	36
25	790	49			803	49

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Table 7.5.3.28
Spring 2013 AIMS NRT SEM Table
Grade 8

	Reading		Language		Mathematics	
Raw Score	Scale Score	IRT SEM	Scale Score	IRT SEM	Scale Score	IRT SEM
0	511	49	504	49	547	49
1	534	36	527	36	571	36
2	561	26	554	26	597	26
3	577	22	570	22	614	22
4	590	20	583	20	626	20
5	600	18	594	19	636	18
6	609	17	603	18	645	17
7	617	16	612	17	653	16
8	624	16	620	17	660	16
9	631	15	627	16	667	15
10	638	15	635	16	673	15
11	644	15	642	16	679	15
12	650	15	650	17	685	15
13	657	15	658	17	692	15
14	663	15	667	18	698	15
15	669	15	676	19	704	15
16	676	15	687	20	710	15
17	683	16	700	22	717	16
18	690	16	717	27	724	16
19	698	17	744	36	732	17
20	707	18	767	49	740	18
21	717	20			750	19
22	730	22			762	22
23	746	26			779	26
24	773	36			805	36
25	796	49			828	49

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PART 8: TEST RESULTS

8.1 Data

Part 8 of this technical report contains information about the results of the Spring 2013 administration of AIMS 3-8 and AIMS High School. The first section provides information on the CRT scores from the AIMS assessments. The second section provides information on the NRT scores from AIMS 3-8. The AERA/APA/NCME standards addressed in Part 8 include: 1.5, 4.3, 4.5, 4.6, 4.7, 6.35, 7.1, 7.10, 13.15, and 13.19. Please note that the corresponding information for the Fall 2012 AIMS administration can be found in Appendix A.

Results presented below are based on population data contained within the final electronic data files. The results presented in this part of the technical report may differ slightly from final testing results presented on the Arizona Department of Education website due to slight differences in the application of exclusion rules. Official final results typically use more detailed school-level information than is used to conduct research analyses. The results in the following tables are presented as evidence of reliability and validity of the AIMS assessments and should not be used for state accountability purposes.

8.1.1 AIMS CRT State Test Results

The AIMS CRT test results for mathematics and reading are each on a vertical scale for Grades 3-8. The AIMS CRT Grades 3-8 vertical scales each have a lowest obtainable scale score (LOSS) and a highest obtainable scale score (HOSS) that varies by subject. The AIMS test results for science for Grades 4, 8, and high school and writing for Grades 5, 6, 7, and high school are not on a vertical scale and therefore the scale scores across grades can not be compared. For each grade, the lowest obtainable scale score (LOSS) on the science tests is 200, and the highest obtainable scale score (HOSS) is 800.The LOSS on the writing tests is 300 and the HOSS is 700. The AIMS high school assessments for mathematics, reading, science, and writing are each on a separate scale and each has different LOSS and HOSS. The LOSS and HOSS values for each grade/subject can be found in Table 8.1.1.1.

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Table 8.1.1.1
Spring 2013 AIMS LOSS and HOSS Table

Content	Grade	Loss	Hoss
Reading	3	200	640
	4	220	660
	5	240	675
	6	250	690
	7	260	720
	8	270	800
	HS	500	900
Mathematics	3	100	540
	4	120	560
	5	140	580
	6	160	600
	7	180	620
	8	200	640
	HS	300	700
Writing	5	300	700
	6	300	700
	7	300	700
	HS	300	700
Science	4	200	800
	8	200	800
	HS	200	800

Test results for each grade level and content area CRT test follow in Tables 8.1.1.2 through 8.1.1.9. For each grade, scale score means and standard deviations as well as the percentages of students in each performance level are presented for the state as a whole and disaggregated into various demographic groups.

In addition to the descriptive statistics presented in Tables 8.1.1.2 through 8.1.1.9, scale score frequency distributions are also presented in Tables 8.1.1.10 through 8.1.1.40. Each grade and content area is presented in a separate table. These tables show the scale score, frequency (Freq), cumulative frequency (Cum Freq), percentage (%), and cumulative percentage (Cum %).

Results for AIMS high school assessments are reported by graduating cohort. Cohort 16 is defined as the group of students that expect to graduate in 2016 and typically includes 9th grade students. The results for Cohort 16 are reported only for science because Grade 9 science scores are used in the state accountability system. Cohort 15 is defined as the group of students that expect to graduate in 2015 and typically includes 10th grade students. Cohort 14 is defined as the group of students that expect to graduate in 2014 and typically includes 11th grade students. Cohort 13 is defined as the group of students that expect to graduate in 2013 and is typically composed of 12th grade students.

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Table 8.1.1.2
Spring 2013 AIMS State Test Results
Mathematics CRT Grades 3-8

		Scale Score		% at Performance Level			
	N	M	SD	FFBS	AS	MS	ES
Grade 3							
Total	82993	372.97	52.86	9	23	42	26
Hispanic	36354	359.47	47.62	11	29	44	16
Non Hispanic	46186	383.78	54.31	7	18	41	34
Ethnic Background							
White	66037	375.80	52.30	8	22	43	27
Black or African American	4822	353.62	49.00	16	30	40	14
Asian	2540	405.36	56.70	4	11	36	49
American Indian or Alaskan Native	6190	348.21	45.82	16	34	38	11
Native Hawaiian or Other Pacific Islander	297	374.82	53.00	8	24	41	27
Multiple Indication	2256	375.14	52.36	8	21	43	27
Special Program Membership							
English Learner Program	6713	324.70	37.53	29	44	24	3
Special Education	10131	335.51	50.82	29	34	26	10
Low SES	46524	359.36	48.40	12	29	43	16
Migrant	360	347.35	40.66	14	33	48	5
Grade 4							
Total	82865	385.14	49.14	14	21	40	25
Hispanic	35966	374.47	45.65	18	26	39	17
Non Hispanic	46530	393.56	50.11	11	18	40	31
Ethnic Background							
White	66495	387.22	48.49	13	21	41	26
Black or African American	4712	368.71	45.55	22	28	36	14
Asian	2478	416.42	53.66	5	11	35	48
American Indian or Alaskan Native	6010	365.04	44.98	24	28	35	12
Native Hawaiian or Other Pacific Islander	291	386.88	49.92	13	20	39	29
Multiple Indication	2134	386.75	50.32	14	22	38	26
Special Program Membership							
English Learner Program	6896	341.73	36.14	41	35	21	3
Special Education	10277	345.62	46.62	44	26	21	8
Low SES	46039	373.48	45.93	19	26	39	17
Migrant	385	368.96	45.53	23	27	35	15

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, and students attending state hospital schools are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes.

(table continues)

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Table 8.1.1.2 (continued)
Spring 2013 AIMS State Test Results
Mathematics CRT Grades 3-8

		Scale Score		% at Performance Level			
	N	M	SD	FFBS	AS	MS	ES
Grade 5							
Total	82068	397.52	47.27	16	21	43	21
Hispanic	35784	386.41	43.28	20	25	42	13
Non Hispanic	45948	406.29	48.39	13	17	43	27
Ethnic Background							
White	65903	399.86	46.78	15	20	44	22
Black or African American	4808	380.03	43.42	25	26	39	10
Asian	2448	426.88	50.14	7	10	39	43
American Indian or Alaskan Native	5968	376.40	42.50	28	27	36	9
Native Hawaiian or Other Pacific Islander	233	395.42	45.61	17	20	45	18
Multiple Indication	2017	399.89	45.94	14	21	44	21
Special Program Membership							
English Learner Program	4852	347.28	32.15	57	28	14	1
Special Education	10247	355.32	42.81	52	24	19	5
Low SES	45401	385.29	43.62	21	25	41	12
Migrant	398	381.36	45.95	29	21	38	12
Grade 6							
Total	82404	414.33	46.48	15	22	38	25
Hispanic	35862	404.41	42.74	19	26	38	17
Non Hispanic	46176	422.22	47.72	12	19	38	31
Ethnic Background							
White	66442	416.12	45.91	14	21	39	26
Black or African American	4700	396.95	43.34	25	27	34	14
Asian	2518	448.03	51.28	5	11	32	52
American Indian or Alaskan Native	5813	396.29	40.97	24	30	35	12
Native Hawaiian or Other Pacific Islander	291	413.58	44.22	15	21	43	21
Multiple Indication	1981	415.48	45.87	14	22	39	25
Special Program Membership							
English Learner Program	3352	366.57	31.87	54	30	13	2
Special Education	9662	370.14	38.24	54	25	16	5
Low SES	45034	403.43	42.72	20	26	37	16
Migrant	386	406.27	46.12	21	25	34	20

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, and students attending state hospital schools are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes.

(table continues)

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Table 8.1.1.2 (continued)
Spring 2013 AIMS State Test Results
Mathematics CRT Grades 3-8

		Scale Score		% at Performance Level			
	N	M	SD	FFBS	AS	MS	ES
Grade 7							
Total	82292	431.92	49.90	17	18	36	29
Hispanic	35282	419.47	44.73	22	22	36	19
Non Hispanic	46748	441.42	51.49	13	15	35	37
Ethnic Background							
White	66134	434.21	49.41	15	18	36	31
Black or African American	4892	414.94	45.31	27	22	34	17
Asian	2399	466.92	57.22	8	9	28	56
American Indian or Alaskan Native	5948	409.70	42.77	29	24	32	14
Native Hawaiian or Other Pacific Islander	256	428.11	47.26	18	18	39	26
Multiple Indication	1938	434.26	48.10	15	17	38	30
Special Program Membership							
English Learner Program	1708	371.73	30.64	72	18	9	2
Special Education	9108	382.25	38.41	59	22	14	5
Low SES	43987	418.64	45.10	23	22	36	19
Migrant	388	407.15	43.74	31	26	30	13
Grade 8							
Total	81242	439.50	49.28	29	14	35	23
Hispanic	34588	428.15	44.05	36	16	34	15
Non Hispanic	46398	448.10	51.21	23	12	36	29
Ethnic Background							
White	65558	441.51	48.48	27	14	36	24
Black or African American	4723	422.73	44.49	42	16	30	13
Asian	2339	481.01	60.87	13	7	28	53
American Indian or Alaskan Native	5782	417.67	41.66	46	16	28	10
Native Hawaiian or Other Pacific Islander	286	435.84	48.42	30	14	37	19
Multiple Indication	1938	438.89	48.10	29	14	37	21
Special Program Membership							
English Learner Program	1267	384.08	31.5	83	7	8	1
Special Education	8581	389.92	35.12	77	9	11	3
Low SES	42957	426.57	44.09	37	16	33	14
Migrant	405	419.03	40.87	45	15	29	11

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, and students attending state hospital schools are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes.

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Table 8.1.1.3
Spring 2013 AIMS State Test Results
Mathematics CRT High School

		Scale Score		% at Performance Level			
Group	N	M	SD	FFBS	AS	MS	ES
Cohort 15							
Total	74777	501.54	42.57	25	13	43	20
Hispanic	31268	489.92	37.11	32	16	41	11
Non Hispanic	43277	510.03	44.23	19	11	44	26
Ethnic Background							
White	60840	503.13	41.93	23	13	44	20
Black or African American	4295	486.81	37.14	36	14	40	9
Asian	2324	533.35	52.27	12	7	35	47
American Indian or Alaskan Native	4282	480.77	35.59	43	16	33	7
Native Hawaiian or Other Pacific Islander	271	498.82	40.34	26	12	45	16
Multiple Indication	2078	499.48	41.23	26	13	45	17
Special Program Membership							
English Learner Program	1216	453.45	27.81	78	9	11	1
Special Education	6976	455.28	28.84	77	10	11	2
Low SES	35249	488.71	37.53	34	16	40	10
Migrant	430	478.41	34.92	45	16	33	6
Cohort 14							
Total	18771	469.21	25.30	52	25	23	1
Hispanic	10133	468.14	23.69	53	25	21	1
Non Hispanic	8534	470.38	26.83	50	24	24	2
Ethnic Background							
White	14066	469.89	25.11	50	25	23	1
Black or African American	1549	466.66	24.08	57	23	19	1
Asian	317	473.90	32.05	47	21	27	5
American Indian or Alaskan Native	1821	464.45	23.66	60	22	18	0
Native Hawaiian or Other Pacific Islander	53	474.49	30.47	53	21	21	6
Multiple Indication	543	468.91	24.05	52	26	21	1
Special Program Membership							
English Learner Program	666	454.22	23.85	77	14	9	1
Special Education	3342	450.89	21.43	82	12	6	0
Low SES	11619	467.30	23.79	54	25	21	1
Migrant	173	462.17	22.89	61	21	18	0

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes. High school results are not on the same scale as Grade 3-8 results.

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Table 8.1.1.3 (continued)
Spring 2013 AIMS State Test Results
Mathematics CRT High School

		Scale Score		% at Performance Level			
Group	N	M	SD	FFBS	AS	MS	ES
Cohort 12 & 13							
Total	11380	464.61	23.20	59	24	17	0
Hispanic	6563	464.69	22.71	59	24	16	0
Non Hispanic	4740	464.58	23.80	60	23	17	1
Ethnic Background							
White	7984	465.30	23.28	58	24	17	0
Black or African American	973	461.61	23.14	63	22	15	0
Asian	178	465.01	28.37	57	22	19	2
American Indian or Alaskan Native	1430	462.88	21.95	62	23	15	0
Native Hawaiian or Other Pacific Islander	66	463.86	19.40	59	27	14	0
Multiple Indication	359	465.01	22.07	60	25	15	0
Special Program Membership							
English Learner Program	609	454.63	22.66	78	14	8	0
Special Education	2302	448.33	19.34	86	10	3	0
Low SES	7119	464.10	22.79	60	24	16	0
Migrant	116	461.47	22.56	66	21	14	0

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes. High school results are not on the same scale as Grade 3-8 results.

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Table 8.1.1.4
Spring 2013 AIMS State Test Results
Reading CRT Grades 3-8

		Scale Score		% at Performance Level			
Group	N	M	SD	FFBS	AS	MS	ES
Grade 3							
Total	82985	463.73	46.83	4	21	62	13
Hispanic	36349	450.43	42.83	5	28	61	6
Non Hispanic	46182	474.34	47.13	3	15	63	19
Ethnic Background							
White	66028	466.26	46.47	3	19	63	14
Black or African American	4823	450.73	44.42	6	28	59	7
Asian	2540	486.18	48.18	1	11	61	26
American Indian or Alaskan Native	6191	440.51	41.11	7	35	55	3
Native Hawaiian or Other Pacific Islander	298	465.96	46.63	2	21	62	15
Multiple Indication	2254	467.20	45.55	3	19	65	14
Special Program Membership							
English Learner Program	6706	411.71	31.96	16	57	27	0
Special Education	10121	423.41	46.16	17	45	34	4
Low SES	46521	450.82	43.49	5	28	61	7
Migrant	360	433.78	39.92	9	36	53	2
Grade 4							
Total	82863	484.07	44.06	2	21	65	12
Hispanic	35954	471.22	40.12	3	28	64	5
Non Hispanic	46540	494.11	44.36	2	15	66	17
Ethnic Background							
White	66493	486.19	43.93	2	19	66	13
Black or African American	4711	471.92	40.30	3	27	64	5
Asian	2478	505.84	45.02	1	10	64	25
American Indian or Alaskan Native	6013	462.88	38.02	4	35	58	3
Native Hawaiian or Other Pacific Islander	291	483.26	42.21	2	20	68	9
Multiple Indication	2132	488.14	43.71	2	18	67	13
Special Program Membership							
English Learner Program	6889	436.25	28.31	9	61	30	0
Special Education	10273	446.24	42.93	12	48	36	4
Low SES	46038	471.51	40.52	3	28	63	6
Migrant	385	457.57	39.99	6	38	53	3

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, and students attending state hospital schools are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes.

(table continues)

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Table 8.1.1.4 (continued)
Spring 2013 AIMS State Test Results
Reading CRT Grades 3-8

		Scale Score		% at Performance Level			
Group	N	M	SD	FFBS	AS	MS	ES
Grade 5							
Total	82068	505.06	44.07	5	16	70	9
Hispanic	35777	494.09	42.93	7	21	67	5
Non Hispanic	45955	513.70	43.01	4	12	72	12
Ethnic Background							
White	65907	507.27	43.47	5	15	71	10
Black or African American	4806	493.97	43.43	7	21	67	5
Asian	2449	525.07	42.36	3	8	69	20
American Indian or Alaskan Native	5966	482.82	42.27	9	28	60	3
Native Hawaiian or Other Pacific Islander	233	502.94	44.48	5	18	67	10
Multiple Indication	2017	509.91	41.59	3	13	73	10
Special Program Membership							
English Learner Program	4849	446.09	30.56	26	51	23	0
Special Education	10246	460.31	44.07	23	38	37	2
Low SES	45398	493.22	42.93	7	22	67	5
Migrant	398	479.00	46.36	14	27	55	3
Grade 6							
Total	82415	515.44	43.13	4	17	71	9
Hispanic	35867	504.61	40.80	5	21	69	5
Non Hispanic	46181	524.00	42.97	3	13	72	13
Ethnic Background							
White	66450	517.44	42.66	3	15	72	10
Black or African American	4703	502.38	42.55	6	23	66	5
Asian	2519	536.68	43.21	2	8	69	21
American Indian or Alaskan Native	5813	496.06	39.84	6	28	63	3
Native Hawaiian or Other Pacific Islander	291	514.93	41.21	4	15	72	9
Multiple Indication	1980	518.61	41.86	3	15	73	9
Special Program Membership							
English Learner Program	3353	455.65	29.25	23	56	20	0
Special Education	9658	470.25	40.95	19	44	35	2
Low SES	45047	504.21	41.26	5	22	68	5
Migrant	388	495.82	42.67	7	29	59	5

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, and students attending state hospital schools are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes.

(table continues)

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Table 8.1.1.4 (continued)
Spring 2013 AIMS State Test Results
Reading CRT Grades 3-8

		Scale Score		% at Performance Level			
	N	M	SD	FFBS	AS	MS	ES
Grade 7							
Total	82302	538.39	46.81	1	14	71	14
Hispanic	35292	525.87	43.44	2	18	72	8
Non Hispanic	46749	547.94	47.03	1	10	69	19
Ethnic Background							
White	66144	540.68	46.30	1	12	71	15
Black or African American	4892	527.05	45.34	2	19	70	9
Asian	2400	562.22	49.34	1	8	59	32
American Indian or Alaskan Native	5946	515.27	42.45	3	25	68	5
Native Hawaiian or Other Pacific Islander	256	534.44	46.67	2	16	71	11
Multiple Indication	1938	542.10	45.35	1	11	73	14
Special Program Membership							
English Learner Program	1708	466.49	25.65	15	67	18	0
Special Education	9108	489.53	40.54	8	46	44	2
Low SES	43995	525.34	43.89	2	19	71	8
Migrant	387	507.94	40.84	3	29	65	3
Grade 8							
Total	81243	526.41	50.25	8	20	65	7
Hispanic	34588	514.24	47.06	10	25	61	3
Non Hispanic	46398	535.62	50.59	6	16	68	10
Ethnic Background							
White	65559	528.80	49.55	7	19	67	7
Black or African American	4725	514.36	48.74	11	26	59	4
Asian	2339	553.69	55.09	5	10	66	19
American Indian or Alaskan Native	5780	501.12	45.21	15	32	52	2
Native Hawaiian or Other Pacific Islander	286	519.66	48.14	9	21	65	5
Multiple Indication	1938	529.16	49.98	7	19	66	8
Special Program Membership							
English Learner Program	1267	448.31	34.39	62	29	9	0
Special Education	8581	469.53	43.4	39	37	24	1
Low SES	42960	512.67	47.18	11	26	60	3
Migrant	405	501.05	45.61	17	31	51	1

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, and students attending state hospital schools are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes.

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Table 8.1.1.5
Spring 2013 AIMS State Test Results
Reading CRT High School

		Scale Score		% at Performance Level			
	N	M	SD	FFBS	AS	MS	ES
Cohort 15							
Total	76568	715.18	40.62	2	15	76	8
Hispanic	31941	704.07	37.92	2	20	75	4
Non Hispanic	44311	723.32	40.54	1	11	76	11
Ethnic Background							
White	61943	717.36	39.99	2	13	77	8
Black or African American	4400	702.36	38.60	3	21	73	3
Asian	2311	731.49	43.55	2	9	72	17
American Indian or Alaskan Native	4467	693.13	38.27	4	28	66	2
Native Hawaiian or Other Pacific Islander	278	715.11	39.64	2	14	77	7
Multiple Indication	2011	718.29	39.26	1	12	78	9
Special Program Membership							
English Learner Program	1207	649.41	26.98	17	67	15	0
Special Education	7197	668.17	36.53	11	50	38	1
Low SES	36262	702.59	38.42	3	21	73	3
Migrant	454	685.50	35.97	4	37	59	0
Cohort 14							
Total	9278	677.23	40.07	7	45	45	3
Hispanic	4701	672.02	34.23	7	49	43	1
Non Hispanic	4437	681.83	44.20	7	41	48	4
Ethnic Background							
White	6342	678.18	40.67	7	45	46	3
Black or African American	843	670.57	34.56	8	48	43	1
Asian	307	680.76	48.01	9	44	41	7
American Indian or Alaskan Native	1001	667.15	30.60	7	53	40	0
Native Hawaiian or Other Pacific Islander	34	691.85	46.78	6	35	56	3
Multiple Indication	202	675.45	40.84	8	44	45	3
Special Program Membership							
English Learner Program	719	651.48	24.25	15	68	17	0
Special Education	2537	654.33	28.22	14	62	23	0
Low SES	5764	670.40	33.99	8	50	42	1
Migrant	119	658.78	31.34	18	52	30	0

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes. High school results are not on the same scale as Grades 3-8 results.

(table continues)

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Table 8.1.1.5 (continued)
Spring 2013 AIMS State Test Results
Reading CRT High School

		Scale Score		% at Performance Level			
	N	M	SD	FFBS	AS	MS	ES
Cohort 12 & 13							
Total	4931	664.85	32.40	9	57	34	1
Hispanic	2889	663.99	29.96	9	57	34	0
Non Hispanic	1970	665.72	35.33	10	56	33	1
Ethnic Background							
White	3230	664.74	32.95	10	56	33	1
Black or African American	424	661.96	29.78	10	59	31	0
Asian	151	664.03	33.42	9	61	29	1
American Indian or Alaskan Native	677	662.40	27.26	7	61	32	0
Native Hawaiian or Other Pacific Islander	29	651.59	28.57	17	55	28	0
Multiple Indication	89	670.26	34.46	7	55	37	1
Special Program Membership							
English Learner Program	652	655.60	26.22	11	67	22	0
Special Education	1562	648.38	24.82	17	68	15	0
Low SES	3283	663.52	30.46	9	58	33	0
Migrant	85	655.74	23.91	8	67	25	0

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes. High school results are not on the same scale as Grades 3-8 results.

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Table 8.1.1.6
Spring 2013 AIMS State Test Results
Writing CRT Grades 5-7

		Scale Score		% at Performance Level			
Group	N	M	SD	FFBS	AS	MS	ES
Grade 5							
Total	81426	501.95	45.65	7	37	53	4
Hispanic	35471	490.71	39.68	8	45	45	1
Non Hispanic	45625	510.80	47.97	5	31	59	6
Ethnic Background							
White	65489	503.57	45.54	6	36	54	4
Black or African American	4739	491.57	42.09	9	43	46	2
Asian	2422	528.43	53.23	3	20	66	11
American Indian or Alaskan Native	5880	482.52	37.19	11	51	37	1
Native Hawaiian or Other Pacific Islander	233	503.11	40.42	6	31	60	3
Multiple Indication	2001	506.62	45.24	5	35	56	4
Special Program Membership							
English Learner Program	4677	453.44	30.50	30	61	9	0
Special Education	10064	459.96	40.98	31	51	18	1
Low SES	44947	489.66	39.76	9	46	44	1
Migrant	387	480.32	37.98	13	50	37	0
Grade 6							
Total	81536	500.32	46.59	11	35	48	6
Hispanic	35424	490.10	42.23	14	41	42	3
Non Hispanic	45755	508.39	48.19	8	30	53	9
Ethnic Background							
White	65830	501.89	46.24	10	34	49	7
Black or African American	4642	489.53	45.22	16	39	41	4
Asian	2484	526.68	53.34	5	21	58	17
American Indian or Alaskan Native	5684	481.37	39.45	18	46	35	2
Native Hawaiian or Other Pacific Islander	290	499.89	42.26	9	34	51	6
Multiple Indication	1970	503.92	45.99	9	34	51	7
Special Program Membership							
English Learner Program	3177	445.51	33.18	51	42	7	0
Special Education	9339	454.39	41.05	44	40	15	1
Low SES	44409	488.88	42.22	15	42	41	3
Migrant	381	484.98	43.57	20	41	37	3

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, and students attending state hospital schools are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes.

(table continues)

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Table 8.1.1.6 (continued)
Spring 2013 AIMS State Test Results
Writing CRT Grades 5-7

		Scale Score		% at Performance Level			
Group	N	M	SD	FFBS	AS	MS	ES
Grade 7							
Total	81335	497.37	42.65	10	37	51	2
Hispanic	34897	487.31	37.83	13	44	42	1
Non Hispanic	46185	505.04	44.45	8	32	58	3
Ethnic Background							
White	65489	498.78	42.22	10	36	52	2
Black or African American	4796	487.55	41.12	15	42	42	1
Asian	2370	524.64	50.91	5	19	69	7
American Indian or Alaskan Native	5815	480.23	36.05	17	48	34	0
Native Hawaiian or Other Pacific Islander	250	500.45	45.02	12	34	52	2
Multiple Indication	1912	500.71	41.98	8	37	52	2
Special Program Membership							
English Learner Program	1563	436.10	30.76	65	33	3	0
Special Education	8777	453.42	35.98	45	43	12	0
Low SES	43356	485.94	38.13	14	44	41	1
Migrant	379	476.32	35.51	21	46	33	0

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, and students attending state hospital schools are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes.

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Table 8.1.1.7
Spring 2013 AIMS State Test Results
Writing CRT High School

		Scale Score		% at Performance Level			
Group	N	M	SD	FFBS	AS	MS	ES
Prompt A, Cohort 15							
Total	74328	504.53	46.87	5	24	66	5
Hispanic	31059	492.01	41.91	7	32	60	2
Non Hispanic	42945	513.67	48.12	4	19	70	7
Ethnic Background							
White	60309	506.15	46.26	4	23	67	5
Black or African American	4261	494.17	42.93	7	29	62	2
Asian	2265	531.15	58.62	4	13	66	17
American Indian or Alaskan Native	4179	480.82	40.54	10	40	49	1
Native Hawaiian or Other Pacific Islander	281	506.37	44.34	4	22	70	4
Multiple Indication	1943	507.93	45.42	4	23	68	5
Special Program Membership							
English Learner Program	1077	427.58	33.41	55	39	6	0
Special Education	6766	451.73	38.12	30	48	21	0
Low SES	34967	490.20	42.06	7	33	58	2
Migrant	431	473.23	39.05	13	42	45	0
Prompt A, Cohort 14							
Total	12527	473.21	47.29	15	49	32	3
Hispanic	6288	464.45	37.13	16	56	27	1
Non Hispanic	6038	480.83	53.47	15	43	37	5
Ethnic Background							
White	9068	474.97	48.17	15	49	33	3
Black or African American	926	463.27	38.41	18	55	26	1
Asian	355	484.78	63.78	21	36	36	7
American Indian or Alaskan Native	1279	457.94	33.08	19	59	22	0
Native Hawaiian or Other Pacific Islander	44	478.16	49.49	11	55	34	0
Multiple Indication	267	471.04	44.43	14	54	28	3
Special Program Membership							
English Learner Program	712	432.10	31.47	50	44	6	0
Special Education	2803	442.63	32.15	35	54	10	0
Low SES	7591	462.60	37.72	18	55	26	1
Migrant	143	452.33	35.38	26	52	21	1

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes. High school results are not on the same scale as Grades 3-8 results.

(table continues)

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Table 8.1.1.7 (continued)
Spring 2013 AIMS State Test Results
Writing CRT High School

		Scale Score		% at Performance Level			
Group	N	M	SD	FFBS	AS	MS	ES
Prompt A, Cohort 12 & 13							
Total	6406	455.33	34.79	23	57	19	0
Hispanic	3692	454.42	31.39	22	60	18	0
Non Hispanic	2624	456.58	38.90	24	54	21	1
Ethnic Background							
White	4333	456.04	35.57	23	57	20	1
Black or African American	506	451.75	33.62	25	56	19	0
Asian	203	451.65	35.49	24	58	18	0
American Indian or Alaskan Native	842	450.97	29.51	25	61	14	0
Native Hawaiian or Other Pacific Islander	27	456.04	25.67	15	56	30	0
Multiple Indication	121	460.42	33.38	20	53	26	1
Special Program Membership							
English Learner Program	703	435.63	30.72	44	50	6	0
Special Education	1860	439.00	29.80	40	53	7	0
Low SES	4214	453.13	32.59	24	58	18	0
Migrant	101	443.18	35.82	37	49	15	0
Prompt T, Cohort 15							
Total	1658	488.68	46.80	10	33	54	2
Hispanic	644	475.84	41.68	14	40	45	1
Non Hispanic	990	496.96	48.31	8	28	60	3
Ethnic Background							
White	1210	492.92	47.45	9	30	57	3
Black or African American	102	480.3	47.9	13	35	51	1
Asian	21	505.29	63.81	14	24	57	5
American Indian or Alaskan Native	197	470.59	35.99	14	47	40	0
Native Hawaiian or Other Pacific Islander	3	*	*	*	*	*	*
Multiple Indication	52	496.9	44.61	8	21	67	4
Special Program Membership							
English Learner Program	30	418.5	27.58	73	27	0	0
Special Education	241	444.15	33.95	40	45	15	0
Low SES	889	475.53	40.76	14	39	46	1
Migrant	15	458.2	36.19	27	53	20	0

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes. High school results are not on the same scale as Grades 3-8 results. To comply with FERPA regulations, results for subgroups of less than 11 are redacted and marked instead with an *.

(table continues)

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Table 8.1.1.7 (continued)
Spring 2013 AIMS State Test Results
Writing CRT High School

		Scale Score		% at Performance Level			
Group	N	M	SD	FFBS	AS	MS	ES
Prompt T, Cohort 14							
Total	804	471.51	39.13	13	50	37	1
Hispanic	384	464.57	36.02	15	53	31	0
Non Hispanic	409	477.53	39.21	10	47	42	1
Ethnic Background							
White	532	471.21	38.59	13	49	37	1
Black or African American	70	471.54	35.67	10	54	36	0
Asian	21	472.33	47.08	19	43	38	0
American Indian or Alaskan Native	96	469.21	36.03	9	59	30	1
Native Hawaiian or Other Pacific Islander	1	*	*	*	*	*	*
Multiple Indication	20	481.3	50.45	15	30	50	5
Special Program Membership							
English Learner Program	29	430.21	29.89	59	38	3	0
Special Education	166	450.52	29.77	27	57	17	0
Low SES	483	464.62	34.52	16	52	32	0
Migrant	10	*	*	*	*	*	*
Prompt T, Cohort 12 & 13							
Total	406	455.56	31.59	19	61	19	0
Hispanic	240	455.07	31.02	21	58	20	0
Non Hispanic	161	456.09	32.55	16	66	17	0
Ethnic Background							
White	248	456.53	33.68	19	58	23	0
Black or African American	36	455.69	32.03	17	72	11	0
Asian	2	*	*	*	*	*	*
American Indian or Alaskan Native	73	454.03	22.57	15	74	11	0
Native Hawaiian or Other Pacific Islander	3	*	*	*	*	*	*
Multiple Indication	7	*	*	*	*	*	*
Special Program Membership							
English Learner Program	22	433.27	23.79	41	59	0	0
Special Education	125	437.04	31.93	42	50	9	0
Low SES	259	454.27	28.65	19	66	16	0
Migrant	6	*	*	*	*	*	*

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes. High school results are not on the same scale as Grades 3-8 results. To comply with FERPA regulations, results for subgroups of less than 11 are redacted and marked instead with an *.

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Table 8.1.1.8
Spring 2013 AIMS State Test Results
Science CRT Grades 4 and 8

		Scale Score		% at Performance Level			
	N	M	SD	FFBS	AS	MS	ES
Grade 4							
Total	82846	513.48	51.88	17	25	32	26
Hispanic	35931	495.48	44.84	24	33	30	13
Non Hispanic	46545	527.50	52.63	11	20	33	36
Ethnic Background							
White	66471	516.32	51.61	15	24	33	28
Black or African American	4718	497.78	45.90	23	31	30	15
Asian	2482	541.70	56.45	7	16	30	46
American Indian or Alaskan Native	6015	484.93	42.49	31	35	25	8
Native Hawaiian or Other Pacific Islander	291	513.80	55.92	16	26	32	26
Multiple Indication	2134	518.01	51.13	14	24	33	29
Special Program Membership							
English Learner Program	6882	458.50	31.13	58	33	9	1
Special Education	10288	479.69	48.17	41	30	19	10
Low SES	46035	497.43	45.85	23	32	31	14
Migrant	386	478.21	38.73	35	38	23	5
Grade 8							
Total	81293	516.73	43.09	16	18	29	37
Hispanic	34614	503.65	39.33	22	23	31	23
Non Hispanic	46427	526.59	43.14	12	14	28	47
Ethnic Background							
White	65600	519.22	42.33	14	17	30	39
Black or African American	4724	502.43	40.40	25	22	28	24
Asian	2338	542.21	48.1	9	9	20	62
American Indian or Alaskan Native	5792	492.89	38.33	31	26	28	15
Native Hawaiian or Other Pacific Islander	286	512.76	42.11	18	16	32	34
Multiple Indication	1935	518.53	42.7	14	18	30	38
Special Program Membership							
English Learner Program	1270	452.08	28.28	80	14	5	1
Special Education	8597	473.83	39.23	54	22	16	8
Low SES	43007	503.65	39.83	23	23	31	24
Migrant	407	490.35	37.26	32	26	30	12

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes. High school results are not on the same scale as Grades 3-8 results.

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Table 8.1.1.9
Spring 2013 AIMS State Test Results
Science CRT High School

		Scale Score		% at Performance Level			
	N	M	SD	FFBS	AS	MS	ES
Cohort 15							
Total	52449	485.83	56.00	44	17	21	18
Hispanic	24176	471.07	49.52	54	18	18	10
Non Hispanic	28038	498.69	58.03	35	16	24	26
Ethnic Background							
White	41714	488.69	56.29	41	17	22	20
Black or African American	3333	470.64	49.89	55	18	17	10
Asian	1303	508.21	64.70	30	13	25	32
American Indian or Alaskan Native	3703	462.99	45.97	62	16	15	7
Native Hawaiian or Other Pacific Islander	191	481.55	52.50	46	17	21	17
Multiple Indication	1540	489.07	54.11	41	18	23	18
Special Program Membership							
English Learner Program	1018	420.12	27.84	96	3	1	0
Special Education	5535	438.68	41.89	82	9	6	3
Low SES	27838	471.62	50.50	54	18	18	11
Migrant	407	447.35	41.95	74	14	9	4
Cohort 16							
Total	24007	517.38	58.95	23	15	25	36
Hispanic	7726	496.95	52.23	33	19	25	22
Non Hispanic	15988	527.41	59.49	18	13	25	43
Ethnic Background							
White	19959	518.36	58.23	22	16	26	37
Black or African American	1070	496.29	56.63	36	17	23	23
Asian	1097	549.72	61.70	10	8	23	58
American Indian or Alaskan Native	617	480.52	49.58	50	18	19	14
Native Hawaiian or Other Pacific Islander	72	505.46	65.65	36	11	25	28
Multiple Indication	573	516.34	56.37	20	18	24	38
Special Program Membership							
English Learner Program	138	424.98	33.35	91	6	3	0
Special Education	1323	451.92	52.57	72	12	8	8
Low SES	7171	495.73	55.77	36	18	23	23
Migrant	14	453.07	46.81	71	14	7	7

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes. High school results are not on the same scale as Grades 3-8 results.

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Table 8.1.1.10
Spring 2013 AIMS Frequency Distribution
Mathematics CRT Grade 3

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	100	0	0.00	0	0.00	34	338	1508	1.81	23247	27.94
1	138	0	0.00	0	0.00	35	341	1631	1.96	24878	29.90
2	169	1	0.00	1	0.00	36	344	1629	1.96	26507	31.86
3	187	0	0.00	1	0.00	**37**	**347**	**1657**	**1.99**	**28164**	**33.85**
4	201	0	0.00	1	0.00	38	350	1827	2.20	29991	36.05
5	212	0	0.00	1	0.00	39	353	1786	2.15	31777	38.20
6	221	2	0.00	3	0.00	40	357	1902	2.29	33679	40.48
7	229	1	0.00	4	0.00	41	360	1862	2.24	35541	42.72
8	236	9	0.01	13	0.02	42	363	1923	2.31	37464	45.03
9	242	27	0.03	40	0.05	43	366	2065	2.48	39529	47.51
10	248	57	0.07	97	0.12	44	370	1982	2.38	41511	49.90
11	254	91	0.11	188	0.23	45	373	2146	2.58	43657	52.47
12	259	157	0.19	345	0.41	46	377	2185	2.63	45842	55.10
13	264	230	0.28	575	0.69	47	380	2173	2.61	48015	57.71
14	268	334	0.40	909	1.09	48	384	2312	2.78	50327	60.49
15	273	415	0.50	1324	1.59	49	388	2230	2.68	52557	63.17
16	277	582	0.70	1906	2.29	50	392	2371	2.85	54928	66.02
17	281	707	0.85	2613	3.14	51	396	2263	2.72	57191	68.74
18	285	763	0.92	3376	4.06	52	400	2306	2.77	59497	71.51
19	288	874	1.05	4250	5.11	53	405	2315	2.78	61812	74.30
20	292	978	1.18	5228	6.28	**54**	**410**	**2356**	**2.83**	**64168**	**77.13**
21	296	1044	1.25	6272	7.54	55	415	2325	2.79	66493	79.92
22	299	1149	1.38	7421	8.92	56	420	2243	2.70	68736	82.62
23	**303**	**1159**	**1.39**	**8580**	**10.31**	57	426	2296	2.76	71032	85.38
24	306	1131	1.36	9711	11.67	58	432	2133	2.56	73165	87.94
25	309	1206	1.45	10917	13.12	59	439	2054	2.47	75219	90.41
26	313	1193	1.43	12110	14.56	60	447	1946	2.34	77165	92.75
27	316	1286	1.55	13396	16.10	61	456	1817	2.18	78982	94.93
28	319	1327	1.60	14723	17.70	62	467	1436	1.73	80418	96.66
29	322	1284	1.54	16007	19.24	63	480	1178	1.42	81596	98.08
30	325	1368	1.64	17375	20.88	64	499	875	1.05	82471	99.13
31	328	1366	1.64	18741	22.53	65	529	534	0.64	83005	99.77
32	332	1449	1.74	20190	24.27	66	540	191	0.23	83196	100.00
33	335	1549	1.86	21739	26.13						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.11
Spring 2013 AIMS Frequency Distribution
Mathematics CRT Grade 4

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	120	0	0.00	0	0.00	35	347	1467	1.77	19552	23.54
1	153	0	0.00	0	0.00	36	350	1484	1.79	21036	25.33
2	183	0	0.00	0	0.00	37	353	1559	1.88	22595	27.21
3	201	1	0.00	1	0.00	38	356	1633	1.97	24228	29.17
4	215	0	0.00	1	0.00	39	359	1712	2.06	25940	31.23
5	225	0	0.00	1	0.00	40	362	1834	2.21	27774	33.44
6	234	1	0.00	2	0.00	41	365	1868	2.25	29642	35.69
7	241	0	0.00	2	0.00	**42**	**368**	**1959**	**2.36**	**31601**	**38.05**
8	248	6	0.01	8	0.01	43	371	2080	2.50	33681	40.56
9	254	10	0.01	18	0.02	44	374	2159	2.60	35840	43.16
10	260	19	0.02	37	0.04	45	378	2238	2.69	38078	45.85
11	265	44	0.05	81	0.10	46	381	2236	2.69	40314	48.54
12	270	90	0.11	171	0.21	47	384	2262	2.72	42576	51.27
13	274	139	0.17	310	0.37	48	388	2355	2.84	44931	54.10
14	279	238	0.29	548	0.66	49	391	2454	2.95	47385	57.06
15	283	308	0.37	856	1.03	50	395	2534	3.05	49919	60.11
16	287	376	0.45	1232	1.48	51	399	2518	3.03	52437	63.14
17	290	460	0.55	1692	2.04	52	403	2507	3.02	54944	66.16
18	294	546	0.66	2238	2.69	53	407	2599	3.13	57543	69.29
19	298	599	0.72	2837	3.42	54	411	2561	3.08	60104	72.37
20	301	674	0.81	3511	4.23	55	415	2422	2.92	62526	75.29
21	304	785	0.95	4296	5.17	**56**	**420**	**2467**	**2.97**	**64993**	**78.26**
22	308	805	0.97	5101	6.14	57	425	2449	2.95	67442	81.21
23	311	856	1.03	5957	7.17	58	430	2347	2.83	69789	84.03
24	314	865	1.04	6822	8.21	59	436	2216	2.67	72005	86.70
25	317	894	1.08	7716	9.29	60	442	2082	2.51	74087	89.21
26	320	973	1.17	8689	10.46	61	449	1988	2.39	76075	91.60
27	323	993	1.20	9682	11.66	62	457	1866	2.25	77941	93.85
28	326	1069	1.29	10751	12.95	63	466	1572	1.89	79513	95.74
29	329	1056	1.27	11807	14.22	64	477	1285	1.55	80798	97.29
30	**332**	**1146**	**1.38**	**12953**	**15.60**	65	490	1010	1.22	81808	98.51
31	335	1173	1.41	14126	17.01	66	509	684	0.82	82492	99.33
32	338	1219	1.47	15345	18.48	67	539	396	0.48	82888	99.81
33	341	1317	1.59	16662	20.06	68	560	160	0.19	83048	100.00
34	344	1423	1.71	18085	21.78						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.12
Spring 2013 AIMS Frequency Distribution
Mathematics CRT Grade 5

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	140	0	0.00	0	0.00	34	364	1514	1.84	21549	26.21
1	166	0	0.00	0	0.00	35	367	1559	1.90	23108	28.10
2	197	0	0.00	0	0.00	36	370	1653	2.01	24761	30.11
3	216	0	0.00	0	0.00	37	373	1799	2.19	26560	32.30
4	230	0	0.00	0	0.00	38	376	1766	2.15	28326	34.45
5	241	0	0.00	0	0.00	39	379	1915	2.33	30241	36.78
6	250	1	0.00	1	0.00	**40**	**382**	**1898**	**2.31**	**32139**	**39.09**
7	258	2	0.00	3	0.00	41	386	2030	2.47	34169	41.56
8	265	5	0.01	8	0.01	42	389	2117	2.57	36286	44.13
9	271	7	0.01	15	0.02	43	392	2147	2.61	38433	46.74
10	277	23	0.03	38	0.05	44	395	2279	2.77	40712	49.51
11	282	46	0.06	84	0.10	45	399	2325	2.83	43037	52.34
12	288	89	0.11	173	0.21	46	402	2376	2.89	45413	55.23
13	292	169	0.21	342	0.42	47	406	2453	2.98	47866	58.21
14	297	215	0.26	557	0.68	48	409	2520	3.06	50386	61.28
15	301	324	0.39	881	1.07	49	413	2446	2.97	52832	64.25
16	305	459	0.56	1340	1.63	50	417	2535	3.08	55367	67.34
17	309	571	0.69	1911	2.32	51	421	2566	3.12	57933	70.46
18	313	648	0.79	2559	3.11	52	425	2536	3.08	60469	73.54
19	316	797	0.97	3356	4.08	53	429	2514	3.06	62983	76.60
20	320	860	1.05	4216	5.13	54	434	2379	2.89	65362	79.49
21	323	985	1.20	5201	6.33	**55**	**439**	**2383**	**2.90**	**67745**	**82.39**
22	327	1058	1.29	6259	7.61	56	444	2212	2.69	69957	85.08
23	330	1076	1.31	7335	8.92	57	449	2120	2.58	72077	87.66
24	333	1117	1.36	8452	10.28	58	455	2007	2.44	74084	90.10
25	337	1101	1.34	9553	11.62	59	461	1737	2.11	75821	92.21
26	340	1204	1.46	10757	13.08	60	468	1624	1.98	77445	94.19
27	343	1277	1.55	12034	14.64	61	476	1431	1.74	78876	95.93
28	346	1231	1.50	13265	16.13	62	486	1190	1.45	80066	97.38
29	**349**	**1201**	**1.46**	**14466**	**17.59**	63	496	917	1.12	80983	98.49
30	352	1364	1.66	15830	19.25	64	510	630	0.77	81613	99.26
31	355	1335	1.62	17165	20.88	65	529	372	0.45	81985	99.71
32	358	1437	1.75	18602	22.62	66	560	177	0.22	82162	99.93
33	361	1433	1.74	20035	24.37	67	580	61	0.07	82223	100.00

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.13
Spring 2013 AIMS Frequency Distribution
Mathematics CRT Grade 6

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	160	0	0.00	0	0.00	35	390	1762	2.13	27054	32.76
1	193	0	0.00	0	0.00	36	393	1881	2.28	28935	35.04
2	224	0	0.00	0	0.00	37	395	1842	2.23	30777	37.27
3	242	0	0.00	0	0.00	**38**	**398**	**1950**	**2.36**	**32727**	**39.63**
4	256	0	0.00	0	0.00	39	401	1980	2.40	34707	42.02
5	266	1	0.00	1	0.00	40	404	2098	2.54	36805	44.57
6	275	1	0.00	2	0.00	41	407	2098	2.54	38903	47.11
7	283	2	0.00	4	0.00	42	410	2098	2.54	41001	49.65
8	290	3	0.00	7	0.01	43	413	2046	2.48	43047	52.12
9	296	24	0.03	31	0.04	44	416	2066	2.50	45113	54.62
10	302	37	0.04	68	0.08	45	420	2096	2.54	47209	57.16
11	307	60	0.07	128	0.15	46	423	2170	2.63	49379	59.79
12	312	126	0.15	254	0.31	47	426	2146	2.60	51525	62.39
13	316	184	0.22	438	0.53	48	429	2210	2.68	53735	65.06
14	321	283	0.34	721	0.87	49	433	2092	2.53	55827	67.60
15	325	405	0.49	1126	1.36	50	436	2190	2.65	58017	70.25
16	329	522	0.63	1648	2.00	51	440	2132	2.58	60149	72.83
17	333	654	0.79	2302	2.79	52	444	2057	2.49	62206	75.32
18	337	802	0.97	3104	3.76	**53**	**448**	**2036**	**2.47**	**64242**	**77.79**
19	340	908	1.10	4012	4.86	54	452	1990	2.41	66232	80.20
20	344	994	1.20	5006	6.06	55	456	1974	2.39	68206	82.59
21	347	1136	1.38	6142	7.44	56	461	1855	2.25	70061	84.83
22	350	1184	1.43	7326	8.87	57	465	1874	2.27	71935	87.10
23	354	1259	1.52	8585	10.40	58	471	1798	2.18	73733	89.28
24	357	1261	1.53	9846	11.92	59	476	1674	2.03	75407	91.31
25	360	1332	1.61	11178	13.53	60	482	1521	1.84	76928	93.15
26	363	1432	1.73	12610	15.27	61	489	1364	1.65	78292	94.80
27	**366**	**1429**	**1.73**	**14039**	**17.00**	62	497	1237	1.50	79529	96.30
28	369	1441	1.74	15480	18.74	63	505	1053	1.28	80582	97.57
29	372	1549	1.88	17029	20.62	64	516	802	0.97	81384	98.54
30	375	1600	1.94	18629	22.56	65	529	593	0.72	81977	99.26
31	378	1592	1.93	20221	24.48	66	547	385	0.47	82362	99.73
32	381	1621	1.96	21842	26.45	67	578	169	0.20	82531	99.93
33	384	1691	2.05	23533	28.49	68	600	56	0.07	82587	100.00
34	387	1759	2.13	25292	30.62						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.14
Spring 2013 AIMS Frequency Distribution
Mathematics CRT Grade 7

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	180	0	0.00	0	0.00	35	403	1639	1.99	25766	31.23
1	211	0	0.00	0	0.00	36	406	1644	1.99	27410	33.23
2	242	0	0.00	0	0.00	37	409	1680	2.04	29090	35.26
3	260	0	0.00	0	0.00	**38**	**412**	**1626**	**1.97**	**30716**	**37.24**
4	273	0	0.00	0	0.00	39	415	1707	2.07	32423	39.30
5	284	2	0.00	2	0.00	40	417	1738	2.11	34161	41.41
6	292	1	0.00	3	0.00	41	420	1891	2.29	36052	43.70
7	300	5	0.01	8	0.01	42	423	1908	2.31	37960	46.02
8	307	15	0.02	23	0.03	43	426	1927	2.34	39887	48.35
9	313	15	0.02	38	0.05	44	429	2074	2.51	41961	50.87
10	318	48	0.06	86	0.10	45	432	1897	2.30	43858	53.17
11	323	87	0.11	173	0.21	46	435	1964	2.38	45822	55.55
12	328	166	0.20	339	0.41	47	439	2059	2.50	47881	58.04
13	333	257	0.31	596	0.72	48	442	2078	2.52	49959	60.56
14	337	354	0.43	950	1.15	49	445	2109	2.56	52068	63.12
15	341	459	0.56	1409	1.71	50	449	2153	2.61	54221	65.73
16	345	649	0.79	2058	2.49	51	452	2124	2.57	56345	68.30
17	348	798	0.97	2856	3.46	52	456	2157	2.61	58502	70.92
18	352	884	1.07	3740	4.53	**53**	**460**	**2160**	**2.62**	**60662**	**73.54**
19	356	1007	1.22	4747	5.75	54	464	1979	2.40	62641	75.94
20	359	1075	1.30	5822	7.06	55	468	1981	2.40	64622	78.34
21	362	1105	1.34	6927	8.40	56	473	2139	2.59	66761	80.93
22	365	1169	1.42	8096	9.81	57	478	2051	2.49	68812	83.42
23	369	1192	1.45	9288	11.26	58	483	2013	2.44	70825	85.86
24	372	1162	1.41	10450	12.67	59	488	1941	2.35	72766	88.21
25	375	1232	1.49	11682	14.16	60	494	1803	2.19	74569	90.40
26	378	1209	1.47	12891	15.63	61	501	1616	1.96	76185	92.36
27	381	1271	1.54	14162	17.17	62	509	1595	1.93	77780	94.29
28	**383**	**1335**	**1.62**	**15497**	**18.79**	63	517	1351	1.64	79131	95.93
29	386	1291	1.57	16788	20.35	64	528	1167	1.41	80298	97.34
30	389	1429	1.73	18217	22.08	65	541	921	1.12	81219	98.46
31	392	1392	1.69	19609	23.77	66	559	684	0.83	81903	99.29
32	395	1509	1.83	21118	25.60	67	590	402	0.49	82305	99.77
33	398	1474	1.79	22592	27.39	68	620	186	0.23	82491	100.00
34	400	1535	1.86	24127	29.25						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.15
Spring 2013 AIMS Frequency Distribution
Mathematics CRT Grade 8

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	200	0	0.00	0	0.00	35	414	1826	2.24	26997	33.15
1	219	0	0.00	0	0.00	36	416	1859	2.28	28856	35.44
2	250	0	0.00	0	0.00	37	419	1962	2.41	30818	37.85
3	268	0	0.00	0	0.00	38	422	1909	2.34	32727	40.19
4	281	0	0.00	0	0.00	39	425	1921	2.36	34648	42.55
5	292	0	0.00	0	0.00	**40**	**428**	**1984**	**2.44**	**36632**	**44.98**
6	301	2	0.00	2	0.00	41	431	2000	2.46	38632	47.44
7	308	3	0.00	5	0.01	42	434	2116	2.60	40748	50.04
8	315	11	0.01	16	0.02	43	437	2079	2.55	42827	52.59
9	321	15	0.02	31	0.04	44	440	2079	2.55	44906	55.15
10	327	38	0.05	69	0.08	45	444	2167	2.66	47073	57.81
11	332	53	0.07	122	0.15	46	447	2063	2.53	49136	60.34
12	337	130	0.16	252	0.31	47	450	2079	2.55	51215	62.89
13	341	191	0.23	443	0.54	48	454	2048	2.51	53263	65.41
14	346	302	0.37	745	0.91	49	457	1995	2.45	55258	67.86
15	350	441	0.54	1186	1.46	50	461	1924	2.36	57182	70.22
16	354	525	0.64	1711	2.10	51	464	1982	2.43	59164	72.65
17	357	633	0.78	2344	2.88	52	468	1935	2.38	61099	75.03
18	361	827	1.02	3171	3.89	53	472	1916	2.35	63015	77.38
19	365	929	1.14	4100	5.03	**54**	**476**	**1787**	**2.19**	**64802**	**79.58**
20	368	1009	1.24	5109	6.27	55	481	1743	2.14	66545	81.72
21	371	1144	1.40	6253	7.68	56	485	1780	2.19	68325	83.90
22	375	1189	1.46	7442	9.14	57	490	1686	2.07	70011	85.97
23	378	1243	1.53	8685	10.67	58	496	1689	2.07	71700	88.05
24	381	1244	1.53	9929	12.19	59	501	1502	1.84	73202	89.89
25	384	1278	1.57	11207	13.76	60	508	1501	1.84	74703	91.74
26	387	1361	1.67	12568	15.43	61	515	1461	1.79	76164	93.53
27	390	1424	1.75	13992	17.18	62	522	1267	1.56	77431	95.09
28	393	1501	1.84	15493	19.03	63	531	1145	1.41	78576	96.49
29	396	1525	1.87	17018	20.90	64	542	960	1.18	79536	97.67
30	399	1528	1.88	18546	22.77	65	556	817	1.00	80353	98.67
31	402	1594	1.96	20140	24.73	66	574	582	0.71	80935	99.39
32	405	1599	1.96	21739	26.70	67	605	340	0.42	81275	99.81
33	408	1725	2.12	23464	28.81	68	640	157	0.19	81432	100.00
34	**411**	**1707**	**2.10**	**25171**	**30.91**						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.16
Spring 2013 AIMS Frequency Distribution

Mathematics CRT High School Cohort 15

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	43	483	1500	2.00	26984	35.98
1	300	0	0.00	0	0.00	44	485	1494	1.99	28478	37.97
2	315	1	0.00	1	0.00	**45**	**488**	**1544**	**2.06**	**30022**	**40.03**
3	333	0	0.00	1	0.00	46	490	1511	2.01	31533	42.04
4	345	0	0.00	1	0.00	47	492	1537	2.05	33070	44.09
5	355	0	0.00	1	0.00	48	494	1615	2.15	34685	46.25
6	364	0	0.00	1	0.00	49	497	1583	2.11	36268	48.36
7	371	1	0.00	2	0.00	50	499	1651	2.20	37919	50.56
8	378	1	0.00	3	0.00	51	501	1641	2.19	39560	52.75
9	383	0	0.00	3	0.00	52	504	1643	2.19	41203	54.94
10	389	0	0.00	3	0.00	53	506	1699	2.27	42902	57.20
11	393	6	0.01	9	0.01	54	508	1762	2.35	44664	59.55
12	398	11	0.01	20	0.03	55	511	1710	2.28	46374	61.83
13	402	27	0.04	47	0.06	56	513	1657	2.21	48031	64.04
14	406	42	0.06	89	0.12	57	516	1709	2.28	49740	66.32
15	410	82	0.11	171	0.23	58	518	1605	2.14	51345	68.46
16	413	136	0.18	307	0.41	59	521	1621	2.16	52966	70.62
17	417	162	0.22	469	0.63	60	524	1554	2.07	54520	72.69
18	420	293	0.39	762	1.02	61	526	1537	2.05	56057	74.74
19	423	398	0.53	1160	1.55	62	529	1464	1.95	57521	76.70
20	426	489	0.65	1649	2.20	63	532	1445	1.93	58966	78.62
21	429	569	0.76	2218	2.96	64	535	1410	1.88	60376	80.50
22	432	677	0.90	2895	3.86	**65**	**538**	**1321**	**1.76**	**61697**	**82.26**
23	435	780	1.04	3675	4.90	66	541	1275	1.70	62972	83.96
24	438	875	1.17	4550	6.07	67	544	1242	1.66	64214	85.62
25	440	928	1.24	5478	7.30	68	548	1142	1.52	65356	87.14
26	443	953	1.27	6431	8.57	69	551	1094	1.46	66450	88.60
27	446	994	1.33	7425	9.90	70	555	1028	1.37	67478	89.97
28	448	1052	1.40	8477	11.30	71	559	1013	1.35	68491	91.32
29	451	1029	1.37	9506	12.67	72	563	911	1.21	69402	92.54
30	453	1030	1.37	10536	14.05	73	567	871	1.16	70273	93.70
31	456	1109	1.48	11645	15.53	74	572	840	1.12	71113	94.82
32	458	1152	1.54	12797	17.06	75	576	678	0.90	71791	95.72
33	460	1108	1.48	13905	18.54	76	582	639	0.85	72430	96.57
34	463	1160	1.55	15065	20.09	77	588	579	0.77	73009	97.35
35	465	1175	1.57	16240	21.65	78	594	472	0.63	73481	97.98
36	467	1205	1.61	17445	23.26	79	602	453	0.60	73934	98.58
37	470	1258	1.68	18703	24.94	80	610	341	0.45	74275	99.03
38	**472**	**1286**	**1.71**	**19989**	**26.65**	81	621	273	0.36	74548	99.40
39	474	1310	1.75	21299	28.40	82	634	205	0.27	74753	99.67
40	476	1351	1.80	22650	30.20	83	652	145	0.19	74898	99.87
41	479	1389	1.85	24039	32.05	84	681	66	0.09	74964	99.95
42	481	1445	1.93	25484	33.98	85	700	35	0.05	74999	100.00

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.17
Spring 2013 AIMS Frequency Distribution

Mathematics CRT High School Cohort 14

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	43	483	688	3.60	13906	72.68
1	300	0	0.00	0	0.00	44	485	638	3.33	14544	76.02
2	315	0	0.00	0	0.00	**45**	**488**	**584**	**3.05**	**15128**	**79.07**
3	333	0	0.00	0	0.00	46	490	533	2.79	15661	81.85
4	345	0	0.00	0	0.00	47	492	467	2.44	16128	84.29
5	355	1	0.01	1	0.01	48	494	430	2.25	16558	86.54
6	364	0	0.00	1	0.01	49	497	383	2.00	16941	88.54
7	371	0	0.00	1	0.01	50	499	329	1.72	17270	90.26
8	378	1	0.01	2	0.01	51	501	326	1.70	17596	91.97
9	383	1	0.01	3	0.02	52	504	202	1.06	17798	93.02
10	389	1	0.01	4	0.02	53	506	200	1.05	17998	94.07
11	393	5	0.03	9	0.05	54	508	174	0.91	18172	94.98
12	398	11	0.06	20	0.10	55	511	140	0.73	18312	95.71
13	402	13	0.07	33	0.17	56	513	92	0.48	18404	96.19
14	406	17	0.09	50	0.26	57	516	100	0.52	18504	96.71
15	410	34	0.18	84	0.44	58	518	74	0.39	18578	97.10
16	413	73	0.38	157	0.82	59	521	83	0.43	18661	97.53
17	417	89	0.47	246	1.29	60	524	66	0.34	18727	97.88
18	420	134	0.70	380	1.99	61	526	55	0.29	18782	98.17
19	423	178	0.93	558	2.92	62	529	58	0.30	18840	98.47
20	426	224	1.17	782	4.09	63	532	35	0.18	18875	98.65
21	429	313	1.64	1095	5.72	64	535	32	0.17	18907	98.82
22	432	345	1.80	1440	7.53	**65**	**538**	**42**	**0.22**	**18949**	**99.04**
23	435	439	2.29	1879	9.82	66	541	26	0.14	18975	99.17
24	438	455	2.38	2334	12.20	67	544	23	0.12	18998	99.29
25	440	469	2.45	2803	14.65	68	548	23	0.12	19021	99.41
26	443	536	2.80	3339	17.45	69	551	18	0.09	19039	99.51
27	446	534	2.79	3873	20.24	70	555	23	0.12	19062	99.63
28	448	514	2.69	4387	22.93	71	559	13	0.07	19075	99.70
29	451	576	3.01	4963	25.94	72	563	13	0.07	19088	99.76
30	453	540	2.82	5503	28.76	73	567	11	0.06	19099	99.82
31	456	593	3.10	6096	31.86	74	572	5	0.03	19104	99.85
32	458	608	3.18	6704	35.04	75	576	7	0.04	19111	99.89
33	460	563	2.94	7267	37.98	76	582	8	0.04	19119	99.93
34	463	635	3.32	7902	41.30	77	588	6	0.03	19125	99.96
35	465	634	3.31	8536	44.61	78	594	4	0.02	19129	99.98
36	467	667	3.49	9203	48.10	79	602	2	0.01	19131	99.99
37	470	654	3.42	9857	51.52	80	610	0	0.00	19131	99.99
38	**472**	**681**	**3.56**	**10538**	**55.08**	81	621	0	0.00	19131	99.99
39	474	657	3.43	11195	58.51	82	634	0	0.00	19131	99.99
40	476	699	3.65	11894	62.16	83	652	2	0.01	19133	100.00
41	479	651	3.40	12545	65.57	84	681	0	0.00	19133	100.00
42	481	673	3.52	13218	69.08	85	700	0	0.00	19133	100.00

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.18
Spring 2013 AIMS Frequency Distribution

Mathematics CRT High School Cohort 13

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	43	483	377	3.24	9345	80.39
1	300	0	0.00	0	0.00	44	485	305	2.62	9650	83.01
2	315	0	0.00	0	0.00	**45**	**488**	**302**	**2.60**	**9952**	**85.61**
3	333	0	0.00	0	0.00	46	490	266	2.29	10218	87.90
4	345	0	0.00	0	0.00	47	492	217	1.87	10435	89.76
5	355	0	0.00	0	0.00	48	494	204	1.75	10639	91.52
6	364	0	0.00	0	0.00	49	497	192	1.65	10831	93.17
7	371	0	0.00	0	0.00	50	499	151	1.30	10982	94.47
8	378	0	0.00	0	0.00	51	501	120	1.03	11102	95.50
9	383	0	0.00	0	0.00	52	504	92	0.79	11194	96.29
10	389	0	0.00	0	0.00	53	506	76	0.65	11270	96.95
11	393	1	0.01	1	0.01	54	508	65	0.56	11335	97.51
12	398	2	0.02	3	0.03	55	511	41	0.35	11376	97.86
13	402	9	0.08	12	0.10	56	513	48	0.41	11424	98.27
14	406	19	0.16	31	0.27	57	516	40	0.34	11464	98.62
15	410	34	0.29	65	0.56	58	518	27	0.23	11491	98.85
16	413	44	0.38	109	0.94	59	521	23	0.20	11514	99.05
17	417	75	0.65	184	1.58	60	524	18	0.15	11532	99.20
18	420	108	0.93	292	2.51	61	526	13	0.11	11545	99.31
19	423	126	1.08	418	3.60	62	529	14	0.12	11559	99.43
20	426	154	1.32	572	4.92	63	532	11	0.09	11570	99.53
21	429	245	2.11	817	7.03	64	535	8	0.07	11578	99.60
22	432	261	2.25	1078	9.27	**65**	**538**	**9**	**0.08**	**11587**	**99.67**
23	435	308	2.65	1386	11.92	66	541	11	0.09	11598	99.77
24	438	330	2.84	1716	14.76	67	544	4	0.03	11602	99.80
25	440	324	2.79	2040	17.55	68	548	3	0.03	11605	99.83
26	443	393	3.38	2433	20.93	69	551	4	0.03	11609	99.86
27	446	371	3.19	2804	24.12	70	555	3	0.03	11612	99.89
28	448	363	3.12	3167	27.24	71	559	5	0.04	11617	99.93
29	451	368	3.17	3535	30.41	72	563	1	0.01	11618	99.94
30	453	380	3.27	3915	33.68	73	567	1	0.01	11619	99.95
31	456	422	3.63	4337	37.31	74	572	1	0.01	11620	99.96
32	458	402	3.46	4739	40.77	75	576	0	0.00	11620	99.96
33	460	412	3.54	5151	44.31	76	582	2	0.02	11622	99.97
34	463	435	3.74	5586	48.05	77	588	1	0.01	11623	99.98
35	465	453	3.90	6039	51.95	78	594	0	0.00	11623	99.98
36	467	445	3.83	6484	55.78	79	602	2	0.02	11625	100.00
37	470	428	3.68	6912	59.46	80	610	0	0.00	11625	100.00
38	**472**	**425**	**3.66**	**7337**	**63.11**	81	621	0	0.00	11625	100.00
39	474	394	3.39	7731	66.50	82	634	0	0.00	11625	100.00
40	476	482	4.15	8213	70.65	83	652	0	0.00	11625	100.00
41	479	416	3.58	8629	74.23	84	681	0	0.00	11625	100.00
42	481	339	2.92	8968	77.14	85	700	0	0.00	11625	100.00

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.19
Spring 2013 AIMS Frequency Distribution
Reading CRT Grade 3

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	200	0	0.00	0	0.00	**28**	**432**	**1961**	**2.36**	**22351**	**26.87**
1	248	0	0.00	0	0.00	29	436	1987	2.39	24338	29.26
2	278	0	0.00	0	0.00	30	440	2128	2.56	26466	31.82
3	297	0	0.00	0	0.00	31	443	2234	2.69	28700	34.50
4	310	3	0.00	3	0.00	32	447	2349	2.82	31049	37.32
5	321	4	0.00	7	0.01	33	451	2546	3.06	33595	40.38
6	330	18	0.02	25	0.03	34	455	2547	3.06	36142	43.45
7	338	48	0.06	73	0.09	35	459	2716	3.26	38858	46.71
8	345	89	0.11	162	0.19	36	463	2765	3.32	41623	50.04
9	351	148	0.18	310	0.37	37	467	2933	3.53	44556	53.56
10	357	299	0.36	609	0.73	38	471	3084	3.71	47640	57.27
11	363	414	0.50	1023	1.23	39	475	2984	3.59	50624	60.86
12	368	552	0.66	1575	1.89	40	480	3128	3.76	53752	64.62
13	373	716	0.86	2291	2.75	41	484	3201	3.85	56953	68.46
14	377	772	0.93	3063	3.68	42	489	3154	3.79	60107	72.26
15	**382**	**868**	**1.04**	**3931**	**4.73**	43	494	3196	3.84	63303	76.10
16	386	1057	1.27	4988	6.00	44	500	3148	3.78	66451	79.88
17	391	1023	1.23	6011	7.23	45	506	3064	3.68	69515	83.56
18	395	1106	1.33	7117	8.56	46	512	2748	3.30	72263	86.87
19	399	1227	1.47	8344	10.03	**47**	**519**	**2704**	**3.25**	**74967**	**90.12**
20	403	1165	1.40	9509	11.43	48	527	2349	2.82	77316	92.94
21	406	1296	1.56	10805	12.99	49	536	1990	2.39	79306	95.33
22	410	1422	1.71	12227	14.70	50	546	1648	1.98	80954	97.32
23	414	1460	1.76	13687	16.45	51	560	1143	1.37	82097	98.69
24	418	1562	1.88	15249	18.33	52	578	698	0.84	82795	99.53
25	421	1676	2.01	16925	20.35	53	608	319	0.38	83114	99.91
26	425	1677	2.02	18602	22.36	54	640	73	0.09	83187	100.00
27	429	1788	2.15	20390	24.51						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.20
Spring 2013 AIMS Frequency Distribution
Reading CRT Grade 4

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	220	1	0.00	1	0.00	**28**	**452**	**1812**	**2.18**	**21061**	**25.36**
1	286	0	0.00	1	0.00	29	456	1864	2.24	22925	27.61
2	314	1	0.00	2	0.00	30	459	2012	2.42	24937	30.03
3	330	0	0.00	2	0.00	31	462	2094	2.52	27031	32.55
4	342	5	0.01	7	0.01	32	466	2219	2.67	29250	35.22
5	352	7	0.01	14	0.02	33	469	2228	2.68	31478	37.90
6	360	10	0.01	24	0.03	34	473	2471	2.98	33949	40.88
7	367	37	0.04	61	0.07	35	476	2680	3.23	36629	44.11
8	374	98	0.12	159	0.19	36	480	2717	3.27	39346	47.38
9	379	164	0.20	323	0.39	37	484	2778	3.35	42124	50.72
10	385	248	0.30	571	0.69	38	487	2924	3.52	45048	54.25
11	390	377	0.45	948	1.14	39	491	2972	3.58	48020	57.82
12	394	475	0.57	1423	1.71	40	496	3148	3.79	51168	61.61
13	399	640	0.77	2063	2.48	41	500	3212	3.87	54380	65.48
14	**403**	**812**	**0.98**	**2875**	**3.46**	42	504	3177	3.83	57557	69.31
15	407	866	1.04	3741	4.50	43	509	3296	3.97	60853	73.28
16	411	1009	1.22	4750	5.72	44	514	3217	3.87	64070	77.15
17	415	1072	1.29	5822	7.01	45	520	3254	3.92	67324	81.07
18	419	1078	1.30	6900	8.31	46	526	3095	3.73	70419	84.80
19	422	1082	1.30	7982	9.61	47	532	2901	3.49	73320	88.29
20	426	1183	1.42	9165	11.04	**48**	**539**	**2694**	**3.24**	**76014**	**91.53**
21	429	1214	1.46	10379	12.50	49	548	2319	2.79	78333	94.33
22	432	1309	1.58	11688	14.07	50	558	1940	2.34	80273	96.66
23	436	1328	1.60	13016	15.67	51	570	1394	1.68	81667	98.34
24	439	1453	1.75	14469	17.42	52	587	894	1.08	82561	99.42
25	442	1502	1.81	15971	19.23	53	615	379	0.46	82940	99.87
26	446	1584	1.91	17555	21.14	54	660	105	0.13	83045	100.00
27	449	1694	2.04	19249	23.18						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.21
Spring 2013 AIMS Frequency Distribution
Reading CRT Grade 5

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	240	0	0.00	0	0.00	**28**	**470**	**1461**	**1.78**	**18812**	**22.88**
1	294	0	0.00	0	0.00	29	473	1528	1.86	20340	24.74
2	323	0	0.00	0	0.00	30	477	1686	2.05	22026	26.79
3	341	0	0.00	0	0.00	31	480	1715	2.09	23741	28.87
4	354	4	0.00	4	0.00	32	484	1765	2.15	25506	31.02
5	364	4	0.00	8	0.01	33	488	1966	2.39	27472	33.41
6	372	26	0.03	34	0.04	34	491	2095	2.55	29567	35.96
7	380	48	0.06	82	0.10	35	495	2222	2.70	31789	38.66
8	387	88	0.11	170	0.21	36	499	2533	3.08	34322	41.74
9	393	179	0.22	349	0.42	37	503	2734	3.33	37056	45.07
10	398	312	0.38	661	0.80	38	507	2911	3.54	39967	48.61
11	404	475	0.58	1136	1.38	39	511	3052	3.71	43019	52.32
12	408	572	0.70	1708	2.08	40	516	3369	4.10	46388	56.42
13	413	681	0.83	2389	2.91	41	520	3678	4.47	50066	60.89
14	418	847	1.03	3236	3.94	42	525	3911	4.76	53977	65.65
15	422	876	1.07	4112	5.00	43	530	4136	5.03	58113	70.68
16	**426**	**988**	**1.20**	**5100**	**6.20**	44	536	4321	5.26	62434	75.93
17	430	965	1.17	6065	7.38	45	542	4379	5.33	66813	81.26
18	434	1000	1.22	7065	8.59	46	548	4246	5.16	71059	86.42
19	438	1008	1.23	8073	9.82	47	555	3672	4.47	74731	90.89
20	441	1019	1.24	9092	11.06	**48**	**563**	**2951**	**3.59**	**77682**	**94.48**
21	445	1012	1.23	10104	12.29	49	572	2246	2.73	79928	97.21
22	449	1126	1.37	11230	13.66	50	582	1320	1.61	81248	98.81
23	452	1095	1.33	12325	14.99	51	595	693	0.84	81941	99.66
24	456	1113	1.35	13438	16.34	52	613	242	0.29	82183	99.95
25	459	1187	1.44	14625	17.79	53	643	34	0.04	82217	99.99
26	463	1344	1.63	15969	19.42	54	675	6	0.01	82223	100.00
27	466	1382	1.68	17351	21.10						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.22
Spring 2013 AIMS Frequency Distribution
Reading CRT Grade 6

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	250	0	0.00	0	0.00	**28**	**481**	**1677**	**2.03**	**18362**	**22.23**
1	297	0	0.00	0	0.00	29	484	1750	2.12	20112	24.35
2	327	0	0.00	0	0.00	30	488	1885	2.28	21997	26.63
3	346	0	0.00	0	0.00	31	492	2052	2.48	24049	29.12
4	359	1	0.00	1	0.00	32	495	2213	2.68	26262	31.79
5	370	5	0.01	6	0.01	33	499	2387	2.89	28649	34.68
6	379	9	0.01	15	0.02	34	503	2593	3.14	31242	37.82
7	387	24	0.03	39	0.05	35	506	2734	3.31	33976	41.13
8	394	63	0.08	102	0.12	36	510	2911	3.52	36887	44.66
9	401	125	0.15	227	0.27	37	514	3043	3.68	39930	48.34
10	407	186	0.23	413	0.50	38	518	3226	3.91	43156	52.25
11	412	280	0.34	693	0.84	39	523	3363	4.07	46519	56.32
12	418	387	0.47	1080	1.31	40	527	3542	4.29	50061	60.61
13	422	536	0.65	1616	1.96	41	532	3620	4.38	53681	64.99
14	427	645	0.78	2261	2.74	42	536	3788	4.59	57469	69.58
15	432	768	0.93	3029	3.67	43	541	3849	4.66	61318	74.24
16	**436**	**896**	**1.08**	**3925**	**4.75**	44	547	3714	4.50	65032	78.73
17	440	902	1.09	4827	5.84	45	553	3543	4.29	68575	83.02
18	444	955	1.16	5782	7.00	46	559	3343	4.05	71918	87.07
19	448	1055	1.28	6837	8.28	47	566	3043	3.68	74961	90.75
20	452	1036	1.25	7873	9.53	**48**	**574**	**2558**	**3.10**	**77519**	**93.85**
21	456	1038	1.26	8911	10.79	49	583	1989	2.41	79508	96.26
22	459	1059	1.28	9970	12.07	50	593	1509	1.83	81017	98.09
23	463	1150	1.39	11120	13.46	51	606	938	1.14	81955	99.22
24	467	1269	1.54	12389	15.00	52	624	449	0.54	82404	99.77
25	470	1333	1.61	13722	16.61	53	654	153	0.19	82557	99.95
26	474	1483	1.80	15205	18.41	54	690	41	0.05	82598	100.00
27	477	1480	1.79	16685	20.20						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.23
Spring 2013 AIMS Frequency Distribution
Reading CRT Grade 7

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	260	0	0.00	0	0.00	28	503	1762	2.14	20340	24.65
1	315	0	0.00	0	0.00	29	507	1915	2.32	22255	26.98
2	347	0	0.00	0	0.00	30	511	1983	2.40	24238	29.38
3	366	0	0.00	0	0.00	31	514	2050	2.48	26288	31.86
4	380	0	0.00	0	0.00	32	518	2182	2.64	28470	34.51
5	391	4	0.00	4	0.00	33	522	2336	2.83	30806	37.34
6	400	8	0.01	12	0.01	34	526	2407	2.92	33213	40.26
7	408	40	0.05	52	0.06	35	529	2561	3.10	35774	43.36
8	415	40	0.05	92	0.11	36	533	2720	3.30	38494	46.66
9	422	117	0.14	209	0.25	37	538	2761	3.35	41255	50.00
10	428	208	0.25	417	0.51	38	542	2824	3.42	44079	53.43
11	434	315	0.38	732	0.89	39	546	3101	3.76	47180	57.19
12	439	432	0.52	1164	1.41	40	551	3197	3.88	50377	61.06
13	**444**	**541**	**0.66**	**1705**	**2.07**	41	555	3291	3.99	53668	65.05
14	449	651	0.79	2356	2.86	42	560	3473	4.21	57141	69.26
15	453	822	1.00	3178	3.85	43	566	3434	4.16	60575	73.42
16	457	919	1.11	4097	4.97	44	571	3383	4.10	63958	77.52
17	462	1011	1.23	5108	6.19	45	577	3354	4.07	67312	81.59
18	466	1085	1.32	6193	7.51	46	584	3281	3.98	70593	85.57
19	470	1104	1.34	7297	8.84	**47**	**591**	**2991**	**3.63**	**73584**	**89.19**
20	474	1126	1.36	8423	10.21	48	599	2635	3.19	76219	92.38
21	478	1280	1.55	9703	11.76	49	609	2315	2.81	78534	95.19
22	481	1247	1.51	10950	13.27	50	620	1803	2.19	80337	97.38
23	485	1408	1.71	12358	14.98	51	634	1169	1.42	81506	98.79
24	**489**	**1420**	**1.72**	**13778**	**16.70**	52	653	655	0.79	82161	99.59
25	492	1529	1.85	15307	18.55	53	684	277	0.34	82438	99.92
26	496	1584	1.92	16891	20.47	54	720	64	0.08	82502	100.00
27	500	1687	2.04	18578	22.52						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.24
Spring 2013 AIMS Frequency Distribution
Reading CRT Grade 8

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	270	0	0.00	0	0.00	28	483	1641	2.02	16867	20.71
1	270	0	0.00	0	0.00	29	487	1769	2.17	18636	22.89
2	304	0	0.00	0	0.00	30	492	1900	2.33	20536	25.22
3	326	0	0.00	0	0.00	31	496	2155	2.65	22691	27.86
4	342	0	0.00	0	0.00	**32**	**500**	**2306**	**2.83**	**24997**	**30.70**
5	354	4	0.00	4	0.00	33	504	2320	2.85	27317	33.55
6	365	12	0.01	16	0.02	34	509	2537	3.12	29854	36.66
7	374	15	0.02	31	0.04	35	513	2792	3.43	32646	40.09
8	383	34	0.04	65	0.08	36	518	3023	3.71	35669	43.80
9	390	81	0.10	146	0.18	37	523	3026	3.72	38695	47.52
10	397	153	0.19	299	0.37	38	527	3190	3.92	41885	51.43
11	403	217	0.27	516	0.63	39	532	3458	4.25	45343	55.68
12	409	326	0.40	842	1.03	40	538	3575	4.39	48918	60.07
13	415	395	0.49	1237	1.52	41	543	3548	4.36	52466	64.43
14	421	476	0.58	1713	2.10	42	549	3590	4.41	56056	68.84
15	426	600	0.74	2313	2.84	43	555	3667	4.50	59723	73.34
16	431	675	0.83	2988	3.67	44	561	3494	4.29	63217	77.63
17	436	748	0.92	3736	4.59	45	568	3430	4.21	66647	81.84
18	440	790	0.97	4526	5.56	46	575	3366	4.13	70013	85.98
19	445	967	1.19	5493	6.75	47	584	2987	3.67	73000	89.64
20	449	992	1.22	6485	7.96	48	593	2758	3.39	75758	93.03
21	**454**	**976**	**1.20**	**7461**	**9.16**	**49**	**603**	**2278**	**2.80**	**78036**	**95.83**
22	458	1122	1.38	8583	10.54	50	616	1628	2.00	79664	97.83
23	462	1172	1.44	9755	11.98	51	632	1018	1.25	80682	99.08
24	467	1196	1.47	10951	13.45	52	654	536	0.66	81218	99.74
25	471	1348	1.66	12299	15.10	53	689	176	0.22	81394	99.95
26	475	1399	1.72	13698	16.82	54	800	39	0.05	81433	100.00
27	479	1528	1.88	15226	18.70						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.25
Spring 2013 AIMS Frequency Distribution
Reading CRT High School Cohort 15

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	500	0	0.00	0	0.00	28	684	1832	2.38	17723	23.05
1	500	3	0.00	3	0.00	29	688	2059	2.68	19782	25.73
2	525	0	0.00	3	0.00	30	692	2166	2.82	21948	28.55
3	544	1	0.00	4	0.01	31	696	2386	3.10	24334	31.65
4	558	2	0.00	6	0.01	32	699	2508	3.26	26842	34.91
5	569	9	0.01	15	0.02	33	703	2725	3.54	29567	38.45
6	579	5	0.01	20	0.03	34	707	2794	3.63	32361	42.09
7	587	23	0.03	43	0.06	35	711	2975	3.87	35336	45.96
8	594	50	0.07	93	0.12	36	715	3127	4.07	38463	50.02
9	601	84	0.11	177	0.23	37	719	3309	4.30	41772	54.33
10	607	149	0.19	326	0.42	38	724	3386	4.40	45158	58.73
11	613	267	0.35	593	0.77	39	728	3393	4.41	48551	63.14
12	618	368	0.48	961	1.25	40	733	3399	4.42	51950	67.56
13	623	426	0.55	1387	1.80	41	738	3489	4.54	55439	72.10
14	**628**	**537**	**0.70**	**1924**	**2.50**	42	743	3460	4.50	58899	76.60
15	633	631	0.82	2555	3.32	43	748	3376	4.39	62275	80.99
16	637	661	0.86	3216	4.18	44	754	3100	4.03	65375	85.03
17	641	764	0.99	3980	5.18	45	760	2918	3.80	68293	88.82
18	646	749	0.97	4729	6.15	46	766	2530	3.29	70823	92.11
19	650	970	1.26	5699	7.41	**47**	**773**	**2111**	**2.75**	**72934**	**94.86**
20	654	903	1.17	6602	8.59	48	782	1618	2.10	74552	96.96
21	658	981	1.28	7583	9.86	49	791	1126	1.46	75678	98.43
22	662	1082	1.41	8665	11.27	50	802	703	0.91	76381	99.34
23	665	1216	1.58	9881	12.85	51	816	360	0.47	76741	99.81
24	669	1369	1.78	11250	14.63	52	835	110	0.14	76851	99.95
25	673	1455	1.89	12705	16.52	53	866	33	0.04	76884	99.99
26	**677**	**1552**	**2.02**	**14257**	**18.54**	54	900	5	0.01	76889	100.00
27	680	1634	2.13	15891	20.67						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.26
Spring 2013 AIMS Frequency Distribution
Reading CRT High School Cohort 14

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	500	0	0.00	0	0.00	28	684	390	4.00	6172	63.24
1	500	0	0.00	0	0.00	29	688	360	3.69	6532	66.93
2	525	2	0.02	2	0.02	30	692	314	3.22	6846	70.14
3	544	2	0.02	4	0.04	31	696	316	3.24	7162	73.38
4	558	3	0.03	7	0.07	32	699	233	2.39	7395	75.77
5	569	4	0.04	11	0.11	33	703	218	2.23	7613	78.00
6	579	6	0.06	17	0.17	34	707	186	1.91	7799	79.91
7	587	13	0.13	30	0.31	35	711	173	1.77	7972	81.68
8	594	30	0.31	60	0.61	36	715	138	1.41	8110	83.09
9	601	56	0.57	116	1.19	37	719	133	1.36	8243	84.46
10	607	69	0.71	185	1.90	38	724	131	1.34	8374	85.80
11	613	116	1.19	301	3.08	39	728	128	1.31	8502	87.11
12	618	162	1.66	463	4.74	40	733	103	1.06	8605	88.17
13	623	217	2.22	680	6.97	41	738	119	1.22	8724	89.39
14	**628**	**281**	**2.88**	**961**	**9.85**	42	743	150	1.54	8874	90.92
15	633	307	3.15	1268	12.99	43	748	169	1.73	9043	92.65
16	637	318	3.26	1586	16.25	44	754	143	1.47	9186	94.12
17	641	328	3.36	1914	19.61	45	760	149	1.53	9335	95.65
18	646	322	3.30	2236	22.91	46	766	135	1.38	9470	97.03
19	650	353	3.62	2589	26.53	**47**	**773**	**108**	**1.11**	**9578**	**98.14**
20	654	375	3.84	2964	30.37	48	782	85	0.87	9663	99.01
21	658	393	4.03	3357	34.40	49	791	57	0.58	9720	99.59
22	662	373	3.82	3730	38.22	50	802	20	0.20	9740	99.80
23	665	392	4.02	4122	42.23	51	816	12	0.12	9752	99.92
24	669	416	4.26	4538	46.50	52	835	7	0.07	9759	99.99
25	673	404	4.14	4942	50.64	53	866	1	0.01	9760	100.00
26	**677**	**422**	**4.32**	**5364**	**54.96**	54	900	0	0.00	9760	100.00
27	680	418	4.28	5782	59.24						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.27
Spring 2013 AIMS Frequency Distribution
Reading CRT High School Cohort 13

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	500	0	0.00	0	0.00	28	684	190	3.73	3966	77.83
1	500	0	0.00	0	0.00	29	688	181	3.55	4147	81.38
2	525	0	0.00	0	0.00	30	692	140	2.75	4287	84.12
3	544	3	0.06	3	0.06	31	696	116	2.28	4403	86.40
4	558	1	0.02	4	0.08	32	699	115	2.26	4518	88.66
5	569	4	0.08	8	0.16	33	703	81	1.59	4599	90.25
6	579	4	0.08	12	0.24	34	707	66	1.30	4665	91.54
7	587	4	0.08	16	0.31	35	711	69	1.35	4734	92.90
8	594	16	0.31	32	0.63	36	715	42	0.82	4776	93.72
9	601	20	0.39	52	1.02	37	719	45	0.88	4821	94.60
10	607	69	1.35	121	2.37	38	724	30	0.59	4851	95.19
11	613	76	1.49	197	3.87	39	728	33	0.65	4884	95.84
12	618	112	2.20	309	6.06	40	733	27	0.53	4911	96.37
13	623	158	3.10	467	9.16	41	738	19	0.37	4930	96.74
14	**628**	**180**	**3.53**	**647**	**12.70**	42	743	23	0.45	4953	97.19
15	633	212	4.16	859	16.86	43	748	24	0.47	4977	97.66
16	637	207	4.06	1066	20.92	44	754	35	0.69	5012	98.35
17	641	252	4.95	1318	25.86	45	760	31	0.61	5043	98.96
18	646	248	4.87	1566	30.73	46	766	20	0.39	5063	99.35
19	650	231	4.53	1797	35.26	**47**	**773**	**15**	**0.29**	**5078**	**99.65**
20	654	272	5.34	2069	40.60	48	782	6	0.12	5084	99.76
21	658	269	5.28	2338	45.88	49	791	5	0.10	5089	99.86
22	662	240	4.71	2578	50.59	50	802	4	0.08	5093	99.94
23	665	259	5.08	2837	55.67	51	816	2	0.04	5095	99.98
24	669	243	4.77	3080	60.44	52	835	1	0.02	5096	100.00
25	673	246	4.83	3326	65.27	53	866	0	0.00	5096	100.00
26	**677**	**229**	**4.49**	**3555**	**69.76**	54	900	0	0.00	5096	100.00
27	680	221	4.34	3776	74.10						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.28
Spring 2013 AIMS Frequency Distribution
Writing CRT Grade 5

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	35	468	1990	2.44	17601	21.58
1	300	0	0.00	0	0.00	36	471	2205	2.70	19806	24.28
2	300	0	0.00	0	0.00	37	474	2406	2.95	22212	27.23
3	300	0	0.00	0	0.00	38	478	2436	2.99	24648	30.22
4	300	0	0.00	0	0.00	39	481	2635	3.23	27283	33.45
5	300	0	0.00	0	0.00	40	484	2582	3.17	29865	36.61
6	300	0	0.00	0	0.00	41	488	2793	3.42	32658	40.04
7	300	1	0.00	1	0.00	42	491	2839	3.48	35497	43.52
8	309	1	0.00	2	0.00	**43**	**495**	**2980**	**3.65**	**38477**	**47.17**
9	331	5	0.01	7	0.01	44	499	3054	3.74	41531	50.91
10	346	21	0.03	28	0.03	45	503	3072	3.77	44603	54.68
11	356	48	0.06	76	0.09	46	507	3182	3.90	47785	58.58
12	366	73	0.09	149	0.18	47	511	3402	4.17	51187	62.75
13	373	96	0.12	245	0.30	48	515	3675	4.51	54862	67.26
14	381	125	0.15	370	0.45	49	520	3787	4.64	58649	71.90
15	387	104	0.13	474	0.58	50	525	3898	4.78	62547	76.68
16	393	98	0.12	572	0.70	51	531	3631	4.45	66178	81.13
17	398	110	0.13	682	0.84	52	537	3382	4.15	69560	85.27
18	404	200	0.25	882	1.08	53	543	2682	3.29	72242	88.56
19	409	286	0.35	1168	1.43	54	550	1743	2.14	73985	90.70
20	413	447	0.55	1615	1.98	55	557	1056	1.29	75041	91.99
21	418	569	0.70	2184	2.68	56	565	678	0.83	75719	92.82
22	422	634	0.78	2818	3.45	57	573	787	0.96	76506	93.79
23	426	585	0.72	3403	4.17	58	582	955	1.17	77461	94.96
24	430	614	0.75	4017	4.92	59	592	995	1.22	78456	96.18
25	434	600	0.74	4617	5.66	**60**	**601**	**1022**	**1.25**	**79478**	**97.43**
26	437	692	0.85	5309	6.51	61	612	835	1.02	80313	98.46
27	**441**	**799**	**0.98**	**6108**	**7.49**	62	623	377	0.46	80690	98.92
28	444	910	1.12	7018	8.60	63	634	62	0.08	80752	98.99
29	448	1053	1.29	8071	9.89	64	646	85	0.10	80837	99.10
30	451	1240	1.52	9311	11.41	65	658	119	0.15	80956	99.24
31	455	1374	1.68	10685	13.10	66	671	149	0.18	81105	99.43
32	458	1480	1.81	12165	14.91	67	688	202	0.25	81307	99.67
33	461	1667	2.04	13832	16.96	68	700	165	0.20	81472	99.88
34	464	1779	2.18	15611	19.14	69	700	101	0.12	81573	100.00

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.29
Spring 2013 AIMS Frequency Distribution
Writing CRT Grade 6

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	35	468	1894	2.32	19628	24.02
1	300	0	0.00	0	0.00	36	472	2180	2.67	21808	26.69
2	300	0	0.00	0	0.00	37	475	2285	2.80	24093	29.49
3	300	0	0.00	0	0.00	38	478	2384	2.92	26477	32.40
4	300	0	0.00	0	0.00	39	482	2547	3.12	29024	35.52
5	300	0	0.00	0	0.00	40	485	2740	3.35	31764	38.87
6	300	0	0.00	0	0.00	41	488	2798	3.42	34562	42.30
7	300	0	0.00	0	0.00	42	492	2918	3.57	37480	45.87
8	320	0	0.00	0	0.00	**43**	**496**	**2942**	**3.60**	**40422**	**49.47**
9	343	11	0.01	11	0.01	44	500	2978	3.64	43400	53.11
10	357	43	0.05	54	0.07	45	504	2890	3.54	46290	56.65
11	367	88	0.11	142	0.17	46	508	2879	3.52	49169	60.17
12	376	158	0.19	300	0.37	47	512	3245	3.97	52414	64.15
13	383	230	0.28	530	0.65	48	517	3621	4.43	56035	68.58
14	389	262	0.32	792	0.97	49	521	3854	4.72	59889	73.29
15	395	279	0.34	1071	1.31	50	527	4037	4.94	63926	78.23
16	400	260	0.32	1331	1.63	51	532	3631	4.44	67557	82.68
17	405	251	0.31	1582	1.94	52	538	2917	3.57	70474	86.25
18	409	277	0.34	1859	2.28	53	544	2061	2.52	72535	88.77
19	413	295	0.36	2154	2.64	54	551	1221	1.49	73756	90.26
20	418	439	0.54	2593	3.17	55	558	849	1.04	74605	91.30
21	421	494	0.60	3087	3.78	56	565	828	1.01	75433	92.32
22	425	669	0.82	3756	4.60	57	573	1093	1.34	76526	93.65
23	429	724	0.89	4480	5.48	**58**	**581**	**1208**	**1.48**	**77734**	**95.13**
24	432	823	1.01	5303	6.49	59	590	1272	1.56	79006	96.69
25	436	804	0.98	6107	7.47	60	599	947	1.16	79953	97.85
26	439	896	1.10	7003	8.57	61	609	520	0.64	80473	98.48
27	443	904	1.11	7907	9.68	62	619	213	0.26	80686	98.75
28	446	947	1.16	8854	10.84	63	629	75	0.09	80761	98.84
29	**449**	**1078**	**1.32**	**9932**	**12.16**	64	641	141	0.17	80902	99.01
30	452	1350	1.65	11282	13.81	65	653	186	0.23	81088	99.24
31	456	1371	1.68	12653	15.49	66	666	210	0.26	81298	99.49
32	459	1501	1.84	14154	17.32	67	683	212	0.26	81510	99.75
33	462	1688	2.07	15842	19.39	68	700	152	0.19	81662	99.94
34	465	1892	2.32	17734	21.70	69	700	49	0.06	81711	100.00

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.30
Spring 2013 AIMS Frequency Distribution
Writing CRT Grade 7

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	35	465	1964	2.41	18055	22.15
1	300	0	0.00	0	0.00	36	468	2083	2.56	20138	24.70
2	300	0	0.00	0	0.00	37	472	2280	2.80	22418	27.50
3	300	0	0.00	0	0.00	38	475	2459	3.02	24877	30.51
4	300	0	0.00	0	0.00	39	478	2523	3.09	27400	33.61
5	300	0	0.00	0	0.00	40	481	2681	3.29	30081	36.90
6	300	0	0.00	0	0.00	41	484	2841	3.48	32922	40.38
7	300	0	0.00	0	0.00	42	488	2850	3.50	35772	43.88
8	323	3	0.00	3	0.00	43	491	2869	3.52	38641	47.40
9	344	10	0.01	13	0.02	**44**	**495**	**2858**	**3.51**	**41499**	**50.90**
10	357	41	0.05	54	0.07	45	499	2936	3.60	44435	54.50
11	367	55	0.07	109	0.13	46	502	2977	3.65	47412	58.16
12	375	89	0.11	198	0.24	47	506	3320	4.07	50732	62.23
13	382	157	0.19	355	0.44	48	511	3710	4.55	54442	66.78
14	388	148	0.18	503	0.62	49	515	4073	5.00	58515	71.78
15	393	146	0.18	649	0.80	50	520	4172	5.12	62687	76.89
16	398	128	0.16	777	0.95	51	525	3743	4.59	66430	81.48
17	403	169	0.21	946	1.16	52	530	3041	3.73	69471	85.21
18	408	208	0.26	1154	1.42	53	535	1959	2.40	71430	87.62
19	412	283	0.35	1437	1.76	54	541	1115	1.37	72545	88.98
20	416	425	0.52	1862	2.28	55	547	830	1.02	73375	90.00
21	420	533	0.65	2395	2.94	56	554	964	1.18	74339	91.19
22	423	619	0.76	3014	3.70	57	560	1253	1.54	75592	92.72
23	427	603	0.74	3617	4.44	58	567	1430	1.75	77022	94.48
24	431	659	0.81	4276	5.25	59	574	1361	1.67	78383	96.15
25	434	661	0.81	4937	6.06	60	582	1045	1.28	79428	97.43
26	437	706	0.87	5643	6.92	61	590	578	0.71	80006	98.14
27	440	795	0.98	6438	7.90	**62**	**598**	**172**	**0.21**	**80178**	**98.35**
28	444	984	1.21	7422	9.10	63	607	128	0.16	80306	98.50
29	447	1121	1.38	8543	10.48	64	616	178	0.22	80484	98.72
30	**450**	**1186**	**1.45**	**9729**	**11.93**	65	626	239	0.29	80723	99.02
31	453	1425	1.75	11154	13.68	66	638	309	0.38	81032	99.40
32	456	1492	1.83	12646	15.51	67	653	291	0.36	81323	99.75
33	459	1642	2.01	14288	17.53	68	675	170	0.21	81493	99.96
34	462	1803	2.21	16091	19.74	69	700	32	0.04	81525	100.00

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.31
Spring 2013 AIMS Frequency Distribution
Writing CRT High School Cohort 15 Prompt A

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	37	390	42	0.06	464	0.62
1	300	0	0.00	0	0.00	38	392	91	0.12	555	0.74
2	300	0	0.00	0	0.00	39	395	29	0.04	584	0.78
3	300	0	0.00	0	0.00	40	397	122	0.16	706	0.95
4	300	0	0.00	0	0.00	41	399	36	0.05	742	0.99
5	300	0	0.00	0	0.00	42	401	185	0.25	927	1.24
6	300	0	0.00	0	0.00	43	403	41	0.05	968	1.30
7	300	0	0.00	0	0.00	44	405	172	0.23	1140	1.53
8	300	0	0.00	0	0.00	45	407	74	0.10	1214	1.63
9	300	0	0.00	0	0.00	46	409	201	0.27	1415	1.90
10	300	0	0.00	0	0.00	47	411	103	0.14	1518	2.03
11	300	0	0.00	0	0.00	48	413	195	0.26	1713	2.30
12	300	0	0.00	0	0.00	49	415	151	0.20	1864	2.50
13	300	0	0.00	0	0.00	50	417	178	0.24	2042	2.74
14	300	0	0.00	0	0.00	51	419	157	0.21	2199	2.95
15	300	0	0.00	0	0.00	52	421	228	0.31	2427	3.25
16	301	1	0.00	1	0.00	53	423	219	0.29	2646	3.55
17	315	0	0.00	1	0.00	54	425	257	0.34	2903	3.89
18	325	2	0.00	3	0.00	55	427	231	0.31	3134	4.20
19	332	0	0.00	3	0.00	56	429	318	0.43	3452	4.63
20	338	7	0.01	10	0.01	57	431	261	0.35	3713	4.97
21	343	0	0.00	10	0.01	**58**	**433**	**437**	**0.59**	**4150**	**5.56**
22	348	17	0.02	27	0.04	59	435	272	0.36	4422	5.92
23	352	0	0.00	27	0.04	60	437	534	0.72	4956	6.64
24	356	28	0.04	55	0.07	61	439	231	0.31	5187	6.95
25	359	2	0.00	57	0.08	62	441	655	0.88	5842	7.83
26	363	33	0.04	90	0.12	63	443	251	0.34	6093	8.16
27	366	9	0.01	99	0.13	64	445	829	1.11	6922	9.27
28	368	33	0.04	132	0.18	65	447	291	0.39	7213	9.66
29	371	14	0.02	146	0.20	66	450	1009	1.35	8222	11.02
30	374	31	0.04	177	0.24	67	452	358	0.48	8580	11.50
31	376	20	0.03	197	0.26	68	454	1142	1.53	9722	13.03
32	379	43	0.06	240	0.32	69	456	458	0.61	10180	13.64
33	381	32	0.04	272	0.36	70	458	1194	1.60	11374	15.24
34	384	45	0.06	317	0.42	71	460	581	0.78	11955	16.02
35	386	40	0.05	357	0.48	72	462	1190	1.59	13145	17.61
36	388	65	0.09	422	0.57	73	464	749	1.00	13894	18.62

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

(table continued)

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Table 8.1.1.31 (Continued)
Spring 2013 AIMS Frequency Distribution
Writing CRT High School Cohort 15 Prompt A

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
74	466	1206	1.62	15100	20.23	107	551	1198	1.61	64513	86.44
75	468	882	1.18	15982	21.41	108	554	642	0.86	65155	87.30
76	470	1184	1.59	17166	23.00	109	557	1165	1.56	66320	88.86
77	472	1062	1.42	18228	24.42	110	561	474	0.64	66794	89.49
78	474	1280	1.72	19508	26.14	111	564	969	1.30	67763	90.79
79	476	1222	1.64	20730	27.78	112	568	542	0.73	68305	91.52
80	479	1273	1.71	22003	29.48	113	571	715	0.96	69020	92.48
81	**481**	**1298**	**1.74**	**23301**	**31.22**	114	575	678	0.91	69698	93.39
82	483	1353	1.81	24654	33.03	115	578	380	0.51	70078	93.89
83	485	1368	1.83	26022	34.87	116	582	788	1.06	70866	94.95
84	487	1578	2.11	27600	36.98	117	586	163	0.22	71029	95.17
85	490	1296	1.74	28896	38.72	**118**	**590**	**708**	**0.95**	**71737**	**96.12**
86	492	1877	2.51	30773	41.23	119	594	122	0.16	71859	96.28
87	494	1236	1.66	32009	42.89	120	598	608	0.81	72467	97.10
88	497	2188	2.93	34197	45.82	121	603	163	0.22	72630	97.31
89	499	1153	1.54	35350	47.36	122	607	380	0.51	73010	97.82
90	501	2430	3.26	37780	50.62	123	612	232	0.31	73242	98.13
91	504	929	1.24	38709	51.86	124	617	159	0.21	73401	98.35
92	506	2855	3.83	41564	55.69	125	622	289	0.39	73690	98.73
93	509	862	1.15	42426	56.84	126	627	26	0.03	73716	98.77
94	512	2974	3.98	45400	60.83	127	633	251	0.34	73967	99.10
95	514	772	1.03	46172	61.86	128	639	46	0.06	74013	99.17
96	517	2989	4.00	49161	65.87	129	646	198	0.27	74211	99.43
97	520	684	0.92	49845	66.79	130	652	54	0.07	74265	99.50
98	523	2805	3.76	52650	70.54	131	660	65	0.09	74330	99.59
99	526	751	1.01	53401	71.55	132	668	91	0.12	74421	99.71
100	529	2508	3.36	55909	74.91	133	677	0	0.00	74421	99.71
101	532	816	1.09	56725	76.00	134	688	97	0.13	74518	99.84
102	535	2041	2.73	58766	78.74	135	700	0	0.00	74518	99.84
103	538	984	1.32	59750	80.06	136	700	88	0.12	74606	99.96
104	541	1489	2.00	61239	82.05	137	700	0	0.00	74606	99.96
105	544	1117	1.50	62356	83.55	138	700	29	0.04	74635	100.00
106	547	959	1.28	63315	84.83						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.32
Spring 2013 AIMS Frequency Distribution
Writing CRT High School Cohort 15 Make-up Prompt T

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	37	404	3	0.18	44	2.61
1	300	0	0.00	0	0.00	38	406	3	0.18	47	2.79
2	300	0	0.00	0	0.00	39	408	7	0.42	54	3.20
3	300	0	0.00	0	0.00	40	410	9	0.53	63	3.74
4	300	0	0.00	0	0.00	41	411	6	0.36	69	4.09
5	300	0	0.00	0	0.00	42	413	8	0.47	77	4.57
6	300	0	0.00	0	0.00	43	415	10	0.59	87	5.16
7	300	0	0.00	0	0.00	44	417	10	0.59	97	5.75
8	300	0	0.00	0	0.00	45	419	5	0.30	102	6.05
9	300	0	0.00	0	0.00	46	421	12	0.71	114	6.76
10	300	0	0.00	0	0.00	47	422	4	0.24	118	7.00
11	300	0	0.00	0	0.00	48	424	8	0.47	126	7.47
12	300	0	0.00	0	0.00	49	426	12	0.71	138	8.19
13	300	0	0.00	0	0.00	50	428	11	0.65	149	8.84
14	300	0	0.00	0	0.00	51	429	11	0.65	160	9.49
15	300	0	0.00	0	0.00	52	431	17	1.01	177	10.50
16	305	0	0.00	0	0.00	**53**	**433**	**11**	**0.65**	**188**	**11.15**
17	321	0	0.00	0	0.00	54	435	17	1.01	205	12.16
18	332	0	0.00	0	0.00	55	436	10	0.59	215	12.75
19	341	0	0.00	0	0.00	56	438	20	1.19	235	13.94
20	348	1	0.06	1	0.06	57	440	9	0.53	244	14.47
21	354	0	0.00	1	0.06	58	442	19	1.13	263	15.60
22	359	1	0.06	2	0.12	59	444	10	0.59	273	16.19
23	364	0	0.00	2	0.12	60	445	24	1.42	297	17.62
24	368	3	0.18	5	0.30	61	447	18	1.07	315	18.68
25	372	0	0.00	5	0.30	62	449	24	1.42	339	20.11
26	375	3	0.18	8	0.47	63	451	6	0.36	345	20.46
27	379	1	0.06	9	0.53	64	452	30	1.78	375	22.24
28	382	5	0.30	14	0.83	65	454	9	0.53	384	22.78
29	385	0	0.00	14	0.83	66	456	35	2.08	419	24.85
30	387	4	0.24	18	1.07	67	458	11	0.65	430	25.50
31	390	2	0.12	20	1.19	68	460	42	2.49	472	28.00
32	392	6	0.36	26	1.54	69	462	11	0.65	483	28.65
33	395	3	0.18	29	1.72	70	463	35	2.08	518	30.72
34	397	2	0.12	31	1.84	71	465	19	1.13	537	31.85
35	399	5	0.30	36	2.14	72	467	31	1.84	568	33.69
36	402	5	0.30	41	2.43	73	469	24	1.42	592	35.11

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

(table continued)

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Table 8.1.1.32 (Continued)
Spring 2013 AIMS Frequency Distribution
Writing CRT High School Cohort 15 Prompt T

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
74	471	35	2.08	627	37.19	107	548	23	1.36	1527	90.57
75	473	26	1.54	653	38.73	108	551	9	0.53	1536	91.10
76	475	30	1.78	683	40.51	109	554	14	0.83	1550	91.93
77	477	25	1.48	708	41.99	110	557	8	0.47	1558	92.41
78	479	29	1.72	737	43.71	111	560	15	0.89	1573	93.30
79	**480**	**22**	**1.30**	**759**	**45.02**	112	564	8	0.47	1581	93.77
80	482	39	2.31	798	47.33	113	567	9	0.53	1590	94.31
81	484	30	1.78	828	49.11	114	571	13	0.77	1603	95.08
82	486	34	2.02	862	51.13	115	574	5	0.30	1608	95.37
83	488	25	1.48	887	52.61	116	578	14	0.83	1622	96.20
84	490	41	2.43	928	55.04	117	582	5	0.30	1627	96.50
85	492	23	1.36	951	56.41	118	586	20	1.19	1647	97.69
86	495	35	2.08	986	58.48	**119**	**591**	**2**	**0.12**	**1649**	**97.81**
87	497	19	1.13	1005	59.61	120	595	11	0.65	1660	98.46
88	499	41	2.43	1046	62.04	121	600	3	0.18	1663	98.64
89	501	18	1.07	1064	63.11	122	605	8	0.47	1671	99.11
90	503	47	2.79	1111	65.90	123	611	1	0.06	1672	99.17
91	505	18	1.07	1129	66.96	124	617	0	0.00	1672	99.17
92	508	55	3.26	1184	70.23	125	623	5	0.30	1677	99.47
93	510	16	0.95	1200	71.17	126	630	0	0.00	1677	99.47
94	512	51	3.02	1251	74.20	127	637	2	0.12	1679	99.58
95	515	10	0.59	1261	74.79	128	645	2	0.12	1681	99.70
96	517	43	2.55	1304	77.34	129	653	2	0.12	1683	99.82
97	520	10	0.59	1314	77.94	130	662	0	0.00	1683	99.82
98	522	41	2.43	1355	80.37	131	671	2	0.12	1685	99.94
99	525	12	0.71	1367	81.08	132	681	1	0.06	1686	100.00
100	528	28	1.66	1395	82.74	133	692	0	0.00	1686	100.00
101	530	15	0.89	1410	83.63	134	700	0	0.00	1686	100.00
102	533	20	1.19	1430	84.82	135	700	0	0.00	1686	100.00
103	536	20	1.19	1450	86.00	136	700	0	0.00	1686	100.00
104	539	21	1.25	1471	87.25	137	700	0	0.00	1686	100.00
105	542	19	1.13	1490	88.37	138	700	0	0.00	1686	100.00
106	545	14	0.83	1504	89.21						

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.33
Spring 2013 AIMS Frequency Distribution
Writing CRT High School Cohort 14 Prompt A

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	37	390	17	0.13	224	1.70
1	300	0	0.00	0	0.00	38	392	46	0.35	270	2.05
2	300	0	0.00	0	0.00	39	395	14	0.11	284	2.15
3	300	0	0.00	0	0.00	40	397	69	0.52	353	2.68
4	300	0	0.00	0	0.00	41	399	11	0.08	364	2.76
5	300	0	0.00	0	0.00	42	401	99	0.75	463	3.51
6	300	0	0.00	0	0.00	43	403	25	0.19	488	3.70
7	300	0	0.00	0	0.00	44	405	117	0.89	605	4.59
8	300	0	0.00	0	0.00	45	407	27	0.20	632	4.79
9	300	0	0.00	0	0.00	46	409	103	0.78	735	5.57
10	300	0	0.00	0	0.00	47	411	61	0.46	796	6.03
11	300	0	0.00	0	0.00	48	413	110	0.83	906	6.87
12	300	0	0.00	0	0.00	49	415	67	0.51	973	7.38
13	300	0	0.00	0	0.00	50	417	105	0.80	1078	8.17
14	300	0	0.00	0	0.00	51	419	96	0.73	1174	8.90
15	300	0	0.00	0	0.00	52	421	111	0.84	1285	9.74
16	301	1	0.01	1	0.01	53	423	125	0.95	1410	10.69
17	315	0	0.00	1	0.01	54	425	135	1.02	1545	11.71
18	325	0	0.00	1	0.01	55	427	129	0.98	1674	12.69
19	332	0	0.00	1	0.01	56	429	157	1.19	1831	13.88
20	338	5	0.04	6	0.05	57	431	126	0.96	1957	14.83
21	343	0	0.00	6	0.05	**58**	**433**	**219**	**1.66**	**2176**	**16.49**
22	348	5	0.04	11	0.08	59	435	116	0.88	2292	17.37
23	352	0	0.00	11	0.08	60	437	259	1.96	2551	19.34
24	356	10	0.08	21	0.16	61	439	134	1.02	2685	20.35
25	359	1	0.01	22	0.17	62	441	361	2.74	3046	23.09
26	363	11	0.08	33	0.25	63	443	145	1.10	3191	24.19
27	366	1	0.01	34	0.26	64	445	386	2.93	3577	27.11
28	368	17	0.13	51	0.39	65	447	142	1.08	3719	28.19
29	371	9	0.07	60	0.45	66	450	418	3.17	4137	31.36
30	374	24	0.18	84	0.64	67	452	142	1.08	4279	32.43
31	376	11	0.08	95	0.72	68	454	426	3.23	4705	35.66
32	379	24	0.18	119	0.90	69	456	193	1.46	4898	37.13
33	381	22	0.17	141	1.07	70	458	452	3.43	5350	40.55
34	384	22	0.17	163	1.24	71	460	243	1.84	5593	42.39
35	386	11	0.08	174	1.32	72	462	385	2.92	5978	45.31
36	388	33	0.25	207	1.57	73	464	251	1.90	6229	47.21

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

(table continued)

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Table 8.1.1.33 (Continued)
Spring 2013 AIMS Frequency Distribution
Writing CRT High School Cohort 14 Prompt A

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
74	466	314	2.38	6543	49.59	107	551	90	0.68	12043	91.28
75	468	259	1.96	6802	51.56	108	554	64	0.49	12107	91.77
76	470	331	2.51	7133	54.07	109	557	100	0.76	12207	92.53
77	472	278	2.11	7411	56.17	110	561	39	0.30	12246	92.82
78	474	320	2.43	7731	58.60	111	564	111	0.84	12357	93.66
79	476	264	2.00	7995	60.60	112	568	49	0.37	12406	94.03
80	479	300	2.27	8295	62.87	113	571	88	0.67	12494	94.70
81	**481**	**230**	**1.74**	**8525**	**64.62**	114	575	70	0.53	12564	95.23
82	483	274	2.08	8799	66.69	115	578	66	0.50	12630	95.73
83	485	202	1.53	9001	68.23	116	582	77	0.58	12707	96.32
84	487	315	2.39	9316	70.61	117	586	20	0.15	12727	96.47
85	490	176	1.33	9492	71.95	**118**	**590**	**108**	**0.82**	**12835**	**97.29**
86	492	254	1.93	9746	73.87	119	594	12	0.09	12847	97.38
87	494	120	0.91	9866	74.78	120	598	93	0.70	12940	98.08
88	497	256	1.94	10122	76.72	121	603	15	0.11	12955	98.20
89	499	88	0.67	10210	77.39	122	607	57	0.43	13012	98.63
90	501	188	1.42	10398	78.81	123	612	27	0.20	13039	98.83
91	504	78	0.59	10476	79.41	124	617	16	0.12	13055	98.95
92	506	183	1.39	10659	80.79	125	622	28	0.21	13083	99.17
93	509	57	0.43	10716	81.22	126	627	1	0.01	13084	99.17
94	512	160	1.21	10876	82.44	127	633	27	0.20	13111	99.38
95	514	48	0.36	10924	82.80	128	639	3	0.02	13114	99.40
96	517	156	1.18	11080	83.98	129	646	31	0.23	13145	99.64
97	520	58	0.44	11138	84.42	130	652	9	0.07	13154	99.70
98	523	140	1.06	11278	85.48	131	660	12	0.09	13166	99.80
99	526	52	0.39	11330	85.88	132	668	9	0.07	13175	99.86
100	529	127	0.96	11457	86.84	133	677	0	0.00	13175	99.86
101	532	48	0.36	11505	87.21	134	688	5	0.04	13180	99.90
102	535	135	1.02	11640	88.23	135	700	0	0.00	13180	99.90
103	538	49	0.37	11689	88.60	136	700	10	0.08	13190	99.98
104	541	99	0.75	11788	89.35	137	700	0	0.00	13190	99.98
105	544	61	0.46	11849	89.81	138	700	3	0.02	13193	100.00
106	547	104	0.79	11953	90.60						

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.34
Spring 2013 AIMS Frequency Distribution
Writing CRT High School Cohort 14 Make-up Prompt T

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	37	404	3	0.36	32	3.81
1	300	0	0.00	0	0.00	38	406	2	0.24	34	4.05
2	300	0	0.00	0	0.00	39	408	1	0.12	35	4.17
3	300	0	0.00	0	0.00	40	410	4	0.48	39	4.64
4	300	0	0.00	0	0.00	41	411	3	0.36	42	5.00
5	300	0	0.00	0	0.00	42	413	8	0.95	50	5.95
6	300	0	0.00	0	0.00	43	415	3	0.36	53	6.31
7	300	0	0.00	0	0.00	44	417	6	0.71	59	7.02
8	300	0	0.00	0	0.00	45	419	4	0.48	63	7.50
9	300	0	0.00	0	0.00	46	421	8	0.95	71	8.45
10	300	0	0.00	0	0.00	47	422	2	0.24	73	8.69
11	300	0	0.00	0	0.00	48	424	6	0.71	79	9.40
12	300	0	0.00	0	0.00	49	426	3	0.36	82	9.76
13	300	0	0.00	0	0.00	50	428	9	1.07	91	10.83
14	300	0	0.00	0	0.00	51	429	8	0.95	99	11.79
15	300	0	0.00	0	0.00	52	431	9	1.07	108	12.86
16	305	0	0.00	0	0.00	**53**	**433**	**6**	**0.71**	**114**	**13.57**
17	321	0	0.00	0	0.00	54	435	14	1.67	128	15.24
18	332	0	0.00	0	0.00	55	436	9	1.07	137	16.31
19	341	0	0.00	0	0.00	56	438	13	1.55	150	17.86
20	348	0	0.00	0	0.00	57	440	6	0.71	156	18.57
21	354	0	0.00	0	0.00	58	442	16	1.90	172	20.48
22	359	1	0.12	1	0.12	59	444	10	1.19	182	21.67
23	364	0	0.00	1	0.12	60	445	16	1.90	198	23.57
24	368	2	0.24	3	0.36	61	447	11	1.31	209	24.88
25	372	0	0.00	3	0.36	62	449	17	2.02	226	26.90
26	375	1	0.12	4	0.48	63	451	11	1.31	237	28.21
27	379	1	0.12	5	0.60	64	452	26	3.10	263	31.31
28	382	2	0.24	7	0.83	65	454	9	1.07	272	32.38
29	385	3	0.36	10	1.19	66	456	21	2.50	293	34.88
30	387	2	0.24	12	1.43	67	458	12	1.43	305	36.31
31	390	0	0.00	12	1.43	68	460	28	3.33	333	39.64
32	392	7	0.83	19	2.26	69	462	9	1.07	342	40.71
33	395	2	0.24	21	2.50	70	463	19	2.26	361	42.98
34	397	1	0.12	22	2.62	71	465	19	2.26	380	45.24
35	399	3	0.36	25	2.98	72	467	33	3.93	413	49.17
36	402	4	0.48	29	3.45	73	469	21	2.50	434	51.67

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

(table continued)

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Table 8.1.1.34 (Continued)
Spring 2013 AIMS Frequency Distribution
Writing CRT High School Cohort 14 Prompt T

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
74	471	24	2.86	458	54.52	107	548	4	0.48	802	95.48
75	473	16	1.90	474	56.43	108	551	3	0.36	805	95.83
76	475	11	1.31	485	57.74	109	554	5	0.60	810	96.43
77	477	15	1.79	500	59.52	110	557	2	0.24	812	96.67
78	479	24	2.86	524	62.38	111	560	3	0.36	815	97.02
79	**480**	**18**	**2.14**	**542**	**64.52**	112	564	1	0.12	816	97.14
80	482	17	2.02	559	66.55	113	567	0	0.00	816	97.14
81	484	24	2.86	583	69.40	114	571	4	0.48	820	97.62
82	486	21	2.50	604	71.90	115	574	1	0.12	821	97.74
83	488	17	2.02	621	73.93	116	578	5	0.60	826	98.33
84	490	16	1.90	637	75.83	117	582	1	0.12	827	98.45
85	492	9	1.07	646	76.90	118	586	4	0.48	831	98.93
86	495	16	1.90	662	78.81	**119**	**591**	**0**	**0.00**	**831**	**98.93**
87	497	11	1.31	673	80.12	120	595	3	0.36	834	99.29
88	499	24	2.86	697	82.98	121	600	0	0.00	834	99.29
89	501	5	0.60	702	83.57	122	605	1	0.12	835	99.40
90	503	12	1.43	714	85.00	123	611	0	0.00	835	99.40
91	505	5	0.60	719	85.60	124	617	1	0.12	836	99.52
92	508	12	1.43	731	87.02	125	623	1	0.12	837	99.64
93	510	1	0.12	732	87.14	126	630	1	0.12	838	99.76
94	512	12	1.43	744	88.57	127	637	0	0.00	838	99.76
95	515	1	0.12	745	88.69	128	645	0	0.00	838	99.76
96	517	11	1.31	756	90.00	129	653	0	0.00	838	99.76
97	520	3	0.36	759	90.36	130	662	0	0.00	838	99.76
98	522	10	1.19	769	91.55	131	671	0	0.00	838	99.76
99	525	2	0.24	771	91.79	132	681	0	0.00	838	99.76
100	528	6	0.71	777	92.50	133	692	0	0.00	838	99.76
101	530	2	0.24	779	92.74	134	700	2	0.24	840	100.00
102	533	5	0.60	784	93.33	135	700	0	0.00	840	100.00
103	536	1	0.12	785	93.45	136	700	0	0.00	840	100.00
104	539	3	0.36	788	93.81	137	700	0	0.00	840	100.00
105	542	3	0.36	791	94.17	138	700	0	0.00	840	100.00
106	545	7	0.83	798	95.00						

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.35
Spring 2013 AIMS Frequency Distribution
Writing CRT High School Cohort 13 Prompt A

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	37	390	19	0.29	171	2.58
1	300	0	0.00	0	0.00	38	392	34	0.51	205	3.10
2	300	0	0.00	0	0.00	39	395	14	0.21	219	3.31
3	300	0	0.00	0	0.00	40	397	64	0.97	283	4.27
4	300	0	0.00	0	0.00	41	399	21	0.32	304	4.59
5	300	0	0.00	0	0.00	42	401	68	1.03	372	5.62
6	300	0	0.00	0	0.00	43	403	14	0.21	386	5.83
7	300	0	0.00	0	0.00	44	405	76	1.15	462	6.98
8	300	0	0.00	0	0.00	45	407	26	0.39	488	7.37
9	300	0	0.00	0	0.00	46	409	76	1.15	564	8.52
10	300	0	0.00	0	0.00	47	411	56	0.85	620	9.37
11	300	0	0.00	0	0.00	48	413	94	1.42	714	10.79
12	300	0	0.00	0	0.00	49	415	67	1.01	781	11.80
13	300	0	0.00	0	0.00	50	417	64	0.97	845	12.76
14	300	0	0.00	0	0.00	51	419	71	1.07	916	13.84
15	300	0	0.00	0	0.00	52	421	82	1.24	998	15.08
16	301	0	0.00	0	0.00	53	423	90	1.36	1088	16.44
17	315	0	0.00	0	0.00	54	425	108	1.63	1196	18.07
18	325	2	0.03	2	0.03	55	427	90	1.36	1286	19.43
19	332	0	0.00	2	0.03	56	429	126	1.90	1412	21.33
20	338	2	0.03	4	0.06	57	431	82	1.24	1494	22.57
21	343	1	0.02	5	0.08	**58**	**433**	**157**	**2.37**	**1651**	**24.94**
22	348	5	0.08	10	0.15	59	435	82	1.24	1733	26.18
23	352	1	0.02	11	0.17	60	437	184	2.78	1917	28.96
24	356	9	0.14	20	0.30	61	439	81	1.22	1998	30.18
25	359	0	0.00	20	0.30	62	441	227	3.43	2225	33.61
26	363	13	0.20	33	0.50	63	443	83	1.25	2308	34.86
27	366	4	0.06	37	0.56	64	445	239	3.61	2547	38.47
28	368	13	0.20	50	0.76	65	447	97	1.47	2644	39.94
29	371	6	0.09	56	0.85	66	450	262	3.96	2906	43.90
30	374	16	0.24	72	1.09	67	452	96	1.45	3002	45.35
31	376	7	0.11	79	1.19	68	454	273	4.12	3275	49.47
32	379	16	0.24	95	1.44	69	456	114	1.72	3389	51.19
33	381	10	0.15	105	1.59	70	458	255	3.85	3644	55.05
34	384	13	0.20	118	1.78	71	460	176	2.66	3820	57.70
35	386	10	0.15	128	1.93	72	462	189	2.85	4009	60.56
36	388	24	0.36	152	2.30	73	464	166	2.51	4175	63.07

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

(table continued)

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Table 8.1.1.35 (Continued)
Spring 2013 AIMS Frequency Distribution
Writing CRT High School Cohort 13 Prompt A

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
74	466	183	2.76	4358	65.83	107	551	12	0.18	6522	98.52
75	468	153	2.31	4511	68.14	108	554	7	0.11	6529	98.63
76	470	173	2.61	4684	70.76	109	557	16	0.24	6545	98.87
77	472	167	2.52	4851	73.28	110	561	8	0.12	6553	98.99
78	474	150	2.27	5001	75.54	111	564	8	0.12	6561	99.11
79	476	132	1.99	5133	77.54	112	568	3	0.05	6564	99.15
80	479	126	1.90	5259	79.44	113	571	6	0.09	6570	99.24
81	**481**	**102**	**1.54**	**5361**	**80.98**	114	575	5	0.08	6575	99.32
82	483	113	1.71	5474	82.69	115	578	5	0.08	6580	99.40
83	485	108	1.63	5582	84.32	116	582	4	0.06	6584	99.46
84	487	123	1.86	5705	86.18	117	586	5	0.08	6589	99.53
85	490	72	1.09	5777	87.27	**118**	**590**	**3**	**0.05**	**6592**	**99.58**
86	492	99	1.50	5876	88.76	119	594	3	0.05	6595	99.62
87	494	50	0.76	5926	89.52	120	598	7	0.11	6602	99.73
88	497	99	1.50	6025	91.01	121	603	1	0.02	6603	99.74
89	499	39	0.59	6064	91.60	122	607	5	0.08	6608	99.82
90	501	70	1.06	6134	92.66	123	612	2	0.03	6610	99.85
91	504	26	0.39	6160	93.05	124	617	2	0.03	6612	99.88
92	506	69	1.04	6229	94.09	125	622	3	0.05	6615	99.92
93	509	10	0.15	6239	94.24	126	627	0	0.00	6615	99.92
94	512	55	0.83	6294	95.08	127	633	2	0.03	6617	99.95
95	514	17	0.26	6311	95.33	128	639	0	0.00	6617	99.95
96	517	31	0.47	6342	95.80	129	646	1	0.02	6618	99.97
97	520	14	0.21	6356	96.01	130	652	0	0.00	6618	99.97
98	523	25	0.38	6381	96.39	131	660	1	0.02	6619	99.98
99	526	10	0.15	6391	96.54	132	668	1	0.02	6620	100.00
100	529	28	0.42	6419	96.96	133	677	0	0.00	6620	100.00
101	532	9	0.14	6428	97.10	134	688	0	0.00	6620	100.00
102	535	30	0.45	6458	97.55	135	700	0	0.00	6620	100.00
103	538	16	0.24	6474	97.79	136	700	0	0.00	6620	100.00
104	541	15	0.23	6489	98.02	137	700	0	0.00	6620	100.00
105	544	11	0.17	6500	98.19	138	700	0	0.00	6620	100.00
106	547	10	0.15	6510	98.34						

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.36
Spring 2013 AIMS Frequency Distribution
Writing CRT High School Cohort 13 Make-up Prompt T

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	37	404	3	0.70	24	5.62
1	300	0	0.00	0	0.00	38	406	4	0.94	28	6.56
2	300	0	0.00	0	0.00	39	408	1	0.23	29	6.79
3	300	0	0.00	0	0.00	40	410	7	1.64	36	8.43
4	300	0	0.00	0	0.00	41	411	0	0.00	36	8.43
5	300	0	0.00	0	0.00	42	413	8	1.87	44	10.30
6	300	0	0.00	0	0.00	43	415	0	0.00	44	10.30
7	300	0	0.00	0	0.00	44	417	9	2.11	53	12.41
8	300	0	0.00	0	0.00	45	419	1	0.23	54	12.65
9	300	0	0.00	0	0.00	46	421	7	1.64	61	14.29
10	300	0	0.00	0	0.00	47	422	5	1.17	66	15.46
11	300	0	0.00	0	0.00	48	424	1	0.23	67	15.69
12	300	0	0.00	0	0.00	49	426	2	0.47	69	16.16
13	300	0	0.00	0	0.00	50	428	5	1.17	74	17.33
14	300	0	0.00	0	0.00	51	429	1	0.23	75	17.56
15	300	0	0.00	0	0.00	52	431	6	1.41	81	18.97
16	305	0	0.00	0	0.00	**53**	**433**	**7**	**1.64**	**88**	**20.61**
17	321	0	0.00	0	0.00	54	435	12	2.81	100	23.42
18	332	0	0.00	0	0.00	55	436	10	2.34	110	25.76
19	341	0	0.00	0	0.00	56	438	5	1.17	115	26.93
20	348	0	0.00	0	0.00	57	440	4	0.94	119	27.87
21	354	0	0.00	0	0.00	58	442	16	3.75	135	31.62
22	359	1	0.23	1	0.23	59	444	5	1.17	140	32.79
23	364	0	0.00	1	0.23	60	445	10	2.34	150	35.13
24	368	3	0.70	4	0.94	61	447	6	1.41	156	36.53
25	372	1	0.23	5	1.17	62	449	12	2.81	168	39.34
26	375	0	0.00	5	1.17	63	451	4	0.94	172	40.28
27	379	0	0.00	5	1.17	64	452	18	4.22	190	44.50
28	382	1	0.23	6	1.41	65	454	11	2.58	201	47.07
29	385	2	0.47	8	1.87	66	456	21	4.92	222	51.99
30	387	5	1.17	13	3.04	67	458	8	1.87	230	53.86
31	390	0	0.00	13	3.04	68	460	24	5.62	254	59.48
32	392	2	0.47	15	3.51	69	462	6	1.41	260	60.89
33	395	1	0.23	16	3.75	70	463	7	1.64	267	62.53
34	397	1	0.23	17	3.98	71	465	6	1.41	273	63.93
35	399	2	0.47	19	4.45	72	467	13	3.04	286	66.98
36	402	2	0.47	21	4.92	73	469	9	2.11	295	69.09

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

(table continued)

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Table 8.1.1.36 (Continued)
Spring 2013 AIMS Frequency Distribution
Writing CRT High School Cohort 13 Prompt T

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
74	471	11	2.58	306	71.66	107	548	0	0.00	423	99.06
75	473	8	1.87	314	73.54	108	551	0	0.00	423	99.06
76	475	9	2.11	323	75.64	109	554	0	0.00	423	99.06
77	477	11	2.58	334	78.22	110	557	0	0.00	423	99.06
78	479	7	1.64	341	79.86	111	560	0	0.00	423	99.06
79	**480**	**6**	**1.41**	**347**	**81.26**	112	564	0	0.00	423	99.06
80	482	10	2.34	357	83.61	113	567	0	0.00	423	99.06
81	484	5	1.17	362	84.78	114	571	1	0.23	424	99.30
82	486	6	1.41	368	86.18	115	574	0	0.00	424	99.30
83	488	5	1.17	373	87.35	116	578	0	0.00	424	99.30
84	490	8	1.87	381	89.23	117	582	0	0.00	424	99.30
85	492	2	0.47	383	89.70	118	586	0	0.00	424	99.30
86	495	4	0.94	387	90.63	**119**	**591**	**1**	**0.23**	**425**	**99.53**
87	497	3	0.70	390	91.33	120	595	0	0.00	425	99.53
88	499	2	0.47	392	91.80	121	600	0	0.00	425	99.53
89	501	2	0.47	394	92.27	122	605	0	0.00	425	99.53
90	503	5	1.17	399	93.44	123	611	0	0.00	425	99.53
91	505	2	0.47	401	93.91	124	617	0	0.00	425	99.53
92	508	5	1.17	406	95.08	125	623	1	0.23	426	99.77
93	510	1	0.23	407	95.32	126	630	0	0.00	426	99.77
94	512	5	1.17	412	96.49	127	637	0	0.00	426	99.77
95	515	0	0.00	412	96.49	128	645	0	0.00	426	99.77
96	517	3	0.70	415	97.19	129	653	0	0.00	426	99.77
97	520	1	0.23	416	97.42	130	662	0	0.00	426	99.77
98	522	3	0.70	419	98.13	131	671	0	0.00	426	99.77
99	525	0	0.00	419	98.13	132	681	0	0.00	426	99.77
100	528	1	0.23	420	98.36	133	692	0	0.00	426	99.77
101	530	2	0.47	422	98.83	134	700	1	0.23	427	100.00
102	533	0	0.00	422	98.83	135	700	0	0.00	427	100.00
103	536	1	0.23	423	99.06	136	700	0	0.00	427	100.00
104	539	0	0.00	423	99.06	137	700	0	0.00	427	100.00
105	542	0	0.00	423	99.06	138	700	0	0.00	427	100.00
106	545	0	0.00	423	99.06						

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.37
Spring 2013 AIMS Frequency Distribution
Science CRT Grade 4

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	200	1	0.00	1	0.00	28	490	2422	2.92	29745	35.83
1	263	0	0.00	1	0.00	29	494	2530	3.05	32275	38.87
2	300	1	0.00	2	0.00	30	498	2611	3.14	34886	42.02
3	323	0	0.00	2	0.00	**31**	**502**	**2553**	**3.07**	**37439**	**45.09**
4	340	0	0.00	2	0.00	32	507	2644	3.18	40083	48.28
5	354	6	0.01	8	0.01	33	511	2761	3.33	42844	51.60
6	365	10	0.01	18	0.02	34	515	2599	3.13	45443	54.73
7	375	35	0.04	53	0.06	35	520	2678	3.23	48121	57.96
8	384	55	0.07	108	0.13	36	524	2673	3.22	50794	61.18
9	392	128	0.15	236	0.28	37	529	2636	3.17	53430	64.35
10	400	189	0.23	425	0.51	38	534	2717	3.27	56147	67.62
11	406	296	0.36	721	0.87	39	539	2716	3.27	58863	70.90
12	413	478	0.58	1199	1.44	40	544	2631	3.17	61494	74.06
13	419	691	0.83	1890	2.28	**41**	**549**	**2527**	**3.04**	**64021**	**77.11**
14	425	898	1.08	2788	3.36	42	555	2546	3.07	66567	80.17
15	430	1067	1.29	3855	4.64	43	561	2475	2.98	69042	83.16
16	435	1330	1.60	5185	6.24	44	567	2328	2.80	71370	85.96
17	440	1517	1.83	6702	8.07	45	574	2277	2.74	73647	88.70
18	445	1663	2.00	8365	10.07	46	581	2070	2.49	75717	91.19
19	450	1747	2.10	10112	12.18	47	589	1912	2.30	77629	93.50
20	455	1800	2.17	11912	14.35	48	598	1648	1.98	79277	95.48
21	459	1960	2.36	13872	16.71	49	609	1328	1.60	80605	97.08
22	**464**	**2102**	**2.53**	**15974**	**19.24**	50	621	1048	1.26	81653	98.34
23	468	2068	2.49	18042	21.73	51	637	729	0.88	82382	99.22
24	473	2193	2.64	20235	24.37	52	658	399	0.48	82781	99.70
25	477	2350	2.83	22585	27.20	53	693	190	0.23	82971	99.93
26	481	2348	2.83	24933	30.03	54	800	57	0.07	83028	100.00
27	485	2390	2.88	27323	32.91						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.38
Spring 2013 AIMS Frequency Distribution
Science CRT Grade 8

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	200	1	0.00	1	0.00	30	490	2218	2.72	23058	28.30
1	276	0	0.00	1	0.00	31	494	2330	2.86	25388	31.16
2	311	1	0.00	2	0.00	32	498	2463	3.02	27851	34.18
3	332	1	0.00	3	0.00	**33**	**502**	**2544**	**3.12**	**30395**	**37.30**
4	347	1	0.00	4	0.00	34	506	2738	3.36	33133	40.66
5	359	0	0.00	4	0.00	35	510	2867	3.52	36000	44.18
6	370	7	0.01	11	0.01	36	513	2896	3.55	38896	47.73
7	379	9	0.01	20	0.02	37	518	3078	3.78	41974	51.51
8	387	24	0.03	44	0.05	38	522	3210	3.94	45184	55.45
9	394	64	0.08	108	0.13	39	526	3270	4.01	48454	59.46
10	401	109	0.13	217	0.27	40	530	3226	3.96	51680	63.42
11	407	153	0.19	370	0.45	**41**	**534**	**3280**	**4.03**	**54960**	**67.45**
12	413	209	0.26	579	0.71	42	539	3353	4.11	58313	71.56
13	418	291	0.36	870	1.07	43	544	3102	3.81	61415	75.37
14	423	445	0.55	1315	1.61	44	549	3054	3.75	64469	79.12
15	428	567	0.70	1882	2.31	45	554	2929	3.59	67398	82.71
16	433	674	0.83	2556	3.14	46	559	2613	3.21	70011	85.92
17	438	759	0.93	3315	4.07	47	565	2349	2.88	72360	88.80
18	442	856	1.05	4171	5.12	48	571	2175	2.67	74535	91.47
19	447	1001	1.23	5172	6.35	49	577	1855	2.28	76390	93.75
20	451	1104	1.35	6276	7.70	50	585	1496	1.84	77886	95.58
21	455	1168	1.43	7444	9.14	51	592	1252	1.54	79138	97.12
22	459	1270	1.56	8714	10.69	52	601	916	1.12	80054	98.24
23	463	1393	1.71	10107	12.40	53	611	638	0.78	80692	99.03
24	467	1495	1.83	11602	14.24	54	624	404	0.50	81096	99.52
25	471	1663	2.04	13265	16.28	55	639	249	0.31	81345	99.83
26	**475**	**1733**	**2.13**	**14998**	**18.41**	56	660	102	0.13	81447	99.95
27	479	1827	2.24	16825	20.65	57	694	33	0.04	81480	99.99
28	483	1937	2.38	18762	23.03	58	800	5	0.01	81485	100.00
29	486	2078	2.55	20840	25.58						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.39
Spring 2013 AIMS Frequency Distribution
Science CRT High School Cohort 15

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	200	0	0.00	0	0.00	33	471	1222	2.32	23110	43.89
1	240	2	0.00	2	0.00	**34**	**475**	**1285**	**2.44**	**24395**	**46.33**
2	277	2	0.00	4	0.01	35	479	1174	2.23	25569	48.56
3	300	1	0.00	5	0.01	36	482	1270	2.41	26839	50.98
4	316	6	0.01	11	0.02	37	486	1268	2.41	28107	53.38
5	329	7	0.01	18	0.03	38	490	1237	2.35	29344	55.73
6	339	5	0.01	23	0.04	39	493	1291	2.45	30635	58.19
7	349	20	0.04	43	0.08	40	497	1328	2.52	31963	60.71
8	357	32	0.06	75	0.14	**41**	**501**	**1290**	**2.45**	**33253**	**63.16**
9	365	62	0.12	137	0.26	42	505	1283	2.44	34536	65.60
10	371	91	0.17	228	0.43	43	509	1311	2.49	35847	68.09
11	378	174	0.33	402	0.76	44	513	1240	2.36	37087	70.44
12	384	301	0.57	703	1.34	45	517	1260	2.39	38347	72.83
13	389	403	0.77	1106	2.10	46	521	1228	2.33	39575	75.17
14	395	546	1.04	1652	3.14	47	526	1149	2.18	40724	77.35
15	400	675	1.28	2327	4.42	48	530	1219	2.32	41943	79.66
16	404	870	1.65	3197	6.07	49	535	1107	2.10	43050	81.77
17	409	1016	1.93	4213	8.00	**50**	**540**	**1088**	**2.07**	**44138**	**83.83**
18	414	1093	2.08	5306	10.08	51	545	1096	2.08	45234	85.91
19	418	1155	2.19	6461	12.27	52	550	1045	1.98	46279	87.90
20	422	1174	2.23	7635	14.50	53	556	1003	1.91	47282	89.80
21	426	1232	2.34	8867	16.84	54	562	877	1.67	48159	91.47
22	430	1156	2.20	10023	19.04	55	568	844	1.60	49003	93.07
23	434	1161	2.21	11184	21.24	56	575	751	1.43	49754	94.50
24	438	1182	2.25	12366	23.49	57	583	679	1.29	50433	95.79
25	442	1217	2.31	13583	25.80	58	591	555	1.05	50988	96.84
26	446	1176	2.23	14759	28.03	59	600	492	0.93	51480	97.78
27	450	1216	2.31	15975	30.34	60	611	430	0.82	51910	98.59
28	453	1198	2.28	17173	32.62	61	624	303	0.58	52213	99.17
29	457	1192	2.26	18365	34.88	62	641	194	0.37	52407	99.54
30	461	1138	2.16	19503	37.04	63	663	159	0.30	52566	99.84
31	464	1182	2.25	20685	39.29	64	701	65	0.12	52631	99.96
32	468	1203	2.28	21888	41.57	65	800	19	0.04	52650	100.00

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.40
Spring 2013 AIMS Frequency Distribution
Science CRT High School Cohort 16

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	200	0	0.00	0	0.00	33	471	426	1.77	5553	23.05
1	240	0	0.00	0	0.00	**34**	**475**	**477**	**1.98**	**6030**	**25.03**
2	277	0	0.00	0	0.00	35	479	485	2.01	6515	27.04
3	300	1	0.00	1	0.00	36	482	513	2.13	7028	29.17
4	316	1	0.00	2	0.01	37	486	543	2.25	7571	31.42
5	329	1	0.00	3	0.01	38	490	506	2.10	8077	33.52
6	339	2	0.01	5	0.02	39	493	571	2.37	8648	35.89
7	349	3	0.01	8	0.03	40	497	597	2.48	9245	38.37
8	357	7	0.03	15	0.06	**41**	**501**	**610**	**2.53**	**9855**	**40.90**
9	365	9	0.04	24	0.10	42	505	625	2.59	10480	43.50
10	371	16	0.07	40	0.17	43	509	606	2.52	11086	46.01
11	378	29	0.12	69	0.29	44	513	674	2.80	11760	48.81
12	384	43	0.18	112	0.46	45	517	735	3.05	12495	51.86
13	389	55	0.23	167	0.69	46	521	707	2.93	13202	54.79
14	395	89	0.37	256	1.06	47	526	703	2.92	13905	57.71
15	400	112	0.46	368	1.53	48	530	750	3.11	14655	60.82
16	404	171	0.71	539	2.24	49	535	709	2.94	15364	63.77
17	409	181	0.75	720	2.99	**50**	**540**	**776**	**3.22**	**16140**	**66.99**
18	414	215	0.89	935	3.88	51	545	757	3.14	16897	70.13
19	418	214	0.89	1149	4.77	52	550	740	3.07	17637	73.20
20	422	235	0.98	1384	5.74	53	556	725	3.01	18362	76.21
21	426	249	1.03	1633	6.78	54	562	737	3.06	19099	79.27
22	430	252	1.05	1885	7.82	55	568	761	3.16	19860	82.43
23	434	272	1.13	2157	8.95	56	575	743	3.08	20603	85.51
24	438	270	1.12	2427	10.07	57	583	692	2.87	21295	88.38
25	442	279	1.16	2706	11.23	58	591	622	2.58	21917	90.96
26	446	300	1.25	3006	12.48	59	600	579	2.40	22496	93.37
27	450	325	1.35	3331	13.83	60	611	525	2.18	23021	95.55
28	453	290	1.20	3621	15.03	61	624	431	1.79	23452	97.34
29	457	351	1.46	3972	16.49	62	641	293	1.22	23745	98.55
30	461	356	1.48	4328	17.96	63	663	211	0.88	23956	99.43
31	464	388	1.61	4716	19.57	64	701	107	0.44	24063	99.87
32	468	411	1.71	5127	21.28	65	800	31	0.13	24094	100.00

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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8.1.2 AIMS 3-8 NRT State Results

This section of the technical report provides information on the results of the norm-referenced component of the reading, writing, and mathematics tests in Grades 3-8. Students in Grades 3-8 were administered a number of Stanford 10 items embedded within the AIMS 3-8 tests to provide norm-referenced scores. Please see chapters 3 and 4 of this report for more details on the design of the AIMS 3-8 tests. In addition to AIMS scale scores, Arizona students were also assigned norm-referenced scores based on their performance on the NRT items and the 2007 Stanford 10 norms. For more information regarding the development of the Stanford 10 norms please see *Stanford Achievement Test* Series, Tenth Edition: Supplemental Technical Data Report (NCS Pearson, Inc., 2008) and *Stanford Achievement Test* Series, Tenth Edition: 2007 Spring Supplemental Multilevel Norms Book (NCS Pearson, Inc., 2007).

Table 8.1.2.1 presents norm-referenced results from the Spring 2013 administration of AIMS 3-8. Included in the table for each grade and content are the mean (M), standard deviation (SD), and scales scores at the 25th, 50th, and 75th percentiles for both the Arizona students (AZ) and the Stanford 10 national standardization data (SS). The Stanford 10 national standardization data was taken from the documents cited above.

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Table 8.1.2.1
Spring 2013 AIMS NRT State Test Results

				Percentile		
Test	N	M	SD	25	50	75
Mathematics						
3	83196	626.6	47.0	595	626	665
4	83048	642.2	47.3	609	640	670
5	82223	661.7	41.4	634	659	689
6	82587	680.4	44.7	644	675	714
7	82491	687.5	49.5	652	683	714
8	81432	708.9	46.4	673	704	740
Reading						
3	83187	630.0	45.0	603	632	661
4	83045	639.9	41.3	612	639	663
5	82223	656.2	39.3	634	660	687
6	82598	667.3	34.9	644	671	686
7	82502	675.1	37.3	653	674	699
8	81433	692.8	35.7	669	690	717
Writing						
3	83187	609.9	43.7	578	611	642
4	83045	634.0	44.1	606	631	664
5	82223	652.4	43.0	622	655	678
6	82598	663.2	41.1	634	660	684
7	82502	674.3	40.8	645	670	704
8	81433	679.1	39.3	650	676	700

Note: AZ=Arizona NRT; SS=Stanford 10 National Standardization Sample. Students with no valid attempt, invalidation, or off-grade are not included in the AZ NRT summary data. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile correction centers, and students attending state hospital schools are not included in the AZ NRT summary. The AZ NRT results are not final results and are presented here for purposes of addressing reliability and validity. AZ NRT results should not be used for accountability purposes.

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8.2 Longitudinal Data

The Spring 2010 administration of the AIMS Mathematics assessment represents the baseline year for those assessments. During the 2010 standard setting, a new vertical scale was established for Grades 3-8 assesments, new scales were established for the high school assessment, and new cut scores were assigned for each grade. In this section, the Spring 2013 results are presented along with results back to 2010 to provide longitudinal information. Tables 8.2.1 and 8.2.2 include scale score descriptive statistics and performance level distributions for the AIMS Mathematics administrations.

The Spring 2005 administration of the AIMS Reading assessment represents the baseline year for those assessments. During the 2005 administration, a new vertical scale was established for the Grades 3-8 assessments, new scales were established for the high school assessment, and new cut scores were assigned for each grade. In this section, the Spring 2013 results are presented along with results back to 2005 to provide longitudinal information. Tables 8.2.3 and 8.2.4 include scale score descriptive statistics and performance level distributions for the AIMS Reading administrations.

New writing assessments were created and administered in 2011 and a new scale was created. The 2011 administration serves as the base year for future comparisons. The results for the Spring 2011, 2012 and 2013 AIMS Writing assessments are provided in Tables 8.2.5 and 8.2.6.

The Spring 2008 administration represents the baseline year for the AIMS Science assessment. In this section, the Spring 2013 results are presented along with results back to 2008 to provide longitudinal information. Tables 8.2.7 and 8.2.8 include scale score descriptive statistics and performance level distributions for the AIMS Science administrations.

In this section, the Spring 2013 results are presented along with the longitudinal results going back to the base administration for each subject. Tables 8.2.1 - 8.2.8 include scale score descriptive statistics and performance level distributions for the AIMS administration from each year. Caution should be taken when interpreting year-to-year or grade-to-grade comparisons, as slight differences in exclusion rules, changes in the manner in which accommodations were identified, and changes in the manner in which high school results were separated may result in different student population characteristics reported in Tables 8.2.1-8.2.8. High school results are reported by grade in 2005 and changed to cohorts for 2006 and all subsequent years.

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Table 8.2.1
Longitudinal Comparison of Scale Scores Mathematics CRT

			Scale Score		Percentiles				
Grade	Year	N	M	SD	P10	P25	P50	P75	P90
3	2010	83106	365.2	50.7	300	331	365	400	427
	2011	81633	368.3	50.1	300	334	368	400	427
	2012	82905	373.1	50.3	307	338	372	406	438
	2013	83196	372.9	52.9	303	335	373	410	439
4	2010	81688	379.3	46.2	316	348	382	411	440
	2011	82040	387.3	51.0	319	351	386	421	448
	2012	81924	387.7	49.7	322	352	387	418	452
	2013	83048	385.1	49.2	320	350	384	415	449
5	2010	81089	392.3	49.7	327	357	390	426	455
	2011	81829	394.0	50.0	327	357	394	426	455
	2012	82386	398.4	48.3	337	364	398	432	459
	2013	82223	397.5	47.3	333	364	399	429	455
6	2010	79893	407.9	50.2	345	372	405	442	475
	2011	81277	417.3	53.3	348	377	415	451	483
	2012	81982	414.4	49.1	351	377	411	446	477
	2013	82587	414.3	46.5	354	381	413	444	476
7	2010	79804	422.5	53.2	355	384	421	455	491
	2011	80266	416.2	49.6	355	382	414	446	484
	2012	81501	430.5	53.0	362	392	429	465	502
	2013	82491	431.8	49.9	369	395	429	464	494
8	2010	79919	434.9	46.6	377	403	432	462	495
	2011	79384	435.7	47.9	377	403	432	466	501
	2012	79958	438.5	50.3	375	402	435	470	501
	2013	81432	439.4	49.3	378	405	434	468	508
HS	2010(Cohort 12)	75858	499.0	51.2	437	462	496	530	563
	2011(Cohort 13)	73400	501.5	47.3	441	467	501	532	565
	2012(Cohort 14)	75052	501.8	45.8	444	468	500	529	561
	2013(Cohort 15)	74999	501.5	42.6	448	472	499	529	559
HS	2010(Cohort 11)	17631	461.9	37.6	425	439	458	478	512
	2011(Cohort 12)	22574	470.6	31.2	431	449	469	491	508
	2012(Cohort 13)	18972	467.4	26.9	434	449	468	483	500
	2013(Cohort 14)	19133	469.4	25.6	438	451	470	485	499
HS	2010(Cohort 9 & 10)	3126	445.6	30.9	417	430	446	462	478
	2011(Cohort 11)	13288	461.8	27.5	426	441	463	479	495
	2012(Cohort 12)	12627	463.7	24.6	431	446	463	479	493
	2013(Cohort 13)	11625	464.6	23.3	435	448	465	481	494

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Table 8.2.2
Longitudinal Comparison of Performance Level DistributionMathematics CRT

			% at Performance Level			
Grade	Year	N	FFBS	AS	MS	ES
3	2010	83106	11	25	43	22
	2011	81633	10	22	43	24
	2012	82905	8	23	42	27
	2013	83196	9	23	42	26
4	2010	81688	15	21	40	23
	2011	82040	14	19	37	30
	2012	81924	13	21	39	28
	2013	83048	14	21	40	25
5	2010	81089	19	22	38	20
	2011	81829	19	21	39	21
	2012	82386	16	21	40	23
	2013	82223	16	21	43	21
6	2010	79893	21	23	34	23
	2011	81277	17	20	33	30
	2012	81982	17	23	34	27
	2013	82587	15	22	38	25
7	2010	79804	22	20	33	24
	2011	80266	25	22	34	19
	2012	81501	19	19	33	29
	2013	82491	17	18	36	29
8	2010	79919	29	14	37	20
	2011	79384	29	14	36	21
	2012	79958	30	13	33	24
	2013	81432	29	14	35	23
HS	2010(Cohort 12)	75858	30	12	35	23
	2011(Cohort 13)	73400	27	12	39	21
	2012(Cohort 14)	75052	27	13	40	21
	2013(Cohort 15)	74999	25	13	43	19
HS	2010(Cohort 11)	17631	67	14	14	5
	2011(Cohort 12)	22574	51	21	26	3
	2012(Cohort 13)	18972	56	23	20	1
	2013(Cohort 14)	19133	52	24	23	1
HS	2010(Cohort 9 & 10)	3126	85	9	6	1
	2011(Cohort 11)	13288	63	19	16	1
	2012(Cohort 12)	12627	62	22	16	1
	2013(Cohort 13)	11625	59	24	17	0

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Table 8.2.3
Longitudinal Comparison of Scale Scores Reading CRT

			Scale Score		Percentiles				
Grade	Year	N	M	SD	P10	P25	P50	P75	P90
3	2005	77047	448.3	51.0	379	413	451	486	516
	2006	78487	451.5	50.8	380	418	454	486	516
	2007	79774	455.2	50.9	387	420	455	489	520
	2008	83305	456.4	53.1	384	421	455	490	520
	2009	83003	459.5	52.4	387	424	459	496	520
	2010	83105	460.5	50.1	391	428	464	496	520
	2011	81629	457.5	46.7	395	428	460	490	511
	2012	82909	463.1	48.1	399	431	462	496	526
	2013	83187	463.7	46.8	399	432	463	494	519
4	2005	75685	468.7	53.6	398	431	469	506	531
	2006	78924	469.7	49.7	401	436	472	504	529
	2007	79270	470.7	52.1	397	433	472	504	529
	2008	81589	474.5	51.0	405	440	478	506	531
	2009	82366	477.5	51.2	408	444	478	511	541
	2010	81673	480.3	49.8	416	446	479	515	540
	2011	82025	479.5	50.1	412	446	479	509	540
	2012	81933	482.4	45.3	420	452	484	511	538
	2013	83045	484.0	44.1	426	452	484	514	539
5	2005	76379	486.7	48.2	421	451	489	517	545
	2006	78157	489.3	47.7	426	456	491	519	547
	2007	79821	489.8	45.4	428	459	490	522	550
	2008	81330	491.4	47.3	427	457	493	527	549
	2009	81068	496.3	48.6	430	465	499	532	558
	2010	81101	496.4	46.2	433	464	501	532	554
	2011	81832	497.2	44.5	436	467	501	526	554
	2012	82383	503.1	44.4	442	473	507	536	557
	2013	82223	505.0	44.1	441	477	511	536	555
6	2005	75940	494.2	49.3	427	460	493	526	561
	2006	78631	496.8	48.2	430	463	500	530	559
	2007	78842	499.0	48.4	433	466	499	533	562
	2008	81604	499.5	48.8	435	467	502	531	561
	2009	80840	501.4	48.3	436	469	504	535	559
	2010	79912	508.9	42.8	450	483	510	540	562
	2011	81282	513.2	42.9	454	486	519	540	562
	2012	82027	515.7	44.8	453	486	520	545	572
	2013	82598	515.4	43.1	456	488	518	547	566

Note. Students without a valid attempt, invalidation, off-grade, a non-standard accommodation (not in 2008), home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers (not in 2005), attending state hospital schools (not in 2005), and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

(table continues)

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Table 8.2.3 (continued)
Longitudinal Comparison of Scale Scores Reading CRT

			Scale Score		Percentiles				
Grade	Year	N	M	SD	P10	P25	P50	P75	P90
7	2005	77541	509.1	51.4	439	472	510	545	576
	2006	77917	512.1	51.8	444	474	511	551	582
	2007	79246	514.2	53.2	444	477	514	549	580
	2008	80827	515.8	51.1	446	479	518	549	580
	2009	81186	517.3	49.6	449	482	517	548	580
	2010	79818	525.1	48.1	460	493	526	557	589
	2011	80281	523.2	46.0	460	493	526	557	580
	2012	81527	536.0	45.7	477	506	539	564	593
	2013	82502	538.3	46.8	474	507	538	571	599
8	2005	76356	515.6	52.8	448	478	517	553	582
	2006	78067	518.7	53.2	448	482	520	558	590
	2007	77849	520.7	56.9	448	481	520	558	589
	2008	80537	523.0	56.4	449	482	521	559	590
	2009	79667	527.4	57.2	451	488	528	562	597
	2010	79940	529.5	55.1	457	495	534	568	600
	2011	79448	521.1	53.5	449	486	523	560	588
	2012	79961	526.5	50.9	456	494	531	561	586
	2013	81433	526.3	50.3	458	492	527	561	593
HS	2005 (Grade 10)	68788	699.8	50.4	631	667	701	731	762
	2006 (Cohort 08)	72191	703.2	48.1	635	669	703	737	765
	2007 (Cohort 09)	74071	703.2	50.3	634	668	703	739	770
	2008 (Cohort 10)	75491	703.8	48.4	636	671	706	740	768
	2009 (Cohort 11)	75524	706.5	50.5	639	672	708	739	769
	2010(Cohort 12)	76493	710.4	49.6	643	676	712	743	774
	2011(Cohort 13)	75618	711.5	50.3	645	678	711	742	774
	2012(Cohort 14)	77283	714.3	45.9	653	684	717	747	773
	2013(Cohort 15)	76889	715.1	40.7	662	688	715	743	766
HS	2005 (Grade 11)	18204	669.2	43.6	615	638	667	693	720
	2006 (Cohort 07)	12232	661.2	36.0	619	635	658	680	708
	2007 (Cohort 08)	12096	657.9	36.2	613	634	657	679	699
	2008 (Cohort 09)	11779	657.4	34.7	614	632	656	678	698
	2009 (Cohort 10)	16789	683.0	55.6	619	643	672	722	769
	2010(Cohort 11)	15295	680.7	51.8	622	643	673	708	757
	2011(Cohort 12)	14452	682.7	53.7	620	641	671	720	764
	2012(Cohort 13)	11229	675.2	44.0	626	644	669	692	741
	2013(Cohort 14)	9760	679.0	41.4	633	650	673	699	743

Note. Students without a valid attempt, invalidation, off-grade, a non-standard accommodation (not in 2008), home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers (not in 2005), attending state hospital schools (not in 2005), and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

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Table 8.2.3 (continued)
Longitudinal Comparison of Scale Scores Reading CRT

			Scale Score		Percentiles				
Grade	Year	N	M	SD	P10	P25	P50	P75	P90
HS	2005 (Grade 12)	8882	651.9	40.7	606	623	649	677	706
	2006 (Cohort 06)	6261	663.6	43.1	619	635	658	684	721
	2007 (Cohort 07)	5505	654.0	35.8	609	630	653	675	695
	2008 (Cohort 08)	5248	653.1	33.4	614	632	652	675	694
	2009 (Cohort 09)	5948	655.1	38.4	610	629	654	676	699
	2010(Cohort 9 & 10)	7820	658.8	37.9	613	631	658	680	704
	2011(Cohort 11)	6792	657.8	37.4	616	633	656	678	702
	2012(Cohort 12)	6181	662.0	35.9	621	640	657	681	704
	2013(Cohort 13)	5096	665.3	32.8	628	641	662	684	703

Note. Students without a valid attempt, invalidation, off-grade, a non-standard accommodation (not in 2008), home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers (not in 2005), attending state hospital schools (not in 2005), and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

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Table 8.2.4
Longitudinal Comparison of Performance Level Distribution Reading CRT

			% at Performance Level			
Grade	Year	N	FFBS	AS	MS	ES
3	2005	77047	10	26	55	10
	2006	78487	9	24	56	11
	2007	79774	7	24	57	12
	2008	83305	8	24	56	13
	2009	83003	6	22	58	14
	2010	83105	6	21	60	13
	2011	81629	5	21	64	10
	2012	82909	4	21	61	15
	2013	83187	4	21	62	13
4	2005	75685	12	24	54	9
	2006	78924	11	24	57	8
	2007	79270	11	24	55	10
	2008	81589	9	21	60	9
	2009	82366	8	20	60	12
	2010	81673	5	23	59	13
	2011	82025	5	24	59	13
	2012	81933	4	20	63	12
	2013	83045	2	21	65	12
5	2005	76379	10	24	58	9
	2006	78157	9	24	58	9
	2007	79821	8	23	63	7
	2008	81330	10	22	60	8
	2009	81068	8	18	63	11
	2010	81101	8	20	66	7
	2011	81832	7	19	68	6
	2012	82383	5	17	66	12
	2013	82223	5	16	70	9
6	2005	75940	12	25	57	7
	2006	78631	10	25	60	4
	2007	78842	9	24	59	7
	2008	81604	10	22	61	8
	2009	80840	9	21	65	5
	2010	79912	6	17	70	7
	2011	81282	5	14	72	9
	2012	82027	4	16	69	11
	2013	82598	4	17	71	9

Note. Students without a valid attempt, invalidation, off-grade, a non-standard accommodation (not in 2008), home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers (not in 2005), attending state hospital schools (not in 2005), and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

(table continues)

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Table 8.2.4 (continued)
Longitudinal Comparison of Performance Level Distribution Reading CRT

			% at Performance Level			
Grade	Year	N	FFBS	AS	MS	ES
7	2005	77541	10	25	58	7
	2006	77917	10	25	58	7
	2007	79246	9	24	58	9
	2008	80827	9	21	62	8
	2009	81186	8	20	65	8
	2010	79818	5	17	67	10
	2011	80281	5	18	69	8
	2012	81527	2	14	72	12
	2013	82502	1	14	71	14
8	2005	76356	11	26	57	6
	2006	78067	11	27	58	5
	2007	77849	11	26	56	7
	2008	80537	11	22	60	7
	2009	79667	10	21	60	9
	2010	79940	9	17	68	6
	2011	79448	10	21	64	5
	2012	79961	9	19	66	6
	2013	81433	8	20	65	7
HS	2005 (Grade 10)	68788	8	21	63	8
	2006 (Cohort 08)	72191	6	23	64	8
	2007 (Cohort 09)	74071	8	20	65	7
	2008 (Cohort 10)	75491	6	21	66	7
	2009 (Cohort 11)	75524	6	20	66	8
	2010(Cohort 12)	76493	5	18	66	11
	2011(Cohort 13)	75618	5	17	66	12
	2012(Cohort 14)	77283	3	17	69	11
	2013(Cohort 15)	76889	2	15	76	8
HS	2005 (Grade 11)	18204	15	39	43	3
	2006 (Cohort 07)	12232	15	53	31	1
	2007 (Cohort 08)	12096	21	48	31	1
	2008 (Cohort 09)	11779	17	52	30	1
	2009 (Cohort 10)	16789	13	38	41	7
	2010(Cohort 11)	15295	12	39	41	7
	2011(Cohort 12)	14452	13	37	41	8
	2012(Cohort 13)	11229	11	46	38	4
	2013(Cohort 14)	9760	7	44	46	3

Note. Students without a valid attempt, invalidation, off-grade, a non-standard accommodation (not in 2008), home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers (not in 2005), attending state hospital schools (not in 2005), and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

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Table 8.2.4 (continued)
Longitudinal Comparison of Performance Level Distribution Reading CRT

			% at Performance Level			
Grade	Year	N	FFBS	AS	MS	ES
HS	2005 (Grade 12)	8882	28	44	28	1
	2006 (Cohort 06)	6261	17	50	30	3
	2007 (Cohort 07)	5505	24	49	26	1
	2008 (Cohort 08)	5248	20	55	25	0
	2009 (Cohort 09)	5948	21	53	25	1
	2010(Cohort 9 & 10)	7820	18	52	29	1
	2011(Cohort 11)	6792	19	52	28	1
	2012(Cohort 12)	6181	15	55	29	1
	2013(Cohort 13)	5096	9	56	34	1

Note. Students without a valid attempt, invalidation, off-grade, a non-standard accommodation (not in 2008), home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers (not in 2005), attending state hospital schools (not in 2005), and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

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Table 8.2.5
Base Year Scale Scores Writing CRT

			Scale Score		Percentiles				
Grade	Year	N	M	SD	P10	P25	P50	P75	P90
5	2011	81258	499.9	49.5	442	467	498	524	554
	2012	81235	503.1	51.8	447	470	498	525	572
	2013	81573	501.9	45.6	451	474	499	525	550
6	2011	80698	500.0	49.9	442	467	501	526	565
	2012	81377	502.0	50.9	444	472	498	527	567
	2013	81711	500.3	46.6	446	472	500	527	551
7	2011	79778	499.8	49.4	444	470	495	520	565
	2012	80937	500.6	48.5	446	471	496	524	552
	2013	81525	497.3	42.7	447	472	495	520	547
HS	2011(Cohort 13)	75788	499.5	49.9	439	469	499	528	562
HS(A)	2012(Cohort 14)	74849	501.7	46.7	445	471	501	529	561
HS(T)	2012(Cohort 14)	1610	483.6	45.1	427	454	483	512	540
HS(A)	2013(Cohort 15)	74635	504.4	46.9	450	474	501	532	564
HS(T)	2013(Cohort 15)	1686	488.5	46.7	431	458	486	517	548
HS	2011(Cohort 12)	13551	470.6	51.9	410	435	464	505	543
HS(A)	2012(Cohort 13)	16003	476.4	49.4	421	445	469	498	548
HS(T)	2012(Cohort 13)	1072	467.1	41.8	417	442	465	489	515
HS(A)	2013(Cohort 14)	13193	475.4	49.0	423	445	468	497	547
HS(T)	2013(Cohort 14)	840	471.9	40.6	428	449	469	490	518.5
HS	2011(Cohort 11)	6169	444.3	39.9	397	418	443	469	494
HS(A)	2012(Cohort 12)	6626	453.8	37.0	409	431	453	473	498
HS(T)	2012(Cohort 12)	410	453.5	38.1	409	425	454	479	501
HS(A)	2013(Cohort 13)	6620	456.0	35.5	413	435	456	474	497
HS(T)	2013(Cohort 13)	427	456.5	34.7	413	436	456	475	495

Note. Students without a valid attempt, invalidation, off-grade, a non-standard accommodation, home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers, attending state hospital, and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

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Table 8.2.6
Base Year Performance Level Distribution Writing CRT

			% at Performance Level			
Grade	Year	N	FFBS	AS	MS	ES
5	2011	81258	8	37	51	5
	2012	81235	7	36	53	3
	2013	81573	7	37	53	4
6	2011	80698	12	31	49	7
	2012	81377	12	31	49	8
	2013	81711	11	35	48	6
7	2011	79778	12	35	48	6
	2012	80937	12	36	47	5
	2013	81525	10	37	51	2
HS	2011(Cohort 13)	75788	8	25	63	5
HS(A)	2012(Cohort 14)	74849	6	24	66	4
HS(T)	2012(Cohort 14)	1610	12	35	52	2
HS(A)	2013(Cohort 15)	74635	5	25	66	5
HS(T)	2013(Cohort 15)	1686	10	33	54	2
HS	2011(Cohort 12)	13551	22	39	37	2
HS(A)	2012(Cohort 13)	16003	16	44	37	3
HS(T)	2012(Cohort 13)	1072	17	49	32	1
HS(A)	2013(Cohort 14)	13193	15	48	34	4
HS(T)	2013(Cohort 14)	840	13	50	37	1
HS	2011(Cohort 11)	6169	37	45	18	0
HS(A)	2012(Cohort 12)	6626	26	53	21	0
HS(T)	2012(Cohort 12)	410	31	46	23	0
HS(A)	2013(Cohort 13)	6620	23	57	20	0
HS(T)	2013(Cohort 13)	427	19	61	19	1

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students without a valid attempt, invalidation, off-grade, a non-standard accommodation, home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers, attending state hospital schools, and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

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Table 8.2.7
Longitudinal Comparison of Scale Scores
Science CRT

			Scale Score		Percentiles				
Grade	Year	N	M	SD	P10	P25	P50	P75	P90
4	2008	80296	501.8	50.2	436	466	503	536	567
	2009	81724	508.2	50.5	443	475	508	540	567
	2010	80982	513.8	52.7	446	478	515	547	583
	2011	81934	534.8	61.7	455	492	536	575	615
	2012	81892	518.9	57.6	448	478	514	554	589
	2013	83028	513.4	51.9	445	477	511	549	581
8	2008	79482	500.6	50.0	435	463	498	534	568
	2009	78703	506.4	50.0	439	471	506	539	571
	2010	79293	510.4	51.5	446	473	508	545	578
	2011	79409	517.7	47.6	454	484	521	551	578
	2012	80019	519.3	47.9	456	487	521	553	581
	2013	81485	516.7	43.1	459	486	518	544	571
HS	2008 (Cohort 10)	45286	477.3	50.1	414	440	475	510	543
	2009 (Cohort 11)	51195	475.8	49.7	410	439	477	508	541
	2010(Cohort 12)	53671	479.1	51.8	414	442	474	512	545
	2011(Cohort 13)	54610	484.6	58.3	407	443	484	524	559
	2011(Cohort 14)	19392	523.7	58.8	446	488	524	559	596
	2012(Cohort 14)	53344	487.0	62.6	403	441	487	528	569
	2012(Cohort 15)	21142	526.3	65.4	441	487	528	569	603
	2013(Cohort 15)	52650	485.7	56.0	414	442	482	521	562
	2013(Cohort 16)	24094	517.3	59.0	438	475	517	556	591

Note: Students without a valid attempt, invalidation, off-grade, a non-standard accommodation (not in 2008), home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers (not in 2005), attending state hospital schools (not in 2005), and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

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Table 8.2.8
Longitudinal Comparison of Performance Level Distribution
Science CRT

			% at Performance Level			
Grade	Year	N	FFBS	AS	MS	ES
4	2008	80296	22	25	35	18
	2009	81724	17	26	36	21
	2010	80982	17	22	33	28
	2011	81934	12	17	29	43
	2012	81892	16	21	31	32
	2013	83028	17	25	32	26
8	2008	79482	31	20	22	28
	2009	78703	26	19	23	32
	2010	79293	23	18	25	34
	2011	79409	17	17	27	39
	2012	80019	18	15	28	40
	2013	81485	16	18	29	37
HS	2008 (Cohort 10)	45286	49	19	20	12
	2009 (Cohort 11)	51195	50	18	22	11
	2010 (Cohort 12)	53671	50	16	21	14
	2011 (Cohort 13)	54610	43	15	23	18
	2011 (Cohort 14)	19392	19	12	27	41
	2012(Cohort 14)	53344	41	17	21	21
	2012(Cohort 15)	21142	20	14	23	43
	2013(Cohort 15)	52650	44	17	21	18
	2013(Cohort 16)	24094	23	15	25	36

Note: Students without a valid attempt, invalidation, off-grade, a non-standard accommodation (not in 2008), home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers (not in 2005), attending state hospital schools (not in 2005), and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

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PART 9: VALIDITY EVIDENCE

Part 9 of the technical report provides evidence supporting the reliability and validity of the 2013 AIMS 3-8 and high school assessments. All data presented in this section were computed using population test data available in the final electronic data files. The following AERA/APA/NCME standards are addressed: 1.5, 1.7, 2.1, 2.4, 2.10, 2.13, 3.16, 4.15, 6.5, 7.1, 7.3, and 7.10.

9.1 Reliability

AERA/APA/NCME *Standards for Educational and Psychological Testing* refer to reliability as the "consistency of [a measure] when the testing procedure is repeated on a population of individuals or groups." A reliable test produces stable scores; that is, very similar score distributions would result if the test were administered repeatedly under similar conditions to the same students without memory or fatigue affecting the scores. Reliability of the Spring 2013 AIMS assessments was estimated in two ways: internal consistency for all multiple-choice tests and reliability of hand scoring for all writing tests.

9.1.1 Measures of Internal Consistency

For tests consisting of only constructed response or multiple-choice items, Cronbach's alpha is a frequently used measure of internal consistency. Cronbach's alpha is computed as (Crocker & Algina, 1986)

$$\hat{\alpha} = \frac{k}{k-1}\left(1 - \frac{\sum \sigma_i^2}{\sigma_X^2}\right),$$

where k = number of items, σ_X^2 = the total score variance, and σ_i^2 = the variance of item i.

For tests consisting of a mixture of item types with differing numbers of maximum points, it is more appropriate to use stratified alpha (Feldt and Brennan, 1989). The stratified alpha is a weighted average of Cronbach's alpha for the different components of the test. This is the measure of internal consistency reported for the writing tests. The formula for calculating stratified alpha is

$$stratified\ \hat{\alpha} = 1 - \frac{\sum \sigma_{x_j}^2 \left(1 - \alpha_j\right)}{\sigma_x^2}$$

where

$\sigma_{x_j}^2$ is the variance of component j,

α_j is the reliability of component j, and

σ_x^2 is the variance of the total test.

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Reliability estimates for the multiple-choice tests administered as part of the Spring 2013 AIMS assessment are presented in Table 9.1.1.1 and Table 9.1.1.2. Note that a high degree of internal consistency is evident for all CRT tests. The reliability for the NRT assessment tends to be slightly lower than the corresponding CRT assessment due to the fewer number of items on each test. The reliability estimates for the AIMS writing tests are shown in Table 9.1.1.3.

In addition to the total test score, raw scores are reported at the Arizona strand and concept level. Internal consistency reliability estimates at the strand and concept level are reported in Tables 9.1.1.4 through 9.1.1.24.

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Table 9.1.1.1
Spring 2013 AIMS Internal Consistency

		CRT				NRT					
		Reading		**Math**		**Reading**		**Language**		**Math**	
Subgroup	Value	N	Alpha	N	Alpha	N	Alpha	N	Alpha	N	Alpha
Grade 3											
	Hispanic	36349	0.90	36354	0.93	36349	0.83	36349	0.77	36354	0.84
	Non-Hisp	46182	0.91	46186	0.94	46182	0.84	46182	0.79	46186	0.86
Ethnicity	White	66028	0.91	66037	0.94	66028	0.84	66028	0.79	66037	0.85
Ethnicity	Black	4823	0.91	4822	0.93	4823	0.83	4823	0.78	4822	0.86
Ethnicity	Asian	2540	0.91	2540	0.94	2540	0.84	2540	0.79	2540	0.84
Ethnicity	Am Indian	6191	0.89	6190	0.92	6191	0.82	6191	0.75	6190	0.83
Ethnicity	Hawaii	298	0.91	297	0.94	298	0.85	298	0.77	297	0.86
Ethnicity	Multiple	2254	0.91	2256	0.94	2254	0.83	2254	0.78	2256	0.85
Gender	Female	40249	0.91	40250	0.93	40249	0.83	40249	0.79	40250	0.85
Gender	Male	42694	0.92	42701	0.94	42694	0.85	42694	0.79	42701	0.86
ELL	Yes	6706	0.82	6713	0.89	6706	0.72	6706	0.66	6713	0.79
SPED	Yes	10121	0.91	10131	0.93	10121	0.85	10121	0.79	10131	0.86
Low SES	Yes	46521	0.90	46524	0.93	46521	0.83	46521	0.77	46524	0.84
Migrant	Yes	360	0.89	360	0.91	360	0.81	360	0.72	360	0.83
TOTAL		82985	0.91	82993	0.94	82985	0.84	82985	0.79	82993	0.86
Grade 4											
	Hispanic	35954	0.91	35966	0.92	35954	0.81	35954	0.79	35966	0.82
	Non-Hisp	46540	0.92	46530	0.93	46540	0.83	46540	0.81	46530	0.84
Ethnicity	White	66493	0.92	66495	0.93	66493	0.83	66493	0.81	66495	0.84
Ethnicity	Black	4711	0.90	4712	0.92	4711	0.80	4711	0.80	4712	0.84
Ethnicity	Asian	2478	0.91	2478	0.93	2478	0.82	2478	0.79	2478	0.84
Ethnicity	Am Indian	6013	0.90	6010	0.92	6013	0.79	6013	0.78	6010	0.83
Ethnicity	Hawaii	291	0.91	291	0.93	291	0.84	291	0.83	291	0.86
Ethnicity	Multiple	2132	0.91	2134	0.93	2132	0.82	2132	0.81	2134	0.84
Gender	Female	40676	0.91	40678	0.93	40676	0.82	40676	0.80	40678	0.83
Gender	Male	42152	0.92	42152	0.93	42152	0.83	42152	0.81	42152	0.85
ELL	Yes	6889	0.82	6896	0.89	6889	0.66	6889	0.69	6896	0.75
SPED	Yes	10273	0.91	10277	0.93	10273	0.82	10273	0.81	10277	0.83
Low SES	Yes	46038	0.91	46039	0.92	46038	0.81	46038	0.79	46039	0.83
Migrant	Yes	385	0.91	385	0.92	385	0.82	385	0.80	385	0.82
TOTAL		82863	0.92	82865	0.93	82863	0.83	82863	0.81	82865	0.84
Grade 5											
	Hispanic	35777	0.91	35784	0.92	35777	0.81	35777	0.77	35784	0.81
	Non-Hisp	45955	0.91	45948	0.93	45955	0.82	45955	0.80	45948	0.84
Ethnicity	White	65907	0.91	65903	0.93	65907	0.82	65907	0.79	65903	0.83
Ethnicity	Black	4806	0.91	4808	0.92	4806	0.82	4806	0.79	4808	0.82
Ethnicity	Asian	2449	0.91	2448	0.93	2449	0.81	2449	0.78	2448	0.85
Ethnicity	Am Indian	5966	0.91	5968	0.92	5966	0.81	5966	0.76	5968	0.80
Ethnicity	Hawaii	233	0.91	233	0.92	233	0.82	233	0.78	233	0.82
Ethnicity	Multiple	2017	0.91	2017	0.92	2017	0.80	2017	0.78	2017	0.83
Gender	Female	40328	0.91	40329	0.92	40328	0.81	40328	0.78	40329	0.82
Gender	Male	41699	0.92	41698	0.93	41699	0.83	41699	0.80	41698	0.85
ELL	Yes	4849	0.82	4852	0.86	4849	0.69	4849	0.58	4852	0.66
SPED	Yes	10246	0.91	10247	0.91	10246	0.83	10246	0.77	10247	0.80
Low SES	Yes	45398	0.91	45401	0.92	45398	0.81	45398	0.77	45401	0.81
Migrant	Yes	398	0.92	398	0.93	398	0.83	398	0.78	398	0.83
TOTAL		82068	0.92	82068	0.93	82068	0.82	82068	0.80	82068	0.84

(table continues)

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Table 9.1.1.1 (continued)
Spring 2013 AIMS Internal Consistency

		CRT				NRT					
		Reading		**Math**		**Reading**		**Language**		**Math**	
Subgroup	Value	N	Alpha	N	Alpha	N	Alpha	N	Alpha	N	Alpha
Grade 6											
	Hispanic	35867	0.90	35862	0.92	35867	0.76	35867	0.75	35862	0.84
	Non-Hisp	46181	0.90	46176	0.93	46181	0.77	46181	0.78	46176	0.87
Ethnicity	White	66450	0.90	66442	0.93	66450	0.77	66450	0.77	66442	0.86
Ethnicity	Black	4703	0.90	4700	0.92	4703	0.78	4703	0.77	4700	0.85
Ethnicity	Asian	2519	0.90	2518	0.93	2519	0.77	2519	0.79	2518	0.86
Ethnicity	Am Indian	5813	0.89	5813	0.91	5813	0.76	5813	0.73	5813	0.83
Ethnicity	Hawaii	291	0.90	291	0.92	291	0.75	291	0.74	291	0.85
Ethnicity	Multiple	1980	0.90	1981	0.93	1980	0.77	1980	0.77	1981	0.86
Gender	Female	40400	0.89	40394	0.92	40400	0.76	40400	0.75	40394	0.85
Gender	Male	41973	0.91	41969	0.93	41973	0.79	41973	0.78	41969	0.87
ELL	Yes	3353	0.80	3352	0.86	3353	0.59	3353	0.62	3352	0.72
SPED	Yes	9658	0.89	9662	0.90	9658	0.78	9658	0.75	9662	0.81
Low SES	Yes	45047	0.90	45034	0.92	45047	0.77	45047	0.75	45034	0.84
Migrant	Yes	388	0.90	386	0.93	388	0.77	388	0.78	386	0.86
TOTAL		82415	0.91	82404	0.93	82415	0.78	82415	0.77	82404	0.86
Grade 7											
	Hispanic	35292	0.90	35282	0.93	35292	0.76	35292	0.75	35282	0.85
	Non-Hisp	46749	0.91	46748	0.94	46749	0.78	46749	0.78	46748	0.88
Ethnicity	White	66144	0.91	66134	0.93	66144	0.78	66144	0.78	66134	0.87
Ethnicity	Black	4892	0.91	4892	0.93	4892	0.78	4892	0.78	4892	0.85
Ethnicity	Asian	2400	0.92	2399	0.94	2400	0.79	2400	0.80	2399	0.89
Ethnicity	Am Indian	5946	0.90	5948	0.92	5946	0.75	5946	0.74	5948	0.83
Ethnicity	Hawaii	256	0.91	256	0.93	256	0.79	256	0.81	256	0.88
Ethnicity	Multiple	1938	0.90	1938	0.93	1938	0.77	1938	0.77	1938	0.87
Gender	Female	40493	0.90	40488	0.93	40493	0.76	40493	0.77	40488	0.87
Gender	Male	41763	0.91	41758	0.94	41763	0.79	41763	0.79	41758	0.88
ELL	Yes	1708	0.72	1708	0.85	1708	0.54	1708	0.54	1708	0.68
SPED	Yes	9108	0.88	9108	0.90	9108	0.73	9108	0.73	9108	0.79
Low SES	Yes	43995	0.90	43987	0.93	43995	0.77	43995	0.76	43987	0.85
Migrant	Yes	387	0.89	388	0.92	387	0.76	387	0.76	388	0.82
TOTAL		82302	0.91	82292	0.94	82302	0.78	82302	0.78	82292	0.87
Grade 8											
	Hispanic	34588	0.89	34588	0.92	34588	0.76	34588	0.71	34588	0.85
	Non-Hisp	46398	0.90	46398	0.93	46398	0.78	46398	0.74	46398	0.87
Ethnicity	White	65559	0.89	65558	0.93	65559	0.77	65559	0.73	65558	0.87
Ethnicity	Black	4725	0.89	4723	0.92	4725	0.77	4725	0.74	4723	0.85
Ethnicity	Asian	2339	0.91	2339	0.95	2339	0.79	2339	0.78	2339	0.89
Ethnicity	Am Indian	5780	0.88	5782	0.91	5780	0.75	5780	0.70	5782	0.84
Ethnicity	Hawaii	286	0.90	286	0.93	286	0.78	286	0.74	286	0.86
Ethnicity	Multiple	1938	0.90	1938	0.93	1938	0.78	1938	0.74	1938	0.86
Gender	Female	39807	0.89	39811	0.93	39807	0.75	39807	0.72	39811	0.86
Gender	Male	41403	0.90	41398	0.94	41403	0.79	41403	0.75	41398	0.87
ELL	Yes	1267	0.80	1267	0.85	1267	0.67	1267	0.60	1267	0.74
SPED	Yes	8581	0.87	8581	0.88	8581	0.76	8581	0.73	8581	0.77
Low SES	Yes	42960	0.89	42957	0.92	42960	0.76	42960	0.72	42957	0.85
Migrant	Yes	405	0.89	405	0.91	405	0.75	405	0.71	405	0.84
TOTAL		81243	0.90	81242	0.93	81243	0.78	81243	0.74	81242	0.87

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Table 9.1.1.1 (continued)
Spring 2013 AIMS Internal Consistency

		CRT			
		Reading		**Math**	
Subgroup	Value	N	Alpha	N	Alpha
HS					
	Hispanic	39531	0.88	47964	0.91
	Non-Hisp	50718	0.90	56551	0.94
Ethnicity	White	71515	0.89	82890	0.93
Ethnicity	Black	5667	0.88	6817	0.91
Ethnicity	Asian	2769	0.92	2819	0.96
Ethnicity	Am Indian	6145	0.87	7533	0.89
Ethnicity	Hawaii	341	0.90	390	0.92
Ethnicity	Multiple	2302	0.89	2980	0.93
Gender	Female	43970	0.89	51995	0.93
Gender	Male	46720	0.90	52858	0.94
ELL	Yes	2578	0.72	2491	0.83
SPED	Yes	11296	0.84	12620	0.83
Low SES	Yes	45309	0.88	53987	0.91
Migrant	Yes	658	0.86	719	0.89
TOTAL		90777	0.90	104928	0.93

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Table 9.1.1.2
Spring 2013 AIMS Internal Consistency for Science

Subgroup	Value	N	Alpha
Grade 4			
	Hispanic	35931	0.88
	Non-Hisp	46545	0.90
Ethnicity	White	66471	0.90
Ethnicity	Black	4718	0.88
Ethnicity	Asian	2482	0.91
Ethnicity	Am Indian	6015	0.86
Ethnicity	Hawaii	291	0.91
Ethnicity	Multiple	2134	0.90
Gender	Female	40651	0.90
Gender	Male	42160	0.91
ELL	Yes	6882	0.74
SPED	Yes	10288	0.89
Low SES	Yes	46035	0.88
Migrant	Yes	386	0.84
TOTAL		82846	0.90
Grade 8			
	Hispanic	34614	0.86
	Non-Hisp	46427	0.88
Ethnicity	White	65600	0.88
Ethnicity	Black	4724	0.87
Ethnicity	Asian	2338	0.90
Ethnicity	Am Indian	5792	0.86
Ethnicity	Hawaii	286	0.88
Ethnicity	Multiple	1935	0.88
Gender	Female	39828	0.87
Gender	Male	41433	0.89
ELL	Yes	1270	0.72
SPED	Yes	8597	0.86
Low SES	Yes	43007	0.87
Migrant	Yes	407	0.85
TOTAL		81293	0.88
HS			
	Hispanic	31902	0.92
	Non-Hisp	44026	0.93
Ethnicity	White	61673	0.93
Ethnicity	Black	4403	0.92
Ethnicity	Asian	2400	0.94
Ethnicity	Am Indian	4320	0.90
Ethnicity	Hawaii	263	0.93
Ethnicity	Multiple	2113	0.93
Gender	Female	37926	0.92
Gender	Male	38437	0.94
ELL	Yes	1156	0.72
SPED	Yes	6858	0.88
Low SES	Yes	35009	0.92
Migrant	Yes	421	0.88
TOTAL		76456	0.93

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Table 9.1.1.3
Spring 2013 AIMS Internal Consistency for Writing

Subgroup	Value	N	Alpha
Grade 5			
	Hispanic	35471	0.83
	Non-Hisp	45625	0.85
Ethnicity	White	65489	0.85
Ethnicity	Black	4739	0.84
Ethnicity	Asian	2422	0.84
Ethnicity	Am Indian	5880	0.81
Ethnicity	Hawaii	233	0.84
Ethnicity	Multiple	2001	0.84
Gender	Female	40123	0.84
Gender	Male	41266	0.85
ELL	Yes	4677	0.67
SPED	Yes	10064	0.83
Low SES	Yes	44947	0.83
Migrant	Yes	387	0.83
TOTAL		81426	0.85
Grade 6			
	Hispanic	35424	0.82
	Non-Hisp	45755	0.83
Ethnicity	White	65830	0.83
Ethnicity	Black	4642	0.83
Ethnicity	Asian	2484	0.82
Ethnicity	Am Indian	5684	0.80
Ethnicity	Hawaii	290	0.81
Ethnicity	Multiple	1970	0.82
Gender	Female	40145	0.82
Gender	Male	41351	0.83
ELL	Yes	3177	0.67
SPED	Yes	9339	0.81
Low SES	Yes	44409	0.82
Migrant	Yes	381	0.83
TOTAL		81536	0.83
Grade 7			
	Hispanic	34897	0.83
	Non-Hisp	46185	0.84
Ethnicity	White	65489	0.84
Ethnicity	Black	4796	0.84
Ethnicity	Asian	2370	0.85
Ethnicity	Am Indian	5815	0.82
Ethnicity	Hawaii	250	0.87
Ethnicity	Multiple	1912	0.84
Gender	Female	40237	0.83
Gender	Male	41054	0.85
ELL	Yes	1563	0.65
SPED	Yes	8777	0.79
Low SES	Yes	43356	0.83
Migrant	Yes	379	0.83
TOTAL		81335	0.84

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Table 9.1.1.3
Spring 2013 AIMS Internal Consistency for Writing (Continued)

Subgroup	Value	N	Alpha
HS(Prompt A)			
	Hispanic	41039	0.79
	Non-Hisp	51607	0.82
Ethnicity	White	73710	0.81
Ethnicity	Black	5693	0.80
Ethnicity	Asian	2823	0.86
Ethnicity	Am Indian	6300	0.76
Ethnicity	Hawaii	352	0.82
Ethnicity	Multiple	2331	0.80
Gender	Female	44655	0.82
Gender	Male	48480	0.81
ELL	Yes	2492	0.61
SPED	Yes	11429	0.72
Low SES	Yes	46772	0.79
Migrant	Yes	675	0.78
TOTAL		93261	0.82
HS(Prompt T)			
	Hispanic	1268	0.76
	Non-Hisp	1560	0.81
Ethnicity	White	1990	0.80
Ethnicity	Black	208	0.78
Ethnicity	Asian	44	0.81
Ethnicity	Am Indian	366	0.72
Ethnicity	Hawaii	7	0.72
Ethnicity	Multiple	79	0.81
Gender	Female	1242	0.80
Gender	Male	1617	0.79
ELL	Yes	81	0.59
SPED	Yes	532	0.70
Low SES	Yes	1631	0.76
Migrant	Yes	31	0.57
TOTAL		2868	0.80

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Table 9.1.1.4
Spring 2013 AIMS Strand/Concept Internal Consistency

Mathematics Grade 3

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Number and Operations		28	83196	17.25	6.23	0.87
	Concept 1: Number Sense	11	83196	6.81	2.53	0.70
	Concept 2: Numerical Operations	13	83196	8.12	3.23	0.79
	Concept 3: Estimation	4	83196	2.32	1.22	0.52
2. Data Analysis, Probability, and Discrete Mathematics		8	83196	5.25	1.92	0.65
	Concept 1: Data Analysis (Statistics)	4	83196	2.94	1.04	0.49
	Concept 3/4: Systematic Listing and Counting/Vertex-Edge Graphs	4	83196	2.31	1.22	0.51
3. Patterns, Algebra, and Functions		11	83196	7.68	2.67	0.78
	Concept 1: Patterns	4	83196	2.84	1.13	0.55
	Concept 2/3: Functions and Relationships/Algebraic Representations	7	83196	4.83	1.83	0.70
4. Geometry and Measurement		12	83196	8.57	2.30	0.67
	Concept 4: Measurement	6	83196	3.78	1.55	0.59
	Concept 1/2: Geometric Properties/Transformation of Shapes	6	83196	4.79	1.13	0.42
5. Structure and Logic		7	83196	4.10	1.76	0.58
	Concept 1/2: Algorithms and Algorithmic Thinking/ Logic, Reasoning, Problem Solving, and Proof	7	83196	4.10	1.76	0.58

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Table 9.1.1.5
Spring 2013 AIMS Strand/Concept Internal Consistency

Mathematics Grade 4

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Number and Operations		27	83048	19.25	5.10	0.84
	Concept 1: Number Sense	11	83048	8.17	2.14	0.66
	Concept 2: Numerical Operations	12	83048	8.10	2.72	0.73
	Concept 3: Estimation	4	83048	2.97	1.01	0.37
2. Data Analysis, Probability, and Discrete Mathematics		8	83048	5.09	1.94	0.63
	Concept 1: Data Analysis (Statistics)	4	83048	2.98	1.07	0.48
	Concept 2/3/4: Probability/Systematic Listing and Counting/Vertex-Edge Graphs	4	83048	2.11	1.25	0.50
3. Patterns, Algebra, and Functions		12	83048	8.81	2.76	0.77
	Concept 1: Patterns	5	83048	3.86	1.27	0.58
	Concept 3/4: Algebraic Representations/Analysis of Change	7	83048	4.95	1.79	0.67
4. Geometry and Measurement		13	83048	7.26	2.87	0.70
	Concept 1: Geometric Properties	5	83048	2.42	1.29	0.43
	Concept 3: Coordinate Geometry	4	83048	2.27	1.28	0.56
	Concept 4: Measurement	4	83048	2.57	1.15	0.45
5. Structure and Logic		8	83048	4.79	2.01	0.66
	Concept 1/2: Algorithms and Algorithmic Thinking/ Logic, Reasoning, Problem Solving, and Proof	8	83048	4.79	2.01	0.66

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Table 9.1.1.6
Spring 2013 AIMS Strand/Concept Internal Consistency

Mathematics Grade 5

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Number and Operations		25	82223	16.17	5.24	0.84
	Concept 1: Number Sense	11	82223	6.77	2.59	0.72
	Concept 2: Numerical Operations	10	82223	6.86	2.50	0.75
	Concept 3: Estimation	4	82223	2.55	1.01	0.28
2. Data Analysis, Probability, and Discrete Mathematics		12	82223	8.30	2.72	0.74
	Concept 1: Data Analysis (Statistics)	4	82223	2.81	1.11	0.49
	Concept 2: Probability	4	82223	2.93	1.07	0.49
	Concept 3/4: Systematic Listing and Counting/Vertex-Edge Graphs	4	82223	2.56	1.21	0.53
3. Patterns, Algebra, and Functions		11	82223	6.46	2.46	0.65
	Concept 1: Patterns	4	82223	2.16	1.12	0.41
	Concept 3/4: Algebraic Representations/Analysis of Change	7	82223	4.30	1.74	0.55
4. Geometry and Measurement		10	82223	6.61	1.96	0.56
	Concept 1: Geometric Properties	5	82223	3.64	1.21	0.49
	Concept 4: Measurement	5	82223	2.98	1.15	0.30
5. Structure and Logic		9	82223	5.43	1.96	0.63
	Concept 1/2: Algorithms and Algorithmic Thinking/ Logic, Reasoning, Problem Solving, and Proof	9	82223	5.43	1.96	0.63

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Table 9.1.1.7
Spring 2013 AIMS Strand/Concept Internal Consistency

Mathematics Grade 6

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Number and Operations		23	82587	13.55	5.08	0.84
	Concept 1: Number Sense	9	82587	6.14	2.22	0.72
	Concept 2: Numerical Operations	10	82587	5.00	2.41	0.65
	Concept 3: Estimation	4	82587	2.40	1.23	0.52
2. Data Analysis, Probability, and Discrete Mathematics		12	82587	7.31	2.75	0.70
	Concept 1: Data Analysis (Statistics)	4	82587	2.66	1.06	0.40
	Concept 2: Probability	4	82587	2.20	1.21	0.44
	Concept 3/4: Systematic Listing and Counting/Vertex-Edge Graphs	4	82587	2.45	1.22	0.50
3. Patterns, Algebra, and Functions		11	82587	7.94	2.46	0.74
	Concept 1/2: Patterns/Functions and Relationships	4	82587	3.15	1.16	0.67
	Concept 3/4: Algebraic Representations/Analysis of Change	7	82587	4.80	1.60	0.56
4. Geometry and Measurement		13	82587	7.91	2.66	0.67
	Concept 3: Coordinate Geometry	4	82587	3.04	1.13	0.62
	Concept 4: Measurement	5	82587	3.08	1.32	0.44
	Concept 1/2: Geometric Properties/Transformation of Shapes	4	82587	1.78	1.08	0.30
5. Structure and Logic		9	82587	5.11	2.02	0.56
	Concept 1/2: Algorithms and Algorithmic Thinking/ Logic, Reasoning, Problem Solving, and Proof	9	82587	5.11	2.02	0.56

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Table 9.1.1.8 Spring 2013 AIMS Strand/Concept Internal Consistency

Mathematics Grade 7

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Number and Operations		17	82491	9.84	4.23	0.83
	Concept 1: Number Sense	5	82491	2.75	1.54	0.61
	Concept 2: Numerical Operations	8	82491	4.70	2.09	0.68
	Concept 3: Estimation	4	82491	2.38	1.26	0.53
2. Data Analysis, Probability, and Discrete Mathematics		13	82491	8.02	3.22	0.77
	Concept 1: Data Analysis (Statistics)	4	82491	2.49	1.22	0.51
	Concept 2: Probability	5	82491	2.81	1.48	0.55
	Concept 3/4: Systematic Listing and Counting/Vertex-Edge Graphs	4	82491	2.73	1.21	0.57
3. Patterns, Algebra, and Functions		13	82491	8.42	2.79	0.72
	Concept 1/2: Patterns/Functions and Relationships	4	82491	2.71	1.15	0.47
	Concept 3/4: Algebraic Representations/Analysis of Change	9	82491	5.71	1.99	0.62
4. Geometry and Measurement		15	82491	9.81	3.12	0.72
	Concept 4: Measurement	6	82491	3.43	1.63	0.56
	Concept 1/2: Geometric Properties/Transformation of Shapes	9	82491	6.38	1.91	0.59
5. Structure and Logic		10	82491	6.71	2.23	0.65
	Concept 1/2: Algorithms and Algorithmic Thinking/ Logic, Reasoning, Problem Solving, and Proof	10	82491	6.71	2.23	0.65

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Table 9.1.1.9 Spring 2013 AIMS Strand/Concept Internal Consistency

Mathematics Grade 8

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Number and Operations		12	81432	7.24	2.72	0.71
	Concept 1: Number Sense	4	81432	2.28	1.14	0.43
	Concept 2: Numerical Operations	4	81432	2.32	1.14	0.43
	Concept 3: Estimation	4	81432	2.64	1.14	0.50
2. Data Analysis, Probability, and Discrete Mathematics		12	81432	8.13	2.63	0.71
	Concept 1: Data Analysis (Statistics)	4	81432	2.75	1.11	0.45
	Concept 2: Probability	4	81432	2.73	1.05	0.40
	Concept 3/4: Systematic Listing and Counting/Vertex-Edge Graphs	4	81432	2.65	1.18	0.51
3. Patterns, Algebra, and Functions		18	81432	11.39	3.95	0.80
	Concept 3: Algebraic Representations	8	81432	4.80	2.07	0.67
	Concept 4: Analysis of Change	4	81432	2.04	1.16	0.36
	Concept 1/2: Patterns/Functions and Relationships	6	81432	4.55	1.51	0.64
4. Geometry and Measurement		16	81432	8.81	3.41	0.73
	Concept 1: Geometric Properties	4	81432	2.23	1.15	0.44
	Concept 2: Transformation of Shapes	4	81432	2.43	1.11	0.31
	Concept 3: Coordinate Geometry	4	81432	2.20	1.21	0.46
	Concept 4: Measurement	4	81432	1.96	1.15	0.46
5. Structure and Logic		10	81432	6.29	2.36	0.70
	Concept 1/2: Algorithms and Algorithmic Thinking/ Logic, Reasoning, Problem Solving, and Proof	10	81432	6.29	2.36	0.70

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Table 9.1.1.10 Spring 2013 AIMS Strand/Concept Internal Consistency

Mathematics Grade 10

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Number and Operations		5	105757	2.19	1.14	0.24
	Concept 1/2/3: Number Sense/Numerical Operations/Estimation	5	105757	2.19	1.14	0.24
2. Data Analysis, Probability, and Discrete Mathematics		12	105757	6.87	2.60	0.66
	Concept 1: Data Analysis (Statistics)	4	105757	2.79	1.11	0.46
	Concept 2: Probability	4	105757	2.02	1.24	0.49
	Concept 3/4: Systematic Listing and Counting/Vertex-Edge Graphs	4	105757	2.05	1.11	0.34
3. Patterns, Algebra, and Functions		28	105757	15.52	5.70	0.84
	Concept 1: Patterns	4	105757	2.26	1.05	0.34
	Concept 2: Functions and Relationships	6	105757	3.41	1.37	0.41
	Concept 3: Algebraic Representations	14	105757	7.62	3.48	0.78
	Concept 4: Analysis of Change	4	105757	2.24	1.13	0.37
4. Geometry and Measurement		28	105757	14.62	5.43	0.81
	Concept 1: Geometric Properties	11	105757	6.31	2.39	0.66
	Concept 2: Transformation of Shapes	4	105757	2.14	1.14	0.34
	Concept 3: Coordinate Geometry	7	105757	3.31	1.66	0.46
	Concept 4: Measurement	6	105757	2.86	1.64	0.57
5. Structure and Logic		12	105757	6.58	2.74	0.69
	Concept 1/2: Algorithms and Algorithmic Thinking/ Logic, Reasoning, Problem Solving, and Proof	12	105757	6.58	2.74	0.69

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Table 9.1.1.11 Spring 2013 AIMS Strand/Concept Internal Consistency

Reading Grade 3

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Reading Process		24	83187	16.34	4.65	0.82
	Concept 1: Print Concepts	4	83187	2.47	1.12	0.38
	Concept 3: Phonics	5	83187	3.73	1.23	0.54
	Concept 4: Vocabulary	6	83187	4.30	1.47	0.61
	Concept 6: Comprehension	9	83187	5.85	2.02	0.62
2. Comprehending Literary Text		12	83187	7.28	2.70	0.72
	Concept 1: Elements of Literature	12	83187	7.28	2.70	0.72
3. Comprehending Informational Text		18	83187	11.32	3.89	0.79
	Concept 1: Expository Text	6	83187	4.00	1.45	0.55
	Concept 2: Functional Text	6	83187	3.47	1.55	0.50
	Concept 3: Persuasive Text	6	83187	3.86	1.71	0.65

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Table 9.1.1.12 Spring 2013 AIMS Strand/Concept Internal Consistency

Reading Grade 4

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Reading Process		12	83045	8.76	2.51	0.71
	Concept 4: Vocabulary	4	83045	2.95	1.00	0.46
	Concept 6: Comprehension	8	83045	5.81	1.83	0.62
2. Comprehending Literary Text		17	83045	11.50	3.47	0.77
	Concept 1: Elements of Literature	17	83045	11.50	3.47	0.77
3. Comprehending Informational Text		25	83045	15.30	5.40	0.85
	Concept 1: Expository Text	13	83045	7.81	2.92	0.73
	Concept 2: Functional Text	6	83045	3.74	1.62	0.59
	Concept 3: Persuasive Text	6	83045	3.75	1.60	0.58

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Table 9.1.1.13 Spring 2013 AIMS Strand/Concept Internal Consistency

Reading Grade 5

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Reading Process		12	82223	8.24	2.52	0.69
	Concept 4: Vocabulary	6	82223	4.31	1.46	0.59
	Concept 6: Comprehension	6	82223	3.93	1.42	0.47
2. Comprehending Literary Text		17	82223	10.36	3.57	0.76
	Concept 1: Elements of Literature	17	82223	10.36	3.57	0.76
3. Comprehending Informational Text		25	82223	17.56	5.10	0.85
	Concept 1: Expository Text	13	82223	9.17	2.82	0.74
	Concept 2: Functional Text	6	82223	4.17	1.62	0.64
	Concept 3: Persuasive Text	6	82223	4.22	1.34	0.57

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Table 9.1.1.14 Spring 2013 AIMS Strand/Concept Internal Consistency

Reading Grade 6

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Reading Process		12	82598	8.13	2.58	0.69
	Concept 4: Vocabulary	6	82598	4.22	1.43	0.54
	Concept 6: Comprehension	6	82598	3.91	1.52	0.52
2. Comprehending Literary Text		17	82598	11.77	3.18	0.73
	Concept 1: Elements of Literature	17	82598	11.77	3.18	0.73
3. Comprehending Informational Text		25	82598	16.11	5.03	0.83
	Concept 1: Expository Text	13	82598	7.37	2.69	0.66
	Concept 2: Functional Text	6	82598	4.35	1.61	0.66
	Concept 3: Persuasive Text	6	82598	4.38	1.52	0.62

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Table 9.1.1.15 Spring 2013 AIMS Strand/Concept Internal Consistency

Reading Grade 7

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Reading Process		12	82502	8.62	2.59	0.71
	Concept 4: Vocabulary	6	82502	4.51	1.46	0.58
	Concept 6: Comprehension	6	82502	4.11	1.48	0.53
2. Comprehending Literary Text		17	82502	10.59	3.56	0.75
	Concept 1: Elements of Literature	13	82502	8.10	2.75	0.69
	Concept 2: Historical and Cultural Aspects of Literature	4	82502	2.48	1.20	0.48
3. Comprehending Informational Text		25	82502	16.50	4.95	0.82
	Concept 1: Expository Text	12	82502	8.15	2.53	0.66
	Concept 2: Functional Text	7	82502	4.88	1.65	0.62
	Concept 3: Persuasive Text	6	82502	3.47	1.61	0.55

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Table 9.1.1.16 Spring 2013 AIMS Strand/Concept Internal Consistency

Reading Grade 8

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Reading Process		9	81433	5.97	2.05	0.61
	Concept 4: Vocabulary	3	81433	2.14	0.91	0.42
	Concept 6: Comprehension	6	81433	3.83	1.47	0.47
2. Comprehending Literary Text		18	81433	12.22	3.56	0.75
	Concept 1: Elements of Literature	14	81433	9.17	2.92	0.70
	Concept 2: Historical and Cultural Aspects of Literature	4	81433	3.05	1.03	0.43
3. Comprehending Informational Text		27	81433	18.24	4.86	0.81
	Concept 1: Expository Text	13	81433	9.18	2.56	0.67
	Concept 2: Functional Text	8	81433	5.30	1.96	0.64
	Concept 3: Persuasive Text	6	81433	3.77	1.24	0.33

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Table 9.1.1.17 Spring 2013 AIMS Strand/Concept Internal Consistency

Reading Grade 10

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Reading Process		8	91745	4.90	1.96	0.62
	Concept 4: Vocabulary	4	91745	2.60	1.13	0.41
	Concept 6: Comprehension	4	91745	2.31	1.19	0.49
2. Comprehending Literary Text		18	91745	10.63	3.46	0.71
	Concept 1: Elements of Literature	14	91745	7.82	2.76	0.63
	Concept 2: Historical and Cultural Aspects of Literature	4	91745	2.81	1.08	0.42
3. Comprehending Informational Text		28	91745	17.93	5.40	0.83
	Concept 1: Expository Text	12	91745	7.11	2.53	0.64
	Concept 2: Functional Text	8	91745	5.86	1.78	0.63
	Concept 3: Persuasive Text	8	91745	4.96	1.98	0.62

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Table 9.1.1.18 Spring 2013 AIMS Strand/Concept Internal Consistency

Science Grade 4

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Scientific Inquiry		18	83028	10.95	3.80	0.77
	Concept 1: Observations, Questions, and Hypotheses	6	83028	3.49	1.58	0.51
	Concept 2: Scientific Testing (Investigating and Modeling)	6	83028	3.56	1.50	0.49
	Concept 3/4: Analysis and Conclusions/Communication	6	83028	3.90	1.51	0.58
2. History and Nature of Science		6	83028	4.82	1.20	0.48
	Concept 1/2: History of Science as a Human Endeavor/Nature of Scientific Knowledge	6	83028	4.82	1.20	0.48
3. Science in Personal and Social Perspectives		6	83028	3.64	1.65	0.60
	Concept 1/2: Changes in Environments/Science and Technology in Society	6	83028	3.64	1.65	0.60
4. Life Science		6	83028	3.96	1.60	0.61
	Concept 1/3/4: Characteristics of Organisms/Organisms and Environments/Diversity, Adaptation, and Behavior	6	83028	3.96	1.60	0.61
5. Physical Science		6	83028	2.80	1.61	0.53
	Concept 3: Energy and Magnetism	6	83028	2.80	1.61	0.53
6. Earth and Space Science		12	83028	6.45	2.65	0.65
	Concept 2: Earth's Processes and Systems	6	83028	3.29	1.67	0.58
	Concept 3: Changes in the Earth and Sky	6	83028	3.16	1.44	0.38

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Table 9.1.1.19 Spring 2013 AIMS Strand/Concept Internal Consistency

Science Grade 8

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Scientific Inquiry		20	81485	12.22	3.64	0.71
	Concept 1: Observations, Questions, and Hypotheses	6	81485	3.71	1.48	0.47
	Concept 2: Scientific Testing (Investigating and Modeling)	4	81485	2.30	1.02	0.29
	Concept 3: Analysis, Conclusions, and Refinements	6	81485	3.35	1.47	0.43
	Concept 4: Communication	4	81485	2.86	1.03	0.36
2. History and Nature of Science		6	81485	3.90	1.51	0.51
	Concept 1/2: History of Science as a Human Endeavor/Nature of Scientific Knowledge	6	81485	3.90	1.51	0.51
3. Science in Personal and Social Perspectives		6	81485	4.34	1.49	0.60
	Concept 1/2: Changes in Environments/Science and Technology in Society	6	81485	4.34	1.49	0.60
4. Life Science		8	81485	4.59	1.71	0.44
	Concept 2/4: Reproduction and Heredity/Diversity, Adaptation, and Behavior	8	81485	4.59	1.71	0.44
5. Physical Science		18	81485	10.93	3.30	0.68
	Concept 1: Properties and Changes of Properties in Matter	10	81485	6.45	2.04	0.55
	Concept 2: Motion and Forces	8	81485	4.48	1.75	0.50

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Table 9.1.1.20 Spring 2013 AIMS Strand/Concept Internal Consistency

Science Grade 10

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Scientific Inquiry		22	76744	14.11	4.95	0.85
	Concept 1: Observations, Questions, and Hypotheses	6	76744	4.09	1.51	0.55
	Concept 2: Scientific Testing (Investigating and Modeling)	6	76744	3.88	1.61	0.60
	Concept 3: Analysis, Conclusions, and Refinements	6	76744	3.64	1.60	0.63
	Concept 4: Communication	4	76744	2.50	1.26	0.56
2. History and Nature of Science		6	76744	4.00	1.63	0.62
	Concept 1/2: History of Science as a Human Endeavor/Nature of Scientific Knowledge	6	76744	4.00	1.63	0.62
3. Science in Personal and Social Perspectives		7	76744	4.65	1.82	0.68
	Concept 1/2/3: Changes in Environments/Science and Technology in Society/Human Population Characteristics	7	76744	4.65	1.82	0.68
4. Life Science		30	76744	15.45	6.17	0.84
	Concept 1: The Cell	6	76744	2.75	1.63	0.54
	Concept 2: Molecular Basis of Heredity	6	76744	3.09	1.66	0.58
	Concept 3: Interdependence of Organisms	6	76744	2.94	1.56	0.48
	Concept 4: Biological Evolution	6	76744	3.53	1.53	0.52
	Concept 5: Matter, Energy, and Organization in Living Systems (Including Human Systems)	6	76744	3.14	1.60	0.52

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Table 9.1.1.21 Spring 2013 AIMS Strand/Concept Internal Consistency

Writing Grade 5

Strand	Concepts	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
2		27	81573	17.95	5.33	0.84
2	1 & 2	9	81573	6.69	2.12	0.72
2	3, 4, & 5	6	81573	3.51	1.61	0.57
2	6	12	81573	7.75	2.48	0.65

Table 9.1.1.22 Spring 2013 AIMS Strand/Concept Internal Consistency

Writing Grade 6

Strand	Concepts	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
2		27	81711	17.99	5.07	0.82
2	1 & 2	11	81711	7.11	2.54	0.69
2	3, 4, & 5	7	81711	4.63	1.59	0.49
2	6	9	81711	6.25	1.85	0.61

Table 9.1.1.23 Spring 2013 AIMS Strand/Concept Internal Consistency

Writing Grade 7

Strand	Concepts	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
2		27	81525	17.84	5.20	0.83
2	1 & 2	11	81525	6.86	2.40	0.65
2	3, 4, & 5	7	81525	5.33	1.62	0.63
2	6	9	81525	5.66	1.99	0.61

Table 9.1.1.24 Spring 2013 AIMS Strand/Concept Internal Consistency

Writing Grade 10

Strand	Concepts	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
2		27	97401	16.99	5.02	0.81
2	1 & 2	12	97401	7.95	2.52	0.67
2	3, 4, & 5	9	97401	5.60	1.85	0.52
2	6	6	97401	3.44	1.61	0.58

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9.1.2 Reliability of Constructed-Response Scoring

For constructed response items, the consistency with which two raters assign scores to student responses is typically determined by inter-rater agreement. In scoring the essay, each student essay is randomly assigned to a rater. All essays are scored by two raters at the high school level, and 10 percent of the essays are scored by a second rater for the Grades 5, 6, and 7 essay. Since different raters scored different essays, the inter-rater statistics computed here do not measure the degrees of agreement or disagreements between the same two raters across the entire set of essay responses. Therefore, it is more accurate to describe the inter-rater agreement reported in this section as inter-rater position reliability.

For the Grades 5-7 writing tests, ten percent of the student responses were randomly selected and scored by a second rater to reduce rater drift and allow measures of rater agreement to be estimated. The statistics provided in Table 9.1.2.1 were calculated using the scores from both raters for the ten percent of the responses that were scored twice. For the high school writing prompts, each student paper was scored by two independent raters for all students. The statistics for Prompt A and Prompt T are presented in Table 9.1.2.2 and were calculated using the scores from both raters. The two scores for each essay were used in the analyses to calculate rater agreement.

The raw score means, raw score standard deviations, and percentage of agreement between the first and second rater were computed. Perfect agreement is defined as trait scores that are exactly the same between the first and second rating. Adjacent agreement is defined as trait scores differing by one point between the first and second rating. Discrepant cases include records in which scores from the first and the second rating differed by more than one point. In addition, Cohen's kappa and intraclass correlation are provided as indices of agreement between the first and second rating.

Cohen's kappa (Cohen, 1960) is commonly used to summarize the agreement between raters and is computed as (Brennan & Prediger, 1981):

$$\kappa = \frac{\sum P_{ii} - \sum P_{i\cdot} P_{\cdot i}}{1 - \sum P_{i\cdot} P_{\cdot i}},$$

where $\sum P_{ii}$ is the observed proportion of agreement and $\sum P_{i\cdot} P_{\cdot i}$ is the chance proportion of agreement.

Intraclass correlation is defined by Shrout and Fleiss (1979) as "the correlation between one measurement on a target and another measurement obtained on that target." In the context of the Spring 2013 AIMS Writing tests, the "target" is the student response, and each measurement was obtained by a randomly assigned rater to that response. Therefore, ICC(1,1) was used to estimate intraclass correlation. ICC(1,1) is estimated as (Shrout & Fleiss, 1979):

$$ICC(1,1) = \frac{BMS - WMS}{BMS + (k-1)WMS},$$

where BMS = between-targets mean square,
WMS = within-targets mean square, and
k=the number of raters rating each target.

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Table 9.1.2.1
Spring 2013 AIMS Inter-Rater Position Consistency
Grades 5-7

	N	MAX Points	Rater 1 M	Rater 1 SD	Rater 2 M	Rater 2 SD	% Agreement Perfect	% Agreement Adjacent	% Agreement Discrepant	Wgt Kappa	Interclass Correlation
Grade 5	8205	6	3.59	0.85	3.59	0.85	62.04	36.37	1.60	0.42	0.70
Grade 6	8210	6	3.50	0.96	3.49	0.96	59.46	37.80	2.74	0.41	0.73
Grade 7	8194	6	3.61	0.90	3.62	0.91	60.06	37.92	2.03	0.41	0.72

Note: All student responses were rated by the two raters. Only students receiving scores and condition codes of B, C, and D are included in this analysis.

Table 9.1.2.2
Spring 2013 AIMS Inter-Rater Position Consistency
High School

	N	MAX Points	Rater 1 M	Rater 1 SD	Rater 2 M	Rater 2 SD	% Agreement Perfect	% Agreement Adjacent	% Agreement Discrepant	Wgt Kappa	Interclass Correlation
Form A	94445	12	7.38	1.70	7.39	1.71	62.35	36.31	1.34	0.42	0.71
Form T	2953	12	6.64	1.91	6.67	1.90	63.46	35.76	0.78	0.48	0.79

Note: All student responses were rated by the two raters. Only students receiving scores and condition codes of B, C, and D are included in this analysis.

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9.2 Validity

"Validity refers to the degree to which evidence and theory support the interpretations of test scores entailed by proposed users of tests. Validity is, therefore, the most fundamental consideration in developing and evaluating tests" (AERA/APA/NCME, 1999). The purpose of test score validation is not to validate the test itself but to validate interpretations of the test scores for particular purposes or uses. Test score validation is not a quantifiable property but an ongoing process, beginning at initial conceptualization and continuing throughout the entire assessment process.

The Spring 2013 AIMS tests were designed and developed to provide fair and accurate ability scores that support appropriate, meaningful, and useful educational decisions. In addition to the evidence provided in Part 2 (Involvement of Arizona Educators), additional validity evidence may be found in the following parts as described: Part 3 (Test Design), Part 4 (Test Development), Part 5 (Test Administration), Part 6 (Classical Item Analysis), Part 7 (Calibration, Scaling and Equating), Part 9.1 (Reliability), and Part 10 (Classification). As the technical report has progressed, chapter by chapter, it has moved through the phases of the testing cycle. Each part of the technical report detailed the procedures and processes applied in the creation of AIMS, as well as their results. Each part also highlights the meaning and significance of the procedures, processes, and results in terms of content and construct validity and the relationship to the Standards. Part 9.2 addresses two final issues in validity: the issues of bias and construct validity. The analyses presented here add to the perspectives provided in Chapters 2 through 10. Below is a brief review.

Part 2 of the technical report described the involvement of Arizona educators, ADE, and Pearson in the test development process. As indicated in Part 2, the test development process and the involvement of Arizona educators in that process formed an important part of the validity of the entire AIMS. The knowledge, expertise, and professional judgment offered by Arizona educators ultimately ensured that the content of AIMS formed an adequate and representative sample of appropriate content and that the content formed a legitimate basis upon which to validly derive conclusions about student achievement.

Parts 3 and 4 of the technical report addressed the issue of test form development. Part 3 provided a general discussion of test book creation and editing process, the process of selecting operational test items, the content distribution of embedded field test items, and the process of obtaining ADE approvals. The test design process and the participation of Arizona educators in the process of test selection, including item content and bias review, provide a solid rationale for having confidence in the content and design of AIMS as a tool from which to derive valid inferences about Arizona student performance.

Part 5 of the technical report described the process, procedures, and policies that guided the administration of the AIMS, including accommodations, security, and the written procedures provided to test administrators and school personnel.

Part 6 described classical data analysis of the Spring 2013 AIMS.

Part 7 of the technical report described the calibration, scaling and equating methods, as well as processes and procedures for deriving scale scores from students' raw scores and the data cleaning steps which ensure valid calibration and scaling. Some references to introductory and advanced discussions of IRT are provided.

Part 8 of the technical report dealt with the test results, longitudinal comparisons, score distributions and performance levels.

Part 9 above dealt with inter-rater position consistency, interclass correlation, rater agreement, and alpha reliabilities and internal consistency. It described Cronbach's alpha as a measure for

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internal consistency for Reading, Mathematics, Science, and inter-rater position consistency for Writing.

Part 9 below presents an analysis of DIF (Differential Item Functioning) complete with tables of gender and ethnic functioning of all operational items for the 2013 AIMS assessments.

Part 10 of the technical report will describe a detailed analysis of classification consistency and classification accuracy.

Additional evidence to support the validity of the 2013 AIMS assessments is provided by the following:

- Any items that displayed differential item functioning for subgroups of ethnicity and gender were identified.
- Correlations between scores on the 2013 AIMS tests for each grade level as construct validity were presented.

Also note that further evidence in support of the AIMS assessment has been documented in previous AIMS technical reports and standard setting technical reports.

9.2.1 Differential Item Functioning

Because test scores can have many sources of variation, the test publishers' task is to develop assessments that measure the intended abilities and skills without introducing extraneous elements or construct irrelevant variance. When tests measure something other than what they are intended to measure, test scores will reflect these unintended skills and knowledge, as well as what is purportedly assessed by the test. If this occurs, these tests can be called biased (Angoff, 1993; Camilli & Shepard, 1994; Green, 1975). One of the factors that may render test scores to be biased is differing cultural and socioeconomic experiences.

The Spring 2013 AIMS tests were developed using procedures to minimize item and test bias and included reviews such as the Content and Sensitivity Reviews described in Part 4, Test Development. Expertise in this area is not, however, a substitute for statistical analyses of the items. Thus, an empirical differential item functioning (DIF) approach was used to examine potential item bias. DIF studies include systematic item analyses to determine if examinees with the same underlying level of ability have the same probability of correctly responding to the item. Items identified with DIF are further examined to determine if item performance differences between identifiable subgroups of the population are due to extraneous or construct irrelevant information which makes the items unfairly difficult for one of the subgroups.

DIF analyses of the Spring 2013 AIMS tests were conducted for ethnic subgroups and gender. In order to compute DIF, students must be matched on ability level using a conditioning variable. For these analyses, raw score on the CRT test in the content area of interest was used as the conditioning variable. Note that DIF analyses were conducted on all multiple-choice reading, writing, mathematics, and science items

The Mantel-Haenszel chi-square statistic was used to identify DIF in multiple-choice items. The Mantel-Haenszel statistic was first recommended by Holland and Thayer (1988), is frequently used, and is efficient in terms of statistical power (Clauser & Mazor, 1998). The Mantel-Haenszel statistic is computed as (Zwick, Donoghue, & Grima, 1993):

$$\text{Mantel } \chi^2 = \frac{\left(\sum_k F_k - \sum_k E(F_k)\right)^2}{\sum_k \text{Var}(F_k)},$$

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where F_k is the sum of scores for the focal group at the kth level of the matching variable. Note that the Mantel-Haenszel statistic is sensitive to N such that larger sample sizes increase the value of chi square.

In addition to the Mantel-Haenszel chi-square statistic, the delta statistic (MH-D DIF) was computed for all items. Educational Testing Service (ETS) first developed the MH-D DIF statistic. To compute delta, alpha (the odds ratio) is first computed as:

$$\alpha_{MH} = \frac{\sum_{k=1}^{K} N_{r1k} N_{f0k} / N_k}{\sum_{k=1}^{K} N_{f1k} N_{r0k} / N_k},$$

where N_{r1k} is the number of correct responses in the reference group at ability level k, N_{f0k} is the number of incorrect responses in the focal group at ability level k, N_k is the total number of responses, N_{f1k} is the number of correct responses in the focal group at ability level k, and N_{r0k} is the number of incorrect responses in the reference group at ability level k. MH-D DIF is then computed as:

$$\text{MH-D DIF} = -2.35 \ln(\alpha_{MH}).$$

Positive values of MH-D DIF indicate items that favor the focal group, whereas negative values of MH-D DIF indicate items that favor the reference group.

The Mantel-Haenszel chi-square statistic and the delta statistic were used in combination to identify the Spring 2013 AIMS items that exhibit strong, weak, or no DIF (Zieky, 1993). Table 9.2.1.1 indicates the criteria for each category used for the 2013 AIMS DIF analysis. An alpha level of .01 was used for all Mantel-Haenszel statistics. Note that the criteria are very lenient given very large sample sizes and the number of DIF statistics computed. In other words, a large number of items will be placed in categories B and C given the critical value. For reference, the critical value for the chi-square statistic to be significant at $p<0.01$ is 6.635, at $p<0.001$ the critical value is 10.827, and at $p<0.0005$ the critical value is 12.116.

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Table 9.2.1.1
Differential Item Functioning Flag Categories

Category	Description	Criterion
A	No DIF	Mantel-Haenzel chi-square not significantly different than zero
B	Weak DIF	Significant Mantel-Haenzel chi-square ($p<0.01$) and |MH D-DIF| < 1.5
C	Strong DIF	Significant Mantel-Haenzel chi-square ($p<0.01$) and |MH D-DIF| $\geq$ 1.5

Another measure of DIF, also presented here for the Spring 2013 AIMS operational items, is the standardized mean difference (SMD; Zwick et al., 1993). The SMD is an effect size index of DIF, which is relatively easy to interpret. The SMD compares the means of the reference and focus groups, adjusting for the distribution of reference and focal group members on the conditioning variable, which for these analyses is the CRT raw score. SMD is computed as (Zwick et al., 1993):

$$SMD = \sum_k p_{Fk}\left(m_{Fk} - m_{Rk}\right),$$

where p_{Fk} is the proportion of the focal group members at the kth level of the matching variable, m_{Fk} is the mean item response of the focal group at the kth level and m_{Rk} is the mean item response of the reference group at the kth level . A negative SMD value indicates an item on which the focal group has a lower mean than the reference group. A positive SMD value indicates an item on which the reference group has a lower mean than the focal group.

Mantel-Haenszel chi-square statistic, MH-D DIF, SMD, and flag category results for all items in the Spring 2013 AIMS CRT tests are presented in Tables 9.2.1.2 through 9.2.1.22. It is important to note that DIF analyses are also conducted on field test items prior to form construction. Very few AIMS items are identified as exhibiting strong DIF in field testing. All items exhibiting strong DIF are investigated for possible sources of differential functioning by Pearson and ADE staff and such items are avoided in form construction. Not surprisingly, the vast majority of items on the operational AIMS exhibit no DIF or weak DIF. Items that were flagged for exhibiting strong DIF are summarized in Table 9.2.1.23. There were a total of 8 such items.

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Table 9.2.1.2
Spring 2013 AIMS Differential Item Functioning

Mathematics CRT Grade 3

	Reference: Male N= 42797 Focal: Female N= 40310				Reference: Hispanic N= 46779 Focal: Non Hispanic N= 36419				Reference: White N= 66116 Focal: Africa American N= 4841				Reference: White N= 66116 Focal: Native American N= 6202				Reference: White N= 66116 Focal: Asian N= 2542				Reference: White N= 66116 Focal: Hawaii N= 297				Reference: White N= 66116 Focal: Multiple Indicator N= 22			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	294.39	0.73	0.05	A	116.72	0.47	0.03	A	18.86	-0.37	-0.03	A	0.64	0.06	0.00	A	7.73	0.42	0.02	A	0.94	0.36	0.02	A	10.12	-0.40	-0.03	A
2	16.48	0.20	0.01	A	38.59	0.31	0.02	A	3.96	-0.19	-0.01	A	0.18	-0.04	0.00	A	0.56	0.14	0.00	A	0.20	0.18	0.01	A	3.29	-0.28	-0.01	A
3	9.53	-0.13	-0.01	A	42.19	-0.28	-0.02	A	20.54	-0.38	-0.03	A	25.24	-0.37	-0.03	A	1.36	0.17	0.01	A	0.34	-0.22	-0.01	A	6.81	-0.34	-0.02	A
4	371.30	-0.73	-0.06	A	104.89	-0.39	-0.03	A	0.54	-0.06	-0.01	A	6.55	-0.18	-0.02	A	0.41	0.08	0.00	A	2.75	0.52	0.04	A	1.85	0.16	0.01	A
5	17.84	0.19	0.01	A	9.90	-0.14	-0.01	A	0.81	-0.08	-0.01	A	51.88	-0.56	-0.04	A	0.01	0.02	0.00	A	0.64	0.32	0.02	A	0.51	0.10	0.01	A
6	247.14	0.61	0.05	A	83.53	-0.36	-0.03	A	1.78	-0.11	-0.01	A	117.63	-0.76	-0.06	A	19.36	-0.54	-0.03	A	3.49	-0.55	-0.05	A	2.07	-0.17	-0.01	A
7	37.55	-0.21	-0.02	A	7.00	-0.09	-0.01	A	10.54	-0.24	-0.02	A	3.03	-0.12	-0.01	A	1.96	-0.15	-0.01	A	0.00	0.01	0.00	A	0.49	-0.07	-0.01	A
8	32.23	0.21	0.02	A	82.26	0.35	0.03	A	64.59	-0.63	-0.05	A	112.71	0.75	0.06	A	0.49	0.08	0.01	A	2.94	0.55	0.04	A	2.38	-0.18	-0.01	A
9	14.22	-0.15	-0.01	A	2.93	0.07	0.00	A	5.18	-0.19	-0.01	A	2.37	-0.12	-0.01	A	0.83	0.10	0.01	A	0.61	0.27	0.02	A	0.84	-0.11	-0.01	A
10	5.33	-0.09	-0.01	A	78.62	-0.35	-0.03	A	6.44	0.20	0.02	A	9.05	-0.21	-0.02	A	31.55	0.79	0.04	A	0.00	0.00	0.00	A	4.69	0.27	0.02	A
11	24.78	0.17	0.02	A	20.81	-0.16	-0.01	A	14.38	0.29	0.03	A	0.12	0.02	0.00	A	4.14	0.21	0.02	A	0.13	0.11	0.01	A	6.54	0.27	0.03	A
12	90.45	0.51	0.02	A	0.63	0.04	0.00	A	13.76	-0.38	-0.02	A	1.18	-0.10	-0.01	A	9.87	-0.51	-0.02	A	1.00	-0.42	-0.02	A	0.06	-0.04	0.00	A
13	299.95	0.67	0.05	A	22.78	-0.19	-0.01	A	2.87	-0.13	-0.01	A	54.41	-0.52	-0.04	A	4.71	-0.26	-0.02	A	2.54	-0.54	-0.04	A	7.64	-0.32	-0.03	A
14	164.07	0.45	0.04	A	79.53	0.32	0.03	A	5.78	-0.18	-0.02	A	31.47	0.38	0.03	A	5.45	0.24	0.02	A	0.10	-0.09	-0.01	A	0.23	-0.05	0.00	A
15	4.27	-0.08	-0.01	A	3.75	-0.08	-0.01	A	7.91	-0.23	-0.02	A	1.71	-0.09	-0.01	A	3.49	0.24	0.01	A	0.45	-0.21	-0.02	A	2.80	-0.20	-0.02	A
16	42.29	-0.22	-0.02	A	2.21	0.05	0.01	A	10.59	0.24	0.02	A	34.21	0.39	0.04	A	21.09	0.44	0.05	A	0.50	-0.20	-0.02	A	0.00	-0.01	0.00	A
17	6.88	-0.10	-0.01	A	106.48	-0.39	-0.03	A	0.32	-0.04	0.00	A	25.99	-0.36	-0.03	A	10.33	0.37	0.03	A	0.83	-0.29	-0.02	A	3.03	0.20	0.02	A
18	11.01	0.14	0.01	A	6.47	-0.11	-0.01	A	0.43	-0.06	0.00	A	14.88	-0.29	-0.02	A	5.48	0.36	0.01	A	2.88	0.63	0.04	A	1.34	-0.15	-0.01	A
19	585.22	-0.96	-0.07	A	51.03	0.29	0.02	A	30.40	-0.45	-0.04	A	40.83	0.47	0.04	A	14.93	-0.48	-0.03	A	0.19	0.15	0.01	A	0.05	-0.03	0.00	A
20	284.91	-0.72	-0.05	A	70.72	-0.36	-0.02	A	2.03	0.12	0.01	A	0.60	-0.06	0.00	A	10.58	0.49	0.02	A	0.50	-0.26	-0.02	A	0.56	0.10	0.01	A
21	41.76	0.26	0.02	A	17.55	0.17	0.01	A	12.86	-0.29	-0.02	A	4.21	0.15	0.01	A	0.46	-0.09	0.00	A	0.74	-0.31	-0.02	A	0.00	-0.01	0.00	A
22	0.08	0.01	0.00	A	307.77	-0.64	-0.05	A	2.47	0.12	0.01	A	144.38	-0.85	-0.07	A	3.60	0.21	0.02	A	5.67	-0.76	-0.06	A	1.91	0.15	0.01	A
23	83.18	-0.35	-0.03	A	21.38	-0.18	-0.01	A	0.09	0.03	0.00	A	3.87	0.15	0.01	A	98.61	1.08	0.09	B>	0.27	0.16	0.01	A	10.39	0.37	0.03	A
24	432.23	-0.73	-0.07	A	69.89	-0.30	-0.03	A	65.53	-0.61	-0.06	A	15.57	-0.26	-0.02	A	7.18	-0.28	-0.02	A	0.32	-0.16	-0.02	A	0.76	0.10	0.01	A
25	72.52	0.33	0.03	A	50.68	0.28	0.02	A	16.06	0.33	0.03	A	2.70	0.12	0.01	A	50.64	0.95	0.06	A	2.62	0.57	0.04	A	0.33	0.07	0.01	A
26	3.17	0.10	0.00	A	33.67	-0.32	-0.01	A	6.72	-0.27	-0.01	A	19.77	0.43	0.02	A	0.23	0.10	0.00	A	0.00	0.02	0.00	A	6.70	0.47	0.02	A
27	153.43	-0.51	-0.03	A	150.97	-0.51	-0.04	A	1.71	-0.11	-0.01	A	127.35	-0.87	-0.06	A	6.16	0.34	0.02	A	0.75	-0.29	-0.02	A	3.06	0.22	0.01	A
28	355.06	0.90	0.04	A	29.56	-0.26	-0.01	A	4.74	0.21	0.01	A	9.99	-0.25	-0.02	A	3.52	-0.32	-0.01	A	0.20	-0.18	-0.01	A	1.02	0.15	0.01	A
29	225.02	0.63	0.04	A	0.01	0.00	0.00	A	3.01	0.15	0.01	A	0.07	-0.02	0.00	A	5.06	0.33	0.02	A	0.26	0.18	0.01	A	0.14	0.05	0.00	A
30	31.10	-0.24	-0.02	A	0.00	0.00	0.00	A	4.68	0.19	0.01	A	0.11	-0.02	0.00	A	0.12	0.05	0.00	A	0.88	0.35	0.02	A	0.42	0.08	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

. . . (table continues)

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Table 9.2.1.2 (continued)
Spring 2013 AIMS Differential Item Functioning

Mathematics CRT Grade 3

	Reference: Male N= 42797				Reference: Hispanic N= 46779				Reference: White N= 66116				Reference: White N= 66116				Reference: White N= 66116				Reference: White N= 66116				Reference: White N= 66116			
	Focal: Female N= 40310				Focal: Non Hispanic N= 36419				Focal: Africa American N= 4841				Focal: Native American N= 6202				Focal: Asian N= 2542				Focal: Hawaii N= 297				Focal: Multiple Indicator N= 22			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	21.86	0.18	0.01	A	39.93	-0.24	-0.02	A	13.44	0.29	0.02	A	2.52	-0.12	-0.01	A	49.73	0.87	0.06	A	6.35	0.78	0.06	A	0.19	0.05	0.00	A
32	575.66	1.04	0.06	B>	9.25	0.13	0.01	A	13.02	-0.31	-0.02	A	3.15	0.13	0.01	A	6.20	-0.37	-0.02	A	3.80	-0.74	-0.04	A	11.19	-0.44	-0.03	A
33	0.61	-0.04	0.00	A	25.42	0.23	0.01	A	1.01	-0.09	-0.01	A	0.60	-0.06	0.00	A	2.93	0.28	0.01	A	0.51	0.28	0.01	A	2.07	-0.21	-0.01	A
34	363.10	-0.90	-0.05	A	15.74	-0.19	-0.01	A	14.37	-0.34	-0.02	A	16.94	-0.33	-0.02	A	14.41	-0.59	-0.02	A	0.93	-0.36	-0.02	A	0.96	0.15	0.01	A
35	160.30	0.51	0.04	A	40.93	-0.26	-0.02	A	0.77	0.07	0.01	A	17.03	-0.29	-0.02	A	5.43	0.33	0.02	A	0.30	0.18	0.01	A	4.61	-0.26	-0.02	A
36	261.97	-0.67	-0.04	A	174.71	-0.57	-0.03	A	9.63	-0.30	-0.02	A	11.98	-0.31	-0.02	A	4.56	0.24	0.02	A	0.03	0.06	0.00	A	0.67	-0.10	-0.01	A
37	110.76	-0.55	-0.02	A	2.15	-0.08	0.00	A	12.65	-0.35	-0.02	A	0.03	0.02	0.00	A	1.07	0.21	0.00	A	0.79	-0.38	-0.02	A	0.10	-0.05	0.00	A
38	196.37	-0.55	-0.04	A	27.83	-0.21	-0.01	A	15.55	-0.31	-0.03	A	0.33	0.04	0.00	A	5.16	0.31	0.02	A	0.04	-0.07	0.00	A	0.00	0.00	0.00	A
39	15.19	0.15	0.01	A	9.89	-0.12	-0.01	A	0.15	-0.03	0.00	A	0.31	-0.04	0.00	A	9.94	0.35	0.03	A	1.39	-0.38	-0.03	A	0.14	0.04	0.00	A
40	70.28	0.34	0.02	A	55.98	-0.31	-0.02	A	0.35	-0.05	0.00	A	36.44	-0.43	-0.03	A	1.35	-0.16	-0.01	A	3.94	-0.65	-0.05	A	1.43	-0.15	-0.01	A
41	77.09	-0.35	-0.03	A	17.14	0.17	0.01	A	5.43	-0.19	-0.02	A	15.75	0.29	0.02	A	15.16	0.54	0.03	A	0.05	-0.08	-0.01	A	2.22	-0.18	-0.01	A
42	60.30	-0.44	-0.02	A	15.02	0.22	0.01	A	0.68	0.09	0.00	A	9.30	0.29	0.01	A	1.18	0.24	0.00	A	0.26	0.26	0.01	A	0.05	-0.04	0.00	A
43	190.06	-0.51	-0.04	A	103.72	-0.39	-0.03	A	17.39	-0.34	-0.03	A	14.92	-0.28	-0.02	A	2.90	0.19	0.02	A	0.16	-0.13	-0.01	A	1.11	0.12	0.01	A
44	467.67	-0.88	-0.06	A	2.19	0.06	0.01	A	54.24	-0.59	-0.05	A	0.19	-0.03	0.00	A	1.86	-0.18	-0.01	A	0.08	-0.09	-0.01	A	1.82	-0.17	-0.01	A
45	13.48	-0.13	-0.01	A	31.09	-0.21	-0.02	A	0.06	-0.02	0.00	A	13.32	-0.26	-0.02	A	8.36	0.33	0.03	A	0.29	0.16	0.01	A	0.20	0.05	0.00	A
46	181.43	0.69	0.03	A	13.48	0.19	0.01	A	9.07	-0.29	-0.02	A	19.26	0.38	0.02	A	1.03	-0.19	-0.01	A	0.10	-0.13	-0.01	A	7.71	-0.43	-0.02	A
47	13.40	0.15	0.01	A	0.00	0.00	0.00	A	17.70	-0.35	-0.03	A	50.01	-0.52	-0.04	A	2.69	-0.22	-0.01	A	3.57	-0.63	-0.04	A	2.33	-0.19	-0.01	A
48	135.28	-0.47	-0.03	A	141.16	-0.48	-0.04	A	42.12	-0.52	-0.04	A	20.88	-0.33	-0.03	A	28.51	-0.67	-0.04	A	2.43	-0.51	-0.04	A	0.07	0.03	0.00	A
49	38.30	-0.23	-0.02	A	45.52	-0.25	-0.02	A	1.83	0.10	0.01	A	15.54	-0.28	-0.02	A	1.28	-0.13	-0.01	A	0.17	0.12	0.01	A	0.04	0.02	0.00	A
50	119.86	0.75	0.02	A	0.61	0.05	0.00	A	0.30	0.07	0.00	A	6.09	0.29	0.01	A	0.06	0.06	0.00	A	0.31	0.33	0.01	A	0.01	-0.02	0.00	A
51	29.98	-0.20	-0.02	A	44.18	-0.24	-0.02	A	2.78	-0.13	-0.01	A	2.26	-0.11	-0.01	A	3.20	0.19	0.02	A	0.08	0.09	0.01	A	3.78	0.21	0.02	A
52	58.29	0.36	0.02	A	16.73	-0.20	-0.01	A	1.81	0.13	0.01	A	31.13	-0.44	-0.03	A	0.01	-0.01	0.00	A	3.35	-0.74	-0.04	A	0.00	-0.01	0.00	A
53	196.33	0.58	0.04	A	9.09	0.13	0.01	A	25.14	-0.42	-0.03	A	2.67	-0.12	-0.01	A	26.43	0.79	0.04	A	9.27	1.15	0.07	B>	1.45	-0.15	-0.01	A
54	8.99	-0.11	-0.01	A	0.99	0.04	0.00	A	18.34	0.33	0.03	A	1.40	0.08	0.01	A	2.02	0.17	0.01	A	0.52	0.22	0.02	A	0.66	0.09	0.01	A
55	0.36	-0.02	0.00	A	2.42	-0.06	0.00	A	3.58	0.15	0.01	A	1.36	-0.08	-0.01	A	23.55	0.68	0.04	A	0.31	0.19	0.01	A	0.30	-0.07	0.00	A
56	173.36	0.50	0.04	A	51.68	-0.28	-0.02	A	3.10	0.14	0.01	A	22.19	-0.33	-0.03	A	18.09	0.54	0.03	A	0.20	0.14	0.01	A	0.06	-0.03	0.00	A
57	106.97	0.63	0.02	A	0.06	-0.02	0.00	A	5.40	-0.26	-0.01	A	0.01	0.01	0.00	A	1.16	0.24	0.00	A	4.85	-0.98	-0.03	A	0.31	0.11	0.00	A
58	81.47	0.32	0.03	A	31.70	-0.20	-0.02	A	19.64	-0.34	-0.03	A	17.17	-0.29	-0.03	A	16.53	-0.41	-0.04	A	0.34	0.17	0.02	A	9.99	-0.34	-0.03	A
59	133.29	0.48	0.03	A	140.92	0.51	0.04	A	61.14	-0.63	-0.05	A	62.73	0.61	0.05	A	3.04	0.26	0.01	A	1.23	0.42	0.02	A	6.55	-0.32	-0.02	A
60	578.61	1.16	0.06	B>	47.98	0.33	0.02	A	16.02	-0.36	-0.02	A	5.51	-0.19	-0.01	A	16.45	-0.63	-0.02	A	0.75	-0.35	-0.02	A	4.49	-0.31	-0.02	A
61	260.94	-0.57	-0.05	A	76.22	-0.32	-0.03	A	1.30	0.09	0.01	A	14.15	-0.25	-0.02	A	4.43	0.23	0.02	A	0.96	-0.28	-0.03	A	5.55	0.26	0.02	A
62	18.56	0.16	0.01	A	8.09	0.11	0.01	A	6.11	0.20	0.02	A	13.70	0.26	0.02	A	25.69	0.66	0.04	A	0.36	0.18	0.01	A	0.79	-0.10	-0.01	A
63	20.30	0.17	0.01	A	1.09	-0.04	0.00	A	0.13	0.03	0.00	A	10.00	-0.22	-0.02	A	36.41	0.78	0.05	A	0.10	-0.10	-0.01	A	0.80	0.10	0.01	A
64	1.85	0.05	0.00	A	0.43	-0.02	0.00	A	2.19	0.12	0.01	A	19.93	-0.31	-0.03	A	1.10	-0.12	-0.01	A	0.09	-0.09	-0.01	A	2.97	-0.19	-0.02	A
65	1.15	0.06	0.00	A	32.13	0.33	0.01	A	0.99	-0.11	-0.01	A	2.44	0.15	0.01	A	7.15	0.66	0.01	A	0.94	0.52	0.02	A	0.11	-0.06	0.00	A
66	117.27	0.42	0.03	A	153.65	0.50	0.04	A	2.02	-0.11	-0.01	A	16.94	0.30	0.02	A	3.08	0.23	0.01	A	2.12	-0.46	-0.04	A	0.93	-0.12	-0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.3
Spring 2013 AIMS Differential Item Functioning

Mathematics CRT Grade 4

	Reference: Male N= 42244 Focal: Female N= 40724				Reference: Hispanic N= 47034 Focal: Non Hispanic N= 36014				Reference: White N= 66559 Focal: Africa American N= 4723				Reference: White N= 66559 Focal: Native American N= 6025				Reference: White N= 66559 Focal: Asian N= 2484				Reference: White N= 66559 Focal: Hawaii N= 292				Reference: White N= 66559 Focal: Multiple Indicator N= 21			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	14.21	0.18	0.01	A	19.26	-0.21	-0.01	A	0.01	0.01	0.00	A	12.78	-0.29	-0.02	A	4.02	0.36	0.01	A	1.63	0.57	0.03	A	0.21	0.07	0.00	A
2	115.23	-0.45	-0.03	A	4.02	0.09	0.01	A	37.31	-0.52	-0.04	A	49.41	-0.53	-0.04	A	6.86	-0.37	-0.02	A	6.63	-0.87	-0.06	A	0.24	-0.06	0.00	A
3	102.92	0.46	0.03	A	14.57	0.17	0.01	A	0.03	0.02	0.00	A	2.00	-0.11	-0.01	A	27.24	0.93	0.03	A	3.47	0.77	0.04	A	0.26	0.07	0.00	A
4	8.71	-0.13	-0.01	A	0.09	-0.01	0.00	A	26.29	0.47	0.03	A	19.66	-0.34	-0.02	A	33.91	1.00	0.04	B>	5.97	1.08	0.05	A	3.34	0.27	0.01	A
5	263.41	-0.63	-0.05	A	657.63	-1.01	-0.07	B<	32.11	-0.50	-0.03	A	82.91	-0.73	-0.05	A	0.33	-0.07	0.00	A	2.69	-0.55	-0.04	A	1.69	-0.16	-0.01	A
6	342.77	-0.80	-0.05	A	343.89	-0.80	-0.06	A	10.82	-0.28	-0.02	A	168.92	-0.98	-0.07	A	0.26	-0.08	0.00	A	1.41	-0.43	-0.03	A	0.82	0.12	0.01	A
7	0.52	0.03	0.00	A	124.68	-0.44	-0.03	A	0.74	0.07	0.01	A	26.78	-0.36	-0.03	A	3.05	0.24	0.01	A	0.95	-0.34	-0.02	A	0.89	0.12	0.01	A
8	134.89	0.50	0.03	A	157.94	-0.54	-0.04	A	81.08	-0.73	-0.06	A	0.49	0.05	0.00	A	24.64	-0.67	-0.03	A	8.33	-0.95	-0.06	A	1.34	0.16	0.01	A
9	0.12	-0.01	0.00	A	151.51	-0.44	-0.04	A	0.02	0.01	0.00	A	17.98	-0.29	-0.03	A	0.05	0.03	0.00	A	0.06	0.08	0.01	A	4.90	0.24	0.02	A
10	428.71	1.03	0.05	B>	64.32	0.40	0.02	A	1.37	0.11	0.01	A	1.95	0.12	0.01	A	3.83	0.37	0.01	A	0.54	-0.31	-0.01	A	0.31	-0.09	0.00	A
11	75.82	-0.31	-0.03	A	11.26	0.12	0.01	A	0.58	0.06	0.01	A	3.67	-0.13	-0.01	A	29.60	0.60	0.05	A	0.10	0.09	0.01	A	1.09	0.12	0.01	A
12	14.17	-0.16	-0.01	A	1.58	-0.05	0.00	A	9.21	-0.26	-0.02	A	0.21	-0.04	0.00	A	0.02	0.02	0.00	A	1.15	-0.39	-0.02	A	3.94	-0.27	-0.02	A
13	56.22	0.26	0.02	A	88.59	0.34	0.03	A	15.96	-0.31	-0.03	A	18.75	0.30	0.03	A	1.83	0.15	0.01	A	0.79	-0.27	-0.02	A	8.52	-0.32	-0.03	A
14	94.59	-0.37	-0.03	A	228.56	-0.58	-0.04	A	6.48	0.21	0.02	A	18.43	-0.33	-0.02	A	82.13	1.05	0.08	B>	0.75	0.28	0.02	A	10.18	0.38	0.03	A
15	209.01	0.58	0.04	A	48.01	-0.28	-0.02	A	0.03	0.01	0.00	A	83.20	-0.67	-0.05	A	0.30	-0.07	0.00	A	1.62	-0.44	-0.03	A	1.65	-0.16	-0.01	A
16	324.73	0.63	0.06	A	212.30	0.52	0.05	A	0.77	-0.07	-0.01	A	0.42	0.04	0.00	A	16.99	0.47	0.04	A	2.72	0.50	0.04	A	0.33	-0.06	-0.01	A
17	102.05	0.42	0.03	A	0.35	0.02	0.00	A	0.94	-0.08	-0.01	A	0.02	0.01	0.00	A	9.38	0.45	0.02	A	0.00	0.01	0.00	A	0.65	0.11	0.01	A
18	37.08	-0.24	-0.02	A	26.92	-0.21	-0.02	A	0.94	0.08	0.01	A	5.54	-0.17	-0.01	A	20.00	0.63	0.03	A	0.01	0.04	0.00	A	0.36	-0.08	-0.01	A
19	163.69	0.62	0.03	A	2.17	-0.07	0.00	A	1.57	-0.12	-0.01	A	0.56	-0.06	0.00	A	1.34	0.21	0.01	A	0.24	0.22	0.01	A	3.64	-0.28	-0.01	A
20	14.43	-0.16	-0.01	A	12.96	-0.15	-0.01	A	0.10	0.03	0.00	A	0.01	-0.01	0.00	A	12.31	0.55	0.02	A	0.55	0.27	0.02	A	0.74	0.12	0.01	A
21	8.78	-0.11	-0.01	A	10.18	-0.12	-0.01	A	0.43	-0.05	0.00	A	0.10	-0.02	0.00	A	13.77	0.41	0.03	A	0.63	-0.24	-0.02	A	3.37	0.21	0.02	A
22	15.24	0.14	0.01	A	22.19	-0.18	-0.01	A	0.39	-0.05	0.00	A	0.21	0.03	0.00	A	9.45	0.32	0.03	A	0.58	0.23	0.02	A	0.00	0.01	0.00	A
23	49.85	0.30	0.02	A	290.73	-0.72	-0.05	A	0.09	-0.03	0.00	A	73.61	-0.63	-0.05	A	4.08	-0.30	-0.01	A	0.02	-0.04	0.00	A	0.25	0.07	0.00	A
24	1.19	-0.05	0.00	A	2.96	0.08	0.01	A	1.27	-0.10	-0.01	A	3.43	0.15	0.01	A	2.51	0.25	0.01	A	1.18	0.41	0.02	A	0.19	-0.06	0.00	A
25	63.87	0.29	0.03	A	259.08	-0.60	-0.05	A	9.56	-0.24	-0.02	A	127.76	-0.82	-0.07	A	5.31	-0.26	-0.02	A	0.42	-0.21	-0.02	A	0.41	0.07	0.01	A
26	2.87	0.08	0.00	A	4.66	-0.10	-0.01	A	4.62	-0.19	-0.01	A	10.77	-0.27	-0.02	A	1.02	0.16	0.01	A	0.48	-0.26	-0.01	A	0.72	0.12	0.01	A
27	12.32	0.17	0.01	A	12.79	-0.17	-0.01	A	0.09	0.03	0.00	A	1.61	-0.11	-0.01	A	25.52	1.00	0.03	B>	1.91	0.59	0.03	A	0.01	0.02	0.00	A
28	19.62	0.15	0.01	A	0.38	-0.02	0.00	A	9.39	0.23	0.02	A	2.66	-0.11	-0.01	A	4.27	0.21	0.02	A	0.01	-0.03	0.00	A	0.00	0.01	0.00	A
29	2.50	-0.06	0.00	A	39.35	-0.25	-0.02	A	0.01	0.01	0.00	A	33.35	-0.43	-0.04	A	0.24	-0.06	0.00	A	0.27	-0.16	-0.01	A	0.15	-0.05	0.00	A
30	230.48	0.85	0.03	A	0.00	0.00	0.00	A	12.75	0.40	0.02	A	0.00	0.00	0.00	A	3.96	0.45	0.01	A	1.63	0.64	0.02	A	0.01	0.01	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.3 (continued)
Spring 2013 AIMS Differential Item Functioning

Mathematics CRT Grade 4

	Reference: Male N= 42244 Focal: Female N= 40724				Reference: Hispanic N= 47034 Focal: Non Hispanic N= 36014				Reference: White N= 66559 Focal: Africa American N= 4723				Reference: White N= 66559 Focal: Native American N= 6025				Reference: White N= 66559 Focal: Asian N= 2484				Reference: White N= 66559 Focal: Hawaii N= 292				Reference: White N= 66559 Focal: Multiple Indicator N= 21			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	0.16	0.01	0.00	A	1.28	0.04	0.00	A	6.23	-0.19	-0.02	A	34.33	0.40	0.04	A	7.17	0.29	0.03	A	1.16	0.34	0.03	A	1.09	-0.12	-0.01	A
32	62.77	0.29	0.03	A	18.91	-0.16	-0.01	A	0.01	-0.01	0.00	A	6.81	-0.18	-0.02	A	19.53	0.51	0.04	A	0.95	-0.32	-0.03	A	0.58	-0.09	-0.01	A
33	1.34	0.04	0.00	A	37.48	-0.24	-0.02	A	1.35	-0.09	-0.01	A	26.24	-0.37	-0.03	A	12.35	0.47	0.03	A	0.89	0.33	0.02	A	0.02	0.02	0.00	A
34	69.33	-0.41	-0.02	A	27.44	-0.26	-0.01	A	13.18	-0.34	-0.02	A	0.12	-0.03	0.00	A	0.02	-0.03	0.00	A	0.87	-0.39	-0.02	A	1.10	-0.16	-0.01	A
35	167.55	0.71	0.03	A	0.29	0.03	0.00	A	10.36	-0.33	-0.02	A	0.77	-0.08	0.00	A	0.01	0.02	0.00	A	1.08	-0.46	-0.02	A	1.61	-0.22	-0.01	A
36	188.25	-0.61	-0.04	A	117.81	-0.48	-0.03	A	41.83	-0.56	-0.04	A	42.33	-0.49	-0.04	A	1.32	-0.18	-0.01	A	8.32	-1.02	-0.06	B<	0.15	-0.05	0.00	A
37	221.44	0.75	0.03	A	3.53	0.09	0.01	A	0.05	0.02	0.00	A	16.82	-0.35	-0.02	A	0.09	0.05	0.00	A	1.20	-0.47	-0.02	A	0.09	-0.05	0.00	A
38	9.92	0.13	0.01	A	0.34	0.02	0.00	A	0.13	0.03	0.00	A	1.01	0.08	0.01	A	1.37	0.18	0.01	A	1.21	-0.39	-0.02	A	1.35	-0.15	-0.01	A
39	4.89	0.11	0.00	A	10.64	0.16	0.01	A	6.35	0.25	0.01	A	6.63	0.22	0.01	A	7.71	0.56	0.01	A	0.33	0.26	0.01	A	1.09	-0.17	-0.01	A
40	787.29	-1.12	-0.08	B<	174.06	-0.53	-0.04	A	89.63	-0.82	-0.06	A	18.83	-0.33	-0.02	A	3.01	0.22	0.01	A	0.91	-0.33	-0.02	A	0.36	-0.08	-0.01	A
41	7.91	0.13	0.01	A	14.05	-0.18	-0.01	A	1.25	-0.10	-0.01	A	10.95	-0.27	-0.02	A	0.27	0.09	0.00	A	0.15	0.17	0.01	A	0.49	0.10	0.01	A
42	19.33	0.15	0.01	A	9.68	0.11	0.01	A	5.61	0.18	0.02	A	5.10	0.15	0.01	A	3.22	-0.18	-0.02	A	0.71	-0.24	-0.02	A	3.65	0.21	0.02	A
43	39.91	0.24	0.02	A	44.42	-0.26	-0.02	A	0.09	0.02	0.00	A	38.79	-0.48	-0.04	A	4.23	0.23	0.02	A	0.42	-0.20	-0.02	A	0.12	0.04	0.00	A
44	0.75	-0.03	0.00	A	38.40	-0.23	-0.02	A	51.37	-0.56	-0.05	A	0.35	-0.04	0.00	A	0.17	0.05	0.00	A	1.72	-0.41	-0.03	A	4.65	-0.25	-0.02	A
45	47.02	0.30	0.02	A	0.49	-0.03	0.00	A	22.93	-0.41	-0.03	A	39.55	-0.48	-0.04	A	19.01	-0.63	-0.03	A	3.91	-0.68	-0.04	A	6.42	-0.34	-0.02	A
46	4.11	-0.07	-0.01	A	24.13	-0.18	-0.02	A	3.28	-0.14	-0.01	A	6.48	0.17	0.02	A	8.69	-0.33	-0.03	A	0.10	0.09	0.01	A	0.00	0.00	0.00	A
47	9.14	-0.15	-0.01	A	15.43	0.20	0.01	A	0.88	0.09	0.01	A	0.20	0.04	0.00	A	1.65	0.25	0.01	A	1.01	0.48	0.02	A	1.46	0.20	0.01	A
48	11.61	0.14	0.01	A	39.36	-0.25	-0.02	A	9.14	0.25	0.02	A	6.72	-0.19	-0.02	A	0.02	-0.02	0.00	A	1.44	0.42	0.03	A	4.60	0.28	0.02	A
49	290.75	-0.61	-0.06	A	9.60	-0.11	-0.01	A	11.63	-0.26	-0.02	A	1.32	0.08	0.01	A	0.10	-0.03	0.00	A	0.00	0.01	0.00	A	1.64	0.14	0.01	A
50	222.08	0.55	0.05	A	201.30	0.53	0.05	A	3.81	0.15	0.01	A	20.85	0.31	0.03	A	2.45	0.19	0.01	A	0.01	-0.04	0.00	A	2.15	-0.17	-0.01	A
51	2.82	-0.08	0.00	A	89.87	-0.44	-0.03	A	1.01	-0.09	-0.01	A	59.86	-0.60	-0.04	A	0.17	-0.07	0.00	A	2.64	-0.63	-0.03	A	0.03	0.02	0.00	A
52	160.44	0.64	0.03	A	1.72	0.07	0.00	A	1.95	-0.14	-0.01	A	0.02	-0.01	0.00	A	4.42	-0.35	-0.01	A	0.10	-0.14	-0.01	A	0.10	0.05	0.00	A
53	101.16	0.44	0.03	A	4.11	-0.09	-0.01	A	1.28	-0.10	-0.01	A	29.32	-0.41	-0.03	A	6.71	-0.39	-0.02	A	0.28	-0.20	-0.01	A	1.26	-0.15	-0.01	A
54	28.14	0.19	0.02	A	51.17	0.26	0.03	A	1.30	-0.09	-0.01	A	17.16	0.28	0.03	A	1.00	-0.11	-0.01	A	5.05	-0.66	-0.06	A	1.39	-0.13	-0.01	A
55	27.98	0.19	0.02	A	13.82	0.13	0.01	A	49.51	0.54	0.05	A	7.78	0.19	0.02	A	11.33	0.38	0.03	A	0.11	0.10	0.01	A	3.85	0.22	0.02	A
56	162.21	-0.60	-0.03	A	4.74	-0.10	-0.01	A	18.49	-0.39	-0.03	A	0.16	-0.03	0.00	A	0.54	0.13	0.00	A	0.00	0.01	0.00	A	0.22	-0.07	0.00	A
57	34.47	0.21	0.02	A	44.88	0.25	0.02	A	9.27	-0.23	-0.02	A	8.55	0.20	0.02	A	4.51	0.25	0.02	A	0.00	-0.01	0.00	A	0.37	-0.07	-0.01	A
58	187.53	-0.49	-0.04	A	13.27	-0.13	-0.01	A	5.98	0.19	0.02	A	0.03	-0.01	0.00	A	34.18	0.63	0.06	A	0.76	0.26	0.02	A	0.11	-0.04	0.00	A
59	143.22	0.46	0.03	A	119.42	0.43	0.03	A	1.99	-0.11	-0.01	A	26.98	0.38	0.03	A	0.84	-0.12	-0.01	A	0.45	0.22	0.02	A	0.51	-0.09	-0.01	A
60	10.21	-0.13	-0.01	A	46.90	0.28	0.02	A	0.15	-0.03	0.00	A	14.32	0.28	0.02	A	0.23	-0.06	0.00	A	1.71	-0.45	-0.03	A	0.33	-0.07	-0.01	A
61	47.26	0.30	0.02	A	26.73	0.23	0.01	A	7.11	0.24	0.02	A	5.36	0.18	0.01	A	25.34	0.83	0.03	A	2.42	0.62	0.03	A	0.06	0.03	0.00	A
62	18.54	-0.16	-0.01	A	71.82	0.33	0.03	A	18.42	0.35	0.03	A	12.02	0.26	0.02	A	43.27	0.70	0.06	A	0.05	0.07	0.01	A	3.12	0.21	0.02	A
63	192.32	0.61	0.03	A	163.78	0.57	0.04	A	3.61	-0.17	-0.01	A	43.90	0.53	0.04	A	1.03	-0.15	-0.01	A	0.00	-0.02	0.00	A	2.10	-0.20	-0.01	A
64	7.09	0.09	0.01	A	0.07	0.01	0.00	A	0.67	0.06	0.01	A	12.93	-0.24	-0.02	A	21.25	0.52	0.04	A	1.74	0.39	0.04	A	0.00	0.01	0.00	A
65	21.74	0.18	0.01	A	84.39	0.36	0.03	A	7.87	-0.22	-0.02	A	8.93	0.22	0.02	A	1.72	-0.16	-0.01	A	6.67	-0.81	-0.06	A	2.19	-0.18	-0.01	A
66	18.03	-0.17	-0.01	A	39.04	0.25	0.02	A	2.69	-0.13	-0.01	A	37.34	0.45	0.04	A	5.32	0.31	0.02	A	0.40	0.22	0.02	A	0.70	0.10	0.01	A
67	62.68	-0.30	-0.02	A	102.81	-0.39	-0.03	A	40.58	-0.49	-0.04	A	20.45	-0.31	-0.03	A	0.23	0.06	0.00	A	6.26	-0.78	-0.06	A	1.12	-0.13	-0.01	A
68	245.90	0.59	0.05	A	61.62	0.30	0.03	A	35.71	-0.47	-0.04	A	0.01	-0.01	0.00	A	3.45	-0.22	-0.01	A	1.54	-0.40	-0.03	A	3.00	-0.20	-0.02	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.4
Spring 2013 AIMS Differential Item Functioning
Mathematics CRT Grade 5

	Reference: Male N= 41749 Focal: Female N= 40394				Reference: Hispanic N= 46392 Focal: Non Hispanic N= 35830				Reference: White N= 65962 Focal: Africa American N= 4813				Reference: White N= 65962 Focal: Native American N= 5974				Reference: White N= 65962 Focal: Asian N= 2453				Reference: White N= 65962 Focal: Hawaii N= 234				Reference: White N= 65962 Focal: Multiple Indicator N= 20			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	0.94	-0.06	0.00	A	0.12	0.02	0.00	A	8.61	-0.31	-0.01	A	6.23	-0.24	-0.01	A	0.17	0.09	0.00	A	0.47	-0.34	-0.01	A	0.04	-0.04	0.00	A
2	14.01	-0.21	-0.01	A	3.05	-0.10	0.00	A	1.57	-0.13	-0.01	A	23.07	-0.44	-0.02	A	1.50	0.28	0.01	A	0.04	-0.11	0.00	A	0.78	0.17	0.01	A
3	54.05	0.34	0.02	A	0.90	-0.04	0.00	A	5.68	-0.21	-0.01	A	24.62	-0.39	-0.03	A	0.35	0.10	0.00	A	0.01	-0.04	0.00	A	0.12	0.05	0.00	A
4	111.20	-0.37	-0.03	A	112.41	-0.38	-0.03	A	11.88	-0.26	-0.02	A	2.50	-0.11	-0.01	A	24.83	0.54	0.05	A	2.83	0.56	0.05	A	0.36	-0.07	-0.01	A
5	285.09	-0.70	-0.05	A	156.31	-0.54	-0.03	A	25.46	-0.49	-0.03	A	30.80	-0.50	-0.03	A	0.02	-0.02	0.00	A	0.00	0.02	0.00	A	1.20	0.14	0.01	A
6	260.74	-0.74	-0.04	A	18.10	-0.19	-0.01	A	0.01	-0.01	0.00	A	0.27	-0.04	0.00	A	4.69	0.38	0.01	A	0.08	0.12	0.01	A	0.38	0.09	0.00	A
7	455.71	-0.82	-0.07	A	809.22	-1.08	-0.09	B<	0.25	0.04	0.00	A	130.85	-0.81	-0.07	A	5.09	-0.27	-0.02	A	4.43	-0.71	-0.06	A	1.74	0.16	0.01	A
8	19.90	0.18	0.01	A	13.22	-0.15	-0.01	A	1.55	0.10	0.01	A	4.42	-0.15	-0.01	A	2.75	0.24	0.01	A	5.19	0.92	0.06	A	0.39	-0.08	-0.01	A
9	33.81	0.22	0.02	A	65.32	0.31	0.03	A	3.38	-0.14	-0.01	A	4.55	0.15	0.01	A	4.27	-0.23	-0.02	A	0.02	0.05	0.00	A	0.02	0.02	0.00	A
10	362.07	-0.72	-0.06	A	171.45	-0.50	-0.04	A	36.42	-0.49	-0.04	A	18.17	-0.31	-0.02	A	1.99	0.16	0.01	A	0.01	0.04	0.00	A	5.42	-0.29	-0.02	A
11	0.00	0.00	0.00	A	103.76	-0.40	-0.03	A	0.01	-0.01	0.00	A	40.40	-0.44	-0.04	A	0.36	-0.08	0.00	A	9.27	1.21	0.09	B>	1.88	0.17	0.01	A
12	14.10	-0.13	-0.01	A	10.81	0.12	0.01	A	1.00	-0.07	-0.01	A	14.79	0.26	0.02	A	0.03	-0.02	0.00	A	0.00	0.00	0.00	A	0.01	-0.01	0.00	A
13	59.88	0.31	0.02	A	97.74	0.40	0.03	A	2.71	-0.13	-0.01	A	17.79	0.31	0.03	A	11.62	0.47	0.03	A	1.15	0.41	0.03	A	0.89	-0.12	-0.01	A
14	119.18	0.47	0.03	A	0.31	-0.02	0.00	A	0.55	-0.06	0.00	A	0.15	-0.03	0.00	A	1.21	0.17	0.01	A	3.72	0.77	0.05	A	0.89	-0.13	-0.01	A
15	12.88	0.16	0.01	A	1.17	0.05	0.00	A	0.05	-0.02	0.00	A	0.94	-0.08	-0.01	A	0.03	0.03	0.00	A	2.33	-0.59	-0.04	A	0.06	-0.04	0.00	A
16	115.55	-0.44	-0.03	A	16.45	-0.17	-0.01	A	42.03	-0.52	-0.04	A	10.99	-0.24	-0.02	A	0.11	0.05	0.00	A	1.67	-0.49	-0.03	A	2.87	-0.22	-0.02	A
17	1.95	-0.05	0.00	A	19.94	-0.16	-0.01	A	2.91	-0.13	-0.01	A	14.40	0.26	0.02	A	69.26	0.89	0.08	A	0.01	0.04	0.00	A	0.00	0.00	0.00	A
18	299.93	0.67	0.05	A	21.80	-0.18	-0.02	A	14.14	0.30	0.03	A	27.87	-0.37	-0.03	A	5.28	-0.29	-0.02	A	4.96	-0.78	-0.06	A	1.90	0.17	0.01	A
19	184.40	-0.50	-0.04	A	103.63	-0.38	-0.03	A	24.37	-0.37	-0.03	A	0.93	-0.07	-0.01	A	0.19	0.05	0.00	A	0.75	-0.28	-0.03	A	0.90	0.11	0.01	A
20	9.62	0.11	0.01	A	86.25	-0.35	-0.03	A	25.55	-0.42	-0.03	A	1.42	-0.09	-0.01	A	4.49	-0.22	-0.02	A	0.00	0.01	0.00	A	0.24	-0.06	-0.01	A
21	69.22	0.33	0.02	A	33.86	0.23	0.02	A	30.00	0.44	0.04	A	1.30	-0.08	-0.01	A	17.65	0.60	0.03	A	2.37	0.56	0.04	A	1.04	-0.13	-0.01	A
22	460.72	-0.78	-0.07	A	47.16	-0.25	-0.02	A	12.27	-0.27	-0.02	A	29.41	-0.38	-0.03	A	1.77	0.15	0.01	A	0.14	0.13	0.01	A	0.02	-0.01	0.00	A
23	68.17	0.32	0.02	A	3.69	-0.07	0.00	A	8.28	0.22	0.02	A	41.56	-0.45	-0.04	A	40.35	0.89	0.05	A	0.14	0.14	0.01	A	0.52	-0.09	-0.01	A
24	1.25	-0.04	0.00	A	0.03	-0.01	0.00	A	4.44	0.18	0.01	A	16.21	-0.31	-0.02	A	1.96	0.16	0.01	A	0.64	0.28	0.02	A	1.44	0.15	0.01	A
25	410.42	-0.94	-0.05	A	142.06	-0.55	-0.03	A	12.33	-0.31	-0.02	A	21.07	-0.36	-0.03	A	1.03	-0.17	-0.01	A	0.06	-0.10	-0.01	A	2.07	0.22	0.01	A
26	4.66	-0.13	0.00	A	4.50	0.13	0.01	A	21.11	-0.50	-0.02	A	15.02	0.42	0.02	A	0.00	0.00	0.00	A	0.01	-0.07	0.00	A	0.57	-0.14	0.00	A
27	208.66	-0.57	-0.04	A	40.57	0.25	0.02	A	0.00	0.00	0.00	A	10.91	0.24	0.02	A	1.81	0.19	0.01	A	3.39	0.71	0.05	A	0.39	0.08	0.01	A
28	78.11	0.50	0.02	A	27.34	-0.30	-0.01	A	0.04	-0.02	0.00	A	11.72	-0.31	-0.02	A	1.23	0.25	0.01	A	1.55	0.73	0.02	A	0.09	-0.05	0.00	A
29	308.27	0.63	0.06	A	41.20	0.24	0.02	A	0.21	-0.04	0.00	A	2.33	0.11	0.01	A	0.00	0.00	0.00	A	0.14	-0.12	-0.01	A	0.55	-0.09	-0.01	A
30	0.00	0.00	0.00	A	43.97	-0.24	-0.02	A	0.87	-0.07	-0.01	A	6.85	-0.18	-0.02	A	9.30	0.34	0.03	A	4.48	-0.72	-0.06	A	1.61	0.14	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.4 (continued)
Spring 2013 AIMS Differential Item Functioning

Mathematics CRT Grade 5

	Reference: Male N= 41749 Focal: Female N= 40394				Reference: Hispanic N= 46392 Focal: Non Hispanic N= 35830				Reference: White N= 65962 Focal: Africa American N= 4813				Reference: White N= 65962 Focal: Native American N= 5974				Reference: White N= 65962 Focal: Asian N= 2453				Reference: White N= 65962 Focal: Hawaii N= 234				Reference: White N= 65962 Focal: Multiple Indicator N= 20			
Item	MH $\chi 2$	ΔMH	SMD	Flag	MH $\chi 2$	ΔMH	SMD	Flag	MH $\chi 2$	ΔMH	SMD	Flag	MH $\chi 2$	ΔMH	SMD	Flag	MH $\chi 2$	ΔMH	SMD	Flag	MH $\chi 2$	ΔMH	SMD	Flag	MH $\chi 2$	ΔMH	SMD	Flag
31	341.75	0.88	0.04	A	0.03	0.01	0.00	A	1.29	-0.10	-0.01	A	16.77	-0.33	-0.02	A	5.80	0.46	0.01	A	0.14	-0.16	-0.01	A	1.65	0.20	0.01	A
32	1.56	-0.05	0.00	A	176.79	-0.49	-0.04	A	14.35	-0.29	-0.03	A	19.37	-0.31	-0.03	A	19.00	-0.47	-0.04	A	0.04	-0.07	-0.01	A	0.08	0.03	0.00	A
33	168.75	0.64	0.03	A	181.31	0.67	0.04	A	1.78	-0.13	-0.01	A	50.29	0.63	0.04	A	0.41	-0.11	0.00	A	0.52	-0.31	-0.02	A	0.00	0.00	0.00	A
34	540.86	0.89	0.07	A	43.19	0.26	0.02	A	0.92	-0.08	-0.01	A	5.15	-0.16	-0.01	A	9.43	0.40	0.03	A	0.01	-0.04	0.00	A	0.30	-0.07	-0.01	A
35	177.65	0.59	0.03	A	4.18	-0.09	-0.01	A	1.14	0.09	0.01	A	30.66	-0.44	-0.03	A	0.01	0.01	0.00	A	0.00	-0.01	0.00	A	0.39	-0.09	-0.01	A
36	35.52	0.28	0.01	A	1.62	0.06	0.00	A	3.40	0.17	0.01	A	5.31	-0.18	-0.01	A	9.16	0.55	0.02	A	1.35	0.52	0.03	A	0.12	0.05	0.00	A
37	0.49	-0.03	0.00	A	7.11	0.10	0.01	A	7.17	0.21	0.02	A	3.36	-0.13	-0.01	A	0.25	-0.06	0.00	A	1.30	-0.40	-0.03	A	0.58	-0.09	-0.01	A
38	8.06	0.12	0.01	A	72.22	-0.36	-0.02	A	3.74	-0.16	-0.01	A	39.83	-0.46	-0.04	A	1.53	0.18	0.01	A	0.51	-0.27	-0.02	A	4.40	0.28	0.02	A
39	107.41	0.40	0.03	A	55.72	0.29	0.02	A	0.98	0.08	0.01	A	0.70	0.06	0.00	A	5.01	-0.26	-0.02	A	0.23	0.17	0.01	A	2.43	-0.19	-0.02	A
40	19.97	0.19	0.01	A	3.93	0.09	0.01	A	17.84	-0.36	-0.03	A	3.78	0.15	0.01	A	1.10	-0.16	-0.01	A	0.14	0.15	0.01	A	1.90	0.20	0.01	A
41	27.14	0.18	0.02	A	0.39	-0.02	0.00	A	0.26	0.04	0.00	A	1.66	-0.09	-0.01	A	1.19	-0.11	-0.01	A	2.75	-0.54	-0.05	A	1.44	0.13	0.01	A
42	409.98	0.85	0.06	A	51.27	0.30	0.02	A	6.21	0.21	0.02	A	4.78	0.17	0.01	A	25.05	0.77	0.03	A	0.77	0.34	0.02	A	0.88	-0.13	-0.01	A
43	385.44	0.80	0.06	A	2.53	0.07	0.01	A	0.01	-0.01	0.00	A	3.19	0.13	0.01	A	1.81	0.19	0.01	A	0.01	-0.03	0.00	A	5.73	-0.32	-0.02	A
44	83.75	-0.34	-0.03	A	0.12	-0.01	0.00	A	0.01	-0.01	0.00	A	27.30	0.37	0.03	A	12.08	0.42	0.03	A	1.20	-0.38	-0.03	A	0.46	-0.08	-0.01	A
45	183.57	0.51	0.04	A	34.30	0.22	0.02	A	1.88	-0.11	-0.01	A	30.56	0.39	0.03	A	1.81	0.16	0.01	A	5.10	0.84	0.06	A	3.06	-0.21	-0.02	A
46	69.72	-0.37	-0.02	A	36.37	-0.27	-0.02	A	0.35	-0.05	0.00	A	9.27	-0.23	-0.02	A	0.00	-0.01	0.00	A	0.15	-0.16	-0.01	A	0.20	-0.06	0.00	A
47	176.69	1.12	0.02	B>	1.80	0.11	0.00	A	0.68	-0.12	0.00	A	0.32	0.08	0.00	A	0.77	-0.27	0.00	A	0.12	-0.26	0.00	A	3.32	0.54	0.01	A
48	10.69	-0.13	-0.01	A	3.09	0.07	0.01	A	0.78	0.07	0.01	A	1.59	0.09	0.01	A	6.03	0.33	0.02	A	1.92	0.50	0.04	A	0.73	0.11	0.01	A
49	14.89	0.17	0.01	A	108.50	-0.46	-0.03	A	1.11	0.09	0.01	A	36.99	-0.46	-0.03	A	12.91	0.60	0.02	A	0.79	0.35	0.02	A	8.46	0.43	0.02	A
50	59.18	0.35	0.02	A	64.59	0.36	0.02	A	13.07	0.33	0.02	A	0.66	-0.06	0.00	A	1.96	0.24	0.01	A	0.13	0.15	0.01	A	0.49	0.10	0.01	A
51	178.81	0.49	0.04	A	2.74	0.06	0.00	A	0.18	-0.03	0.00	A	5.47	-0.16	-0.02	A	11.74	0.41	0.03	A	0.00	0.01	0.00	A	0.05	-0.03	0.00	A
52	254.65	-0.58	-0.05	A	395.21	-0.73	-0.06	A	4.50	-0.16	-0.01	A	179.66	-0.93	-0.08	A	1.13	0.12	0.01	A	0.40	-0.21	-0.02	A	2.78	0.20	0.02	A
53	215.11	-0.52	-0.05	A	6.21	-0.09	-0.01	A	59.72	-0.63	-0.05	A	4.26	0.14	0.01	A	5.55	-0.24	-0.02	A	0.45	0.22	0.02	A	0.04	-0.02	0.00	A
54	83.43	-0.34	-0.03	A	89.61	-0.35	-0.03	A	6.62	-0.20	-0.02	A	5.71	-0.17	-0.02	A	0.02	0.02	0.00	A	0.08	0.10	0.01	A	2.73	0.20	0.02	A
55	214.21	0.60	0.04	A	68.60	0.34	0.03	A	3.68	0.16	0.01	A	4.95	0.17	0.01	A	0.04	0.03	0.00	A	0.68	-0.29	-0.02	A	2.96	0.23	0.02	A
56	245.76	-0.60	-0.05	A	93.29	-0.38	-0.03	A	0.82	0.08	0.01	A	2.67	-0.12	-0.01	A	25.09	0.58	0.05	A	0.02	-0.04	0.00	A	3.37	0.23	0.02	A
57	4.25	0.09	0.01	A	9.66	0.14	0.01	A	8.02	0.25	0.02	A	0.49	-0.05	0.00	A	1.68	0.21	0.01	A	1.03	-0.45	-0.02	A	2.81	0.25	0.01	A
58	16.40	0.16	0.01	A	26.28	0.21	0.02	A	0.04	0.02	0.00	A	25.45	0.37	0.03	A	1.41	0.17	0.01	A	0.10	0.11	0.01	A	0.01	0.01	0.00	A
59	17.70	-0.16	-0.01	A	2.44	-0.06	0.00	A	0.44	-0.05	0.00	A	7.66	0.19	0.02	A	0.70	0.10	0.01	A	0.77	-0.31	-0.03	A	0.82	-0.11	-0.01	A
60	25.92	0.18	0.02	A	0.03	0.01	0.00	A	4.99	-0.16	-0.02	A	0.62	0.05	0.01	A	8.67	0.31	0.03	A	1.36	-0.38	-0.04	A	2.47	0.17	0.02	A
61	260.86	-0.69	-0.04	A	0.62	0.03	0.00	A	239.60	-1.22	-0.10	B<	61.88	0.62	0.05	A	0.98	-0.14	-0.01	A	0.36	0.24	0.02	A	4.23	-0.28	-0.02	A
62	49.94	0.26	0.02	A	31.37	-0.21	-0.02	A	1.48	0.10	0.01	A	3.39	-0.13	-0.01	A	37.47	0.73	0.05	A	0.04	0.07	0.01	A	0.14	0.04	0.00	A
63	0.03	-0.01	0.00	A	0.70	0.03	0.00	A	2.44	-0.14	-0.01	A	1.36	0.09	0.01	A	0.12	0.04	0.00	A	3.97	-0.79	-0.06	A	0.43	0.08	0.01	A
64	41.77	-0.28	-0.02	A	49.08	-0.30	-0.02	A	4.82	-0.18	-0.01	A	21.60	-0.35	-0.03	A	10.00	0.52	0.02	A	0.16	-0.16	-0.01	A	0.00	0.00	0.00	A
65	252.59	-0.64	-0.05	A	37.78	-0.26	-0.01	A	8.02	-0.26	-0.02	A	4.73	-0.18	-0.01	A	25.75	0.56	0.05	A	0.07	0.10	0.01	A	0.21	0.06	0.00	A
66	6.58	0.10	0.01	A	74.58	0.34	0.03	A	1.37	0.10	0.01	A	0.82	0.07	0.01	A	17.63	0.55	0.03	A	0.01	-0.04	0.00	A	1.26	0.15	0.01	A
67	229.81	0.53	0.05	A	0.20	-0.02	0.00	A	0.66	0.06	0.01	A	13.18	-0.25	-0.02	A	1.68	-0.14	-0.01	A	0.20	-0.15	-0.01	A	2.41	-0.17	-0.02	A

Note: African Am. = African American, Native Am. = Native American, MH $\chi 2$ = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.5
Spring 2013 AIMS Differential Item Functioning

Mathematics CRT Grade 6

	Reference: Male N= 42057 Focal: Female N= 40449				Reference: Hispanic N= 46679 Focal: Non Hispanic N= 35907				Reference: White N= 66518 Focal: Africa American N= 4716				Reference: White N= 66518 Focal: Native American N= 5823				Reference: White N= 66518 Focal: Asian N= 2519				Reference: White N= 66518 Focal: Hawaii N= 292				Reference: White N= 66518 Focal: Multiple Indicator N= 19			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	39.33	-0.35	-0.01	A	14.92	-0.21	-0.01	A	14.63	-0.39	-0.02	A	7.79	-0.26	-0.01	A	10.57	-0.62	-0.01	A	0.39	-0.28	-0.01	A	0.09	-0.06	0.00	A
2	171.96	0.46	0.04	A	29.14	0.19	0.02	A	12.13	-0.26	-0.02	A	2.97	0.12	0.01	A	1.90	0.15	0.01	A	0.00	-0.02	0.00	A	1.94	-0.16	-0.01	A
3	3.30	-0.07	0.00	A	0.15	0.01	0.00	A	7.49	0.22	0.02	A	0.23	0.03	0.00	A	10.49	0.34	0.03	A	0.23	0.14	0.01	A	2.45	0.19	0.02	A
4	34.21	-0.23	-0.02	A	15.60	-0.16	-0.01	A	0.12	-0.03	0.00	A	13.30	-0.27	-0.02	A	5.74	0.34	0.02	A	0.20	-0.15	-0.01	A	2.70	0.21	0.02	A
5	134.26	-0.44	-0.04	A	87.06	-0.35	-0.03	A	3.96	-0.16	-0.01	A	36.90	-0.43	-0.04	A	6.06	-0.31	-0.02	A	1.97	-0.43	-0.04	A	0.22	0.06	0.00	A
6	58.26	0.33	0.02	A	0.38	-0.03	0.00	A	12.43	0.30	0.02	A	7.94	-0.22	-0.02	A	9.71	0.50	0.02	A	1.49	0.46	0.03	A	3.13	0.25	0.02	A
7	1.39	0.05	0.00	A	0.03	-0.01	0.00	A	4.86	0.20	0.01	A	0.84	0.07	0.01	A	11.09	0.58	0.02	A	1.99	0.56	0.03	A	0.49	0.10	0.01	A
8	416.17	-0.75	-0.07	A	2.19	0.05	0.00	A	7.46	-0.21	-0.02	A	6.56	-0.18	-0.02	A	3.82	0.23	0.02	A	0.00	0.02	0.00	A	0.18	0.05	0.00	A
9	0.35	-0.02	0.00	A	271.14	-0.61	-0.05	A	4.90	-0.17	-0.02	A	80.14	-0.62	-0.06	A	9.70	-0.36	-0.03	A	0.02	-0.04	0.00	A	2.37	0.18	0.02	A
10	48.50	0.25	0.02	A	1.33	0.04	0.00	A	0.44	-0.05	0.00	A	2.36	0.11	0.01	A	32.23	0.68	0.05	A	8.16	0.87	0.08	A	1.08	-0.12	-0.01	A
11	1422.90	-1.56	-0.11	C<	484.21	-0.91	-0.06	A	28.02	-0.49	-0.03	A	96.51	-0.83	-0.05	A	14.46	0.47	0.03	A	0.02	-0.05	0.00	A	0.25	-0.07	0.00	A
12	6.59	0.15	0.00	A	9.36	-0.18	-0.01	A	28.11	-0.55	-0.03	A	0.19	-0.04	0.00	A	0.10	0.07	0.00	A	1.00	-0.47	-0.02	A	0.26	0.10	0.00	A
13	9.69	0.11	0.01	A	1.85	-0.05	0.00	A	0.10	0.02	0.00	A	2.02	0.09	0.01	A	10.88	0.36	0.03	A	0.00	0.00	0.00	A	2.02	0.16	0.02	A
14	329.54	-0.66	-0.06	A	191.28	-0.50	-0.04	A	2.42	-0.12	-0.01	A	19.36	-0.31	-0.03	A	8.60	-0.32	-0.03	A	1.97	-0.41	-0.04	A	0.53	0.09	0.01	A
15	126.15	0.40	0.04	A	22.98	0.17	0.02	A	0.39	0.05	0.00	A	0.94	-0.07	-0.01	A	19.16	0.52	0.04	A	0.10	-0.10	-0.01	A	0.05	0.03	0.00	A
16	253.78	0.79	0.04	A	4.91	0.11	0.01	A	6.79	-0.25	-0.02	A	0.08	0.02	0.00	A	0.44	-0.12	0.00	A	2.21	-0.59	-0.03	A	0.00	0.00	0.00	A
17	295.71	-0.63	-0.06	A	420.48	-0.75	-0.06	A	38.59	-0.50	-0.04	A	105.55	-0.73	-0.06	A	3.43	-0.21	-0.02	A	1.31	-0.34	-0.03	A	2.08	-0.17	-0.01	A
18	203.95	0.53	0.05	A	9.08	0.11	0.01	A	2.28	0.12	0.01	A	0.65	-0.06	-0.01	A	37.86	0.76	0.05	A	0.47	0.21	0.02	A	0.00	0.00	0.00	A
19	19.80	0.16	0.01	A	0.14	-0.01	0.00	A	0.22	-0.04	0.00	A	2.58	-0.11	-0.01	A	4.40	0.23	0.02	A	0.11	0.10	0.01	A	0.65	0.09	0.01	A
20	8.16	0.10	0.01	A	32.89	-0.21	-0.02	A	3.93	-0.15	-0.01	A	1.61	-0.09	-0.01	A	0.09	0.03	0.00	A	0.11	0.10	0.01	A	0.00	0.00	0.00	A
21	10.47	-0.13	-0.01	A	45.44	-0.27	-0.02	A	33.76	-0.47	-0.04	A	10.75	-0.24	-0.02	A	0.46	-0.09	0.00	A	2.92	-0.57	-0.04	A	1.29	0.15	0.01	A
22	170.76	0.62	0.03	A	2.46	0.07	0.00	A	16.05	0.38	0.02	A	2.78	-0.14	-0.01	A	7.80	0.55	0.02	A	0.01	0.04	0.00	A	1.85	0.22	0.01	A
23	0.68	0.04	0.00	A	0.71	0.04	0.00	A	2.71	0.15	0.01	A	0.12	0.03	0.00	A	3.64	0.37	0.01	A	2.45	-0.58	-0.03	A	0.00	0.01	0.00	A
24	15.74	0.17	0.01	A	1.63	0.06	0.00	A	6.40	-0.22	-0.02	A	2.21	0.12	0.01	A	0.48	-0.10	0.00	A	0.00	0.01	0.00	A	0.35	0.08	0.01	A
25	91.21	0.46	0.02	A	16.58	0.20	0.01	A	15.07	-0.36	-0.02	A	1.94	0.12	0.01	A	2.83	0.31	0.01	A	0.00	0.01	0.00	A	0.66	-0.13	-0.01	A
26	316.02	0.66	0.06	A	56.83	0.28	0.03	A	2.03	0.11	0.01	A	1.43	0.08	0.01	A	32.32	0.70	0.05	A	1.09	0.32	0.03	A	2.18	-0.18	-0.01	A
27	26.90	0.28	0.01	A	2.87	0.09	0.00	A	6.66	-0.26	-0.01	A	15.39	-0.36	-0.02	A	3.80	-0.37	-0.01	A	0.02	-0.07	0.00	A	3.10	0.32	0.01	A
28	2.18	-0.06	0.00	A	21.56	0.18	0.01	A	22.04	-0.37	-0.03	A	14.43	0.28	0.02	A	0.81	0.12	0.01	A	0.53	-0.24	-0.02	A	8.43	-0.36	-0.03	A
29	12.93	0.13	0.01	A	2.58	0.06	0.00	A	25.06	-0.39	-0.03	A	71.32	-0.59	-0.05	A	0.25	-0.06	0.00	A	0.40	0.20	0.02	A	5.16	-0.27	-0.02	A
30	175.38	-0.48	-0.04	A	0.17	0.02	0.00	A	9.38	-0.24	-0.02	A	0.15	0.03	0.00	A	16.67	0.49	0.03	A	2.74	-0.50	-0.04	A	0.23	-0.06	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.5 (continued)
Spring 2013 AIMS Differential Item Functioning
Mathematics CRT Grade 6

	Reference: Male N= 42057				Reference: Hispanic N= 46679				Reference: White N= 66518				Reference: White N= 66518				Reference: White N= 66518				Reference: White N= 66518				Reference: White N= 66518			
	Focal: Female N= 40449				Focal: Non Hispanic N= 35907				Focal: Africa American N= 4716				Focal: Native American N= 5823				Focal: Asian N= 2519				Focal: Hawaii N= 292				Focal: Multiple Indicator N= 19			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	27.47	-0.21	-0.02	A	1.80	-0.05	0.00	A	11.15	-0.27	-0.02	A	3.71	-0.14	-0.01	A	0.06	0.03	0.00	A	0.51	0.24	0.02	A	0.00	0.01	0.00	A
32	121.83	0.47	0.03	A	8.43	0.13	0.01	A	9.31	0.27	0.02	A	0.09	0.02	0.00	A	21.05	0.75	0.03	A	2.34	0.58	0.03	A	1.24	0.16	0.01	A
33	0.13	0.01	0.00	A	28.50	-0.19	-0.02	A	0.51	-0.05	-0.01	A	1.35	-0.08	-0.01	A	0.51	-0.07	-0.01	A	0.10	0.09	0.01	A	0.28	-0.06	-0.01	A
34	18.16	0.18	0.01	A	2.85	0.07	0.01	A	22.41	-0.39	-0.03	A	0.04	0.02	0.00	A	1.06	0.15	0.01	A	1.96	-0.48	-0.03	A	1.01	-0.13	-0.01	A
35	210.00	0.60	0.04	A	23.10	0.20	0.01	A	7.77	-0.23	-0.02	A	11.97	0.26	0.02	A	0.41	0.09	0.00	A	1.43	0.43	0.03	A	2.23	-0.20	-0.01	A
36	125.28	0.52	0.03	A	34.91	0.28	0.02	A	20.49	0.42	0.03	A	0.02	0.01	0.00	A	15.74	0.72	0.02	A	0.83	0.36	0.02	A	0.14	0.06	0.00	A
37	300.59	0.61	0.06	A	18.85	0.16	0.01	A	10.26	0.25	0.02	A	3.34	0.13	0.01	A	8.96	0.30	0.03	A	0.53	0.21	0.02	A	0.05	0.03	0.00	A
38	14.06	0.17	0.01	A	0.56	0.03	0.00	A	1.72	0.12	0.01	A	2.27	0.12	0.01	A	3.00	0.31	0.01	A	0.16	-0.16	-0.01	A	0.78	0.14	0.01	A
39	1.59	0.05	0.00	A	7.96	-0.11	-0.01	A	0.85	-0.07	-0.01	A	1.63	0.09	0.01	A	0.38	-0.08	0.00	A	0.20	0.14	0.01	A	0.34	0.07	0.01	A
40	5.54	0.09	0.01	A	638.25	-0.93	-0.08	A	2.90	0.13	0.01	A	39.79	-0.45	-0.04	A	0.00	0.00	0.00	A	0.00	0.01	0.00	A	6.88	0.31	0.03	A
41	136.57	-0.44	-0.04	A	257.26	-0.61	-0.05	A	10.73	-0.26	-0.02	A	25.73	-0.35	-0.03	A	14.36	0.50	0.03	A	0.14	-0.12	-0.01	A	0.06	0.03	0.00	A
42	1.85	-0.05	0.00	A	0.17	-0.01	0.00	A	3.67	0.15	0.01	A	3.31	-0.13	-0.01	A	13.83	0.37	0.04	A	2.87	0.49	0.05	A	0.18	0.05	0.00	A
43	47.63	0.23	0.02	A	28.40	0.18	0.02	A	0.50	-0.05	-0.01	A	25.84	0.34	0.03	A	6.79	0.26	0.03	A	0.11	-0.09	-0.01	A	0.04	0.02	0.00	A
44	116.49	-0.37	-0.04	A	0.91	0.03	0.00	A	5.58	-0.18	-0.02	A	2.76	0.11	0.01	A	5.16	-0.23	-0.02	A	5.71	-0.68	-0.07	A	0.13	0.04	0.00	A
45	128.10	0.42	0.04	A	13.33	-0.14	-0.01	A	0.45	-0.05	0.00	A	0.04	0.01	0.00	A	10.20	0.39	0.03	A	2.87	0.52	0.04	A	0.26	0.06	0.01	A
46	3.64	-0.08	-0.01	A	2.45	0.07	0.00	A	7.26	-0.23	-0.02	A	4.41	0.17	0.01	A	1.86	0.22	0.01	A	0.33	-0.21	-0.01	A	4.56	-0.29	-0.02	A
47	10.32	-0.12	-0.01	A	22.02	-0.18	-0.01	A	2.85	-0.14	-0.01	A	2.25	-0.11	-0.01	A	22.53	0.54	0.04	A	0.00	0.02	0.00	A	0.10	0.04	0.00	A
48	140.90	0.51	0.03	A	27.80	-0.22	-0.01	A	2.02	-0.12	-0.01	A	14.42	-0.29	-0.02	A	0.75	-0.13	-0.01	A	0.73	0.31	0.02	A	6.18	0.36	0.02	A
49	2.97	-0.08	0.00	A	7.36	0.13	0.01	A	0.70	0.08	0.00	A	10.19	-0.26	-0.02	A	12.89	0.67	0.02	A	2.24	0.63	0.03	A	0.54	0.11	0.01	A
50	4.13	0.07	0.01	A	1.89	0.05	0.01	A	0.78	0.07	0.01	A	0.06	0.02	0.00	A	1.55	-0.13	-0.01	A	2.69	-0.51	-0.04	A	0.14	-0.04	0.00	A
51	946.43	1.10	0.10	B>	141.27	0.43	0.04	A	13.52	-0.28	-0.03	A	94.54	0.68	0.06	A	0.12	0.04	0.00	A	1.00	0.31	0.03	A	0.00	0.01	0.00	A
52	1086.74	-1.30	-0.10	B<	181.14	-0.53	-0.04	A	16.85	-0.35	-0.03	A	26.60	-0.39	-0.03	A	1.17	0.13	0.01	A	4.45	-0.67	-0.05	A	2.89	0.22	0.02	A
53	36.98	0.25	0.02	A	20.53	-0.19	-0.01	A	0.07	0.02	0.00	A	3.48	-0.14	-0.01	A	22.47	0.71	0.03	A	3.28	0.64	0.04	A	3.74	0.26	0.02	A
54	105.58	0.39	0.03	A	0.85	-0.04	0.00	A	10.08	0.26	0.02	A	0.71	0.06	0.00	A	90.23	1.13	0.08	B>	2.66	0.51	0.04	A	0.04	-0.02	0.00	A
55	77.62	-0.42	-0.02	A	3.18	0.09	0.00	A	0.00	-0.01	0.00	A	3.15	0.15	0.01	A	3.72	0.35	0.01	A	1.25	-0.46	-0.02	A	0.08	0.04	0.00	A
56	2.05	-0.05	0.00	A	0.49	-0.03	0.00	A	2.93	-0.13	-0.01	A	7.33	-0.19	-0.02	A	61.14	0.80	0.08	A	1.47	0.36	0.03	A	1.18	-0.13	-0.01	A
57	281.19	-0.66	-0.05	A	0.18	0.02	0.00	A	54.91	-0.59	-0.05	A	0.15	0.03	0.00	A	1.76	-0.18	-0.01	A	2.39	-0.49	-0.04	A	2.02	-0.18	-0.01	A
58	45.65	0.34	0.01	A	20.51	0.23	0.01	A	2.19	0.15	0.01	A	0.01	-0.01	0.00	A	6.44	0.53	0.01	A	4.49	-0.84	-0.04	A	0.47	0.11	0.01	A
59	99.22	-0.35	-0.03	A	1.66	0.05	0.00	A	0.17	-0.03	0.00	A	28.32	0.37	0.03	A	0.28	-0.05	0.00	A	0.25	0.14	0.01	A	0.11	0.04	0.00	A
60	77.91	0.31	0.03	A	0.92	0.03	0.00	A	4.12	0.16	0.01	A	15.28	0.28	0.02	A	4.55	0.22	0.02	A	0.05	-0.06	-0.01	A	1.46	-0.14	-0.01	A
61	35.33	0.30	0.01	A	7.13	-0.13	-0.01	A	10.17	-0.30	-0.02	A	1.25	0.10	0.01	A	6.20	0.52	0.01	A	0.68	-0.35	-0.02	A	4.15	0.34	0.02	A
62	2.01	-0.05	0.00	A	20.19	-0.16	-0.01	A	0.43	0.05	0.00	A	45.31	-0.48	-0.04	A	30.79	0.60	0.05	A	0.15	-0.12	-0.01	A	1.19	-0.13	-0.01	A
63	7.17	0.11	0.01	A	134.26	-0.46	-0.04	A	0.59	-0.06	0.00	A	90.49	-0.69	-0.06	A	1.64	-0.17	-0.01	A	0.71	0.28	0.02	A	0.35	0.08	0.01	A
64	630.46	-1.02	-0.07	B<	49.96	-0.29	-0.02	A	9.51	-0.26	-0.02	A	29.99	-0.40	-0.03	A	1.02	0.14	0.01	A	4.86	-0.73	-0.05	A	0.54	0.10	0.01	A
65	28.33	-0.20	-0.02	A	107.59	-0.38	-0.03	A	1.58	-0.10	-0.01	A	36.95	-0.44	-0.04	A	28.08	0.63	0.05	A	0.82	-0.29	-0.02	A	1.89	0.16	0.01	A
66	136.23	0.41	0.04	A	159.23	0.46	0.04	A	0.02	0.01	0.00	A	79.72	0.62	0.06	A	43.02	0.72	0.06	A	0.87	-0.27	-0.03	A	9.43	0.36	0.03	A
67	17.39	0.15	0.01	A	1.95	-0.05	-0.01	A	5.48	0.18	0.02	A	0.78	-0.06	-0.01	A	6.88	0.30	0.02	A	2.91	-0.51	-0.05	A	0.02	-0.02	0.00	A
68	146.46	0.44	0.04	A	0.63	0.03	0.00	A	12.01	-0.26	-0.02	A	0.69	-0.06	-0.01	A	6.71	-0.30	-0.02	A	0.36	0.18	0.02	A	0.22	-0.06	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.6
Spring 2013 AIMS Differential Item Functioning

Mathematics CRT Grade 7

	Reference: Male N= 41834 Focal: Female N= 40561				Reference: Hispanic N= 47160 Focal: Non Hispanic N= 35331				Reference: White N= 66203 Focal: Africa American N= 4913				Reference: White N= 66203 Focal: Native American N= 5956				Reference: White N= 66203 Focal: Asian N= 2400				Reference: White N= 66203 Focal: Hawaii N= 257				Reference: White N= 66203 Focal: Multiple Indicator N= 19			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	38.30	-0.21	-0.02	A	18.57	0.15	0.02	A	0.03	0.01	0.00	A	12.64	0.23	0.02	A	13.17	0.37	0.04	A	0.07	0.08	0.01	A	0.29	0.06	0.01	A
2	262.89	-0.75	-0.04	A	62.20	-0.36	-0.02	A	115.88	-0.90	-0.06	A	1.04	0.08	0.01	A	1.02	-0.17	-0.01	A	0.05	-0.09	-0.01	A	2.74	0.27	0.01	A
3	44.17	-0.24	-0.02	A	21.56	-0.17	-0.02	A	3.03	0.13	0.01	A	2.03	-0.10	-0.01	A	0.47	0.08	0.01	A	1.91	0.46	0.04	A	0.28	-0.06	-0.01	A
4	0.23	-0.02	0.00	A	3.68	-0.07	0.00	A	0.07	-0.02	0.00	A	3.36	-0.14	-0.01	A	21.18	0.54	0.04	A	0.20	0.15	0.01	A	0.59	0.09	0.01	A
5	120.53	0.37	0.04	A	0.62	-0.03	0.00	A	6.51	0.18	0.02	A	2.61	-0.11	-0.01	A	31.87	0.60	0.06	A	0.15	-0.12	-0.01	A	1.14	0.12	0.01	A
6	44.19	0.24	0.02	A	13.58	-0.13	-0.01	A	3.37	0.14	0.01	A	2.46	-0.11	-0.01	A	0.26	-0.06	0.00	A	6.76	-0.83	-0.07	A	0.00	-0.01	0.00	A
7	314.02	0.81	0.04	A	1.72	0.06	0.01	A	0.00	0.00	0.00	A	2.09	0.12	0.01	A	0.13	-0.06	0.00	A	0.03	0.07	0.00	A	0.04	-0.03	0.00	A
8	28.57	0.23	0.01	A	0.02	-0.01	0.00	A	10.25	-0.27	-0.02	A	5.05	-0.17	-0.01	A	0.12	-0.06	0.00	A	2.71	-0.63	-0.04	A	2.50	0.24	0.01	A
9	131.03	0.49	0.03	A	2.76	-0.07	0.00	A	1.22	0.09	0.01	A	6.38	-0.19	-0.01	A	1.89	0.22	0.01	A	0.99	0.40	0.02	A	1.80	-0.19	-0.01	A
10	464.00	0.75	0.07	A	16.33	0.14	0.01	A	11.09	0.24	0.02	A	2.32	-0.10	-0.01	A	5.68	0.26	0.02	A	0.04	0.06	0.01	A	0.57	0.09	0.01	A
11	582.06	0.86	0.08	A	9.51	0.11	0.01	A	10.69	0.24	0.02	A	1.72	0.09	0.01	A	6.63	0.30	0.02	A	0.11	0.11	0.01	A	0.01	0.01	0.00	A
12	75.23	0.34	0.03	A	0.91	0.04	0.00	A	9.82	-0.25	-0.02	A	0.16	-0.03	0.00	A	0.02	0.02	0.00	A	0.09	-0.11	-0.01	A	3.06	-0.23	-0.02	A
13	78.65	-0.32	-0.03	A	1.71	0.05	0.01	A	1.21	-0.09	-0.01	A	3.57	-0.14	-0.01	A	2.23	0.16	0.02	A	1.91	-0.46	-0.04	A	2.37	-0.19	-0.02	A
14	50.23	0.28	0.02	A	5.54	-0.09	-0.01	A	3.60	0.15	0.01	A	0.04	0.01	0.00	A	31.44	0.79	0.04	A	0.02	0.05	0.00	A	5.18	0.30	0.02	A
15	246.43	-0.64	-0.04	A	19.98	-0.18	-0.01	A	36.70	-0.49	-0.04	A	0.05	-0.02	0.00	A	3.52	0.28	0.01	A	0.25	0.19	0.01	A	1.09	-0.14	-0.01	A
16	129.50	-0.42	-0.04	A	45.76	-0.25	-0.02	A	79.29	-0.67	-0.06	A	124.19	-0.76	-0.07	A	0.49	-0.09	-0.01	A	2.40	-0.50	-0.04	A	1.04	-0.13	-0.01	A
17	117.08	0.40	0.03	A	136.47	-0.44	-0.03	A	3.43	-0.14	-0.01	A	21.62	-0.33	-0.03	A	3.99	0.24	0.02	A	5.64	-0.76	-0.07	A	0.03	-0.02	0.00	A
18	240.55	0.69	0.04	A	4.15	0.09	0.01	A	2.16	-0.13	-0.01	A	28.24	-0.41	-0.03	A	2.69	0.28	0.01	A	0.01	-0.03	0.00	A	1.52	-0.18	-0.01	A
19	92.35	0.38	0.03	A	32.54	-0.23	-0.02	A	17.76	0.35	0.03	A	2.77	-0.13	-0.01	A	63.22	1.12	0.06	B>	0.01	-0.04	0.00	A	1.32	0.15	0.01	A
20	9.60	0.11	0.01	A	93.47	-0.35	-0.03	A	3.72	-0.15	-0.01	A	12.64	-0.25	-0.02	A	0.05	0.03	0.00	A	3.01	0.57	0.05	A	0.68	-0.10	-0.01	A
21	15.99	0.14	0.01	A	81.68	0.33	0.03	A	0.71	-0.07	-0.01	A	8.45	-0.21	-0.02	A	2.02	-0.16	-0.01	A	3.89	-0.65	-0.06	A	6.14	-0.29	-0.03	A
22	165.00	-0.47	-0.04	A	31.74	-0.21	-0.02	A	141.35	-0.96	-0.08	A	10.36	0.23	0.02	A	1.00	-0.12	-0.01	A	0.17	-0.14	-0.01	A	3.82	-0.24	-0.02	A
23	309.11	0.77	0.04	A	85.63	0.41	0.03	A	3.65	0.17	0.01	A	1.68	0.10	0.01	A	3.59	0.32	0.01	A	3.27	-0.70	-0.04	A	0.36	-0.09	-0.01	A
24	127.94	0.50	0.03	A	19.64	0.20	0.01	A	1.56	0.11	0.01	A	0.01	0.01	0.00	A	1.47	0.20	0.01	A	0.16	-0.16	-0.01	A	2.47	0.23	0.01	A
25	532.64	-0.94	-0.07	A	1.14	-0.04	0.00	A	16.04	-0.32	-0.03	A	0.85	-0.07	-0.01	A	0.00	-0.01	0.00	A	0.24	0.18	0.01	A	0.02	0.02	0.00	A
26	17.89	0.16	0.01	A	1.81	0.05	0.01	A	3.56	0.15	0.01	A	7.27	0.19	0.02	A	0.00	0.01	0.00	A	0.56	0.25	0.02	A	5.26	0.29	0.02	A
27	1.22	-0.04	0.00	A	37.77	0.23	0.02	A	0.09	0.02	0.00	A	1.88	0.09	0.01	A	11.03	0.42	0.03	A	5.00	-0.71	-0.06	A	0.07	0.03	0.00	A
28	15.26	-0.14	-0.01	A	226.61	0.54	0.05	A	2.44	-0.11	-0.01	A	25.26	0.34	0.03	A	0.10	0.03	0.00	A	0.32	0.18	0.02	A	0.15	-0.04	0.00	A
29	296.57	-0.63	-0.06	A	18.90	-0.16	-0.01	A	0.01	0.01	0.00	A	2.83	-0.12	-0.01	A	0.03	-0.02	0.00	A	2.11	-0.46	-0.04	A	0.02	0.02	0.00	A
30	617.03	-1.05	-0.07	B<	195.26	-0.58	-0.04	A	0.92	0.08	0.01	A	43.87	-0.49	-0.04	A	15.44	0.64	0.03	A	0.02	-0.05	0.00	A	1.07	0.15	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.6 (continued)
Spring 2013 AIMS Differential Item Functioning

Mathematics CRT Grade 7

	Reference: Male N= 41834				Reference: Hispanic N= 47160				Reference: White N= 66203				Reference: White N= 66203				Reference: White N= 66203				Reference: White N= 66203				Reference: White N= 66203			
	Focal: Female N= 40561				Focal: Non Hispanic N= 35331				Focal: Africa American N= 4913				Focal: Native American N= 5956				Focal: Asian N= 2400				Focal: Hawaii N= 257				Focal: Multiple Indicator N= 19			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	398.07	0.75	0.06	A	0.01	0.00	0.00	A	1.59	0.10	0.01	A	2.73	0.12	0.01	A	54.65	0.84	0.07	A	0.01	0.03	0.00	A	1.05	-0.12	-0.01	A
32	29.34	-0.23	-0.01	A	36.03	-0.25	-0.02	A	66.88	-0.65	-0.05	A	4.79	-0.16	-0.01	A	1.30	-0.17	-0.01	A	4.48	-0.76	-0.05	A	0.35	-0.08	-0.01	A
33	85.29	-0.36	-0.03	A	34.14	-0.23	-0.02	A	1.33	-0.09	-0.01	A	87.44	-0.67	-0.06	A	1.70	-0.17	-0.01	A	0.84	-0.29	-0.02	A	0.31	0.07	0.01	A
34	431.23	-0.74	-0.07	A	21.67	-0.17	-0.02	A	9.29	-0.23	-0.02	A	6.14	-0.17	-0.02	A	0.00	0.01	0.00	A	7.98	-0.84	-0.08	A	0.03	0.02	0.00	A
35	118.10	0.60	0.02	A	2.49	0.09	0.00	A	0.39	0.06	0.00	A	15.36	-0.35	-0.02	A	10.01	0.75	0.01	A	2.46	0.80	0.03	A	0.03	-0.03	0.00	A
36	133.79	0.44	0.03	A	18.68	0.17	0.01	A	0.98	-0.08	-0.01	A	18.48	-0.31	-0.03	A	5.39	-0.29	-0.02	A	0.07	-0.09	-0.01	A	2.05	-0.18	-0.01	A
37	68.78	0.31	0.03	A	17.58	-0.16	-0.01	A	4.11	-0.16	-0.01	A	7.51	-0.19	-0.02	A	0.13	-0.05	0.00	A	0.11	-0.12	-0.01	A	0.07	0.03	0.00	A
38	92.66	-0.35	-0.03	A	0.79	0.03	0.00	A	29.85	-0.43	-0.04	A	18.81	0.31	0.03	A	11.42	0.40	0.03	A	0.19	-0.15	-0.01	A	0.53	-0.09	-0.01	A
39	675.34	-1.01	-0.08	B<	89.56	-0.37	-0.03	A	0.35	-0.05	0.00	A	0.89	-0.07	0.00	A	1.05	-0.13	-0.01	A	0.14	0.12	0.01	A	1.18	0.14	0.01	A
40	3.80	-0.07	-0.01	A	0.50	0.03	0.01	A	2.02	0.11	0.01	A	5.28	-0.16	-0.01	A	19.28	0.45	0.04	A	0.92	-0.31	-0.03	A	0.04	0.02	0.00	A
41	179.38	0.52	0.04	A	5.11	0.09	0.01	A	0.01	0.01	0.00	A	3.41	0.13	0.01	A	5.27	0.31	0.02	A	0.91	-0.33	-0.03	A	0.00	0.01	0.00	A
42	8.27	0.13	0.01	A	19.85	0.20	0.01	A	1.36	0.10	0.01	A	2.74	0.13	0.01	A	11.15	0.60	0.02	A	1.54	0.51	0.03	A	0.04	0.03	0.00	A
43	17.01	0.16	0.01	A	13.20	-0.14	-0.01	A	25.09	-0.40	-0.03	A	1.07	0.08	0.01	A	0.23	-0.06	0.00	A	0.91	-0.34	-0.02	A	5.44	-0.30	-0.02	A
44	226.63	-0.58	-0.05	A	205.32	-0.56	-0.04	A	1.37	-0.10	-0.01	A	0.20	-0.03	0.00	A	53.91	0.85	0.07	A	0.15	0.13	0.01	A	0.46	0.09	0.01	A
45	23.65	0.20	0.01	A	3.01	0.07	0.01	A	2.46	-0.13	-0.01	A	5.62	-0.18	-0.01	A	5.52	0.37	0.02	A	0.01	-0.04	0.00	A	0.50	-0.10	-0.01	A
46	0.04	-0.01	0.00	A	36.93	0.23	0.02	A	22.75	-0.37	-0.03	A	21.39	0.33	0.03	A	32.70	0.70	0.05	A	0.22	-0.15	-0.01	A	0.01	-0.01	0.00	A
47	161.16	0.45	0.04	A	26.33	0.18	0.02	A	18.21	0.31	0.03	A	6.00	0.17	0.02	A	75.78	1.03	0.08	B>	1.41	0.35	0.03	A	0.01	-0.01	0.00	A
48	426.21	0.94	0.05	A	119.04	-0.50	-0.03	A	42.98	0.62	0.04	A	8.84	-0.24	-0.02	A	4.76	-0.33	-0.01	A	0.26	0.21	0.01	A	4.39	0.33	0.02	A
49	20.18	0.19	0.01	A	27.27	-0.22	-0.02	A	0.04	-0.02	0.00	A	8.56	-0.22	-0.02	A	0.58	-0.11	-0.01	A	0.12	-0.13	-0.01	A	1.98	0.20	0.01	A
50	53.71	0.26	0.02	A	115.75	0.40	0.04	A	0.08	0.02	0.00	A	21.36	0.32	0.03	A	3.45	0.22	0.02	A	1.33	-0.38	-0.03	A	3.78	-0.23	-0.02	A
51	13.72	0.16	0.01	A	4.63	-0.09	-0.01	A	5.64	-0.20	-0.01	A	5.31	-0.17	-0.01	A	21.51	-0.63	-0.03	A	0.09	0.11	0.01	A	0.03	0.03	0.00	A
52	245.26	0.70	0.04	A	81.49	0.41	0.03	A	0.04	0.02	0.00	A	1.82	0.11	0.01	A	25.50	0.90	0.03	A	0.18	0.16	0.01	A	3.33	0.27	0.02	A
53	20.57	0.17	0.01	A	25.35	-0.19	-0.01	A	6.20	0.19	0.02	A	28.77	-0.38	-0.03	A	3.25	-0.22	-0.01	A	0.08	-0.10	-0.01	A	1.46	0.15	0.01	A
54	0.86	-0.04	0.00	A	3.60	-0.08	-0.01	A	5.37	-0.19	-0.01	A	0.15	-0.03	0.00	A	8.00	0.42	0.02	A	0.12	-0.13	-0.01	A	1.68	-0.17	-0.01	A
55	8.99	-0.14	-0.01	A	2.79	-0.08	0.00	A	40.88	-0.55	-0.04	A	1.17	0.09	0.01	A	0.22	-0.08	0.00	A	0.93	-0.37	-0.02	A	3.81	-0.30	-0.02	A
56	4.36	-0.08	-0.01	A	397.59	-0.81	-0.06	A	2.27	-0.12	-0.01	A	79.41	-0.65	-0.05	A	1.34	-0.17	-0.01	A	3.88	-0.65	-0.05	A	0.70	0.11	0.01	A
57	161.17	0.71	0.02	A	0.00	0.00	0.00	A	0.01	-0.01	0.00	A	14.33	-0.34	-0.02	A	6.16	0.59	0.01	A	2.36	-0.72	-0.03	A	0.40	0.12	0.00	A
58	17.44	-0.18	-0.01	A	127.78	-0.49	-0.03	A	11.75	0.30	0.02	A	96.38	-0.73	-0.06	A	2.23	0.24	0.01	A	0.00	-0.02	0.00	A	0.61	0.12	0.01	A
59	51.79	-0.27	-0.02	A	40.02	-0.24	-0.02	A	20.96	-0.35	-0.03	A	49.50	-0.49	-0.04	A	0.34	-0.07	0.00	A	0.03	-0.06	0.00	A	0.06	-0.03	0.00	A
60	112.67	0.42	0.03	A	0.05	0.01	0.00	A	16.54	0.33	0.03	A	0.29	-0.04	0.00	A	12.57	0.51	0.03	A	2.26	0.53	0.04	A	0.90	0.12	0.01	A
61	134.23	0.48	0.03	A	21.65	0.20	0.01	A	2.54	0.13	0.01	A	3.04	0.13	0.01	A	18.30	0.67	0.03	A	0.63	-0.29	-0.02	A	0.02	0.02	0.00	A
62	180.83	-0.48	-0.04	A	64.97	-0.29	-0.03	A	6.65	-0.19	-0.02	A	6.16	0.17	0.02	A	2.83	0.20	0.02	A	0.12	-0.10	-0.01	A	0.57	0.09	0.01	A
63	119.96	0.48	0.03	A	36.77	-0.27	-0.02	A	0.65	-0.07	0.00	A	62.76	-0.60	-0.05	A	23.53	-0.72	-0.03	A	0.89	-0.35	-0.02	A	0.53	-0.11	-0.01	A
64	660.85	-1.05	-0.07	B<	170.11	-0.53	-0.04	A	28.65	-0.44	-0.03	A	2.48	-0.12	-0.01	A	0.33	-0.08	0.00	A	2.12	-0.53	-0.04	A	0.05	-0.03	0.00	A
65	128.67	-0.44	-0.03	A	53.04	-0.28	-0.02	A	19.38	-0.34	-0.03	A	0.38	0.04	0.00	A	0.85	-0.12	-0.01	A	0.22	-0.16	-0.01	A	0.00	-0.01	0.00	A
66	10.49	0.12	0.01	A	18.15	0.16	0.01	A	7.70	0.21	0.02	A	9.77	0.21	0.02	A	21.96	0.57	0.04	A	1.41	-0.38	-0.03	A	0.02	-0.02	0.00	A
67	0.09	0.01	0.00	A	4.06	-0.10	0.00	A	20.69	-0.43	-0.03	A	8.21	0.25	0.02	A	1.40	-0.22	-0.01	A	1.11	-0.45	-0.02	A	1.66	-0.22	-0.01	A
68	75.86	0.33	0.03	A	61.71	-0.30	-0.02	A	55.00	-0.58	-0.05	A	4.29	-0.14	-0.01	A	5.15	-0.30	-0.02	A	0.39	-0.21	-0.02	A	0.49	-0.09	-0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.7
Spring 2013 AIMS Differential Item Functioning

Mathematics CRT Grade 8

	Reference: Male N= 41465 Focal: Female N= 39880				Reference: Hispanic N= 46798 Focal: Non Hispanic N= 34634				Reference: White N= 65624 Focal: Africa American N= 4740				Reference: White N= 65624 Focal: Native American N= 5793				Reference: White N= 65624 Focal: Asian N= 2345				Reference: White N= 65624 Focal: Hawaii N= 288				Reference: White N= 65624 Focal: Multiple Indicator N= 19			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	0.97	-0.06	0.00	A	2.89	-0.10	0.00	A	6.79	-0.29	-0.01	A	69.09	-0.78	-0.04	A	2.12	-0.35	-0.01	A	1.90	-0.64	-0.02	A	0.20	0.09	0.00	A
2	325.12	-0.79	-0.05	A	119.39	-0.50	-0.02	A	13.23	-0.37	-0.02	A	1.66	-0.12	-0.01	A	23.27	0.56	0.05	A	0.00	0.03	0.00	A	0.19	0.06	0.00	A
3	5.25	-0.08	-0.01	A	46.97	-0.24	-0.02	A	5.22	0.17	0.02	A	7.26	-0.18	-0.02	A	35.68	0.69	0.06	A	0.56	0.22	0.02	A	1.78	0.15	0.01	A
4	46.14	0.31	0.02	A	0.09	-0.01	0.00	A	1.43	0.11	0.01	A	47.00	-0.55	-0.04	A	1.70	0.24	0.01	A	0.02	0.05	0.00	A	3.73	0.30	0.02	A
5	8.81	-0.13	-0.01	A	69.70	-0.35	-0.02	A	31.29	-0.46	-0.04	A	95.45	-0.72	-0.06	A	0.11	-0.05	0.00	A	3.39	-0.62	-0.04	A	0.85	0.13	0.01	A
6	110.52	0.39	0.03	A	39.09	0.23	0.02	A	0.26	0.04	0.00	A	0.01	-0.01	0.00	A	6.06	0.31	0.02	A	1.20	-0.33	-0.03	A	0.10	-0.04	0.00	A
7	265.54	-0.63	-0.05	A	115.00	-0.41	-0.03	A	8.82	-0.24	-0.02	A	14.00	-0.26	-0.02	A	0.19	-0.06	0.00	A	0.26	0.16	0.01	A	1.15	0.13	0.01	A
8	12.77	-0.13	-0.01	A	20.74	-0.17	-0.02	A	0.61	-0.06	-0.01	A	6.08	0.18	0.01	A	20.71	0.59	0.04	A	0.16	0.12	0.01	A	2.43	0.19	0.02	A
9	445.91	-0.76	-0.07	A	8.44	-0.11	-0.01	A	7.38	-0.21	-0.02	A	0.10	0.02	0.00	A	1.07	0.12	0.01	A	1.60	-0.37	-0.03	A	0.04	0.02	0.00	A
10	17.25	0.19	0.01	A	1.12	0.05	0.00	A	7.60	0.25	0.02	A	1.46	-0.10	-0.01	A	0.81	0.17	0.01	A	1.32	0.42	0.02	A	2.51	-0.24	-0.01	A
11	86.26	0.35	0.03	A	0.41	-0.02	0.00	A	0.71	0.07	0.01	A	0.31	0.04	0.00	A	23.21	0.60	0.04	A	0.06	0.07	0.01	A	0.02	0.02	0.00	A
12	93.70	0.37	0.03	A	12.80	-0.14	-0.01	A	1.13	-0.08	-0.01	A	61.34	-0.55	-0.05	A	22.84	0.69	0.04	A	2.16	0.47	0.04	A	0.38	0.08	0.01	A
13	38.32	0.26	0.02	A	15.90	-0.16	-0.01	A	13.20	-0.30	-0.02	A	5.15	-0.17	-0.01	A	3.25	-0.27	-0.01	A	0.27	0.18	0.01	A	2.91	-0.23	-0.02	A
14	73.57	0.32	0.03	A	0.61	0.03	0.00	A	1.29	0.09	0.01	A	1.38	-0.09	-0.01	A	15.48	0.50	0.03	A	0.32	-0.17	-0.01	A	0.04	0.02	0.00	A
15	36.00	0.26	0.02	A	24.46	0.21	0.01	A	3.81	0.17	0.01	A	0.08	0.02	0.00	A	13.33	0.58	0.02	A	2.06	0.54	0.03	A	1.30	0.16	0.01	A
16	2.26	0.06	0.00	A	14.34	0.16	0.01	A	2.61	-0.13	-0.01	A	1.20	-0.08	-0.01	A	0.12	-0.05	0.00	A	1.42	0.42	0.03	A	0.97	0.13	0.01	A
17	147.51	-0.45	-0.04	A	148.24	-0.45	-0.04	A	3.02	-0.14	-0.01	A	50.93	-0.51	-0.04	A	4.73	-0.25	-0.02	A	3.81	-0.59	-0.05	A	3.46	0.22	0.02	A
18	3.45	-0.07	-0.01	A	228.37	-0.59	-0.04	A	6.36	-0.21	-0.02	A	42.32	-0.49	-0.04	A	5.36	0.31	0.02	A	0.56	0.24	0.02	A	0.04	-0.03	0.00	A
19	174.29	-0.49	-0.04	A	0.03	-0.01	0.00	A	4.28	-0.16	-0.01	A	4.17	0.15	0.01	A	7.03	0.33	0.02	A	2.77	-0.54	-0.04	A	0.11	-0.04	0.00	A
20	57.21	0.26	0.02	A	2.30	0.05	0.01	A	4.04	0.15	0.01	A	2.13	-0.10	-0.01	A	3.04	0.20	0.02	A	1.01	0.30	0.03	A	1.31	-0.13	-0.01	A
21	27.99	-0.19	-0.02	A	6.63	-0.10	-0.01	A	9.91	-0.24	-0.02	A	0.00	0.00	0.00	A	1.48	0.15	0.01	A	0.53	-0.22	-0.02	A	0.02	0.02	0.00	A
22	14.47	0.14	0.01	A	2.32	-0.06	0.00	A	2.69	0.13	0.01	A	16.00	-0.28	-0.03	A	24.18	0.58	0.05	A	0.01	0.02	0.00	A	0.03	-0.02	0.00	A
23	33.06	0.21	0.02	A	0.05	0.01	0.00	A	0.10	0.02	0.00	A	1.04	0.07	0.01	A	36.10	0.77	0.05	A	0.71	0.26	0.02	A	5.19	0.27	0.02	A
24	137.80	0.61	0.02	A	0.34	-0.03	0.00	A	24.52	-0.48	-0.03	A	28.89	-0.46	-0.03	A	6.82	-0.52	-0.01	A	0.29	-0.23	-0.01	A	4.28	0.37	0.02	A
25	20.23	0.20	0.01	A	12.04	-0.15	-0.01	A	0.07	-0.02	0.00	A	8.49	-0.22	-0.02	A	10.77	0.57	0.02	A	0.15	0.13	0.01	A	5.13	-0.31	-0.02	A
26	24.72	0.18	0.02	A	55.15	-0.28	-0.02	A	0.07	0.02	0.00	A	15.32	-0.28	-0.02	A	2.30	0.18	0.01	A	1.27	0.36	0.03	A	0.60	0.09	0.01	A
27	37.46	-0.23	-0.02	A	0.85	-0.04	0.00	A	2.41	-0.12	-0.01	A	0.03	-0.01	0.00	A	34.91	0.79	0.05	A	0.46	0.22	0.02	A	0.43	-0.08	-0.01	A
28	9.06	-0.13	-0.01	A	65.05	0.35	0.02	A	12.91	-0.30	-0.02	A	30.46	0.44	0.03	A	1.47	0.19	0.01	A	1.35	-0.41	-0.03	A	1.05	-0.14	-0.01	A
29	33.21	0.23	0.02	A	4.44	-0.08	-0.01	A	0.17	-0.03	0.00	A	0.00	0.00	0.00	A	5.71	0.33	0.02	A	0.02	0.05	0.00	A	0.21	0.06	0.00	A
30	2.36	0.07	0.00	A	28.63	0.24	0.02	A	5.72	0.21	0.01	A	3.40	0.15	0.01	A	8.27	0.50	0.02	A	0.20	-0.15	-0.01	A	0.51	0.10	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.7 (continued)
Spring 2013 AIMS Differential Item Functioning

Mathematics CRT Grade 8

	Reference: Male N= 41465 Focal: Female N= 39880				Reference: Hispanic N= 46798 Focal: Non Hispanic N= 34634				Reference: White N= 65624 Focal: Africa American N= 4740				Reference: White N= 65624 Focal: Native American N= 5793				Reference: White N= 65624 Focal: Asian N= 2345				Reference: White N= 65624 Focal: Hawaii N= 288				Reference: White N= 65624 Focal: Multiple Indicator N= 19			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	72.21	0.34	0.02	A	19.11	0.18	0.01	A	5.68	0.19	0.02	A	31.47	-0.41	-0.03	A	10.93	0.48	0.02	A	2.04	0.48	0.04	A	0.05	0.03	0.00	A
32	304.06	-0.64	-0.06	A	2.74	-0.06	-0.01	A	0.17	0.03	0.00	A	5.20	0.16	0.01	A	2.72	0.19	0.02	A	0.31	0.18	0.01	A	1.43	0.14	0.01	A
33	61.04	0.28	0.03	A	2.13	0.05	0.01	A	0.01	0.01	0.00	A	4.09	0.15	0.01	A	50.19	0.81	0.07	A	2.08	0.43	0.04	A	0.08	0.03	0.00	A
34	576.92	1.33	0.05	B>	6.64	0.14	0.01	A	3.69	-0.20	-0.01	A	0.64	0.07	0.00	A	4.67	-0.45	-0.01	A	0.53	0.35	0.01	A	0.05	0.04	0.00	A
35	0.39	0.02	0.00	A	10.95	0.13	0.01	A	0.46	0.05	0.00	A	1.19	0.08	0.01	A	11.01	0.46	0.03	A	7.70	0.95	0.07	A	2.13	0.19	0.01	A
36	1.09	0.04	0.00	A	1.75	-0.05	0.00	A	0.19	0.03	0.00	A	2.82	0.12	0.01	A	96.66	1.03	0.10	B>	1.10	0.31	0.03	A	0.76	0.10	0.01	A
37	161.23	0.66	0.03	A	0.09	0.02	0.00	A	5.68	-0.24	-0.01	A	62.72	-0.68	-0.04	A	17.94	-0.79	-0.02	A	10.38	-1.21	-0.06	B<	0.11	0.06	0.00	A
38	28.24	0.20	0.02	A	13.36	0.14	0.01	A	0.03	0.01	0.00	A	0.96	-0.07	-0.01	A	29.37	0.74	0.05	A	0.01	-0.03	0.00	A	0.64	-0.10	-0.01	A
39	6.49	-0.11	-0.01	A	20.62	0.19	0.01	A	3.04	-0.15	-0.01	A	3.61	0.14	0.01	A	9.74	0.51	0.02	A	1.39	0.41	0.03	A	0.76	-0.12	-0.01	A
40	32.74	0.22	0.02	A	4.61	-0.08	-0.01	A	0.72	0.07	0.01	A	2.18	-0.10	-0.01	A	8.49	0.40	0.02	A	0.32	0.18	0.01	A	0.04	-0.02	0.00	A
41	7.03	0.12	0.01	A	9.57	-0.14	-0.01	A	7.17	-0.23	-0.02	A	6.47	0.20	0.01	A	0.03	0.03	0.00	A	1.39	-0.42	-0.03	A	1.90	0.21	0.01	A
42	60.04	-0.30	-0.02	A	222.95	-0.61	-0.04	A	3.23	0.15	0.01	A	5.56	-0.19	-0.01	A	63.51	0.88	0.08	A	0.22	0.15	0.01	A	1.14	0.14	0.01	A
43	16.45	-0.17	-0.01	A	15.24	-0.16	-0.01	A	48.33	-0.56	-0.05	A	2.29	0.11	0.01	A	8.69	0.45	0.02	A	0.00	0.00	0.00	A	0.06	-0.03	0.00	A
44	30.60	0.20	0.02	A	73.41	-0.32	-0.03	A	14.16	-0.29	-0.03	A	0.58	0.05	0.01	A	1.39	0.15	0.01	A	0.48	0.21	0.02	A	0.02	0.02	0.00	A
45	6.50	-0.09	-0.01	A	11.24	0.12	0.01	A	2.84	-0.13	-0.01	A	16.51	0.27	0.03	A	8.80	0.34	0.03	A	0.66	0.24	0.02	A	0.50	0.08	0.01	A
46	110.31	0.45	0.03	A	6.32	-0.11	-0.01	A	10.22	-0.26	-0.02	A	3.50	-0.14	-0.01	A	0.15	0.06	0.00	A	0.37	0.21	0.01	A	0.00	-0.01	0.00	A
47	12.25	0.14	0.01	A	4.22	-0.08	-0.01	A	2.33	0.13	0.01	A	0.00	0.00	0.00	A	1.25	-0.17	-0.01	A	0.36	-0.20	-0.01	A	0.15	-0.05	0.00	A
48	30.04	0.20	0.02	A	0.19	-0.02	0.00	A	0.45	0.05	0.00	A	3.01	0.12	0.01	A	32.72	0.77	0.05	A	0.29	0.17	0.01	A	1.51	-0.15	-0.01	A
49	50.22	0.26	0.02	A	42.59	-0.25	-0.02	A	0.00	0.00	0.00	A	66.21	-0.58	-0.05	A	0.17	0.05	0.00	A	0.70	0.26	0.02	A	0.20	0.05	0.00	A
50	373.73	-0.77	-0.06	A	72.27	-0.35	-0.02	A	4.02	-0.18	-0.01	A	11.21	-0.28	-0.02	A	21.83	0.53	0.05	A	0.22	0.16	0.01	A	0.85	-0.12	-0.01	A
51	1.21	0.04	0.00	A	0.38	-0.02	0.00	A	1.83	-0.10	-0.01	A	0.75	-0.06	-0.01	A	8.34	0.30	0.03	A	5.44	-0.71	-0.07	A	0.42	-0.07	-0.01	A
52	51.22	0.26	0.02	A	88.37	-0.35	-0.03	A	5.70	0.19	0.02	A	0.01	0.01	0.00	A	28.68	0.60	0.05	A	0.00	0.01	0.00	A	0.51	0.09	0.01	A
53	76.27	0.37	0.02	A	9.98	0.14	0.01	A	13.67	-0.32	-0.02	A	12.80	-0.27	-0.02	A	0.40	-0.10	0.00	A	0.90	-0.32	-0.02	A	0.10	-0.04	0.00	A
54	27.41	-0.20	-0.02	A	18.89	0.17	0.01	A	33.25	-0.45	-0.04	A	0.10	-0.02	0.00	A	0.35	-0.08	0.00	A	0.80	-0.29	-0.02	A	0.08	-0.04	0.00	A
55	42.36	-0.23	-0.02	A	4.47	0.08	0.01	A	8.50	-0.22	-0.02	A	12.62	0.24	0.02	A	26.19	0.57	0.05	A	0.27	-0.15	-0.01	A	0.49	-0.08	-0.01	A
56	4.73	-0.08	-0.01	A	1.51	-0.05	-0.01	A	9.60	-0.23	-0.02	A	0.19	-0.03	0.00	A	0.10	0.04	0.00	A	7.47	-0.78	-0.07	A	2.17	0.18	0.02	A
57	768.22	1.16	0.08	B>	42.24	-0.27	-0.02	A	10.64	-0.27	-0.02	A	5.84	-0.18	-0.01	A	0.26	-0.08	0.00	A	1.77	0.48	0.03	A	0.18	0.06	0.00	A
58	4.12	0.08	0.01	A	27.99	-0.21	-0.02	A	4.35	-0.17	-0.01	A	7.22	-0.20	-0.02	A	3.47	0.23	0.02	A	3.20	-0.59	-0.05	A	0.24	0.06	0.00	A
59	40.86	0.30	0.01	A	9.58	0.15	0.01	A	1.58	0.12	0.01	A	3.77	0.16	0.01	A	8.71	0.57	0.02	A	10.55	-1.13	-0.07	B<	0.62	0.12	0.01	A
60	17.77	-0.16	-0.01	A	2.54	-0.06	-0.01	A	4.11	-0.16	-0.01	A	13.11	-0.26	-0.02	A	0.13	0.04	0.00	A	0.96	-0.30	-0.03	A	1.32	-0.14	-0.01	A
61	0.00	0.00	0.00	A	19.95	0.17	0.02	A	18.07	-0.32	-0.03	A	2.62	0.11	0.01	A	9.15	0.39	0.03	A	0.24	-0.15	-0.01	A	0.25	-0.06	-0.01	A
62	43.79	0.31	0.02	A	47.73	-0.32	-0.02	A	0.91	-0.09	-0.01	A	0.31	-0.05	0.00	A	8.37	0.54	0.02	A	0.03	0.07	0.00	A	0.03	0.03	0.00	A
63	41.42	0.31	0.01	A	12.20	0.17	0.01	A	13.02	-0.33	-0.02	A	0.01	0.01	0.00	A	4.85	0.42	0.01	A	0.01	-0.04	0.00	A	1.39	-0.18	-0.01	A
64	92.26	0.42	0.02	A	232.43	0.68	0.05	A	1.02	-0.09	-0.01	A	7.80	-0.22	-0.02	A	2.03	0.22	0.01	A	0.59	0.29	0.02	A	0.03	0.03	0.00	A
65	1.09	0.04	0.00	A	0.55	-0.03	0.00	A	0.53	0.06	0.00	A	0.02	-0.01	0.00	A	22.82	0.69	0.04	A	1.68	-0.41	-0.03	A	1.82	-0.17	-0.01	A
66	22.74	-0.20	-0.01	A	6.23	0.11	0.01	A	25.98	-0.42	-0.03	A	4.56	0.16	0.01	A	2.65	0.25	0.01	A	3.37	-0.63	-0.04	A	0.14	0.05	0.00	A
67	32.09	-0.21	-0.02	A	106.97	-0.39	-0.03	A	2.09	-0.11	-0.01	A	70.58	-0.59	-0.05	A	18.17	0.58	0.04	A	0.18	0.13	0.01	A	0.38	0.07	0.01	A
68	928.91	-1.13	-0.10	B<	35.97	-0.23	-0.02	A	22.46	-0.38	-0.03	A	2.05	0.10	0.01	A	31.22	0.64	0.05	A	0.29	-0.18	-0.01	A	0.98	-0.12	-0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.8
Spring 2013 AIMS Differential Item Functioning

Mathematics CRT High School

	Reference: Male N= 38662				Reference: Hispanic N= 44516				Reference: White N= 62042				Reference: White N= 62042				Reference: White N= 62042				Reference: White N= 62042				Reference: White N= 62042			
	Focal: Female N= 37749				Focal: Non Hispanic N= 31943				Focal: Africa American N= 4416				Focal: Native American N= 4430				Focal: Asian N= 2342				Focal: Hawaii N= 277				Focal: Multiple Indicator N= 21			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	2.26	-0.06	0.00	A	5.79	0.10	0.01	A	11.16	0.29	0.02	A	18.14	-0.36	-0.03	A	10.35	0.49	0.02	A	0.54	0.25	0.02	A	12.14	-0.44	-0.03	A
2	83.08	0.33	0.03	A	0.94	-0.04	0.00	A	0.78	-0.07	-0.01	A	9.18	0.23	0.02	A	5.11	-0.24	-0.02	A	0.01	0.03	0.00	A	0.07	-0.03	0.00	A
3	1.09	-0.04	0.00	A	17.57	0.17	0.02	A	0.23	0.04	0.00	A	7.89	-0.23	-0.02	A	5.01	0.30	0.02	A	0.10	0.10	0.01	A	0.42	0.08	0.01	A
4	6.33	-0.10	-0.01	A	16.32	0.16	0.01	A	0.22	-0.04	0.00	A	0.04	-0.02	0.00	A	6.87	0.35	0.02	A	3.50	0.63	0.05	A	2.38	-0.18	-0.02	A
5	25.32	0.18	0.02	A	4.48	0.08	0.01	A	22.64	0.37	0.04	A	0.03	-0.01	0.00	A	46.44	0.79	0.07	A	0.82	0.27	0.03	A	1.27	-0.12	-0.01	A
6	108.84	-0.44	-0.03	A	17.81	0.18	0.02	A	45.25	-0.56	-0.05	A	33.42	-0.48	-0.04	A	3.07	-0.25	-0.01	A	1.32	-0.38	-0.03	A	1.66	-0.16	-0.01	A
7	213.53	0.52	0.05	A	18.45	-0.16	-0.02	A	0.20	0.03	0.00	A	50.84	-0.55	-0.05	A	0.25	0.05	0.01	A	0.78	0.26	0.03	A	0.08	0.03	0.00	A
8	6.26	0.11	0.01	A	31.95	0.26	0.02	A	1.71	0.12	0.01	A	9.73	-0.27	-0.02	A	5.60	0.39	0.02	A	0.64	-0.30	-0.02	A	3.09	-0.23	-0.01	A
9	17.74	-0.16	-0.01	A	104.05	-0.40	-0.03	A	16.67	-0.33	-0.03	A	6.32	0.20	0.02	A	0.17	0.05	0.00	A	0.50	-0.22	-0.02	A	0.07	0.03	0.00	A
10	325.46	-0.78	-0.05	A	110.57	-0.46	-0.03	A	78.88	-0.80	-0.06	A	10.53	-0.30	-0.02	A	11.18	-0.47	-0.02	A	0.09	-0.11	-0.01	A	0.05	-0.03	0.00	A
11	411.02	-0.76	-0.07	A	10.93	-0.13	-0.01	A	1.88	-0.11	-0.01	A	4.31	-0.17	-0.01	A	3.47	0.22	0.02	A	5.66	-0.76	-0.07	A	5.94	0.28	0.02	A
12	399.63	-0.78	-0.07	A	26.13	-0.20	-0.02	A	25.86	-0.42	-0.03	A	9.68	-0.26	-0.02	A	3.84	0.25	0.02	A	0.68	-0.26	-0.02	A	3.04	0.21	0.02	A
13	72.53	0.36	0.02	A	1.12	-0.04	0.00	A	17.45	-0.35	-0.03	A	0.27	-0.04	0.00	A	0.01	0.02	0.00	A	0.65	0.28	0.02	A	0.59	-0.10	-0.01	A
14	244.39	-0.69	-0.04	A	239.33	-0.68	-0.05	A	93.26	-0.81	-0.06	A	1.10	-0.09	-0.01	A	29.53	-0.75	-0.04	A	1.30	-0.39	-0.03	A	2.54	0.22	0.01	A
15	428.77	-0.78	-0.07	A	145.01	-0.46	-0.04	A	1.43	-0.10	-0.01	A	16.09	-0.33	-0.03	A	23.78	0.58	0.04	A	0.24	-0.15	-0.01	A	0.30	-0.06	-0.01	A
16	132.70	-0.43	-0.04	A	93.77	-0.37	-0.03	A	12.69	-0.29	-0.03	A	2.03	-0.11	-0.01	A	5.09	0.26	0.02	A	2.93	-0.53	-0.05	A	1.52	-0.14	-0.01	A
17	52.54	0.26	0.03	A	12.62	-0.13	-0.01	A	0.09	-0.02	0.00	A	2.68	-0.13	-0.01	A	16.22	0.43	0.04	A	1.72	0.38	0.04	A	0.30	-0.06	-0.01	A
18	4.97	0.09	0.01	A	95.43	-0.40	-0.03	A	39.52	-0.54	-0.04	A	15.10	-0.34	-0.02	A	2.85	0.22	0.01	A	0.03	-0.06	0.00	A	0.20	-0.06	0.00	A
19	66.41	0.37	0.02	A	28.75	-0.24	-0.01	A	4.99	-0.20	-0.01	A	12.11	-0.30	-0.02	A	33.76	-0.89	-0.04	A	0.88	0.36	0.02	A	0.56	-0.10	-0.01	A
20	274.48	0.61	0.06	A	30.91	0.21	0.02	A	1.09	-0.08	-0.01	A	23.91	0.39	0.04	A	0.40	-0.07	-0.01	A	0.02	0.05	0.00	A	0.92	-0.11	-0.01	A
21	187.16	-0.59	-0.04	A	69.02	-0.38	-0.02	A	15.04	-0.38	-0.02	A	6.78	-0.26	-0.01	A	59.52	0.87	0.07	A	0.01	-0.04	0.00	A	0.21	0.06	0.00	A
22	3.22	-0.06	-0.01	A	2.44	-0.06	0.00	A	0.03	0.01	0.00	A	3.24	0.14	0.01	A	18.25	0.44	0.05	A	0.97	0.29	0.03	A	3.90	0.21	0.02	A
23	6.15	0.13	0.00	A	12.77	0.19	0.01	A	7.58	0.28	0.02	A	1.83	-0.13	-0.01	A	1.41	0.24	0.01	A	0.38	0.27	0.01	A	0.00	0.01	0.00	A
24	134.55	0.48	0.04	A	2.74	-0.07	0.00	A	0.07	-0.02	0.00	A	0.00	0.00	0.00	A	2.43	-0.21	-0.01	A	0.95	0.33	0.02	A	0.55	0.09	0.01	A
25	1.59	-0.05	0.00	A	0.22	-0.02	0.00	A	0.38	-0.05	0.00	A	3.05	0.14	0.01	A	0.25	0.06	0.00	A	0.22	-0.14	-0.01	A	0.70	-0.09	-0.01	A
26	25.76	-0.19	-0.02	A	8.97	-0.12	-0.01	A	1.99	-0.11	-0.01	A	2.78	-0.13	-0.01	A	31.62	0.76	0.05	A	1.08	-0.32	-0.03	A	0.62	0.09	0.01	A
27	83.99	-0.35	-0.03	A	60.97	-0.31	-0.02	A	2.96	-0.14	-0.01	A	4.22	-0.17	-0.01	A	15.85	0.46	0.04	A	0.37	0.19	0.02	A	0.53	0.08	0.01	A
28	0.49	-0.03	0.00	A	69.34	-0.31	-0.03	A	0.20	-0.03	0.00	A	48.95	-0.57	-0.05	A	11.95	0.38	0.03	A	1.34	-0.35	-0.03	A	0.00	0.00	0.00	A
29	105.66	0.37	0.04	A	0.02	0.00	0.00	A	0.50	0.06	0.01	A	0.39	-0.05	0.00	A	26.18	0.56	0.05	A	0.09	-0.09	-0.01	A	0.04	0.02	0.00	A
30	68.24	0.32	0.03	A	0.59	0.03	0.00	A	13.86	0.30	0.03	A	0.06	-0.02	0.00	A	77.14	1.19	0.07	B>	0.40	-0.20	-0.02	A	5.10	0.26	0.02	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.8 (continued)
Spring 2013 AIMS Differential Item Functioning

Mathematics CRT High School

	Reference: Male N= 38662				Reference: Hispanic N= 44516				Reference: White N= 62042				Reference: White N= 62042				Reference: White N= 62042				Reference: White N= 62042				Reference: White N= 62042			
	Focal: Female N= 37749				Focal: Non Hispanic N= 31943				Focal: Africa American N= 4416				Focal: Native American N= 4430				Focal: Asian N= 2342				Focal: Hawaii N= 277				Focal: Multiple Indicator N= 21			
Item	MH $\chi2$	ΔMH	SMD	Flag	MH $\chi2$	ΔMH	SMD	Flag	MH $\chi2$	ΔMH	SMD	Flag	MH $\chi2$	ΔMH	SMD	Flag	MH $\chi2$	ΔMH	SMD	Flag	MH $\chi2$	ΔMH	SMD	Flag	MH $\chi2$	ΔMH	SMD	Flag
31	7.66	0.11	0.01	A	39.39	0.25	0.02	A	2.07	0.12	0.01	A	6.07	0.20	0.02	A	24.01	0.68	0.04	A	0.03	0.05	0.00	A	0.05	-0.03	0.00	A
32	120.88	0.46	0.03	A	3.55	0.08	0.01	A	1.68	0.11	0.01	A	15.01	-0.32	-0.03	A	6.57	0.40	0.02	A	2.62	-0.55	-0.04	A	2.28	-0.19	-0.01	A
33	1975.46	-1.75	-0.15	C<	388.56	-0.77	-0.07	A	50.55	-0.56	-0.05	A	6.14	-0.19	-0.02	A	13.35	-0.46	-0.03	A	0.13	0.11	0.01	A	1.09	-0.12	-0.01	A
34	150.31	0.48	0.04	A	3.03	0.07	0.01	A	5.39	0.20	0.01	A	0.01	0.01	0.00	A	152.02	1.30	0.12	B>	1.76	-0.45	-0.03	A	0.58	-0.09	-0.01	A
35	0.48	-0.03	0.00	A	0.63	-0.03	0.00	A	2.63	0.13	0.01	A	0.29	0.04	0.00	A	16.00	0.54	0.03	A	0.05	0.07	0.01	A	1.11	0.12	0.01	A
36	526.86	1.28	0.05	B>	19.68	0.24	0.01	A	3.28	-0.19	-0.01	A	0.00	0.00	0.00	A	3.41	0.41	0.01	A	0.32	0.26	0.01	A	0.05	-0.04	0.00	A
37	44.87	0.32	0.02	A	0.04	0.01	0.00	A	4.19	0.20	0.01	A	9.08	-0.27	-0.02	A	2.65	0.30	0.01	A	0.68	0.32	0.02	A	0.05	-0.03	0.00	A
38	35.67	0.32	0.01	A	4.90	0.12	0.01	A	10.09	-0.32	-0.02	A	1.06	0.10	0.01	A	1.66	-0.26	-0.01	A	0.02	0.06	0.00	A	1.96	0.23	0.01	A
39	120.53	0.43	0.04	A	11.19	-0.14	-0.01	A	5.80	-0.21	-0.02	A	3.48	0.16	0.01	A	9.94	0.34	0.03	A	2.95	-0.57	-0.04	A	0.04	-0.02	0.00	A
40	77.07	0.33	0.03	A	0.09	-0.01	0.00	A	2.20	0.12	0.01	A	0.00	0.00	0.00	A	2.15	0.17	0.01	A	2.29	0.46	0.04	A	2.17	0.17	0.01	A
41	236.04	0.55	0.05	A	17.61	0.16	0.02	A	4.04	0.16	0.01	A	3.01	-0.13	-0.01	A	6.66	0.29	0.03	A	1.18	0.33	0.03	A	1.66	0.14	0.01	A
42	4.91	0.09	0.01	A	402.35	-0.81	-0.07	A	17.92	-0.34	-0.03	A	194.62	-1.12	-0.10	B<	34.70	-0.73	-0.05	A	1.79	-0.43	-0.03	A	1.14	0.13	0.01	A
43	17.35	-0.23	-0.01	A	41.44	-0.38	-0.01	A	2.41	-0.20	-0.01	A	1.00	-0.14	0.00	A	55.58	0.93	0.06	A	0.65	-0.41	-0.01	A	0.15	-0.07	0.00	A
44	0.01	0.00	0.00	A	11.32	-0.12	-0.01	A	0.85	-0.07	-0.01	A	0.43	0.05	0.01	A	39.32	0.66	0.07	A	1.79	-0.41	-0.04	A	0.08	-0.03	0.00	A
45	42.50	0.26	0.02	A	15.18	0.16	0.01	A	1.04	-0.09	-0.01	A	11.39	-0.28	-0.02	A	0.38	0.09	0.01	A	0.17	0.14	0.01	A	0.00	0.00	0.00	A
46	0.16	-0.01	0.00	A	72.16	0.33	0.03	A	1.77	0.11	0.01	A	3.37	0.15	0.01	A	17.74	0.48	0.04	A	1.23	-0.35	-0.03	A	1.72	0.15	0.01	A
47	92.71	0.39	0.03	A	19.07	0.18	0.02	A	0.46	-0.06	0.00	A	10.21	0.26	0.02	A	1.24	0.15	0.01	A	0.01	0.03	0.00	A	1.73	-0.16	-0.01	A
48	44.25	-0.25	-0.02	A	11.94	0.13	0.01	A	0.05	-0.02	0.00	A	8.94	0.23	0.02	A	3.03	0.21	0.02	A	1.27	0.36	0.03	A	0.04	-0.02	0.00	A
49	303.64	0.64	0.06	A	24.90	0.19	0.02	A	0.07	-0.02	0.00	A	13.51	0.29	0.03	A	2.22	-0.16	-0.01	A	1.50	0.38	0.03	A	0.24	-0.06	-0.01	A
50	25.78	0.21	0.01	A	4.11	0.09	0.01	A	12.75	0.31	0.02	A	0.01	0.01	0.00	A	47.78	1.13	0.05	B>	0.55	-0.25	-0.02	A	1.31	-0.14	-0.01	A
51	15.35	0.14	0.01	A	1.37	-0.04	0.00	A	0.11	0.03	0.00	A	0.63	-0.06	-0.01	A	18.06	-0.46	-0.04	A	0.09	-0.09	-0.01	A	1.35	-0.13	-0.01	A
52	50.62	0.29	0.02	A	6.85	-0.11	-0.01	A	2.50	0.14	0.01	A	3.78	-0.17	-0.01	A	42.49	0.91	0.05	A	5.26	-0.76	-0.06	A	3.99	0.24	0.02	A
53	287.53	-0.79	-0.05	A	122.08	-0.51	-0.03	A	3.22	-0.17	-0.01	A	1.77	-0.12	-0.01	A	6.50	0.42	0.02	A	0.09	-0.11	-0.01	A	0.09	0.04	0.00	A
54	28.86	0.34	0.01	A	2.70	0.10	0.00	A	8.28	-0.33	-0.01	A	22.00	0.58	0.02	A	12.08	-0.74	-0.02	A	0.80	0.49	0.02	A	0.57	0.14	0.00	A
55	13.95	-0.14	-0.01	A	15.24	-0.15	-0.01	A	3.55	0.15	0.01	A	1.37	-0.10	-0.01	A	35.73	0.64	0.06	A	0.43	-0.21	-0.02	A	0.61	-0.09	-0.01	A
56	178.93	0.59	0.04	A	3.60	0.08	0.01	A	6.45	0.23	0.02	A	1.94	0.12	0.01	A	7.08	0.44	0.02	A	1.88	0.50	0.03	A	0.07	-0.03	0.00	A
57	6.04	0.10	0.01	A	1.10	0.04	0.00	A	17.61	-0.35	-0.03	A	0.26	0.04	0.00	A	0.11	-0.05	0.00	A	0.87	-0.31	-0.02	A	0.02	0.02	0.00	A
58	24.70	0.18	0.02	A	0.37	0.02	0.00	A	6.68	0.20	0.02	A	1.95	0.11	0.01	A	14.50	0.42	0.04	A	0.07	0.08	0.01	A	0.54	0.08	0.01	A
59	77.12	-0.31	-0.03	A	82.60	-0.33	-0.03	A	14.79	-0.30	-0.03	A	22.59	0.36	0.04	A	0.67	-0.08	-0.01	A	2.24	0.44	0.04	A	2.28	0.16	0.02	A
60	165.83	-0.46	-0.05	A	46.59	-0.25	-0.02	A	0.14	-0.03	0.00	A	9.56	-0.24	-0.02	A	8.32	0.32	0.03	A	0.12	0.10	0.01	A	1.32	0.13	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH $\chi2$ = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.8 (continued)
Spring 2013 AIMS Differential Item Functioning

Mathematics CRT High School

	Reference: Male N= 38662 Focal: Female N= 37749				Reference: Hispanic N= 44516 Focal: Non Hispanic N= 31943				Reference: White N= 62042 Focal: Africa American N= 4416				Reference: White N= 62042 Focal: Native American N= 4430				Reference: White N= 62042 Focal: Asian N= 2342				Reference: White N= 62042 Focal: Hawaii N= 277				Reference: White N= 62042 Focal: Multiple Indicator N= 21			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
61	668.22	-1.15	-0.07	B<	179.34	-0.59	-0.04	A	23.24	-0.42	-0.03	A	56.53	-0.62	-0.05	A	27.44	-0.77	-0.04	A	0.78	0.31	0.02	A	0.67	0.11	0.01	A
62	52.77	-0.30	-0.02	A	52.55	-0.31	-0.02	A	3.26	-0.16	-0.01	A	0.85	0.08	0.01	A	48.68	0.87	0.06	A	0.30	0.18	0.01	A	0.13	0.04	0.00	A
63	0.06	-0.01	0.00	A	3.89	0.09	0.01	A	25.87	-0.43	-0.03	A	16.02	-0.34	-0.03	A	6.33	-0.38	-0.02	A	0.79	-0.32	-0.02	A	2.26	-0.19	-0.01	A
64	13.82	0.16	0.01	A	0.73	0.04	0.00	A	7.41	-0.23	-0.02	A	0.03	0.02	0.00	A	2.08	0.22	0.01	A	0.30	-0.18	-0.01	A	0.02	-0.02	0.00	A
65	3.39	-0.08	-0.01	A	3.01	-0.08	-0.01	A	1.93	-0.12	-0.01	A	1.95	0.12	0.01	A	3.56	0.30	0.01	A	0.21	0.17	0.01	A	3.51	-0.24	-0.02	A
66	40.44	0.25	0.02	A	0.42	-0.03	0.00	A	0.00	-0.01	0.00	A	0.32	-0.05	0.00	A	40.97	0.75	0.06	A	0.01	-0.03	0.00	A	1.09	-0.12	-0.01	A
67	8.26	0.11	0.01	A	4.75	-0.08	-0.01	A	5.01	0.18	0.02	A	8.61	-0.23	-0.02	A	2.31	0.18	0.01	A	1.18	0.34	0.03	A	1.27	0.13	0.01	A
68	19.19	0.21	0.01	A	0.66	0.04	0.00	A	47.48	-0.64	-0.04	A	36.50	-0.55	-0.04	A	54.75	-1.17	-0.04	B<	1.21	-0.40	-0.02	A	2.83	-0.24	-0.01	A
69	4.91	0.09	0.01	A	1.42	0.05	0.00	A	0.19	-0.04	0.00	A	2.28	-0.12	-0.01	A	19.55	0.58	0.04	A	3.22	0.58	0.05	A	1.90	0.16	0.01	A
70	14.05	-0.13	-0.01	A	2.03	-0.05	0.00	A	2.98	0.13	0.01	A	15.54	-0.31	-0.03	A	0.43	-0.07	-0.01	A	2.00	0.41	0.04	A	0.43	0.07	0.01	A
71	9.93	0.12	0.01	A	26.42	-0.20	-0.01	A	0.43	0.05	0.00	A	22.60	0.38	0.03	A	25.40	0.53	0.05	A	0.37	0.19	0.02	A	0.31	0.06	0.01	A
72	160.24	0.46	0.04	A	12.09	0.13	0.01	A	5.26	0.18	0.02	A	34.50	-0.46	-0.04	A	40.48	0.74	0.06	A	0.44	0.20	0.02	A	0.02	-0.02	0.00	A
73	10.75	0.14	0.01	A	0.08	0.01	0.00	A	0.80	-0.08	-0.01	A	0.08	0.02	0.00	A	11.68	0.51	0.03	A	4.45	-0.73	-0.05	A	3.51	-0.23	-0.02	A
74	34.76	0.30	0.01	A	6.21	0.13	0.01	A	3.18	-0.18	-0.01	A	5.56	-0.22	-0.01	A	2.58	-0.30	-0.01	A	1.35	0.52	0.02	A	3.32	-0.28	-0.01	A
75	1.64	-0.05	0.00	A	20.36	-0.17	-0.01	A	2.30	-0.12	-0.01	A	1.38	-0.10	-0.01	A	48.54	0.74	0.07	A	0.07	0.08	0.01	A	3.82	-0.22	-0.02	A
76	34.48	0.22	0.02	A	7.13	-0.10	-0.01	A	17.43	0.34	0.03	A	14.16	-0.30	-0.03	A	42.26	0.84	0.06	A	2.91	0.57	0.05	A	0.82	-0.10	-0.01	A
77	8.53	-0.11	-0.01	A	36.53	-0.23	-0.02	A	32.64	-0.45	-0.04	A	3.46	0.15	0.01	A	0.03	-0.02	0.00	A	0.64	0.24	0.02	A	0.01	-0.01	0.00	A
78	393.56	0.71	0.07	A	21.58	0.17	0.01	A	11.71	0.26	0.03	A	0.29	-0.04	0.00	A	8.87	0.32	0.03	A	3.68	0.59	0.06	A	0.01	0.01	0.00	A
79	4.08	0.08	0.01	A	0.06	0.01	0.00	A	2.35	0.13	0.01	A	2.64	-0.14	-0.01	A	9.81	0.43	0.02	A	0.48	0.23	0.02	A	0.13	0.04	0.00	A
80	175.37	0.53	0.04	A	4.61	0.09	0.01	A	0.10	0.03	0.00	A	1.13	-0.09	-0.01	A	5.86	-0.31	-0.02	A	1.48	-0.38	-0.03	A	0.42	0.08	0.01	A
81	71.75	0.37	0.02	A	77.71	-0.39	-0.03	A	3.41	-0.16	-0.01	A	104.49	-0.84	-0.07	A	27.77	-0.75	-0.04	A	8.05	-0.98	-0.07	A	0.00	0.00	0.00	A
82	126.02	-0.40	-0.04	A	3.23	-0.07	0.00	A	11.19	-0.26	-0.02	A	21.13	0.35	0.03	A	17.28	0.43	0.04	A	0.06	0.07	0.01	A	4.62	-0.24	-0.02	A
83	196.15	0.69	0.03	A	2.52	0.08	0.01	A	4.39	-0.20	-0.01	A	15.58	-0.36	-0.03	A	10.37	-0.57	-0.02	A	3.41	0.84	0.04	A	0.50	-0.10	-0.01	A
84	0.22	-0.02	0.00	A	55.36	-0.28	-0.02	A	3.51	-0.15	-0.01	A	15.77	-0.32	-0.03	A	9.24	0.34	0.03	A	2.11	0.43	0.04	A	1.15	-0.12	-0.01	A
85	60.66	0.29	0.03	A	0.01	0.00	0.00	A	0.00	0.00	0.00	A	13.74	0.29	0.03	A	27.54	0.62	0.05	A	0.03	-0.05	0.00	A	0.66	-0.09	-0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.9
Spring 2013 AIMS Differential Item Functioning Reading

CRT Grade 3

	Reference: Male N= 42792 Focal: Female N= 40309				Reference: Hispanic N= 46777 Focal: Non Hispanic N= 36414				Reference: White N= 66109 Focal: Africa American N= 4842				Reference: White N= 66109 Focal: Native American N= 6203				Reference: White N= 66109 Focal: Asian N= 2542				Reference: White N= 66109 Focal: Hawaii N= 298				Reference: White N= 66109 Focal: Multiple Indicator N= 22			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	28.21	0.24	0.01	A	31.05	-0.25	-0.02	A	0.21	-0.04	0.00	A	48.59	-0.52	-0.04	A	0.10	-0.05	0.00	A	0.36	-0.23	-0.01	A	1.25	0.16	0.01	A
2	9.77	0.18	0.01	A	1.12	-0.06	0.00	A	0.00	-0.01	0.00	A	7.24	-0.25	-0.01	A	0.03	0.04	0.00	A	0.07	0.13	0.00	A	1.00	0.19	0.01	A
3	406.50	-0.87	-0.05	A	89.45	-0.41	-0.03	A	4.77	-0.19	-0.01	A	29.31	-0.40	-0.03	A	8.86	-0.42	-0.02	A	0.00	-0.02	0.00	A	1.07	0.14	0.01	A
4	0.63	0.05	0.00	A	9.94	-0.19	-0.01	A	2.02	-0.16	-0.01	A	3.05	0.17	0.01	A	14.45	-0.73	-0.02	A	0.00	0.00	0.00	A	1.47	0.24	0.01	A
5	23.46	-0.20	-0.01	A	85.94	-0.39	-0.03	A	2.32	-0.13	-0.01	A	4.23	0.15	0.01	A	7.37	0.39	0.02	A	0.17	0.15	0.01	A	1.22	0.14	0.01	A
6	756.00	-1.00	-0.09	A	234.45	-0.56	-0.05	A	17.59	0.32	0.03	A	0.62	0.05	0.01	A	21.51	0.50	0.04	A	0.41	0.20	0.02	A	10.80	0.37	0.03	A
7	1.73	-0.08	0.00	A	16.83	-0.25	-0.01	A	1.09	-0.12	0.00	A	0.06	0.02	0.00	A	0.14	-0.08	0.00	A	0.83	0.51	0.01	A	2.21	0.30	0.01	A
8	1.54	-0.05	0.00	A	2.23	-0.06	-0.01	A	0.36	-0.05	0.00	A	2.65	0.11	0.01	A	0.17	-0.05	0.00	A	0.78	-0.28	-0.02	A	0.29	-0.06	0.00	A
9	46.67	0.37	0.01	A	33.15	-0.32	-0.02	A	2.22	0.16	0.01	A	10.87	-0.29	-0.02	A	1.98	-0.27	-0.01	A	0.32	-0.26	-0.01	A	2.76	0.30	0.01	A
10	14.50	-0.14	-0.01	A	61.56	-0.30	-0.03	A	0.00	0.00	0.00	A	1.15	0.08	0.01	A	23.93	0.59	0.04	A	3.73	0.63	0.05	A	0.91	0.11	0.01	A
11	0.32	0.03	0.00	A	157.68	-0.56	-0.04	A	0.24	0.04	0.00	A	69.67	-0.61	-0.05	A	19.97	0.72	0.03	A	0.03	0.06	0.00	A	1.35	0.16	0.01	A
12	60.38	0.30	0.02	A	2.17	0.06	0.00	A	13.92	0.30	0.02	A	6.81	0.18	0.02	A	6.43	0.32	0.02	A	1.48	0.40	0.03	A	0.90	-0.11	-0.01	A
13	154.19	0.45	0.04	A	0.70	-0.03	0.00	A	0.65	0.06	0.01	A	47.45	-0.50	-0.04	A	12.31	-0.36	-0.03	A	0.49	0.22	0.02	A	0.02	0.01	0.00	A
14	70.57	0.33	0.02	A	4.67	0.09	0.01	A	7.68	-0.22	-0.02	A	8.54	0.21	0.02	A	10.64	0.43	0.03	A	0.10	0.11	0.01	A	0.31	0.07	0.00	A
15	3.13	0.06	0.01	A	25.74	-0.19	-0.01	A	11.65	-0.26	-0.02	A	22.76	-0.33	-0.03	A	26.53	-0.53	-0.05	A	8.84	-0.90	-0.08	A	0.82	-0.10	-0.01	A
16	2.66	-0.09	0.00	A	8.39	-0.16	-0.01	A	1.38	0.12	0.01	A	22.25	-0.40	-0.02	A	0.03	-0.03	0.00	A	3.40	-0.74	-0.03	A	0.38	0.10	0.00	A
17	3.94	-0.07	-0.01	A	1.80	-0.05	0.00	A	6.99	-0.20	-0.02	A	0.11	0.02	0.00	A	16.08	-0.42	-0.04	A	0.72	0.26	0.02	A	2.87	-0.19	-0.02	A
18	5.01	-0.08	-0.01	A	50.69	-0.25	-0.02	A	0.09	0.02	0.00	A	3.88	0.13	0.01	A	2.87	0.17	0.02	A	0.09	0.08	0.01	A	0.02	0.01	0.00	A
19	47.45	0.28	0.02	A	0.88	0.04	0.00	A	0.12	0.03	0.00	A	17.83	-0.30	-0.02	A	6.90	-0.34	-0.02	A	1.57	-0.41	-0.03	A	0.00	0.00	0.00	A
20	195.67	0.49	0.05	A	0.25	0.02	0.00	A	10.61	-0.24	-0.02	A	6.85	-0.17	-0.02	A	7.35	-0.29	-0.02	A	0.14	-0.11	-0.01	A	0.07	0.03	0.00	A
21	1.81	-0.08	0.00	A	13.17	-0.22	-0.01	A	0.03	0.02	0.00	A	0.10	0.03	0.00	A	9.29	0.74	0.01	A	0.99	0.55	0.02	A	2.75	0.33	0.01	A
22	215.08	0.69	0.03	A	9.03	0.14	0.01	A	52.65	-0.64	-0.04	A	17.71	0.34	0.02	A	15.27	-0.59	-0.02	A	0.87	-0.35	-0.02	A	0.12	-0.05	0.00	A
23	21.88	0.21	0.01	A	45.98	0.30	0.02	A	10.09	0.28	0.02	A	47.63	-0.51	-0.04	A	29.35	-0.73	-0.04	A	0.02	0.05	0.00	A	1.54	-0.17	-0.01	A
24	34.64	0.23	0.02	A	0.54	-0.03	0.00	A	15.61	-0.31	-0.03	A	7.81	-0.20	-0.02	A	5.01	-0.28	-0.02	A	0.64	-0.26	-0.02	A	0.76	-0.11	-0.01	A
25	148.97	-0.43	-0.04	A	51.01	0.26	0.02	A	2.31	0.11	0.01	A	36.56	0.40	0.04	A	116.38	1.17	0.10	B>	1.63	0.37	0.03	A	0.70	0.09	0.01	A
26	0.90	-0.04	0.00	A	76.17	-0.41	-0.02	A	1.00	0.09	0.01	A	0.64	0.06	0.00	A	8.50	0.47	0.02	A	0.65	0.33	0.02	A	1.36	0.17	0.01	A
27	12.76	0.14	0.01	A	9.29	-0.12	-0.01	A	12.17	-0.27	-0.02	A	2.64	0.11	0.01	A	0.52	-0.09	-0.01	A	0.52	-0.23	-0.02	A	5.61	-0.28	-0.02	A
28	34.95	0.22	0.02	A	0.02	0.01	0.00	A	1.99	-0.11	-0.01	A	0.89	-0.07	-0.01	A	10.58	0.38	0.03	A	3.01	0.53	0.04	A	0.00	-0.01	0.00	A
29	3.42	0.07	0.01	A	14.07	0.14	0.02	A	0.04	-0.02	0.00	A	0.97	0.07	0.01	A	37.63	0.64	0.06	A	1.11	0.31	0.03	A	0.03	-0.02	0.00	A
30	1.81	-0.06	-0.01	A	20.20	-0.19	-0.01	A	7.16	-0.23	-0.02	A	17.38	-0.31	-0.02	A	27.00	0.71	0.04	A	1.07	0.35	0.02	A	2.08	0.18	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.9 (continued)
Spring 2013 AIMS Differential Item Functioning Reading

CRT Grade 3

	Reference: Male N= 42792 Focal: Female N= 40309				Reference: Hispanic N= 46777 Focal: Non Hispanic N= 36414				Reference: White N= 66109 Focal: Africa American N= 4842				Reference: White N= 66109 Focal: Native American N= 6203				Reference: White N= 66109 Focal: Asian N= 2542				Reference: White N= 66109 Focal: Hawaii N= 298				Reference: White N= 66109 Focal: Multiple Indicator N= 22			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	121.02	-0.47	-0.03	A	80.69	-0.38	-0.02	A	21.10	-0.39	-0.03	A	33.15	-0.42	-0.03	A	14.11	-0.51	-0.03	A	1.46	0.44	0.03	A	0.84	0.12	0.01	A
32	71.68	0.42	0.02	A	22.73	-0.23	-0.01	A	1.13	0.10	0.01	A	8.89	-0.24	-0.02	A	0.03	-0.03	0.00	A	0.87	-0.36	-0.02	A	2.07	-0.22	-0.01	A
33	1.47	0.07	0.00	A	12.37	0.19	0.01	A	6.14	-0.26	-0.01	A	10.78	-0.29	-0.02	A	0.53	0.15	0.00	A	0.28	-0.24	-0.01	A	0.00	0.00	0.00	A
34	82.73	0.33	0.03	A	42.39	-0.24	-0.02	A	7.41	0.21	0.02	A	38.15	-0.43	-0.04	A	12.71	-0.37	-0.03	A	0.00	0.01	0.00	A	0.38	-0.07	-0.01	A
35	3.24	-0.07	-0.01	A	0.13	-0.01	0.00	A	1.39	-0.09	-0.01	A	15.64	-0.27	-0.02	A	3.22	0.22	0.01	A	0.00	0.02	0.00	A	0.68	-0.10	-0.01	A
36	43.12	0.23	0.02	A	4.54	0.08	0.01	A	0.13	0.03	0.00	A	15.99	-0.26	-0.03	A	11.94	-0.35	-0.03	A	1.01	-0.29	-0.03	A	3.26	-0.19	-0.02	A
37	2.95	-0.06	-0.01	A	1.42	0.04	0.00	A	0.96	-0.07	-0.01	A	4.61	-0.14	-0.01	A	13.98	-0.38	-0.03	A	4.92	-0.64	-0.06	A	2.96	-0.18	-0.02	A
38	86.40	0.38	0.02	A	133.56	0.48	0.04	A	22.26	-0.39	-0.03	A	8.03	0.21	0.02	A	10.05	0.43	0.02	A	1.45	-0.40	-0.03	A	5.68	-0.30	-0.02	A
39	108.66	-0.38	-0.03	A	10.04	-0.12	-0.01	A	0.07	0.02	0.00	A	0.61	-0.06	-0.01	A	67.75	0.89	0.08	A	11.47	0.99	0.09	A	0.01	0.01	0.00	A
40	64.86	0.33	0.02	A	8.00	-0.12	-0.01	A	4.58	-0.18	-0.01	A	1.10	0.07	0.01	A	0.53	-0.10	-0.01	A	3.94	0.74	0.05	A	0.28	0.07	0.00	A
41	60.13	0.28	0.02	A	18.76	-0.16	-0.01	A	0.30	-0.04	0.00	A	3.72	-0.14	-0.01	A	3.83	0.20	0.02	A	0.10	-0.09	-0.01	A	0.14	0.04	0.00	A
42	12.12	-0.13	-0.01	A	0.46	-0.03	0.00	A	41.91	-0.50	-0.04	A	0.57	0.05	0.00	A	0.04	0.02	0.00	A	0.08	0.10	0.01	A	0.90	0.11	0.01	A
43	86.63	0.40	0.02	A	8.98	0.13	0.01	A	0.01	-0.01	0.00	A	0.16	-0.03	0.00	A	34.13	-0.78	-0.04	A	0.00	-0.01	0.00	A	1.49	-0.16	-0.01	A
44	28.42	-0.20	-0.02	A	304.14	-0.67	-0.05	A	2.86	0.14	0.01	A	72.73	-0.65	-0.05	A	1.31	-0.12	-0.01	A	0.11	0.10	0.01	A	3.45	0.21	0.02	A
45	33.43	0.20	0.02	A	163.52	-0.46	-0.04	A	7.12	0.20	0.02	A	1.99	0.10	0.01	A	12.26	0.36	0.03	A	2.65	0.47	0.04	A	2.44	0.17	0.02	A
46	243.88	0.55	0.05	A	49.18	0.26	0.02	A	0.43	0.05	0.00	A	7.05	0.18	0.02	A	11.51	0.35	0.03	A	0.11	0.10	0.01	A	0.00	0.00	0.00	A
47	4.56	0.08	0.00	A	3.73	-0.07	0.00	A	0.92	0.07	0.01	A	11.86	-0.23	-0.02	A	7.03	0.33	0.02	A	0.00	0.00	0.00	A	0.79	0.10	0.01	A
48	0.65	-0.03	0.00	A	159.29	-0.48	-0.04	A	0.11	0.03	0.00	A	0.45	-0.05	0.00	A	16.23	0.47	0.03	A	0.19	0.14	0.01	A	7.60	0.32	0.03	A
49	62.86	0.34	0.02	A	22.53	0.21	0.02	A	0.54	-0.06	0.00	A	5.95	0.19	0.01	A	44.69	1.05	0.05	B>	1.17	0.39	0.02	A	0.93	-0.13	-0.01	A
50	0.16	-0.01	0.00	A	0.23	-0.02	0.00	A	21.91	-0.36	-0.03	A	8.17	0.19	0.02	A	17.99	0.43	0.04	A	1.72	0.37	0.04	A	1.00	-0.11	-0.01	A
51	86.16	0.39	0.02	A	3.69	0.08	0.01	A	0.11	0.03	0.00	A	6.88	0.20	0.02	A	50.75	1.12	0.05	B>	3.93	0.72	0.04	A	2.21	-0.19	-0.01	A
52	12.36	0.13	0.01	A	1.06	-0.04	0.00	A	3.43	-0.15	-0.01	A	0.00	0.00	0.00	A	0.09	0.03	0.00	A	2.95	-0.57	-0.04	A	3.47	-0.21	-0.02	A
53	2.33	0.06	0.00	A	3.00	0.07	0.01	A	8.39	0.24	0.02	A	67.55	-0.59	-0.05	A	11.01	-0.44	-0.02	A	4.08	-0.67	-0.05	A	0.56	-0.09	-0.01	A
54	45.18	-0.27	-0.02	A	4.06	0.08	0.01	A	1.71	-0.11	-0.01	A	2.30	0.11	0.01	A	21.91	0.63	0.03	A	0.44	-0.22	-0.02	A	0.47	-0.09	-0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.10
Spring 2013 AIMS Differential Item Functioning

Reading CRT Grade 4

	Reference: Male N= 42241 Focal: Female N= 40722				Reference: Hispanic N= 47042 Focal: Non Hispanic N= 36001				Reference: White N= 66557 Focal: Africa American N= 4722				Reference: White N= 66557 Focal: Native American N= 6026				Reference: White N= 66557 Focal: Asian N= 2484				Reference: White N= 66557 Focal: Hawaii N= 292				Reference: White N= 66557 Focal: Multiple Indicator N= 21			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	31.67	-0.28	-0.01	A	1.09	-0.05	0.00	A	12.25	-0.34	-0.02	A	2.45	0.14	0.01	A	19.00	-0.68	-0.03	A	0.23	-0.20	-0.01	A	0.53	-0.12	-0.01	A
2	21.60	0.17	0.01	A	526.07	-0.85	-0.08	A	3.83	0.15	0.01	A	118.78	-0.74	-0.07	A	32.49	-0.64	-0.05	A	0.21	-0.14	-0.01	A	4.18	0.24	0.02	A
3	215.41	-0.58	-0.04	A	172.43	-0.52	-0.04	A	1.50	-0.10	-0.01	A	8.57	0.21	0.02	A	20.07	-0.54	-0.04	A	1.09	-0.33	-0.03	A	6.33	0.32	0.02	A
4	9.81	0.13	0.01	A	0.92	-0.04	0.00	A	2.98	-0.14	-0.01	A	8.35	-0.21	-0.02	A	2.09	-0.19	-0.01	A	0.99	-0.33	-0.02	A	0.12	0.04	0.00	A
5	42.41	0.24	0.02	A	11.61	0.13	0.01	A	6.14	0.19	0.02	A	40.11	-0.47	-0.04	A	31.03	-0.63	-0.05	A	0.04	-0.06	-0.01	A	0.00	0.00	0.00	A
6	33.91	-0.20	-0.02	A	43.18	-0.24	-0.02	A	1.71	-0.10	-0.01	A	0.78	-0.06	0.00	A	1.72	0.14	0.01	A	0.43	0.19	0.02	A	3.55	0.20	0.02	A
7	30.41	0.28	0.01	A	2.50	-0.08	0.00	A	5.10	-0.22	-0.01	A	0.19	-0.04	0.00	A	3.12	0.33	0.01	A	2.19	-0.60	-0.03	A	1.13	-0.17	-0.01	A
8	29.71	0.23	0.01	A	365.94	-0.81	-0.06	A	34.78	0.52	0.04	A	2.59	-0.12	-0.01	A	0.16	0.06	0.00	A	3.33	0.74	0.04	A	20.39	0.64	0.04	A
9	7.20	0.14	0.00	A	3.71	-0.10	-0.01	A	6.96	0.28	0.01	A	6.75	0.23	0.01	A	0.66	0.17	0.00	A	0.17	0.19	0.01	A	1.29	0.19	0.01	A
10	8.41	-0.10	-0.01	A	15.99	0.14	0.01	A	1.35	0.09	0.01	A	0.33	-0.04	0.00	A	10.92	0.34	0.03	A	1.88	0.39	0.04	A	1.14	0.11	0.01	A
11	12.46	0.15	0.01	A	37.37	0.27	0.02	A	4.58	0.19	0.01	A	5.18	-0.17	-0.01	A	2.92	0.26	0.01	A	0.46	-0.23	-0.02	A	15.17	-0.51	-0.03	A
12	217.25	-0.57	-0.04	A	9.90	0.12	0.01	A	1.77	0.11	0.01	A	28.94	0.39	0.03	A	4.15	0.25	0.02	A	0.87	0.31	0.02	A	2.79	0.20	0.02	A
13	147.09	-0.46	-0.04	A	133.94	-0.46	-0.03	A	1.49	0.10	0.01	A	35.21	-0.47	-0.03	A	1.09	0.11	0.01	A	0.93	0.30	0.02	A	3.79	0.23	0.02	A
14	48.99	0.45	0.01	A	8.21	0.18	0.01	A	0.02	0.02	0.00	A	1.23	-0.11	-0.01	A	0.90	0.24	0.00	A	0.35	-0.31	-0.01	A	0.15	0.08	0.00	A
15	115.96	0.53	0.02	A	58.21	-0.37	-0.02	A	4.49	-0.20	-0.01	A	0.00	0.00	0.00	A	1.16	-0.19	-0.01	A	0.26	0.20	0.01	A	5.72	0.39	0.02	A
16	4.44	0.09	0.00	A	8.23	0.13	0.01	A	13.07	-0.32	-0.02	A	6.69	-0.20	-0.02	A	1.18	0.16	0.01	A	1.35	0.47	0.03	A	0.09	0.04	0.00	A
17	14.36	-0.14	-0.01	A	0.02	-0.01	0.00	A	0.00	0.00	0.00	A	2.00	0.10	0.01	A	14.20	0.47	0.03	A	1.08	0.34	0.03	A	2.57	0.19	0.02	A
18	70.55	0.28	0.03	A	35.29	0.20	0.02	A	0.40	-0.05	0.00	A	2.29	-0.10	-0.01	A	1.02	0.10	0.01	A	1.66	-0.36	-0.04	A	0.72	0.09	0.01	A
19	185.65	0.52	0.04	A	0.01	0.00	0.00	A	10.17	0.25	0.02	A	13.16	0.25	0.02	A	26.98	0.68	0.04	A	0.12	0.12	0.01	A	1.89	0.17	0.01	A
20	254.02	0.76	0.04	A	10.38	0.15	0.01	A	3.66	-0.18	-0.01	A	0.27	0.04	0.00	A	5.27	-0.38	-0.01	A	0.08	0.11	0.01	A	0.00	0.01	0.00	A
21	159.83	0.56	0.03	A	11.21	0.15	0.01	A	0.03	-0.01	0.00	A	5.99	-0.19	-0.01	A	6.24	0.40	0.02	A	1.05	0.40	0.02	A	0.60	0.11	0.01	A
22	1.07	-0.04	0.00	A	639.92	-0.97	-0.08	A	23.08	0.39	0.03	A	59.18	-0.55	-0.05	A	15.59	0.49	0.03	A	1.07	0.33	0.03	A	32.61	0.71	0.05	A
23	72.45	0.34	0.03	A	223.54	-0.63	-0.04	A	16.71	0.35	0.02	A	3.51	-0.16	-0.01	A	43.19	0.70	0.06	A	0.08	-0.09	-0.01	A	2.66	0.20	0.02	A
24	118.69	-0.44	-0.03	A	155.88	-0.51	-0.04	A	8.47	-0.24	-0.02	A	37.05	-0.43	-0.04	A	7.23	-0.35	-0.02	A	0.44	-0.22	-0.02	A	0.06	-0.03	0.00	A
25	96.16	0.58	0.02	A	35.38	0.35	0.02	A	0.62	-0.09	0.00	A	13.30	0.36	0.02	A	0.33	0.13	0.00	A	0.20	0.23	0.01	A	0.01	0.01	0.00	A
26	35.41	0.25	0.02	A	14.44	-0.16	-0.01	A	13.01	-0.30	-0.02	A	21.84	-0.35	-0.03	A	4.16	0.30	0.01	A	0.51	-0.26	-0.02	A	1.61	-0.17	-0.01	A
27	31.02	-0.20	-0.02	A	30.39	-0.21	-0.02	A	0.84	-0.07	-0.01	A	0.51	-0.05	0.00	A	0.89	-0.10	-0.01	A	0.18	-0.13	-0.01	A	2.82	-0.20	-0.02	A
28	49.83	0.35	0.01	A	3.77	0.10	0.01	A	9.34	-0.29	-0.02	A	30.89	-0.45	-0.03	A	1.57	0.23	0.01	A	0.76	0.38	0.02	A	1.40	0.19	0.01	A
29	146.20	0.59	0.03	A	10.33	0.16	0.01	A	4.82	-0.21	-0.01	A	2.29	-0.13	-0.01	A	0.10	0.06	0.00	A	0.12	-0.15	-0.01	A	0.01	-0.02	0.00	A
30	205.59	0.89	0.02	A	18.96	0.27	0.01	A	0.09	-0.03	0.00	A	10.65	0.33	0.01	A	6.62	0.64	0.01	A	1.45	-0.59	-0.02	A	0.40	0.13	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.10 (continued)
Spring 2013 AIMS Differential Item Functioning

Reading CRT Grade 4

	Reference: Male N= 42241 Focal: Female N= 40722				Reference: Hispanic N= 47042 Focal: Non Hispanic N= 36001				Reference: White N= 66557 Focal: Africa American N= 4722				Reference: White N= 66557 Focal: Native American N= 6026				Reference: White N= 66557 Focal: Asian N= 2484				Reference: White N= 66557 Focal: Hawaii N= 292				Reference: White N= 66557 Focal: Multiple Indicator N= 21			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	6.72	0.11	0.01	A	21.48	-0.19	-0.01	A	3.76	0.17	0.01	A	8.45	-0.21	-0.02	A	1.96	0.19	0.01	A	1.35	0.41	0.03	A	0.07	-0.03	0.00	A
32	0.84	0.04	0.00	A	263.70	-0.66	-0.04	A	19.68	-0.39	-0.03	A	14.72	-0.31	-0.02	A	11.15	0.36	0.03	A	0.02	-0.04	0.00	A	0.83	0.11	0.01	A
33	18.00	0.17	0.01	A	1.20	-0.04	0.00	A	9.48	-0.25	-0.02	A	12.65	-0.26	-0.02	A	0.53	-0.09	-0.01	A	0.01	-0.03	0.00	A	0.80	-0.11	-0.01	A
34	178.47	0.47	0.04	A	0.32	0.02	0.01	A	1.81	0.10	0.01	A	22.14	0.32	0.03	A	1.10	0.11	0.01	A	0.04	0.06	0.01	A	0.15	-0.04	0.00	A
35	196.20	0.61	0.04	A	171.49	0.58	0.04	A	9.47	-0.27	-0.02	A	3.50	-0.14	-0.01	A	0.17	0.06	0.00	A	0.00	0.02	0.00	A	8.83	-0.41	-0.02	A
36	1.18	0.05	0.00	A	1.54	-0.06	0.00	A	0.52	0.07	0.00	A	1.84	-0.10	-0.01	A	3.50	-0.28	-0.01	A	4.38	-0.73	-0.05	A	0.14	0.05	0.00	A
37	213.76	0.67	0.04	A	2.77	0.08	0.00	A	0.53	0.07	0.00	A	1.15	-0.08	-0.01	A	0.00	-0.01	0.00	A	0.01	-0.05	0.00	A	0.02	0.02	0.00	A
38	0.27	-0.02	0.00	A	4.09	-0.08	0.00	A	0.06	-0.02	0.00	A	3.89	-0.14	-0.01	A	0.91	-0.12	-0.01	A	0.00	-0.02	0.00	A	0.04	-0.02	0.00	A
39	54.53	-0.26	-0.03	A	24.93	-0.18	-0.01	A	1.64	0.10	0.01	A	0.97	-0.07	-0.01	A	2.78	-0.17	-0.02	A	0.26	-0.15	-0.01	A	0.03	-0.02	0.00	A
40	46.29	0.29	0.02	A	64.98	-0.35	-0.03	A	2.07	-0.13	-0.01	A	0.88	0.07	0.01	A	6.10	0.37	0.02	A	0.00	0.02	0.00	A	2.66	-0.22	-0.01	A
41	11.92	-0.12	-0.01	A	70.68	-0.30	-0.02	A	36.18	-0.46	-0.04	A	10.12	-0.22	-0.02	A	14.40	0.40	0.04	A	2.34	-0.46	-0.04	A	4.63	-0.24	-0.02	A
42	0.24	-0.02	0.00	A	6.39	-0.10	-0.01	A	1.49	-0.10	-0.01	A	1.90	0.10	0.01	A	1.66	-0.16	-0.01	A	0.03	-0.05	0.00	A	0.83	-0.11	-0.01	A
43	12.92	-0.14	-0.01	A	5.91	-0.09	-0.01	A	0.71	-0.07	-0.01	A	7.26	0.20	0.02	A	1.64	0.14	0.01	A	1.22	-0.34	-0.03	A	0.91	-0.11	-0.01	A
44	7.36	0.10	0.01	A	179.56	0.51	0.04	A	1.10	-0.08	-0.01	A	17.71	0.29	0.03	A	35.24	0.75	0.05	A	4.19	0.65	0.05	A	0.07	0.03	0.00	A
45	7.49	-0.10	-0.01	A	0.06	0.01	0.01	A	0.58	-0.06	-0.01	A	20.86	-0.31	-0.03	A	3.31	-0.22	-0.01	A	0.62	-0.25	-0.02	A	0.45	0.08	0.01	A
46	2.20	0.06	0.00	A	13.18	-0.15	-0.01	A	1.59	-0.11	-0.01	A	2.04	-0.10	-0.01	A	0.06	-0.03	0.00	A	0.08	-0.09	-0.01	A	1.18	-0.15	-0.01	A
47	0.64	-0.03	0.00	A	5.48	0.09	0.01	A	1.07	-0.08	-0.01	A	21.15	0.32	0.03	A	26.59	0.60	0.05	A	1.07	0.32	0.03	A	0.08	0.03	0.00	A
48	38.47	0.22	0.02	A	80.42	-0.32	-0.03	A	1.83	-0.10	-0.01	A	51.75	-0.49	-0.04	A	0.59	-0.08	-0.01	A	2.28	-0.44	-0.04	A	2.28	-0.17	-0.02	A
49	50.53	0.26	0.02	A	46.52	0.26	0.02	A	26.61	-0.40	-0.04	A	0.65	0.06	0.01	A	2.40	0.18	0.01	A	2.58	-0.48	-0.04	A	0.64	-0.10	-0.01	A
50	40.10	0.30	0.01	A	112.45	0.51	0.03	A	10.40	-0.29	-0.02	A	4.49	-0.17	-0.01	A	4.19	0.36	0.01	A	0.79	-0.34	-0.02	A	8.72	-0.44	-0.02	A
51	153.11	-0.48	-0.04	A	0.35	0.02	0.00	A	3.31	-0.15	-0.01	A	4.38	-0.15	-0.01	A	1.39	0.15	0.01	A	2.58	-0.51	-0.04	A	0.19	0.05	0.00	A
52	14.96	-0.15	-0.01	A	23.77	-0.19	-0.01	A	3.81	0.16	0.01	A	0.47	-0.05	0.00	A	22.81	0.55	0.04	A	0.36	0.18	0.02	A	0.00	-0.01	0.00	A
53	29.29	-0.22	-0.01	A	5.81	0.10	0.01	A	1.57	0.11	0.01	A	0.23	-0.04	0.00	A	1.90	0.19	0.01	A	1.52	-0.41	-0.03	A	0.04	-0.03	0.00	A
54	210.86	0.55	0.04	A	27.82	0.20	0.02	A	9.46	0.24	0.02	A	12.19	0.24	0.02	A	1.60	0.15	0.01	A	0.05	-0.07	-0.01	A	6.85	-0.31	-0.02	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.11
Spring 2013 AIMS Differential Item Functioning

Reading CRT Grade 5

	Reference: Male N= 41749 Focal: Female N= 40392				Reference: Hispanic N= 46398 Focal: Non Hispanic N= 35822				Reference: White N= 65964 Focal: Africa American N= 4811				Reference: White N= 65964 Focal: Native American N= 5972				Reference: White N= 65964 Focal: Asian N= 2454				Reference: White N= 65964 Focal: Hawaii N= 234				Reference: White N= 65964 Focal: Multiple Indicator N= 20			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	42.79	0.25	0.02	A	118.49	0.42	0.03	A	1.02	0.08	0.01	A	17.24	0.31	0.02	A	2.38	0.17	0.01	A	1.88	0.47	0.04	A	0.37	0.07	0.01	A
2	9.12	-0.13	-0.01	A	67.03	-0.35	-0.02	A	0.28	-0.04	0.00	A	29.62	-0.40	-0.03	A	0.00	0.00	0.00	A	0.77	-0.33	-0.02	A	0.12	-0.05	0.00	A
3	129.04	-0.39	-0.04	A	11.46	-0.12	-0.01	A	20.03	-0.33	-0.03	A	16.59	0.27	0.03	A	0.09	0.03	0.00	A	0.22	-0.15	-0.01	A	0.12	0.04	0.00	A
4	144.09	0.41	0.04	A	21.13	0.16	0.01	A	3.93	0.14	0.01	A	1.00	0.07	0.01	A	4.18	-0.20	-0.02	A	0.23	-0.15	-0.02	A	0.79	0.10	0.01	A
5	272.88	-0.71	-0.04	A	57.90	-0.33	-0.02	A	12.29	-0.30	-0.02	A	47.38	-0.50	-0.04	A	0.29	-0.08	0.00	A	1.63	-0.48	-0.03	A	0.02	0.02	0.00	A
6	216.81	-0.53	-0.05	A	112.28	-0.39	-0.03	A	3.74	-0.15	-0.01	A	11.78	-0.25	-0.02	A	4.75	0.23	0.02	A	3.62	0.63	0.06	A	2.80	0.19	0.02	A
7	521.31	-0.81	-0.08	A	33.31	0.21	0.02	A	17.32	-0.31	-0.03	A	10.64	-0.22	-0.02	A	9.98	0.35	0.03	A	0.11	-0.11	-0.01	A	14.97	-0.44	-0.04	A
8	5.08	0.08	0.01	A	109.83	0.40	0.03	A	0.23	0.04	0.00	A	13.83	0.26	0.02	A	0.21	-0.05	0.00	A	0.22	-0.16	-0.01	A	1.12	-0.13	-0.01	A
9	74.21	0.34	0.03	A	43.22	-0.26	-0.02	A	9.56	0.25	0.02	A	27.60	-0.38	-0.03	A	2.99	0.22	0.01	A	3.99	-0.71	-0.06	A	0.10	-0.04	0.00	A
10	73.69	0.37	0.02	A	3.20	-0.08	0.00	A	5.54	-0.20	-0.01	A	4.13	-0.15	-0.01	A	0.03	-0.03	0.00	A	0.01	0.03	0.00	A	0.00	-0.01	0.00	A
11	25.34	0.29	0.01	A	30.43	-0.31	-0.01	A	5.23	-0.25	-0.01	A	18.93	0.40	0.02	A	0.13	-0.08	0.00	A	1.34	0.61	0.02	A	3.01	0.35	0.01	A
12	12.66	-0.13	-0.01	A	28.54	-0.20	-0.01	A	0.05	0.02	0.00	A	4.02	-0.14	-0.01	A	34.44	0.71	0.05	A	0.11	0.11	0.01	A	1.24	-0.14	-0.01	A
13	56.26	0.39	0.02	A	7.07	0.14	0.01	A	0.00	0.00	0.00	A	66.07	-0.68	-0.04	A	1.39	-0.22	-0.01	A	0.15	0.19	0.01	A	0.02	0.03	0.00	A
14	44.17	0.29	0.02	A	78.14	0.39	0.03	A	1.49	-0.11	-0.01	A	5.58	0.18	0.01	A	8.56	0.45	0.02	A	0.07	-0.11	-0.01	A	0.11	0.05	0.00	A
15	0.06	0.01	0.00	A	257.70	-0.61	-0.05	A	2.47	0.12	0.01	A	0.40	-0.04	0.00	A	7.25	0.32	0.02	A	0.00	-0.02	0.00	A	2.76	0.20	0.02	A
16	112.32	0.38	0.04	A	1.35	-0.04	0.00	A	12.81	0.28	0.02	A	9.74	-0.23	-0.02	A	37.21	0.63	0.06	A	1.49	-0.44	-0.04	A	2.77	0.19	0.02	A
17	55.22	-0.28	-0.02	A	28.90	-0.21	-0.02	A	4.72	-0.17	-0.01	A	0.09	-0.02	0.00	A	0.08	-0.03	0.00	A	0.90	0.35	0.03	A	0.16	-0.05	0.00	A
18	13.60	-0.14	-0.01	A	52.27	-0.27	-0.02	A	0.20	-0.03	0.00	A	19.91	-0.31	-0.03	A	6.04	0.29	0.02	A	0.47	0.24	0.02	A	0.01	0.01	0.00	A
19	143.77	0.58	0.03	A	6.56	-0.12	-0.01	A	1.87	0.13	0.01	A	20.81	-0.36	-0.03	A	30.20	-0.85	-0.03	A	0.11	-0.14	-0.01	A	0.59	0.12	0.01	A
20	6.80	0.09	0.01	A	167.07	-0.46	-0.04	A	3.39	-0.14	-0.01	A	38.85	-0.43	-0.04	A	13.71	-0.38	-0.04	A	0.05	0.07	0.01	A	0.58	0.08	0.01	A
21	0.26	-0.02	0.00	A	218.40	-0.64	-0.04	A	15.75	-0.34	-0.02	A	0.00	0.00	0.00	A	4.35	-0.29	-0.01	A	4.22	0.85	0.05	A	9.63	0.45	0.03	A
22	14.00	-0.14	-0.01	A	144.72	-0.45	-0.04	A	2.45	-0.12	-0.01	A	37.71	-0.43	-0.04	A	5.23	0.26	0.02	A	0.01	0.03	0.00	A	0.96	0.11	0.01	A
23	50.81	0.44	0.01	A	24.47	0.30	0.01	A	11.55	-0.38	-0.02	A	0.51	-0.07	0.00	A	2.17	0.35	0.01	A	0.38	0.35	0.01	A	0.48	-0.15	0.00	A
24	19.62	0.16	0.01	A	4.37	-0.08	-0.01	A	1.34	-0.09	-0.01	A	22.49	-0.33	-0.03	A	1.31	0.13	0.01	A	0.64	0.29	0.02	A	0.69	-0.10	-0.01	A
25	7.28	-0.14	-0.01	A	76.97	-0.46	-0.02	A	3.97	-0.20	-0.01	A	19.94	-0.38	-0.02	A	1.63	0.25	0.01	A	4.94	0.99	0.05	A	0.40	0.11	0.00	A
26	82.39	0.46	0.02	A	1.55	-0.06	0.00	A	0.66	-0.08	0.00	A	30.56	-0.46	-0.03	A	2.09	0.27	0.01	A	0.76	0.42	0.02	A	0.65	0.14	0.01	A
27	35.03	-0.26	-0.02	A	25.94	-0.22	-0.01	A	0.14	-0.03	0.00	A	17.75	0.33	0.02	A	3.06	0.27	0.01	A	2.59	-0.62	-0.04	A	0.83	0.13	0.01	A
28	40.05	0.29	0.01	A	53.97	0.34	0.02	A	0.23	-0.04	0.00	A	5.56	0.19	0.01	A	0.62	0.12	0.00	A	1.82	0.56	0.03	A	0.02	-0.02	0.00	A
29	103.34	-0.45	-0.03	A	119.87	-0.49	-0.03	A	3.20	-0.16	-0.01	A	0.01	-0.01	0.00	A	5.15	-0.33	-0.02	A	0.02	-0.05	0.00	A	2.23	0.23	0.01	A
30	1.43	-0.04	0.00	A	4.68	-0.08	0.00	A	16.83	-0.32	-0.03	A	0.00	0.00	0.00	A	0.03	-0.02	0.00	A	2.26	-0.50	-0.04	A	0.01	0.01	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.11 (continued)
Spring 2013 AIMS Differential Item Functioning

Reading CRT Grade 5

	Reference: Male N= 41749 Focal: Female N= 40392				Reference: Hispanic N= 46398 Focal: Non Hispanic N= 35822				Reference: White N= 65964 Focal: Africa American N= 4811				Reference: White N= 65964 Focal: Native American N= 5972				Reference: White N= 65964 Focal: Asian N= 2454				Reference: White N= 65964 Focal: Hawaii N= 234				Reference: White N= 65964 Focal: Multiple Indicator N= 20			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	172.29	0.60	0.03	A	43.87	-0.30	-0.02	A	0.02	-0.01	0.00	A	90.57	-0.72	-0.05	A	0.09	-0.05	0.00	A	0.42	0.26	0.02	A	1.73	0.20	0.01	A
32	66.42	-0.30	-0.03	A	0.26	-0.02	0.00	A	3.77	-0.15	-0.01	A	0.73	-0.06	-0.01	A	10.23	0.38	0.03	A	0.04	0.07	0.01	A	0.00	0.00	0.00	A
33	105.12	0.36	0.03	A	162.07	0.46	0.04	A	12.95	0.27	0.03	A	19.24	0.30	0.03	A	17.21	0.45	0.04	A	6.24	0.86	0.08	A	0.06	0.03	0.00	A
34	17.92	-0.18	-0.01	A	6.87	-0.11	-0.01	A	4.67	0.18	0.01	A	0.84	-0.07	-0.01	A	0.27	-0.07	0.00	A	0.37	0.24	0.02	A	0.36	0.08	0.01	A
35	152.83	0.60	0.03	A	48.41	0.34	0.02	A	7.66	0.27	0.02	A	0.24	0.04	0.00	A	0.54	0.12	0.00	A	3.15	0.80	0.04	A	0.11	0.05	0.00	A
36	0.20	-0.02	0.00	A	40.89	-0.23	-0.02	A	9.57	-0.23	-0.02	A	2.88	-0.11	-0.01	A	8.59	-0.31	-0.03	A	0.14	-0.12	-0.01	A	0.20	0.05	0.00	A
37	71.57	0.29	0.03	A	18.10	-0.15	-0.02	A	68.73	0.60	0.06	A	2.02	-0.09	-0.01	A	0.22	0.05	0.00	A	1.41	0.37	0.04	A	1.34	0.13	0.01	A
38	2.37	-0.09	0.00	A	7.03	-0.16	-0.01	A	3.90	-0.23	-0.01	A	0.28	-0.05	0.00	A	0.07	-0.06	0.00	A	4.08	1.28	0.04	A	3.73	0.42	0.01	A
39	0.79	-0.04	0.00	A	37.59	-0.29	-0.02	A	1.08	0.10	0.01	A	24.70	-0.39	-0.03	A	0.15	0.07	0.00	A	2.02	-0.58	-0.03	A	1.19	0.17	0.01	A
40	136.64	0.60	0.02	A	0.08	0.01	0.00	A	7.60	-0.27	-0.01	A	9.77	0.28	0.02	A	1.68	-0.22	-0.01	A	0.96	-0.43	-0.02	A	0.03	-0.03	0.00	A
41	54.88	0.33	0.02	A	16.65	-0.18	-0.01	A	5.72	-0.21	-0.01	A	4.39	-0.16	-0.01	A	0.04	-0.03	0.00	A	0.77	-0.34	-0.02	A	0.87	0.14	0.01	A
42	52.18	0.26	0.02	A	41.62	0.24	0.02	A	5.28	0.18	0.02	A	10.40	0.23	0.02	A	0.34	-0.06	-0.01	A	4.85	0.71	0.06	A	6.04	-0.29	-0.03	A
43	16.08	0.17	0.01	A	9.28	-0.13	-0.01	A	2.74	-0.14	-0.01	A	114.52	-0.80	-0.06	A	0.19	-0.06	0.00	A	2.84	0.65	0.04	A	0.10	0.04	0.00	A
44	87.69	0.53	0.02	A	0.18	0.02	0.00	A	4.99	-0.24	-0.01	A	7.46	0.25	0.01	A	16.04	0.91	0.02	A	1.05	0.53	0.02	A	2.54	0.32	0.01	A
45	95.84	0.48	0.02	A	29.90	0.27	0.02	A	2.35	0.15	0.01	A	6.79	0.21	0.01	A	10.82	0.57	0.02	A	1.45	-0.48	-0.03	A	0.60	-0.12	-0.01	A
46	19.59	0.25	0.01	A	15.08	0.22	0.01	A	0.08	0.03	0.00	A	10.39	-0.28	-0.02	A	0.01	-0.02	0.00	A	8.24	1.60	0.06	C>	0.02	-0.03	0.00	A
47	6.68	0.10	0.01	A	177.31	0.53	0.04	A	0.69	-0.07	-0.01	A	1.37	-0.08	-0.01	A	0.11	0.04	0.00	A	0.00	0.01	0.00	A	1.48	-0.15	-0.01	A
48	0.06	-0.01	0.00	A	30.76	0.20	0.02	A	0.66	-0.06	-0.01	A	0.15	0.03	0.00	A	1.34	-0.12	-0.01	A	0.02	0.04	0.00	A	1.53	-0.14	-0.01	A
49	1.08	0.05	0.00	A	20.54	0.21	0.01	A	2.48	-0.14	-0.01	A	9.52	-0.25	-0.02	A	1.82	0.22	0.01	A	0.02	-0.06	0.00	A	0.07	-0.04	0.00	A
50	120.93	0.48	0.03	A	7.89	-0.12	-0.01	A	10.94	-0.29	-0.02	A	11.79	0.26	0.02	A	3.20	0.27	0.01	A	0.57	-0.29	-0.02	A	0.51	0.11	0.01	A
51	307.11	0.66	0.05	A	33.32	0.22	0.02	A	1.19	-0.09	-0.01	A	2.24	0.11	0.01	A	1.25	0.13	0.01	A	6.52	-0.91	-0.07	A	0.14	-0.04	0.00	A
52	73.33	0.36	0.02	A	129.98	-0.48	-0.03	A	7.38	-0.23	-0.02	A	0.07	-0.02	0.00	A	13.61	0.54	0.03	A	1.40	-0.48	-0.03	A	2.02	0.20	0.01	A
53	131.24	0.44	0.03	A	2.20	-0.06	0.00	A	4.11	-0.16	-0.01	A	10.42	0.23	0.02	A	0.63	0.09	0.01	A	0.80	0.31	0.03	A	0.02	0.02	0.00	A
54	21.53	0.19	0.01	A	14.58	-0.16	-0.01	A	3.34	0.16	0.01	A	16.27	-0.29	-0.02	A	5.36	0.33	0.02	A	0.14	-0.13	-0.01	A	0.52	-0.10	-0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.12
Spring 2013 AIMS Differential Item Functioning

Reading CRT Grade 6

	Reference: Male N= 42060 Focal: Female N= 40454				Reference: Hispanic N= 46683 Focal: Non Hispanic N= 35912				Reference: White N= 66524 Focal: Africa American N= 4719				Reference: White N= 66524 Focal: Native American N= 5823				Reference: White N= 66524 Focal: Asian N= 2520				Reference: White N= 66524 Focal: Hawaii N= 292				Reference: White N= 66524 Focal: Multiple Indicator N= 19			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	18.91	-0.24	-0.01	A	74.24	-0.48	-0.02	A	11.70	-0.36	-0.02	A	0.08	0.03	0.00	A	11.40	-0.64	-0.02	A	2.78	-0.72	-0.03	A	0.06	0.05	0.00	A
2	16.91	-0.15	-0.01	A	1.45	-0.04	-0.01	A	0.31	0.04	0.00	A	1.38	-0.08	-0.01	A	66.98	0.93	0.08	A	0.33	-0.17	-0.02	A	0.88	0.11	0.01	A
3	17.14	0.40	0.00	A	0.01	-0.01	0.00	A	0.51	-0.12	0.00	A	0.49	0.11	0.00	A	3.06	-0.55	0.00	A	0.05	0.18	0.00	A	0.32	0.18	0.00	A
4	54.89	0.26	0.02	A	1.23	-0.04	0.00	A	20.41	-0.33	-0.03	A	0.31	-0.04	0.00	A	14.85	0.42	0.04	A	0.01	-0.03	0.00	A	2.85	0.19	0.02	A
5	198.54	-0.79	-0.03	A	518.47	-1.27	-0.06	B<	12.40	0.39	0.02	A	49.62	-0.61	-0.04	A	17.39	-0.80	-0.02	A	2.42	0.81	0.03	A	26.04	1.06	0.03	B>
6	250.01	1.01	0.02	B>	0.02	0.01	0.00	A	3.97	-0.23	-0.01	A	0.00	0.00	0.00	A	0.00	0.00	0.00	A	0.32	-0.30	-0.01	A	2.18	-0.30	-0.01	A
7	156.86	0.81	0.02	A	2.08	0.09	0.00	A	9.30	-0.35	-0.01	A	1.83	-0.14	-0.01	A	0.79	-0.21	0.00	A	0.99	-0.52	-0.01	A	0.96	-0.20	-0.01	A
8	374.85	-0.69	-0.07	A	393.75	-0.71	-0.06	A	14.41	-0.29	-0.03	A	38.26	-0.43	-0.04	A	38.14	0.67	0.06	A	2.02	0.41	0.04	A	1.63	0.15	0.01	A
9	31.78	-0.20	-0.02	A	5.77	0.09	0.01	A	0.21	0.04	0.00	A	0.50	-0.05	0.00	A	6.29	0.25	0.02	A	0.05	0.06	0.01	A	1.93	-0.16	-0.01	A
10	85.47	0.35	0.03	A	107.81	-0.40	-0.03	A	0.41	0.05	0.00	A	2.73	0.12	0.01	A	1.17	-0.13	-0.01	A	1.78	-0.40	-0.03	A	0.03	0.02	0.00	A
11	0.15	0.02	0.00	A	54.77	-0.31	-0.02	A	7.32	-0.23	-0.02	A	0.02	-0.01	0.00	A	5.18	0.32	0.02	A	0.48	0.25	0.02	A	0.87	0.13	0.01	A
12	7.54	0.10	0.01	A	100.80	-0.38	-0.03	A	7.85	-0.22	-0.02	A	0.01	0.01	0.00	A	0.02	-0.02	0.00	A	0.21	-0.14	-0.01	A	0.42	-0.08	-0.01	A
13	150.26	0.55	0.03	A	9.76	0.14	0.01	A	0.86	-0.08	-0.01	A	1.28	-0.09	-0.01	A	2.27	-0.23	-0.01	A	0.39	0.23	0.01	A	0.70	-0.12	-0.01	A
14	31.89	0.22	0.01	A	139.09	-0.46	-0.04	A	0.95	-0.08	-0.01	A	4.74	-0.15	-0.01	A	9.55	-0.35	-0.03	A	3.45	0.62	0.05	A	0.15	0.05	0.00	A
15	317.98	0.77	0.04	A	33.32	0.25	0.02	A	1.34	0.10	0.01	A	1.90	-0.10	-0.01	A	0.22	-0.07	0.00	A	0.12	-0.12	-0.01	A	1.01	-0.14	-0.01	A
16	905.56	1.25	0.08	B>	7.35	0.11	0.01	A	4.96	0.19	0.01	A	0.12	-0.03	0.00	A	0.29	-0.07	0.00	A	1.81	0.47	0.03	A	4.92	0.31	0.02	A
17	775.29	1.03	0.09	B>	0.03	-0.01	0.00	A	4.29	0.16	0.01	A	1.54	-0.09	-0.01	A	1.30	-0.13	-0.01	A	0.33	-0.17	-0.01	A	2.39	0.18	0.02	A
18	0.02	0.01	0.00	A	0.42	-0.03	0.00	A	20.57	-0.39	-0.03	A	17.56	-0.32	-0.02	A	5.16	-0.32	-0.02	A	0.03	-0.06	0.00	A	0.53	0.11	0.01	A
19	87.17	0.44	0.02	A	8.02	0.13	0.01	A	4.00	-0.18	-0.01	A	127.25	-0.88	-0.06	A	9.25	-0.46	-0.02	A	6.86	-0.92	-0.05	A	0.20	0.07	0.00	A
20	1.28	-0.05	0.00	A	11.97	-0.15	-0.01	A	5.15	-0.19	-0.01	A	28.16	-0.40	-0.03	A	8.69	-0.42	-0.02	A	4.30	-0.73	-0.05	A	0.05	0.03	0.00	A
21	16.36	-0.14	-0.01	A	11.53	0.12	0.01	A	0.66	-0.06	-0.01	A	1.76	0.09	0.01	A	8.46	0.31	0.03	A	0.78	0.27	0.02	A	0.61	0.09	0.01	A
22	97.29	-0.36	-0.03	A	75.02	0.32	0.02	A	22.05	0.37	0.03	A	12.98	0.25	0.02	A	0.58	0.08	0.01	A	0.96	0.30	0.03	A	0.29	0.06	0.01	A
23	102.41	-0.37	-0.03	A	0.11	-0.01	0.00	A	0.16	0.03	0.00	A	26.30	-0.36	-0.03	A	0.16	-0.04	0.00	A	0.55	-0.22	-0.02	A	0.03	0.02	0.00	A
24	0.01	0.00	0.00	A	154.00	-0.45	-0.04	A	0.36	0.05	0.00	A	22.06	-0.33	-0.03	A	0.55	-0.08	-0.01	A	2.23	0.44	0.04	A	3.59	0.22	0.02	A
25	354.31	0.72	0.06	A	6.52	-0.10	-0.01	A	0.82	0.07	0.01	A	0.02	-0.01	0.00	A	5.01	0.27	0.02	A	0.02	0.05	0.00	A	0.18	-0.05	0.00	A
26	161.83	0.44	0.04	A	7.92	0.10	0.01	A	2.97	0.13	0.01	A	26.59	0.34	0.04	A	12.61	0.37	0.03	A	0.13	-0.10	-0.01	A	3.72	-0.21	-0.02	A
27	154.26	0.46	0.04	A	14.63	0.14	0.01	A	28.85	-0.41	-0.04	A	1.35	0.08	0.01	A	7.91	-0.31	-0.02	A	0.07	-0.08	-0.01	A	1.02	-0.12	-0.01	A
28	400.77	1.25	0.03	B>	42.31	0.39	0.02	A	33.31	-0.63	-0.03	A	9.12	0.30	0.01	A	4.68	0.53	0.01	A	0.10	0.17	0.01	A	0.38	0.13	0.00	A
29	100.28	0.39	0.03	A	1.66	0.05	0.01	A	17.45	-0.34	-0.03	A	1.02	0.07	0.01	A	25.84	0.65	0.04	A	0.59	-0.24	-0.02	A	0.43	-0.08	-0.01	A
30	300.50	0.78	0.04	A	128.23	0.51	0.03	A	1.73	-0.12	-0.01	A	13.12	0.28	0.02	A	33.02	0.97	0.04	A	0.63	-0.28	-0.02	A	0.85	-0.14	-0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.12 (continued)
Spring 2013 AIMS Differential Item Functioning

Reading CRT Grade 6

	Reference: Male N= 42060 Focal: Female N= 40454				Reference: Hispanic N= 46683 Focal: Non Hispanic N= 35912				Reference: White N= 66524 Focal: Africa American N= 4719				Reference: White N= 66524 Focal: Native American N= 5823				Reference: White N= 66524 Focal: Asian N= 2520				Reference: White N= 66524 Focal: Hawaii N= 292				Reference: White N= 66524 Focal: Multiple Indicator N= 19			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	0.17	0.02	0.00	A	65.39	0.30	0.03	A	0.30	-0.04	0.00	A	7.85	0.20	0.02	A	17.29	0.48	0.04	A	1.21	-0.33	-0.03	A	0.06	-0.03	0.00	A
32	53.66	-0.31	-0.02	A	116.19	-0.46	-0.03	A	5.01	-0.19	-0.01	A	10.71	-0.25	-0.02	A	21.88	-0.59	-0.03	A	0.21	0.17	0.01	A	0.69	0.12	0.01	A
33	0.84	-0.04	0.00	A	3.44	0.08	0.01	A	5.52	-0.20	-0.02	A	9.19	-0.23	-0.02	A	0.84	-0.13	-0.01	A	3.91	-0.68	-0.04	A	3.09	0.26	0.02	A
34	133.46	-0.43	-0.04	A	232.94	-0.58	-0.05	A	34.48	-0.47	-0.04	A	7.20	-0.19	-0.02	A	6.30	0.29	0.02	A	1.07	-0.32	-0.03	A	2.33	0.19	0.02	A
35	524.08	-0.98	-0.06	A	7.01	-0.11	-0.01	A	17.10	-0.34	-0.03	A	31.81	-0.42	-0.03	A	2.69	-0.23	-0.01	A	0.06	0.08	0.01	A	1.79	0.19	0.01	A
36	305.93	-0.68	-0.05	A	186.15	-0.54	-0.04	A	0.15	-0.03	0.00	A	2.86	-0.14	-0.01	A	11.49	0.37	0.03	A	0.07	0.09	0.01	A	8.73	0.36	0.03	A
37	80.36	0.31	0.03	A	105.36	-0.36	-0.03	A	1.32	0.09	0.01	A	156.10	-0.86	-0.08	A	13.15	-0.37	-0.03	A	0.09	0.09	0.01	A	4.17	0.23	0.02	A
38	315.96	-0.65	-0.06	A	0.24	0.02	0.00	A	31.51	-0.43	-0.04	A	5.40	0.16	0.02	A	3.63	0.21	0.02	A	7.07	-0.82	-0.07	A	0.06	-0.03	0.00	A
39	10.07	-0.16	-0.01	A	2.44	-0.08	0.00	A	19.44	-0.42	-0.02	A	2.13	-0.13	-0.01	A	1.56	-0.23	-0.01	A	6.60	-1.15	-0.05	A	0.58	-0.13	-0.01	A
40	5.43	0.10	0.01	A	18.68	-0.18	-0.01	A	0.01	-0.01	0.00	A	31.55	-0.43	-0.03	A	12.33	0.51	0.02	A	0.40	-0.23	-0.01	A	1.02	0.14	0.01	A
41	338.00	0.78	0.05	A	65.88	0.35	0.02	A	0.97	-0.09	-0.01	A	0.02	-0.01	0.00	A	0.27	-0.07	0.00	A	0.16	0.15	0.01	A	0.01	0.01	0.00	A
42	131.15	0.48	0.03	A	7.06	-0.11	-0.01	A	9.18	0.26	0.02	A	0.97	0.07	0.01	A	4.61	0.30	0.01	A	0.66	-0.29	-0.02	A	2.56	0.23	0.01	A
43	187.76	0.58	0.04	A	26.94	-0.22	-0.01	A	0.61	0.07	0.00	A	11.43	-0.25	-0.02	A	0.38	0.09	0.00	A	2.33	0.57	0.04	A	0.10	0.05	0.00	A
44	134.88	0.50	0.03	A	1.08	0.04	0.00	A	1.21	0.10	0.01	A	0.20	-0.03	0.00	A	0.26	0.07	0.00	A	0.55	0.28	0.02	A	3.02	-0.24	-0.02	A
45	5.22	-0.12	-0.01	A	82.51	-0.45	-0.02	A	9.72	-0.30	-0.02	A	0.27	-0.04	0.00	A	0.00	-0.01	0.00	A	0.08	0.12	0.01	A	3.52	0.32	0.01	A
46	42.36	0.34	0.01	A	43.06	-0.34	-0.02	A	13.06	0.37	0.02	A	21.99	0.42	0.02	A	13.59	0.72	0.02	A	1.67	0.59	0.02	A	4.81	0.38	0.02	A
47	1.25	-0.04	0.00	A	27.57	0.18	0.02	A	0.86	-0.07	-0.01	A	0.06	0.02	0.00	A	1.54	0.12	0.01	A	0.02	0.04	0.00	A	2.75	-0.18	-0.02	A
48	3.67	0.07	0.01	A	17.40	-0.17	-0.01	A	0.63	0.07	0.00	A	0.23	0.04	0.00	A	3.72	-0.21	-0.02	A	0.01	-0.04	0.00	A	0.86	-0.12	-0.01	A
49	143.47	0.49	0.03	A	87.14	0.39	0.03	A	19.79	0.39	0.03	A	34.06	0.45	0.04	A	3.55	0.25	0.01	A	3.27	0.65	0.04	A	0.29	0.07	0.00	A
50	101.67	0.38	0.03	A	4.32	0.08	0.01	A	1.68	0.10	0.01	A	17.48	0.30	0.03	A	0.02	-0.01	0.00	A	0.06	0.07	0.01	A	0.04	0.03	0.00	A
51	0.52	0.03	0.00	A	49.83	0.27	0.02	A	1.07	0.08	0.01	A	40.96	-0.44	-0.04	A	0.14	-0.04	0.00	A	0.09	-0.09	-0.01	A	7.07	-0.32	-0.03	A
52	179.84	-0.49	-0.04	A	7.69	-0.10	-0.01	A	0.95	-0.08	-0.01	A	9.45	0.22	0.02	A	13.39	0.41	0.03	A	0.00	0.02	0.00	A	3.80	-0.23	-0.02	A
53	40.32	-0.24	-0.02	A	0.13	0.01	0.00	A	19.11	-0.34	-0.03	A	8.60	0.21	0.02	A	21.35	0.56	0.04	A	0.00	0.01	0.00	A	1.00	-0.12	-0.01	A
54	3.57	-0.07	-0.01	A	71.86	0.30	0.03	A	7.25	-0.20	-0.02	A	3.57	0.13	0.01	A	3.44	0.18	0.02	A	0.00	-0.01	0.00	A	6.08	-0.28	-0.03	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.13
Spring 2013 AIMS Differential Item Functioning

Reading CRT Grade 7

	Reference: Male N= 41838 Focal: Female N= 40566				Reference: Hispanic N= 47161 Focal: Non Hispanic N= 35340				Reference: White N= 66212 Focal: Africa American N= 4913				Reference: White N= 66212 Focal: Native American N= 5954				Reference: White N= 66212 Focal: Asian N= 2401				Reference: White N= 66212 Focal: Hawaii N= 257				Reference: White N= 66212 Focal: Multiple Indicator N= 19			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	38.47	0.37	0.01	A	84.41	-0.54	-0.02	A	4.55	0.25	0.01	A	21.76	-0.43	-0.02	A	0.00	-0.02	0.00	A	0.91	0.55	0.02	A	4.32	0.44	0.01	A
2	36.96	0.22	0.02	A	66.13	0.31	0.03	A	6.15	-0.19	-0.02	A	6.57	-0.18	-0.02	A	22.01	-0.51	-0.04	A	4.48	-0.66	-0.06	A	2.05	-0.17	-0.01	A
3	38.49	0.38	0.01	A	0.97	-0.06	0.00	A	1.29	-0.13	-0.01	A	10.68	-0.32	-0.02	A	15.23	-0.76	-0.02	A	6.24	-1.16	-0.04	A	0.15	-0.08	0.00	A
4	31.86	0.23	0.02	A	6.31	0.10	0.01	A	29.57	-0.43	-0.03	A	12.37	0.26	0.02	A	0.40	-0.09	0.00	A	0.31	-0.20	-0.01	A	0.81	-0.12	-0.01	A
5	79.69	0.35	0.03	A	77.23	-0.36	-0.02	A	12.10	-0.30	-0.02	A	7.22	-0.22	-0.01	A	0.21	0.05	0.00	A	0.64	-0.27	-0.02	A	4.50	-0.27	-0.02	A
6	36.54	-0.29	-0.01	A	103.53	-0.49	-0.03	A	7.39	-0.26	-0.01	A	19.44	-0.35	-0.02	A	3.68	-0.33	-0.01	A	0.77	-0.34	-0.02	A	0.54	0.12	0.01	A
7	0.50	-0.03	0.00	A	6.72	0.10	0.01	A	0.39	-0.05	0.00	A	11.15	0.23	0.02	A	4.72	0.27	0.02	A	1.87	0.45	0.04	A	0.04	-0.03	0.00	A
8	0.67	-0.03	0.00	A	48.58	-0.29	-0.02	A	0.04	0.02	0.00	A	10.56	-0.26	-0.02	A	11.83	0.46	0.03	A	7.52	0.99	0.07	A	0.02	0.02	0.00	A
9	42.41	-0.25	-0.02	A	65.70	-0.31	-0.03	A	1.25	0.09	0.01	A	6.59	-0.18	-0.02	A	7.84	0.36	0.02	A	0.02	0.04	0.00	A	0.24	-0.06	0.00	A
10	184.52	-0.50	-0.04	A	13.48	-0.14	-0.01	A	14.46	-0.28	-0.03	A	10.16	0.22	0.02	A	12.97	0.44	0.03	A	0.60	0.26	0.02	A	0.23	-0.06	0.00	A
11	19.56	0.18	0.01	A	12.06	0.15	0.01	A	0.18	-0.04	0.00	A	13.28	-0.27	-0.02	A	6.64	0.36	0.02	A	0.27	0.20	0.01	A	0.68	0.12	0.01	A
12	4.92	0.09	0.01	A	4.14	0.08	0.01	A	6.97	-0.21	-0.02	A	0.84	0.07	0.01	A	5.33	0.34	0.02	A	1.10	0.41	0.03	A	0.32	0.08	0.01	A
13	5.30	-0.09	-0.01	A	6.03	0.10	0.01	A	3.77	-0.15	-0.01	A	2.61	0.12	0.01	A	20.73	0.58	0.04	A	0.29	-0.19	-0.01	A	0.17	0.05	0.00	A
14	587.66	-0.98	-0.07	A	56.97	-0.31	-0.03	A	0.86	-0.07	-0.01	A	0.03	-0.01	0.00	A	9.24	0.41	0.02	A	0.04	-0.07	-0.01	A	0.01	-0.01	0.00	A
15	10.69	0.11	0.01	A	65.19	0.28	0.03	A	0.05	0.02	0.00	A	0.07	0.02	0.00	A	8.42	-0.30	-0.03	A	4.43	-0.63	-0.06	A	2.93	-0.19	-0.02	A
16	4.21	0.07	0.01	A	12.03	-0.13	-0.01	A	4.88	0.17	0.02	A	9.30	0.21	0.02	A	2.83	0.19	0.02	A	0.03	-0.06	-0.01	A	0.14	0.04	0.00	A
17	564.99	-0.92	-0.07	A	6.13	0.10	0.01	A	4.32	0.16	0.01	A	2.57	0.11	0.01	A	0.70	0.11	0.01	A	0.00	-0.02	0.00	A	3.04	-0.22	-0.02	A
18	1.65	-0.05	0.00	A	5.21	0.09	0.01	A	16.50	-0.32	-0.03	A	1.11	-0.08	-0.01	A	4.91	0.29	0.02	A	0.08	0.09	0.01	A	0.55	-0.09	-0.01	A
19	99.80	0.35	0.03	A	7.04	-0.10	-0.01	A	5.68	-0.17	-0.02	A	14.45	-0.25	-0.02	A	0.42	-0.07	-0.01	A	1.13	-0.32	-0.03	A	2.25	-0.17	-0.02	A
20	28.29	0.18	0.02	A	6.15	0.09	0.01	A	5.17	-0.16	-0.02	A	0.75	0.06	0.01	A	51.27	0.78	0.07	A	0.03	0.05	0.00	A	1.82	-0.15	-0.01	A
21	37.22	0.28	0.01	A	183.51	-0.61	-0.04	A	26.38	0.49	0.03	A	0.91	0.08	0.01	A	0.10	0.05	0.00	A	4.32	-0.77	-0.05	A	0.15	-0.06	0.00	A
22	16.71	0.16	0.01	A	33.20	-0.23	-0.02	A	0.17	0.03	0.00	A	23.78	-0.35	-0.03	A	11.74	-0.42	-0.03	A	0.00	0.00	0.00	A	0.92	0.12	0.01	A
23	155.21	0.58	0.03	A	162.40	0.61	0.03	A	5.33	-0.21	-0.01	A	6.50	-0.20	-0.01	A	2.33	0.26	0.01	A	0.48	-0.30	-0.02	A	6.42	-0.38	-0.02	A
24	85.86	0.39	0.02	A	191.21	0.60	0.04	A	3.02	-0.15	-0.01	A	11.07	0.26	0.02	A	10.87	-0.45	-0.02	A	0.10	0.12	0.01	A	2.28	-0.21	-0.01	A
25	2.82	-0.07	-0.01	A	50.93	-0.28	-0.02	A	1.55	0.10	0.01	A	87.31	-0.65	-0.06	A	0.11	-0.04	0.00	A	0.62	-0.27	-0.02	A	2.02	0.19	0.01	A
26	145.69	-0.43	-0.04	A	20.39	-0.17	-0.01	A	1.20	-0.08	-0.01	A	1.15	-0.08	-0.01	A	0.06	0.03	0.00	A	3.66	-0.61	-0.06	A	0.76	-0.10	-0.01	A
27	60.27	0.29	0.02	A	7.61	-0.10	-0.01	A	7.72	-0.21	-0.02	A	8.32	-0.20	-0.02	A	13.65	0.45	0.03	A	1.33	-0.38	-0.03	A	0.12	0.04	0.00	A
28	4.73	0.09	0.01	A	4.09	0.08	0.01	A	0.21	0.04	0.00	A	7.50	-0.20	-0.02	A	2.50	-0.21	-0.01	A	0.09	-0.11	-0.01	A	0.14	0.05	0.00	A
29	152.62	0.45	0.04	A	106.71	0.38	0.04	A	4.99	0.17	0.02	A	7.87	0.19	0.02	A	7.60	-0.31	-0.02	A	0.00	0.01	0.00	A	1.16	-0.13	-0.01	A
30	1.16	-0.04	0.00	A	8.03	-0.10	-0.01	A	18.62	0.32	0.03	A	0.13	0.02	0.00	A	1.48	0.14	0.01	A	2.59	-0.51	-0.05	A	3.41	0.22	0.02	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.13 (continued)
Spring 2013 AIMS Differential Item Functioning

Reading CRT Grade 7

	Reference: Male N= 41838 Focal: Female N= 40566				Reference: Hispanic N= 47161 Focal: Non Hispanic N= 35340				Reference: White N= 66212 Focal: Africa American N= 4913				Reference: White N= 66212 Focal: Native American N= 5954				Reference: White N= 66212 Focal: Asian N= 2401				Reference: White N= 66212 Focal: Hawaii N= 257				Reference: White N= 66212 Focal: Multiple Indicator N= 19			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	135.60	-0.44	-0.04	A	3.83	-0.07	0.00	A	29.27	-0.41	-0.04	A	53.63	-0.52	-0.05	A	5.74	0.29	0.02	A	0.06	-0.08	-0.01	A	2.06	-0.18	-0.01	A
32	103.22	0.47	0.02	A	39.65	0.30	0.02	A	16.24	-0.37	-0.02	A	3.14	-0.14	-0.01	A	23.89	0.94	0.03	A	0.06	-0.10	-0.01	A	0.52	-0.11	-0.01	A
33	179.78	-0.66	-0.03	A	0.74	-0.04	0.00	A	27.21	-0.49	-0.03	A	11.91	-0.28	-0.02	A	0.27	0.10	0.00	A	5.38	-0.94	-0.05	A	0.45	0.11	0.01	A
34	34.37	-0.24	-0.02	A	7.24	0.11	0.01	A	0.03	0.01	0.00	A	3.90	-0.15	-0.01	A	11.30	0.48	0.02	A	0.00	-0.02	0.00	A	0.02	-0.02	0.00	A
35	22.22	-0.21	-0.01	A	0.10	-0.01	0.00	A	4.86	-0.19	-0.01	A	0.63	-0.06	0.00	A	4.80	0.36	0.01	A	1.08	-0.41	-0.02	A	0.05	-0.03	0.00	A
36	11.06	-0.15	-0.01	A	0.11	-0.02	0.00	A	0.00	0.00	0.00	A	2.13	-0.11	-0.01	A	0.00	0.01	0.00	A	3.05	0.75	0.04	A	0.07	0.04	0.00	A
37	154.69	0.44	0.04	A	56.20	0.27	0.02	A	2.48	0.12	0.01	A	4.83	0.15	0.01	A	0.66	-0.09	-0.01	A	1.04	0.33	0.03	A	0.36	-0.07	-0.01	A
38	6.05	0.09	0.01	A	28.47	-0.19	-0.01	A	0.09	0.02	0.00	A	9.44	-0.22	-0.02	A	30.53	-0.58	-0.05	A	0.08	-0.09	-0.01	A	1.51	0.14	0.01	A
39	38.29	0.23	0.02	A	0.73	-0.03	0.00	A	0.48	0.06	0.00	A	0.19	-0.03	0.00	A	5.06	0.24	0.02	A	2.35	0.50	0.04	A	0.04	-0.02	0.00	A
40	341.14	0.67	0.06	A	0.11	-0.01	0.00	A	1.03	-0.08	-0.01	A	0.04	-0.01	0.00	A	2.10	0.17	0.01	A	0.08	-0.09	-0.01	A	0.41	-0.08	-0.01	A
41	8.55	0.10	0.01	A	139.09	-0.41	-0.04	A	62.38	-0.57	-0.06	A	9.27	-0.20	-0.02	A	20.97	-0.47	-0.04	A	4.81	-0.68	-0.07	A	0.85	0.11	0.01	A
42	5.34	0.08	0.01	A	171.61	-0.49	-0.04	A	1.96	-0.11	-0.01	A	29.53	-0.38	-0.03	A	1.55	0.14	0.01	A	0.08	0.09	0.01	A	3.53	0.23	0.02	A
43	5.46	0.11	0.00	A	19.80	-0.21	-0.01	A	7.46	-0.25	-0.02	A	24.18	-0.39	-0.03	A	3.65	0.35	0.01	A	4.06	-0.83	-0.04	A	1.26	0.19	0.01	A
44	46.32	0.23	0.02	A	8.82	0.10	0.01	A	0.88	-0.07	-0.01	A	16.97	0.27	0.03	A	22.37	0.47	0.05	A	1.08	0.31	0.03	A	1.09	0.12	0.01	A
45	1.97	0.06	0.00	A	672.64	-1.13	-0.08	B<	4.26	0.18	0.01	A	94.01	-0.74	-0.06	A	0.14	0.06	0.00	A	2.48	-0.61	-0.04	A	21.50	0.73	0.04	A
46	151.70	0.60	0.03	A	169.24	-0.63	-0.04	A	0.00	0.00	0.00	A	0.22	-0.04	0.00	A	1.95	0.26	0.01	A	0.74	-0.36	-0.02	A	4.72	0.37	0.02	A
47	485.84	0.87	0.06	A	5.46	0.09	0.01	A	1.78	-0.11	-0.01	A	3.50	-0.14	-0.01	A	2.93	0.23	0.01	A	1.43	0.43	0.03	A	0.01	-0.01	0.00	A
48	121.37	0.45	0.03	A	313.93	-0.73	-0.05	A	0.34	-0.05	0.00	A	34.88	-0.44	-0.03	A	0.02	-0.02	0.00	A	4.48	-0.76	-0.05	A	0.93	0.13	0.01	A
49	78.11	0.47	0.02	A	34.08	-0.31	-0.02	A	0.04	-0.02	0.00	A	6.27	0.22	0.01	A	3.47	0.37	0.01	A	1.17	-0.49	-0.02	A	5.33	0.41	0.02	A
50	3.43	0.07	0.01	A	24.39	0.19	0.02	A	27.86	0.41	0.03	A	10.90	0.23	0.02	A	44.46	0.87	0.06	A	1.85	0.45	0.04	A	4.95	0.28	0.02	A
51	37.89	0.25	0.01	A	3.04	-0.07	0.00	A	0.10	-0.03	0.00	A	1.38	-0.08	-0.01	A	2.89	0.24	0.01	A	0.95	-0.35	-0.02	A	1.48	0.17	0.01	A
52	325.48	0.91	0.04	A	18.34	0.21	0.01	A	7.91	-0.27	-0.02	A	15.86	-0.33	-0.02	A	2.09	-0.25	-0.01	A	0.09	-0.13	-0.01	A	1.11	0.18	0.01	A
53	41.72	-0.25	-0.02	A	19.70	-0.17	-0.01	A	38.66	-0.48	-0.04	A	0.85	0.07	0.01	A	3.13	0.22	0.01	A	0.38	-0.21	-0.02	A	0.08	0.03	0.00	A
54	36.31	0.22	0.02	A	4.61	-0.08	-0.01	A	0.20	0.03	0.00	A	3.57	0.14	0.01	A	0.02	-0.01	0.00	A	5.70	-0.80	-0.07	A	4.44	0.25	0.02	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.14
Spring 2013 AIMS Differential Item Functioning

Reading CRT Grade 8

	Reference: Male N= 41471 Focal: Female N= 39876				Reference: Hispanic N= 46800 Focal: Non Hispanic N= 34634				Reference: White N= 65626 Focal: Africa American N= 4742				Reference: White N= 65626 Focal: Native American N= 5791				Reference: White N= 65626 Focal: Asian N= 2345				Reference: White N= 65626 Focal: Hawaii N= 288				Reference: White N= 65626 Focal: Multiple Indicator N= 19			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	1174.24	-1.22	-0.12	B<	55.68	-0.27	-0.02	A	125.87	-0.83	-0.08	A	190.39	-0.94	-0.09	A	58.20	-0.81	-0.07	A	30.52	-1.61	-0.16	C<	0.10	-0.04	0.00	A
2	99.03	0.41	0.03	A	8.30	0.12	0.01	A	0.04	0.02	0.00	A	0.06	0.02	0.00	A	2.45	0.23	0.01	A	1.19	0.39	0.03	A	0.42	-0.09	-0.01	A
3	0.28	0.03	0.00	A	14.32	0.19	0.01	A	10.89	0.33	0.02	A	13.20	0.32	0.02	A	3.02	0.31	0.01	A	0.93	0.41	0.02	A	0.03	0.03	0.00	A
4	21.50	0.24	0.01	A	1.24	-0.06	0.00	A	10.67	-0.32	-0.02	A	33.22	-0.49	-0.03	A	33.21	-0.90	-0.03	A	0.43	-0.27	-0.01	A	2.49	-0.26	-0.01	A
5	52.08	0.46	0.01	A	46.56	0.43	0.01	A	1.96	0.18	0.01	A	7.82	-0.29	-0.01	A	20.23	-0.84	-0.02	A	1.46	-0.57	-0.02	A	0.86	-0.19	-0.01	A
6	27.63	-0.18	-0.02	A	172.58	-0.46	-0.04	A	8.96	-0.22	-0.02	A	0.39	-0.04	0.00	A	0.07	-0.03	0.00	A	0.48	-0.19	-0.02	A	0.00	0.00	0.00	A
7	139.28	-0.55	-0.03	A	12.53	-0.16	-0.01	A	31.57	-0.50	-0.03	A	42.09	-0.50	-0.04	A	0.54	0.13	0.00	A	3.60	-0.67	-0.04	A	1.33	-0.18	-0.01	A
8	68.29	0.31	0.03	A	266.65	0.63	0.05	A	12.76	0.29	0.02	A	120.50	0.79	0.07	A	5.74	0.30	0.02	A	2.78	0.52	0.04	A	0.24	0.06	0.01	A
9	139.35	-0.63	-0.02	A	51.65	-0.38	-0.02	A	8.09	0.31	0.01	A	4.51	-0.19	-0.01	A	2.54	-0.31	-0.01	A	1.83	-0.55	-0.03	A	2.23	0.27	0.01	A
10	72.85	-0.32	-0.03	A	22.71	0.18	0.02	A	6.06	0.20	0.02	A	15.38	0.29	0.02	A	0.37	0.07	0.01	A	1.01	-0.33	-0.03	A	2.68	0.20	0.02	A
11	133.11	0.52	0.03	A	77.73	0.40	0.03	A	71.41	-0.72	-0.05	A	0.57	0.06	0.00	A	0.02	-0.02	0.00	A	4.00	0.83	0.04	A	3.92	-0.29	-0.02	A
12	218.77	0.51	0.05	A	20.77	-0.16	-0.02	A	4.77	0.16	0.02	A	6.37	-0.17	-0.02	A	0.98	-0.10	-0.01	A	2.44	-0.45	-0.04	A	0.59	0.09	0.01	A
13	96.41	0.42	0.02	A	26.57	-0.22	-0.01	A	10.30	0.29	0.02	A	2.66	-0.12	-0.01	A	1.92	0.20	0.01	A	0.53	-0.24	-0.02	A	0.03	-0.02	0.00	A
14	158.49	0.76	0.02	A	49.37	-0.41	-0.02	A	0.52	0.08	0.00	A	1.10	0.10	0.01	A	0.01	-0.02	0.00	A	0.21	-0.21	-0.01	A	3.54	0.39	0.01	A
15	65.26	0.38	0.02	A	99.14	-0.46	-0.03	A	1.31	0.11	0.01	A	1.50	-0.10	-0.01	A	3.89	-0.31	-0.01	A	0.03	0.07	0.00	A	0.76	0.14	0.01	A
16	415.55	0.84	0.06	A	36.75	0.25	0.02	A	2.48	0.13	0.01	A	13.22	0.27	0.02	A	2.16	0.22	0.01	A	0.38	-0.21	-0.02	A	0.50	0.10	0.01	A
17	120.67	0.41	0.03	A	0.93	-0.04	0.00	A	18.10	0.33	0.03	A	0.14	0.03	0.00	A	4.00	0.24	0.02	A	3.23	0.59	0.05	A	3.71	0.24	0.02	A
18	158.74	0.50	0.03	A	2.14	0.06	0.01	A	16.97	-0.33	-0.03	A	10.59	-0.24	-0.02	A	12.49	0.49	0.03	A	0.56	0.25	0.02	A	0.00	0.01	0.00	A
19	23.79	-0.21	-0.01	A	0.75	0.04	0.00	A	3.38	-0.16	-0.01	A	2.59	-0.12	-0.01	A	1.64	0.19	0.01	A	1.21	-0.37	-0.03	A	0.00	0.00	0.00	A
20	121.31	0.42	0.03	A	108.04	-0.40	-0.03	A	4.87	-0.17	-0.01	A	75.01	-0.60	-0.06	A	3.33	-0.22	-0.02	A	0.27	-0.17	-0.01	A	0.44	-0.08	-0.01	A
21	3.60	-0.07	-0.01	A	117.32	0.42	0.03	A	28.57	0.43	0.04	A	10.52	-0.23	-0.02	A	3.18	0.21	0.02	A	0.01	-0.02	0.00	A	2.78	0.21	0.02	A
22	23.52	-0.20	-0.02	A	1.47	0.05	0.01	A	35.07	-0.47	-0.04	A	1.89	0.10	0.01	A	15.68	0.56	0.03	A	1.17	0.37	0.03	A	0.15	-0.05	0.00	A
23	0.00	0.00	0.00	A	3.12	-0.09	-0.01	A	5.64	-0.24	-0.01	A	11.41	-0.29	-0.02	A	28.06	-0.88	-0.03	A	9.32	-1.22	-0.06	B<	2.23	-0.25	-0.01	A
24	286.60	0.65	0.05	A	1.03	0.04	0.00	A	0.04	0.01	0.00	A	24.83	0.36	0.03	A	12.13	-0.41	-0.03	A	0.00	-0.02	0.00	A	0.49	-0.09	-0.01	A
25	419.48	0.70	0.07	A	70.15	0.29	0.03	A	8.73	0.22	0.02	A	16.99	0.28	0.03	A	1.71	-0.13	-0.01	A	0.39	-0.18	-0.02	A	1.58	-0.14	-0.01	A
26	208.05	0.55	0.04	A	0.14	0.01	0.00	A	4.39	0.17	0.01	A	0.22	0.03	0.00	A	3.37	0.23	0.02	A	0.81	-0.29	-0.02	A	0.04	0.03	0.00	A
27	1.39	0.05	0.00	A	58.69	-0.30	-0.02	A	0.45	-0.05	0.00	A	63.07	-0.57	-0.05	A	0.65	0.11	0.01	A	5.08	-0.70	-0.06	A	0.01	0.02	0.00	A
28	26.12	0.18	0.01	A	82.44	0.33	0.03	A	3.41	-0.14	-0.01	A	12.32	0.24	0.02	A	16.25	0.46	0.04	A	1.10	0.31	0.03	A	3.14	-0.20	-0.02	A
29	190.25	0.50	0.04	A	253.65	-0.59	-0.05	A	0.24	-0.04	0.00	A	11.64	-0.24	-0.02	A	8.71	0.34	0.03	A	0.31	0.16	0.02	A	0.88	0.11	0.01	A
30	68.24	0.31	0.03	A	24.95	0.19	0.02	A	0.51	-0.06	-0.01	A	0.01	0.01	0.00	A	9.78	0.39	0.03	A	0.02	-0.04	0.00	A	2.06	0.18	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.14 (continued)
Spring 2013 AIMS Differential Item Functioning

Reading CRT Grade 8

	Reference: Male N= 41471				Reference: Hispanic N= 46800				Reference: White N= 65626				Reference: White N= 65626				Reference: White N= 65626				Reference: White N= 65626				Reference: White N= 65626			
	Focal: Female N= 39876				Focal: Non Hispanic N= 34634				Focal: Africa American N= 4742				Focal: Native American N= 5791				Focal: Asian N= 2345				Focal: Hawaii N= 288				Focal: Multiple Indicator N= 19			
Item	MH $\chi2$	ΔMH	SMD	Flag	MH $\chi2$	ΔMH	SMD	Flag	MH $\chi2$	ΔMH	SMD	Flag	MH $\chi2$	ΔMH	SMD	Flag	MH $\chi2$	ΔMH	SMD	Flag	MH $\chi2$	ΔMH	SMD	Flag	MH $\chi2$	ΔMH	SMD	Flag
31	187.09	0.52	0.04	A	1.53	-0.05	0.00	A	0.19	0.03	0.00	A	0.64	0.06	0.01	A	3.21	-0.21	-0.02	A	0.65	0.27	0.02	A	0.53	-0.09	-0.01	A
32	39.38	0.23	0.02	A	2.20	-0.05	0.00	A	1.86	-0.10	-0.01	A	0.55	0.05	0.00	A	3.31	0.20	0.02	A	0.48	-0.20	-0.02	A	1.90	-0.17	-0.01	A
33	17.08	0.17	0.01	A	99.54	-0.40	-0.03	A	5.34	-0.19	-0.01	A	66.33	-0.58	-0.05	A	18.48	-0.56	-0.03	A	3.02	-0.53	-0.04	A	0.25	0.07	0.00	A
34	112.66	0.40	0.03	A	38.86	-0.24	-0.02	A	8.81	0.23	0.02	A	0.02	-0.01	0.00	A	8.18	0.35	0.03	A	10.58	-1.00	-0.09	A	0.12	0.04	0.00	A
35	62.23	0.36	0.02	A	16.77	-0.19	-0.01	A	5.00	0.21	0.01	A	1.02	-0.08	-0.01	A	2.82	-0.26	-0.01	A	4.36	-0.75	-0.05	A	7.36	0.43	0.02	A
36	53.78	0.29	0.02	A	11.15	-0.13	-0.01	A	2.32	-0.13	-0.01	A	18.73	-0.31	-0.03	A	0.37	-0.08	0.00	A	0.72	0.29	0.02	A	0.07	-0.04	0.00	A
37	29.15	0.20	0.02	A	39.47	0.24	0.02	A	3.09	-0.14	-0.01	A	2.08	0.10	0.01	A	6.22	0.30	0.02	A	0.00	0.01	0.00	A	0.29	-0.07	-0.01	A
38	202.33	0.74	0.03	A	15.93	0.21	0.01	A	0.24	-0.05	0.00	A	3.38	0.16	0.01	A	0.13	0.07	0.00	A	0.26	-0.22	-0.01	A	1.98	0.24	0.01	A
39	256.85	-0.61	-0.05	A	223.14	-0.57	-0.04	A	12.23	-0.28	-0.02	A	25.90	-0.38	-0.03	A	26.80	0.63	0.05	A	0.00	0.00	0.00	A	0.06	0.03	0.00	A
40	1.65	0.06	0.00	A	2.68	0.07	0.01	A	2.90	-0.15	-0.01	A	1.81	0.10	0.01	A	3.38	0.28	0.01	A	0.00	-0.02	0.00	A	0.10	0.05	0.00	A
41	0.31	-0.02	0.00	A	4.26	-0.08	-0.01	A	29.89	-0.44	-0.04	A	0.05	-0.02	0.00	A	4.88	0.31	0.02	A	0.38	0.20	0.02	A	2.77	-0.22	-0.02	A
42	46.22	0.29	0.02	A	2.18	-0.06	0.00	A	0.78	0.08	0.01	A	16.48	-0.30	-0.02	A	0.42	-0.09	0.00	A	0.28	-0.18	-0.01	A	0.04	0.03	0.00	A
43	377.33	-0.72	-0.06	A	7.57	-0.10	-0.01	A	1.72	-0.10	-0.01	A	169.97	-0.97	-0.08	A	5.90	0.29	0.02	A	0.29	0.17	0.01	A	0.00	0.00	0.00	A
44	8.53	0.11	0.01	A	16.62	0.16	0.01	A	4.39	0.17	0.01	A	4.94	0.16	0.01	A	5.73	0.32	0.02	A	0.42	0.21	0.02	A	1.56	0.16	0.01	A
45	266.79	-0.79	-0.04	A	35.01	-0.28	-0.02	A	1.17	0.10	0.01	A	0.17	-0.03	0.00	A	0.01	-0.01	0.00	A	1.82	-0.51	-0.03	A	2.39	0.25	0.01	A
46	10.24	0.12	0.01	A	17.77	-0.16	-0.01	A	9.13	0.24	0.02	A	5.96	-0.17	-0.02	A	10.29	0.40	0.03	A	2.50	0.51	0.04	A	0.45	0.08	0.01	A
47	5.85	0.10	0.01	A	2.04	0.06	0.00	A	0.38	0.05	0.00	A	9.11	-0.22	-0.02	A	0.02	-0.02	0.00	A	0.01	0.03	0.00	A	0.04	0.03	0.00	A
48	81.13	0.43	0.02	A	65.76	-0.38	-0.02	A	19.65	-0.40	-0.03	A	25.33	-0.39	-0.03	A	1.57	-0.21	-0.01	A	0.06	-0.09	-0.01	A	0.99	-0.15	-0.01	A
49	1.09	-0.04	0.00	A	69.53	-0.34	-0.02	A	59.81	-0.62	-0.05	A	9.10	0.22	0.02	A	6.20	0.36	0.02	A	0.31	0.18	0.01	A	0.84	-0.12	-0.01	A
50	106.42	-0.38	-0.03	A	97.47	-0.37	-0.03	A	6.99	-0.20	-0.02	A	11.27	-0.24	-0.02	A	5.95	0.29	0.02	A	2.54	-0.48	-0.04	A	7.08	-0.32	-0.03	A
51	624.26	-0.92	-0.08	A	25.15	-0.19	-0.02	A	0.27	-0.04	0.00	A	7.73	-0.20	-0.02	A	8.92	0.35	0.03	A	0.69	0.25	0.02	A	5.21	0.27	0.02	A
52	4.53	-0.08	-0.01	A	19.57	0.16	0.02	A	4.28	-0.16	-0.01	A	0.13	0.03	0.00	A	23.07	0.52	0.05	A	0.17	0.12	0.01	A	2.42	-0.18	-0.02	A
53	5.34	-0.09	-0.01	A	4.49	0.09	0.01	A	6.20	-0.20	-0.02	A	0.47	-0.05	0.00	A	0.09	-0.04	0.00	A	0.96	-0.33	-0.02	A	2.32	-0.19	-0.01	A
54	21.76	0.16	0.02	A	46.02	-0.24	-0.02	A	8.08	0.21	0.02	A	6.51	0.17	0.02	A	23.82	0.53	0.05	A	0.05	-0.06	-0.01	A	6.68	0.29	0.03	A

Note: African Am. = African American, Native Am. = Native American, MH $\chi2$ = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.15
Spring 2013 AIMS Differential Item Functioning

Reading CRT High School

	Reference: Male N= 38933 Focal: Female N= 37902				Reference: Hispanic N= 44829 Focal: Non Hispanic N= 32059				Reference: White N= 62107 Focal: Africa American N= 4429				Reference: White N= 62107 Focal: Native American N= 4489				Reference: White N= 62107 Focal: Asian N= 2314				Reference: White N= 62107 Focal: Hawaii N= 285				Reference: White N= 62107 Focal: Multiple Indicator N= 20			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	514.65	-0.81	-0.08	A	75.31	-0.32	-0.03	A	8.36	-0.22	-0.02	A	9.09	-0.23	-0.02	A	7.67	-0.29	-0.03	A	2.54	-0.46	-0.05	A	0.05	-0.02	0.00	A
2	16.46	0.16	0.01	A	12.30	0.15	0.01	A	9.81	-0.26	-0.02	A	7.48	-0.22	-0.02	A	9.05	-0.37	-0.03	A	0.26	-0.17	-0.01	A	1.26	0.14	0.01	A
3	195.13	0.50	0.05	A	296.99	0.64	0.06	A	4.89	-0.17	-0.02	A	28.53	0.41	0.04	A	2.15	0.15	0.01	A	0.02	-0.04	0.00	A	5.03	-0.25	-0.02	A
4	1.14	0.04	0.00	A	0.10	0.01	0.00	A	1.40	-0.09	-0.01	A	2.34	0.12	0.01	A	11.55	-0.40	-0.03	A	0.64	-0.25	-0.02	A	1.27	-0.13	-0.01	A
5	7.43	0.12	0.01	A	57.74	-0.34	-0.03	A	6.34	-0.22	-0.02	A	0.06	-0.02	0.00	A	20.66	-0.61	-0.03	A	0.09	0.11	0.01	A	2.13	0.20	0.01	A
6	37.88	-0.33	-0.02	A	0.23	0.03	0.00	A	0.76	0.10	0.00	A	4.16	0.22	0.01	A	66.76	-1.19	-0.05	B<	0.44	-0.28	-0.01	A	6.67	0.48	0.02	A
7	0.12	-0.01	0.00	A	61.24	0.33	0.03	A	0.27	-0.04	0.00	A	29.06	-0.44	-0.04	A	8.45	0.41	0.02	A	1.90	0.50	0.03	A	0.05	0.03	0.00	A
8	21.67	0.20	0.01	A	32.67	-0.25	-0.02	A	8.96	-0.26	-0.02	A	44.18	-0.56	-0.05	A	1.38	0.17	0.01	A	2.79	0.62	0.04	A	0.00	0.01	0.00	A
9	0.31	-0.02	0.00	A	9.48	0.12	0.01	A	4.76	0.17	0.02	A	1.09	0.08	0.01	A	2.88	-0.19	-0.02	A	1.43	0.37	0.03	A	6.99	0.31	0.03	A
10	141.38	0.58	0.03	A	24.21	0.24	0.01	A	0.20	0.04	0.00	A	21.99	-0.43	-0.03	A	0.93	-0.16	-0.01	A	0.06	-0.10	-0.01	A	0.18	0.07	0.00	A
11	234.92	0.58	0.05	A	148.39	-0.47	-0.04	A	19.58	0.35	0.03	A	21.65	-0.37	-0.03	A	5.90	-0.27	-0.02	A	3.64	0.61	0.05	A	6.35	0.30	0.03	A
12	0.00	0.00	0.00	A	0.59	0.03	0.00	A	7.91	-0.24	-0.02	A	115.93	-0.86	-0.08	A	35.71	-0.74	-0.05	A	3.47	-0.62	-0.05	A	2.75	-0.21	-0.02	A
13	256.83	-0.75	-0.04	A	485.94	-1.02	-0.07	B<	3.36	0.17	0.01	A	4.97	-0.19	-0.02	A	0.06	0.04	0.00	A	0.25	0.18	0.01	A	6.37	0.37	0.02	A
14	150.55	0.58	0.03	A	17.82	0.20	0.01	A	1.12	0.10	0.01	A	0.00	0.00	0.00	A	9.80	0.51	0.02	A	0.62	-0.30	-0.02	A	0.06	0.04	0.00	A
15	91.29	-0.37	-0.03	A	39.62	-0.25	-0.02	A	2.20	0.12	0.01	A	5.76	-0.19	-0.02	A	6.60	0.31	0.02	A	1.19	0.35	0.03	A	0.06	0.03	0.00	A
16	38.96	-0.24	-0.02	A	0.21	-0.02	0.00	A	0.56	0.06	0.01	A	2.44	-0.12	-0.01	A	11.82	0.44	0.03	A	0.04	0.06	0.01	A	0.29	-0.07	-0.01	A
17	157.09	-0.45	-0.04	A	5.45	-0.09	-0.01	A	12.81	-0.28	-0.03	A	5.85	0.19	0.02	A	1.88	-0.14	-0.01	A	0.55	-0.22	-0.02	A	1.67	-0.15	-0.01	A
18	1.81	-0.05	0.00	A	0.00	0.00	0.00	A	0.61	-0.06	-0.01	A	5.30	-0.18	-0.02	A	7.22	0.31	0.02	A	1.03	0.31	0.03	A	0.00	0.00	0.00	A
19	32.74	-0.33	-0.01	A	13.49	-0.21	-0.01	A	11.31	-0.36	-0.02	A	9.90	-0.32	-0.02	A	0.83	-0.18	0.00	A	0.78	-0.41	-0.02	A	0.36	-0.11	0.00	A
20	398.91	-0.75	-0.07	A	2.35	0.06	0.00	A	1.30	0.09	0.01	A	1.50	0.10	0.01	A	0.53	0.08	0.01	A	1.35	0.35	0.03	A	0.39	-0.07	-0.01	A
21	264.32	-0.69	-0.05	A	22.69	-0.20	-0.02	A	30.87	-0.47	-0.04	A	4.83	-0.18	-0.02	A	1.08	0.14	0.01	A	1.02	-0.33	-0.02	A	0.33	0.08	0.01	A
22	34.71	-0.27	-0.02	A	9.04	-0.14	-0.01	A	5.78	-0.22	-0.02	A	37.73	-0.53	-0.04	A	10.96	-0.50	-0.02	A	0.07	0.10	0.01	A	1.84	0.19	0.01	A
23	44.76	0.43	0.01	A	23.09	0.31	0.01	A	0.48	-0.08	0.00	A	12.20	-0.38	-0.02	A	4.84	0.52	0.01	A	0.76	-0.45	-0.01	A	0.21	-0.09	0.00	A
24	2.90	0.12	0.00	A	3.43	0.13	0.00	A	5.53	-0.31	-0.01	A	0.03	-0.02	0.00	A	0.01	-0.03	0.00	A	1.34	-0.65	-0.02	A	0.01	-0.02	0.00	A
25	68.89	-0.33	-0.03	A	12.16	-0.14	-0.01	A	5.48	-0.19	-0.02	A	15.56	-0.31	-0.03	A	7.27	-0.34	-0.02	A	3.00	-0.56	-0.04	A	0.90	0.12	0.01	A
26	63.45	0.31	0.03	A	13.80	-0.15	-0.01	A	0.01	0.01	0.00	A	0.27	-0.04	0.00	A	52.28	0.92	0.06	A	0.30	-0.18	-0.01	A	2.91	0.21	0.02	A
27	168.25	-0.48	-0.04	A	7.55	-0.11	-0.01	A	18.10	0.34	0.03	A	1.30	0.09	0.01	A	31.83	0.62	0.06	A	3.85	0.59	0.05	A	12.35	0.40	0.04	A
28	859.80	1.17	0.09	B>	538.85	0.98	0.07	A	16.82	0.36	0.03	A	25.27	0.45	0.03	A	4.62	-0.24	-0.02	A	0.11	0.11	0.01	A	5.57	0.30	0.02	A
29	7.31	-0.10	-0.01	A	6.52	-0.09	-0.01	A	0.42	0.05	0.01	A	6.28	-0.20	-0.02	A	21.22	-0.48	-0.05	A	10.96	-0.98	-0.09	A	2.63	-0.18	-0.02	A
30	302.31	0.89	0.04	A	14.34	0.19	0.01	A	0.70	-0.08	0.00	A	2.69	-0.15	-0.01	A	19.91	0.84	0.03	A	2.36	-0.67	-0.03	A	0.64	-0.13	-0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.15 (continued)
Spring 2013 AIMS Differential Item Functioning

Reading CRT High School

	Reference: Male N= 38933 Focal: Female N= 37902				Reference: Hispanic N= 44829 Focal: Non Hispanic N= 32059				Reference: White N= 62107 Focal: Africa American N= 4429				Reference: White N= 62107 Focal: Native American N= 4489				Reference: White N= 62107 Focal: Asian N= 2314				Reference: White N= 62107 Focal: Hawaii N= 285				Reference: White N= 62107 Focal: Multiple Indicator N= 20			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	249.88	-0.62	-0.05	A	48.60	-0.28	-0.02	A	6.24	-0.20	-0.02	A	30.62	-0.44	-0.04	A	6.68	0.32	0.02	A	0.51	-0.23	-0.02	A	1.04	-0.12	-0.01	A
32	4.14	0.08	0.01	A	4.05	0.08	0.01	A	1.16	0.08	0.01	A	12.60	-0.28	-0.03	A	0.48	-0.08	-0.01	A	1.14	0.33	0.03	A	8.31	0.34	0.03	A
33	34.24	-0.21	-0.02	A	125.03	-0.42	-0.04	A	4.34	-0.16	-0.01	A	43.00	-0.53	-0.05	A	8.30	-0.31	-0.03	A	0.77	-0.25	-0.02	A	0.81	-0.10	-0.01	A
34	158.45	-0.54	-0.04	A	186.31	-0.59	-0.04	A	0.09	-0.03	0.00	A	2.07	-0.12	-0.01	A	3.77	0.28	0.01	A	0.30	0.20	0.01	A	0.03	0.02	0.00	A
35	1.88	-0.06	0.00	A	2.57	-0.07	0.00	A	23.13	-0.40	-0.03	A	26.65	0.43	0.04	A	0.04	-0.03	0.00	A	0.43	-0.23	-0.02	A	3.59	-0.25	-0.02	A
36	36.94	0.28	0.02	A	0.00	0.00	0.00	A	3.40	0.17	0.01	A	1.14	-0.09	-0.01	A	0.28	-0.08	0.00	A	0.85	-0.34	-0.02	A	1.76	0.20	0.01	A
37	3.33	0.08	0.00	A	0.26	-0.02	0.00	A	0.44	0.06	0.00	A	10.95	0.28	0.02	A	35.48	0.91	0.04	A	3.68	0.69	0.05	A	2.51	0.22	0.01	A
38	2.90	-0.06	-0.01	A	74.28	-0.33	-0.03	A	5.33	-0.18	-0.02	A	20.48	0.36	0.03	A	14.50	0.44	0.04	A	1.85	0.40	0.04	A	4.98	0.27	0.02	A
39	93.80	0.34	0.03	A	0.04	0.01	0.00	A	4.62	0.17	0.02	A	17.01	0.32	0.03	A	2.73	0.18	0.02	A	3.67	0.56	0.05	A	3.75	0.22	0.02	A
40	20.78	0.16	0.02	A	31.46	-0.21	-0.01	A	0.24	-0.04	0.00	A	7.95	-0.23	-0.02	A	1.27	0.12	0.01	A	1.38	-0.34	-0.03	A	1.57	0.14	0.01	A
41	28.09	0.20	0.02	A	17.02	-0.16	-0.01	A	0.23	0.04	0.00	A	7.90	-0.22	-0.02	A	0.47	0.08	0.01	A	1.28	0.35	0.03	A	0.22	0.06	0.00	A
42	791.24	1.03	0.09	B>	55.87	0.28	0.03	A	8.13	0.22	0.02	A	1.87	-0.10	-0.01	A	20.51	0.52	0.04	A	0.46	0.21	0.02	A	2.20	0.17	0.02	A
43	221.68	0.62	0.04	A	35.74	0.26	0.02	A	13.22	-0.31	-0.02	A	0.40	0.05	0.00	A	14.20	0.54	0.03	A	3.37	-0.58	-0.04	A	0.00	0.00	0.00	A
44	36.27	0.22	0.02	A	19.66	-0.17	-0.02	A	0.04	-0.02	0.00	A	1.74	-0.10	-0.01	A	19.69	-0.47	-0.04	A	1.09	0.32	0.03	A	2.62	0.19	0.02	A
45	61.57	0.30	0.02	A	3.43	0.07	0.01	A	23.94	-0.38	-0.04	A	0.93	0.08	0.01	A	1.10	0.13	0.01	A	1.56	-0.37	-0.03	A	0.46	0.08	0.01	A
46	45.62	0.25	0.02	A	31.86	-0.22	-0.02	A	6.79	0.21	0.02	A	16.63	-0.36	-0.03	A	15.39	0.43	0.04	A	0.51	0.22	0.02	A	3.98	-0.23	-0.02	A
47	18.55	0.19	0.01	A	24.33	0.22	0.02	A	26.94	-0.45	-0.03	A	0.07	0.02	0.00	A	23.50	-0.62	-0.04	A	0.01	0.04	0.00	A	1.15	-0.15	-0.01	A
48	224.37	0.85	0.03	A	2.06	-0.08	0.00	A	0.06	0.03	0.00	A	0.28	0.05	0.00	A	0.31	0.12	0.00	A	0.17	-0.19	-0.01	A	3.10	0.33	0.01	A
49	59.82	0.29	0.03	A	11.55	-0.13	-0.01	A	0.02	0.01	0.00	A	1.60	-0.10	-0.01	A	0.03	0.02	0.00	A	0.00	0.01	0.00	A	0.44	-0.08	-0.01	A
50	264.31	0.58	0.06	A	1.52	-0.05	0.00	A	1.06	-0.08	-0.01	A	3.34	0.14	0.01	A	6.27	0.26	0.03	A	1.04	-0.30	-0.03	A	1.09	0.12	0.01	A
51	323.80	0.84	0.05	A	4.77	0.10	0.01	A	20.85	-0.41	-0.03	A	36.01	-0.52	-0.04	A	7.97	0.48	0.02	A	3.00	-0.66	-0.04	A	1.14	0.16	0.01	A
52	78.79	-0.35	-0.03	A	71.97	-0.35	-0.02	A	1.42	-0.10	-0.01	A	48.51	-0.64	-0.04	A	3.00	0.19	0.02	A	2.21	0.47	0.04	A	0.48	-0.09	-0.01	A
53	3.06	-0.08	-0.01	A	23.72	0.21	0.02	A	31.26	-0.47	-0.04	A	25.73	-0.41	-0.03	A	1.35	-0.17	-0.01	A	14.65	-1.24	-0.09	B<	0.01	-0.02	0.00	A
54	979.53	1.18	0.10	B>	127.96	-0.43	-0.04	A	0.26	0.04	0.00	A	10.08	-0.24	-0.02	A	2.72	-0.19	-0.01	A	0.15	0.12	0.01	A	0.00	0.00	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.16
Spring 2013 AIMS Differential Item Functioning

Science CRT Grade 4

	Reference: Male N= 42247				Reference: Hispanic N= 47047				Reference: White N= 66531				Reference: White N= 66531				Reference: White N= 66531				Reference: White N= 66531				Reference: White N= 66531			
	Focal: Female N= 40695				Focal: Non Hispanic N= 35976				Focal: Africa American N= 4728				Focal: Native American N= 6028				Focal: Asian N= 2488				Focal: Hawaii N= 292				Focal: Multiple Indicator N= 21			
Item	MH $\chi2$	ΔMH	SMD	Flag	MH $\chi2$	ΔMH	SMD	Flag	MH $\chi2$	ΔMH	SMD	Flag	MH $\chi2$	ΔMH	SMD	Flag	MH $\chi2$	ΔMH	SMD	Flag	MH $\chi2$	ΔMH	SMD	Flag	MH $\chi2$	ΔMH	SMD	Flag
1	68.25	0.30	0.03	A	91.86	-0.36	-0.03	A	0.00	0.01	0.00	A	0.17	-0.03	0.00	A	24.28	0.56	0.04	A	2.94	0.53	0.05	A	0.49	0.08	0.01	A
2	430.98	-0.73	-0.07	A	94.99	-0.36	-0.03	A	4.29	-0.16	-0.01	A	7.34	-0.19	-0.02	A	4.58	-0.22	-0.02	A	0.28	0.16	0.01	A	0.04	-0.02	0.00	A
3	2.21	0.06	0.00	A	0.39	0.02	0.00	A	14.53	-0.30	-0.03	A	0.80	-0.06	-0.01	A	1.07	-0.13	-0.01	A	0.77	-0.28	-0.02	A	2.00	-0.17	-0.01	A
4	37.08	0.29	0.01	A	12.62	-0.17	-0.01	A	0.16	0.04	0.00	A	1.19	0.09	0.01	A	9.30	-0.49	-0.02	A	1.69	0.52	0.03	A	6.53	0.41	0.02	A
5	74.28	0.30	0.03	A	25.94	0.19	0.02	A	0.00	0.00	0.00	A	0.21	0.03	0.00	A	6.01	0.25	0.02	A	0.01	-0.04	0.00	A	2.02	0.16	0.01	A
6	13.98	0.13	0.01	A	10.79	0.12	0.01	A	0.04	0.01	0.00	A	7.08	-0.18	-0.02	A	3.01	-0.18	-0.02	A	0.05	0.06	0.01	A	0.78	-0.10	-0.01	A
7	140.74	0.43	0.04	A	8.78	0.11	0.01	A	0.29	0.04	0.00	A	6.45	-0.17	-0.02	A	11.17	0.38	0.03	A	0.42	-0.19	-0.02	A	0.99	0.11	0.01	A
8	92.20	-0.35	-0.03	A	33.69	-0.22	-0.02	A	9.35	-0.24	-0.02	A	1.55	-0.09	-0.01	A	1.18	-0.12	-0.01	A	3.86	-0.60	-0.05	A	2.29	-0.18	-0.01	A
9	51.99	0.68	0.01	A	34.16	0.55	0.01	A	3.11	-0.31	-0.01	A	1.46	0.19	0.00	A	2.34	-0.48	0.00	A	0.33	0.50	0.01	A	0.07	0.08	0.00	A
10	69.14	0.55	0.01	A	117.91	0.74	0.02	A	0.85	0.13	0.00	A	0.38	0.07	0.00	A	71.70	-1.44	-0.04	B<	0.01	0.06	0.00	A	0.43	0.14	0.00	A
11	17.75	-0.17	-0.01	A	1.97	0.06	0.00	A	0.02	0.01	0.00	A	42.34	0.49	0.04	A	23.15	-0.61	-0.04	A	0.33	0.19	0.01	A	4.43	0.27	0.02	A
12	25.47	0.18	0.02	A	0.21	0.02	0.00	A	5.15	-0.17	-0.02	A	5.27	-0.16	-0.01	A	11.58	0.40	0.03	A	0.08	0.08	0.01	A	0.31	0.07	0.01	A
13	24.27	0.18	0.02	A	80.29	0.33	0.04	A	2.80	0.13	0.01	A	1.72	-0.09	-0.01	A	5.42	0.27	0.02	A	0.11	-0.10	-0.01	A	0.03	-0.02	0.00	A
14	21.67	0.21	0.01	A	114.76	-0.49	-0.03	A	0.00	0.00	0.00	A	5.18	0.18	0.01	A	0.54	0.12	0.00	A	0.82	0.34	0.02	A	2.91	0.25	0.01	A
15	9.23	0.12	0.01	A	20.43	-0.18	-0.01	A	14.86	0.31	0.03	A	33.92	-0.41	-0.04	A	1.91	0.17	0.01	A	0.02	-0.05	0.00	A	1.87	0.17	0.01	A
16	299.29	-0.67	-0.05	A	169.40	-0.51	-0.04	A	1.36	-0.09	-0.01	A	13.19	-0.26	-0.02	A	1.51	-0.15	-0.01	A	0.42	-0.21	-0.02	A	2.29	0.19	0.01	A
17	68.18	0.32	0.02	A	1.13	0.04	0.01	A	0.77	-0.07	-0.01	A	5.31	-0.16	-0.01	A	12.93	0.46	0.03	A	0.88	-0.29	-0.02	A	1.57	-0.16	-0.01	A
18	147.27	-0.45	-0.04	A	59.03	-0.30	-0.02	A	0.71	-0.07	-0.01	A	0.00	0.00	0.00	A	3.12	0.19	0.02	A	0.02	-0.04	0.00	A	0.08	0.03	0.00	A
19	130.40	-0.42	-0.04	A	23.37	-0.18	-0.01	A	5.33	0.18	0.02	A	7.96	-0.20	-0.02	A	0.63	0.09	0.01	A	0.06	0.08	0.01	A	0.59	0.09	0.01	A
20	0.21	0.02	0.00	A	49.30	-0.27	-0.02	A	0.01	0.01	0.00	A	13.82	-0.25	-0.02	A	4.89	0.28	0.02	A	0.01	0.02	0.00	A	0.23	-0.06	0.00	A
21	1.33	-0.04	0.00	A	32.20	-0.22	-0.02	A	4.20	-0.16	-0.01	A	17.25	-0.31	-0.02	A	4.61	0.24	0.02	A	0.15	0.12	0.01	A	0.39	0.07	0.01	A
22	5.40	0.08	0.01	A	15.83	-0.15	-0.01	A	12.48	0.26	0.03	A	0.52	0.05	0.00	A	9.91	0.32	0.03	A	0.33	-0.17	-0.02	A	0.03	-0.02	0.00	A
23	0.12	-0.01	0.00	A	33.41	-0.23	-0.01	A	2.96	-0.14	-0.01	A	11.86	-0.26	-0.02	A	16.02	0.44	0.04	A	1.62	-0.43	-0.03	A	8.16	-0.34	-0.03	A
24	19.90	0.19	0.01	A	1.10	-0.04	0.00	A	18.35	-0.36	-0.03	A	0.85	0.07	0.01	A	6.38	0.37	0.02	A	0.03	0.06	0.00	A	0.31	-0.07	0.00	A
25	55.18	0.31	0.02	A	22.09	0.20	0.02	A	13.30	-0.30	-0.02	A	0.84	-0.07	-0.01	A	18.75	0.62	0.03	A	0.15	-0.14	-0.01	A	6.88	-0.34	-0.02	A
26	5.33	0.08	0.01	A	13.25	0.13	0.01	A	0.10	-0.02	0.00	A	4.03	0.13	0.01	A	11.14	0.37	0.03	A	0.01	-0.03	0.00	A	1.32	-0.13	-0.01	A
27	338.60	-0.63	-0.06	A	35.33	-0.21	-0.02	A	3.77	-0.14	-0.01	A	0.04	0.01	0.00	A	2.20	0.15	0.01	A	0.25	-0.15	-0.01	A	1.04	-0.11	-0.01	A
28	92.24	0.39	0.03	A	12.19	0.15	0.01	A	0.07	0.02	0.00	A	5.06	-0.17	-0.01	A	0.32	-0.07	0.00	A	0.14	0.13	0.01	A	0.61	-0.10	-0.01	A
29	272.82	-0.64	-0.05	A	153.60	-0.49	-0.04	A	0.01	0.01	0.00	A	15.80	-0.28	-0.02	A	2.51	0.20	0.01	A	0.33	-0.19	-0.01	A	3.17	0.22	0.02	A
30	0.18	0.01	0.00	A	29.43	-0.20	-0.02	A	2.42	-0.12	-0.01	A	0.16	0.03	0.00	A	0.83	0.10	0.01	A	0.36	0.18	0.02	A	1.63	0.15	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH $\chi2$ = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.16 (continued)
Spring 2013 AIMS Differential Item Functioning

Science CRT Grade 4

	Reference: Male N= 42247 Focal: Female N= 40695				Reference: Hispanic N= 47047 Focal: Non Hispanic N= 35976				Reference: White N= 66531 Focal: Africa American N= 4728				Reference: White N= 66531 Focal: Native American N= 6028				Reference: White N= 66531 Focal: Asian N= 2488				Reference: White N= 66531 Focal: Hawaii N= 292				Reference: White N= 66531 Focal: Multiple Indicator N= 21			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	256.30	0.55	0.05	A	11.57	0.12	0.01	A	0.56	0.06	0.01	A	2.20	-0.10	-0.01	A	8.49	0.31	0.03	A	2.54	0.49	0.04	A	0.00	0.00	0.00	A
32	0.25	0.02	0.00	A	30.73	-0.22	-0.02	A	0.15	-0.03	0.00	A	5.16	-0.16	-0.01	A	5.61	-0.29	-0.02	A	0.34	0.20	0.01	A	0.59	-0.09	-0.01	A
33	144.24	-0.48	-0.03	A	13.43	-0.15	-0.01	A	10.53	-0.26	-0.02	A	2.55	-0.11	-0.01	A	6.35	0.34	0.02	A	0.49	-0.23	-0.02	A	0.14	0.05	0.00	A
34	85.50	0.38	0.03	A	0.11	-0.01	0.00	A	4.99	-0.19	-0.01	A	39.83	-0.45	-0.04	A	1.53	0.18	0.01	A	3.59	-0.63	-0.04	A	0.57	-0.10	-0.01	A
35	3.71	-0.07	-0.01	A	66.13	-0.29	-0.03	A	5.03	-0.17	-0.02	A	5.13	0.15	0.02	A	0.10	-0.03	0.00	A	0.78	-0.26	-0.02	A	1.92	-0.15	-0.01	A
36	221.41	-0.54	-0.05	A	352.17	-0.70	-0.07	A	0.76	-0.07	-0.01	A	0.04	0.01	0.00	A	3.92	0.22	0.02	A	0.18	-0.13	-0.01	A	1.47	0.14	0.01	A
37	107.83	0.36	0.03	A	3.98	0.07	0.01	A	0.05	-0.02	0.00	A	5.23	0.15	0.01	A	6.63	0.28	0.02	A	0.06	-0.07	-0.01	A	1.54	-0.14	-0.01	A
38	118.74	0.36	0.04	A	321.36	0.63	0.07	A	0.03	-0.01	0.00	A	0.33	-0.04	0.00	A	7.87	0.27	0.03	A	0.01	0.03	0.00	A	4.87	-0.23	-0.02	A
39	64.88	0.44	0.02	A	33.44	0.32	0.02	A	3.02	-0.18	-0.01	A	30.57	-0.47	-0.03	A	5.26	0.50	0.01	A	0.36	-0.26	-0.01	A	0.35	-0.10	0.00	A
40	338.31	-0.70	-0.06	A	91.27	-0.37	-0.03	A	22.50	-0.38	-0.03	A	35.34	-0.43	-0.04	A	19.08	0.53	0.04	A	7.03	0.84	0.07	A	0.34	0.07	0.01	A
41	148.82	0.60	0.03	A	5.25	-0.11	-0.01	A	4.82	-0.21	-0.01	A	8.98	-0.24	-0.02	A	0.85	0.16	0.01	A	0.11	0.14	0.01	A	0.06	-0.04	0.00	A
42	17.93	0.17	0.01	A	9.00	-0.13	-0.01	A	1.90	-0.12	-0.01	A	30.34	-0.40	-0.03	A	0.09	0.04	0.00	A	0.30	0.19	0.01	A	4.45	0.28	0.02	A
43	473.58	-0.80	-0.07	A	133.49	-0.45	-0.03	A	7.91	-0.22	-0.02	A	0.87	-0.07	-0.01	A	0.83	-0.10	-0.01	A	0.01	0.03	0.00	A	0.21	0.05	0.00	A
44	597.95	1.02	0.07	B>	39.49	-0.27	-0.02	A	5.50	-0.20	-0.01	A	1.11	-0.08	-0.01	A	1.78	-0.18	-0.01	A	0.08	-0.10	-0.01	A	1.88	0.19	0.01	A
45	43.32	-0.23	-0.02	A	19.35	-0.16	-0.01	A	0.92	-0.07	-0.01	A	0.03	0.01	0.00	A	26.18	0.55	0.05	A	3.37	0.54	0.05	A	0.00	0.01	0.00	A
46	101.58	-0.45	-0.03	A	124.02	-0.51	-0.04	A	8.08	0.26	0.02	A	7.60	-0.21	-0.02	A	0.74	0.14	0.01	A	0.09	-0.11	-0.01	A	7.52	0.40	0.02	A
47	35.53	0.28	0.01	A	0.04	-0.01	0.00	A	3.67	-0.18	-0.01	A	7.62	-0.22	-0.02	A	11.10	0.62	0.02	A	0.00	0.00	0.00	A	2.49	0.25	0.01	A
48	39.88	-0.26	-0.02	A	94.41	-0.40	-0.03	A	14.24	-0.31	-0.02	A	17.16	-0.30	-0.03	A	1.14	0.14	0.01	A	0.38	0.21	0.01	A	0.85	-0.12	-0.01	A
49	165.22	0.46	0.04	A	30.78	0.21	0.02	A	1.05	-0.08	-0.01	A	4.32	0.15	0.01	A	2.11	0.15	0.01	A	0.48	0.21	0.02	A	0.09	0.03	0.00	A
50	32.72	0.23	0.02	A	40.47	-0.26	-0.02	A	10.94	-0.27	-0.02	A	22.86	-0.34	-0.03	A	0.76	-0.11	-0.01	A	0.02	0.04	0.00	A	0.29	-0.07	0.00	A
51	1.16	0.04	0.00	A	0.31	0.02	0.00	A	1.14	0.08	0.01	A	0.08	-0.02	0.00	A	33.35	0.58	0.06	A	2.55	0.46	0.04	A	0.18	-0.05	0.00	A
52	235.81	0.54	0.05	A	0.34	-0.02	0.00	A	2.17	-0.11	-0.01	A	4.06	-0.13	-0.01	A	4.87	-0.24	-0.02	A	0.62	-0.23	-0.02	A	0.01	0.01	0.00	A
53	59.12	-0.27	-0.03	A	2.55	0.06	0.01	A	0.60	-0.06	-0.01	A	2.71	-0.11	-0.01	A	5.79	0.25	0.02	A	1.03	0.30	0.03	A	0.65	0.09	0.01	A
54	13.56	0.14	0.01	A	124.42	-0.43	-0.03	A	4.38	0.17	0.01	A	1.31	-0.09	-0.01	A	2.92	0.19	0.02	A	0.16	-0.13	-0.01	A	1.63	0.15	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.17
Spring 2013 AIMS Differential Item Functioning

Science CRT Grade 8

	Reference: Male N= 41499 Focal: Female N= 39898				Reference: Hispanic N= 46824 Focal: Non Hispanic N= 34660				Reference: White N= 65666 Focal: Africa American N= 4740				Reference: White N= 65666 Focal: Native American N= 5803				Reference: White N= 65666 Focal: Asian N= 2344				Reference: White N= 65666 Focal: Hawaii N= 288				Reference: White N= 65666 Focal: Multiple Indicator N= 19			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	1753.03	-1.50	-0.14	B<	117.81	-0.40	-0.04	A	25.36	-0.38	-0.04	A	9.25	-0.21	-0.02	A	0.09	-0.03	0.00	A	1.75	-0.39	-0.04	A	0.33	0.07	0.01	A
2	95.36	0.38	0.03	A	12.74	-0.14	-0.01	A	3.05	-0.14	-0.01	A	77.98	-0.67	-0.05	A	51.56	0.96	0.06	A	0.15	-0.12	-0.01	A	19.98	-0.57	-0.04	A
3	1.60	0.06	0.00	A	4.58	-0.10	-0.01	A	9.73	-0.27	-0.02	A	151.93	-0.92	-0.07	A	20.31	-0.65	-0.03	A	0.00	-0.02	0.00	A	0.80	0.13	0.01	A
4	140.47	-0.60	-0.03	A	30.91	-0.28	-0.01	A	3.76	-0.19	-0.01	A	77.03	-0.71	-0.05	A	12.31	-0.64	-0.02	A	0.57	-0.31	-0.01	A	4.21	0.36	0.01	A
5	6.17	-0.13	-0.01	A	30.20	0.30	0.02	A	246.60	-1.42	-0.08	B<	8.83	-0.27	-0.01	A	25.42	-0.87	-0.03	A	0.64	-0.34	-0.01	A	2.85	-0.29	-0.01	A
6	875.55	-1.80	-0.06	C<	500.69	-1.37	-0.05	B<	14.43	0.45	0.02	A	8.96	-0.28	-0.01	A	17.57	-0.85	-0.02	A	0.81	0.47	0.02	A	12.75	0.80	0.02	A
7	140.85	-0.48	-0.03	A	87.94	-0.40	-0.02	A	18.17	-0.40	-0.02	A	38.83	-0.57	-0.03	A	9.31	0.35	0.03	A	5.04	-0.81	-0.05	A	1.01	-0.13	-0.01	A
8	201.48	-0.81	-0.03	A	44.41	-0.38	-0.02	A	12.39	-0.37	-0.02	A	130.37	-1.00	-0.06	A	5.34	-0.47	-0.01	A	2.95	-0.80	-0.03	A	0.86	-0.17	-0.01	A
9	440.49	0.78	0.07	A	0.61	-0.03	0.00	A	16.18	-0.31	-0.03	A	19.52	-0.30	-0.03	A	0.21	-0.06	0.00	A	0.77	0.28	0.02	A	0.12	0.04	0.00	A
10	253.17	-0.60	-0.05	A	35.70	-0.23	-0.02	A	7.96	-0.22	-0.02	A	26.67	-0.36	-0.03	A	5.46	-0.28	-0.02	A	2.95	-0.51	-0.05	A	0.13	-0.04	0.00	A
11	48.91	-0.28	-0.02	A	4.13	-0.08	-0.01	A	6.45	0.21	0.02	A	7.72	-0.20	-0.02	A	6.69	0.35	0.02	A	0.23	0.16	0.01	A	2.10	0.19	0.01	A
12	21.97	0.21	0.01	A	27.62	0.25	0.01	A	0.05	0.02	0.00	A	5.71	0.20	0.01	A	0.20	-0.07	0.00	A	0.04	0.08	0.00	A	0.01	-0.02	0.00	A
13	2.56	-0.06	-0.01	A	22.02	0.17	0.02	A	0.01	-0.01	0.00	A	0.13	-0.02	0.00	A	0.65	0.09	0.01	A	0.49	0.21	0.02	A	0.01	0.01	0.00	A
14	17.41	-0.14	-0.01	A	0.03	0.01	0.00	A	0.17	0.03	0.00	A	3.17	0.12	0.01	A	0.17	-0.04	0.00	A	3.60	0.55	0.05	A	2.13	0.16	0.02	A
15	1.70	-0.06	0.00	A	0.01	-0.01	0.00	A	32.58	-0.47	-0.04	A	0.88	-0.07	-0.01	A	0.59	-0.12	-0.01	A	0.09	0.10	0.01	A	0.25	-0.07	0.00	A
16	135.35	0.40	0.04	A	20.33	-0.16	-0.02	A	0.00	0.00	0.00	A	0.97	0.07	0.01	A	7.54	-0.28	-0.03	A	0.81	-0.26	-0.03	A	0.24	0.05	0.01	A
17	42.48	-0.24	-0.02	A	0.32	-0.02	0.00	A	0.07	0.02	0.00	A	0.09	-0.02	0.00	A	17.12	0.53	0.04	A	0.18	0.13	0.01	A	0.00	0.00	0.00	A
18	122.38	-0.42	-0.03	A	7.84	-0.11	-0.01	A	7.97	-0.22	-0.02	A	0.63	0.06	0.00	A	1.09	0.13	0.01	A	0.00	0.01	0.00	A	4.74	0.28	0.02	A
19	4.16	0.08	0.01	A	95.01	-0.39	-0.03	A	15.32	0.32	0.03	A	32.93	-0.41	-0.04	A	4.83	0.30	0.02	A	0.31	0.19	0.01	A	0.15	-0.05	0.00	A
20	608.23	-0.96	-0.07	A	119.08	-0.43	-0.03	A	22.45	-0.38	-0.03	A	22.94	-0.34	-0.03	A	3.09	0.24	0.01	A	1.26	0.35	0.03	A	0.39	0.08	0.01	A
21	91.67	0.47	0.02	A	8.85	0.15	0.01	A	26.88	-0.48	-0.03	A	1.72	0.11	0.01	A	0.58	-0.14	0.00	A	0.05	-0.09	0.00	A	5.19	-0.36	-0.02	A
22	28.99	0.21	0.02	A	41.35	-0.25	-0.02	A	3.13	0.14	0.01	A	4.59	-0.15	-0.01	A	3.65	0.25	0.02	A	1.50	-0.39	-0.03	A	0.52	-0.09	-0.01	A
23	237.42	0.52	0.05	A	9.94	0.11	0.01	A	1.01	0.07	0.01	A	3.16	0.12	0.01	A	0.91	0.10	0.01	A	2.66	-0.48	-0.05	A	0.29	-0.06	-0.01	A
24	114.56	-0.38	-0.04	A	13.49	0.14	0.01	A	1.67	-0.10	-0.01	A	1.85	-0.09	-0.01	A	3.97	0.23	0.02	A	0.02	-0.05	0.00	A	0.00	0.00	0.00	A
25	631.19	0.96	0.08	A	13.21	0.14	0.02	A	0.82	0.07	0.01	A	1.02	0.07	0.01	A	10.60	0.42	0.03	A	1.36	0.37	0.03	A	2.23	-0.19	-0.01	A
26	3.67	0.07	0.01	A	8.95	0.11	0.01	A	5.27	-0.17	-0.02	A	5.75	0.16	0.02	A	6.61	0.27	0.03	A	1.23	0.32	0.03	A	0.04	-0.02	0.00	A
27	14.47	0.13	0.01	A	11.00	-0.12	-0.01	A	4.81	-0.16	-0.02	A	0.06	-0.02	0.00	A	3.98	0.22	0.02	A	1.69	0.38	0.04	A	1.55	-0.14	-0.01	A
28	34.60	0.20	0.02	A	0.18	-0.02	0.00	A	11.43	0.25	0.02	A	2.67	0.11	0.01	A	30.84	0.57	0.06	A	3.79	0.55	0.05	A	0.14	-0.04	0.00	A
29	503.53	-0.83	-0.07	A	215.48	-0.56	-0.05	A	17.65	-0.33	-0.03	A	22.42	-0.35	-0.03	A	39.36	-0.70	-0.06	A	1.58	-0.38	-0.03	A	1.32	-0.14	-0.01	A
30	103.50	-0.40	-0.03	A	12.12	-0.14	-0.01	A	1.65	-0.10	-0.01	A	3.12	-0.13	-0.01	A	3.34	0.24	0.01	A	1.49	0.41	0.03	A	0.26	-0.06	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.17 (continued)
Spring 2013 AIMS Differential Item Functioning

Science CRT Grade 8

	Reference: Male N= 41499 Focal: Female N= 39898				Reference: Hispanic N= 46824 Focal: Non Hispanic N= 34660				Reference: White N= 65666 Focal: Africa American N= 4740				Reference: White N= 65666 Focal: Native American N= 5803				Reference: White N= 65666 Focal: Asian N= 2344				Reference: White N= 65666 Focal: Hawaii N= 288				Reference: White N= 65666 Focal: Multiple Indicator N= 19			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	2.88	0.06	0.01	A	0.81	0.03	0.00	A	10.76	0.25	0.02	A	38.06	0.44	0.04	A	56.18	0.84	0.07	A	2.03	0.42	0.04	A	5.52	0.27	0.03	A
32	44.68	-0.29	-0.02	A	0.12	0.02	0.00	A	5.35	-0.20	-0.01	A	22.77	-0.36	-0.03	A	11.08	-0.47	-0.02	A	0.65	-0.28	-0.02	A	3.86	0.29	0.02	A
33	36.81	0.21	0.02	A	2.42	0.06	0.01	A	3.72	0.14	0.01	A	2.14	0.10	0.01	A	14.46	0.41	0.04	A	0.20	0.13	0.01	A	1.48	0.14	0.01	A
34	3.36	-0.08	-0.01	A	3.42	-0.08	0.00	A	5.51	-0.19	-0.02	A	7.86	-0.20	-0.02	A	1.09	-0.15	-0.01	A	0.26	0.17	0.01	A	0.75	-0.12	-0.01	A
35	49.02	-0.25	-0.02	A	85.33	-0.34	-0.03	A	3.07	0.13	0.01	A	3.04	-0.12	-0.01	A	14.23	0.44	0.04	A	2.99	-0.50	-0.05	A	1.96	-0.16	-0.01	A
36	134.54	-0.42	-0.04	A	52.51	-0.27	-0.02	A	0.16	-0.03	0.00	A	8.51	-0.21	-0.02	A	17.20	0.50	0.04	A	0.28	0.16	0.01	A	1.76	-0.16	-0.01	A
37	102.37	0.38	0.03	A	21.90	0.18	0.01	A	10.97	0.27	0.02	A	2.42	-0.11	-0.01	A	4.54	0.26	0.02	A	2.36	-0.46	-0.04	A	0.23	-0.06	0.00	A
38	223.81	0.54	0.05	A	23.52	0.18	0.02	A	0.62	-0.06	-0.01	A	1.71	0.09	0.01	A	18.22	0.51	0.04	A	0.67	-0.24	-0.02	A	2.27	0.18	0.02	A
39	324.83	1.03	0.04	B>	0.00	0.00	0.00	A	5.89	-0.26	-0.01	A	5.14	-0.21	-0.01	A	0.85	0.21	0.00	A	8.96	-1.25	-0.05	B<	1.42	-0.23	-0.01	A
40	7.15	-0.10	-0.01	A	4.28	-0.08	0.00	A	4.52	-0.17	-0.01	A	11.96	-0.25	-0.02	A	85.92	1.26	0.08	B>	0.18	-0.13	-0.01	A	0.10	-0.04	0.00	A
41	3.27	-0.07	-0.01	A	27.28	-0.21	-0.01	A	3.80	0.16	0.01	A	0.89	-0.07	-0.01	A	10.11	0.43	0.03	A	2.44	0.50	0.04	A	8.98	0.39	0.03	A
42	0.09	-0.01	0.00	A	44.80	-0.25	-0.02	A	13.77	-0.28	-0.03	A	37.14	-0.42	-0.04	A	4.00	0.24	0.02	A	0.03	-0.05	0.00	A	0.25	-0.06	-0.01	A
43	0.03	-0.01	0.00	A	2.97	0.07	0.01	A	0.24	-0.04	0.00	A	8.93	0.22	0.02	A	31.15	0.58	0.06	A	0.74	0.26	0.02	A	4.86	-0.27	-0.02	A
44	143.57	0.63	0.03	A	2.59	0.08	0.01	A	1.23	0.11	0.01	A	0.27	0.04	0.00	A	5.52	0.51	0.01	A	10.14	-1.24	-0.06	B<	0.21	0.08	0.00	A
45	90.26	0.38	0.03	A	0.02	0.01	0.00	A	1.45	0.10	0.01	A	13.78	0.28	0.02	A	4.10	-0.26	-0.02	A	0.42	0.22	0.02	A	0.27	0.07	0.00	A
46	61.43	-0.27	-0.03	A	12.66	-0.13	-0.01	A	17.54	-0.30	-0.03	A	2.79	-0.11	-0.01	A	0.00	-0.01	0.00	A	4.07	-0.59	-0.06	A	3.07	-0.20	-0.02	A
47	204.19	0.51	0.05	A	25.21	0.19	0.02	A	14.17	0.29	0.03	A	1.33	0.08	0.01	A	28.10	0.63	0.05	A	0.00	0.00	0.00	A	0.23	-0.06	-0.01	A
48	2.07	-0.06	0.00	A	199.27	-0.56	-0.04	A	2.14	0.12	0.01	A	28.29	-0.39	-0.03	A	4.12	0.27	0.02	A	1.15	0.36	0.03	A	4.93	0.28	0.02	A
49	5.80	-0.08	-0.01	A	3.12	0.06	0.01	A	21.71	-0.34	-0.03	A	12.21	0.23	0.02	A	6.91	-0.26	-0.03	A	0.97	-0.28	-0.03	A	0.40	0.07	0.01	A
50	1210.94	1.68	0.08	C>	12.86	-0.17	-0.01	A	0.70	0.08	0.00	A	3.29	-0.15	-0.01	A	0.91	0.18	0.01	A	2.14	0.60	0.03	A	3.65	0.31	0.02	A
51	16.01	0.15	0.01	A	0.53	-0.03	0.00	A	4.11	0.16	0.01	A	0.06	-0.02	0.00	A	9.52	0.39	0.03	A	0.23	0.15	0.01	A	8.78	0.37	0.03	A
52	256.03	0.55	0.05	A	57.88	0.27	0.03	A	1.51	0.09	0.01	A	5.63	0.16	0.02	A	17.79	-0.43	-0.04	A	0.22	0.14	0.01	A	3.15	-0.20	-0.02	A
53	779.93	0.99	0.09	A	10.05	0.12	0.01	A	1.74	0.10	0.01	A	41.14	-0.44	-0.04	A	0.60	-0.08	-0.01	A	0.28	-0.16	-0.01	A	0.02	-0.02	0.00	A
54	3.44	0.06	0.01	A	275.52	0.59	0.06	A	0.53	0.05	0.01	A	26.44	0.35	0.03	A	5.87	0.25	0.03	A	10.78	0.96	0.09	A	0.22	0.05	0.01	A
55	29.55	0.20	0.02	A	7.00	-0.10	-0.01	A	17.83	0.33	0.03	A	19.96	-0.31	-0.03	A	1.91	-0.16	-0.01	A	2.34	-0.47	-0.04	A	0.15	0.05	0.00	A
56	480.67	0.85	0.07	A	51.03	-0.28	-0.02	A	2.38	-0.12	-0.01	A	4.92	-0.16	-0.01	A	0.56	0.10	0.01	A	0.55	0.23	0.02	A	2.20	0.19	0.01	A
57	16.82	0.15	0.01	A	22.58	-0.17	-0.01	A	13.56	-0.28	-0.03	A	1.42	-0.08	-0.01	A	4.53	-0.23	-0.02	A	8.52	-0.87	-0.08	A	7.56	-0.32	-0.03	A
58	18.55	0.16	0.01	A	35.20	-0.23	-0.02	A	10.95	-0.27	-0.02	A	0.36	-0.04	0.00	A	3.18	0.19	0.02	A	1.45	-0.37	-0.03	A	0.21	0.05	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.18
Spring 2013 AIMS Differential Item Functioning

Science CRT High School

	Reference: Male N= 26891 Focal: Female N= 25709				Reference: Hispanic N= 28397 Focal: Non Hispanic N= 24249				Reference: White N= 41807 Focal: Africa American N= 3349				Reference: White N= 41807 Focal: Native American N= 3714				Reference: White N= 41807 Focal: Asian N= 1309				Reference: White N= 41807 Focal: Hawaii N= 193				Reference: White N= 41807 Focal: Multiple Indicator N= 15			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	215.23	-0.65	-0.06	A	140.80	-0.54	-0.05	A	2.76	0.15	0.01	A	0.02	-0.01	0.00	A	0.50	-0.10	-0.01	A	3.12	-0.65	-0.06	A	0.84	-0.12	-0.01	A
2	56.74	0.35	0.03	A	82.57	-0.42	-0.03	A	20.70	-0.42	-0.04	A	97.24	-0.88	-0.08	A	0.19	0.07	0.01	A	0.04	-0.07	-0.01	A	0.01	-0.02	0.00	A
3	106.93	0.46	0.04	A	19.08	0.20	0.02	A	0.48	-0.06	-0.01	A	0.00	-0.01	0.00	A	4.88	0.33	0.03	A	0.08	0.11	0.01	A	0.03	-0.02	0.00	A
4	63.82	0.47	0.02	A	4.46	-0.12	-0.01	A	16.10	-0.44	-0.03	A	7.04	-0.27	-0.02	A	4.76	-0.43	-0.02	A	0.08	0.14	0.01	A	10.23	0.60	0.03	A
5	2.45	0.08	0.01	A	0.54	-0.04	0.00	A	0.09	0.03	0.00	A	0.01	0.01	0.00	A	1.45	-0.20	-0.01	A	0.03	-0.07	-0.01	A	9.71	0.46	0.03	A
6	237.35	-0.89	-0.05	A	4.74	-0.13	-0.01	A	5.26	-0.25	-0.02	A	0.59	0.08	0.01	A	18.82	-0.83	-0.04	A	0.72	0.41	0.02	A	6.71	0.46	0.02	A
7	6.05	-0.12	-0.01	A	7.84	-0.13	-0.01	A	16.59	-0.38	-0.03	A	35.10	-0.52	-0.05	A	2.62	-0.26	-0.02	A	0.55	-0.27	-0.02	A	0.84	0.13	0.01	A
8	87.99	-0.40	-0.04	A	141.41	0.52	0.05	A	30.14	0.48	0.05	A	8.96	-0.25	-0.03	A	5.20	0.32	0.03	A	0.01	-0.04	0.00	A	0.42	-0.08	-0.01	A
9	140.59	0.63	0.04	A	9.39	0.17	0.01	A	0.01	0.01	0.00	A	10.75	-0.31	-0.02	A	0.79	-0.17	-0.01	A	0.05	0.10	0.01	A	1.02	0.16	0.01	A
10	1.30	0.05	0.00	A	3.35	0.09	0.01	A	0.46	0.06	0.01	A	0.47	0.06	0.01	A	2.56	-0.26	-0.02	A	0.03	0.06	0.01	A	0.78	0.13	0.01	A
11	130.45	-0.54	-0.04	A	295.46	-0.82	-0.07	A	4.67	-0.20	-0.02	A	0.19	-0.04	0.00	A	1.06	-0.17	-0.01	A	2.20	0.53	0.05	A	3.60	0.27	0.02	A
12	118.43	-0.50	-0.04	A	43.50	-0.31	-0.03	A	6.91	-0.24	-0.02	A	1.36	-0.10	-0.01	A	11.88	0.56	0.04	A	0.64	0.30	0.03	A	3.49	0.26	0.02	A
13	54.55	-0.33	-0.03	A	2.79	-0.08	-0.01	A	0.24	-0.05	0.00	A	0.25	0.04	0.00	A	0.09	-0.04	0.00	A	4.88	-0.84	-0.07	A	0.28	-0.07	-0.01	A
14	68.80	-0.38	-0.03	A	19.98	-0.21	-0.02	A	0.66	0.08	0.01	A	0.13	-0.03	0.00	A	22.86	0.72	0.06	A	0.55	-0.27	-0.02	A	0.55	-0.10	-0.01	A
15	1.44	-0.05	-0.01	A	8.84	-0.13	-0.01	A	3.96	0.18	0.02	A	2.33	-0.13	-0.01	A	2.92	0.23	0.02	A	0.43	-0.24	-0.02	A	1.95	-0.18	-0.02	A
16	0.11	-0.02	0.00	A	1.64	0.08	0.00	A	20.81	-0.53	-0.03	A	1.75	-0.14	-0.01	A	12.48	-0.78	-0.03	A	0.74	-0.44	-0.02	A	0.03	0.03	0.00	A
17	0.76	-0.04	0.00	A	41.13	-0.30	-0.02	A	1.54	0.12	0.01	A	4.21	-0.18	-0.01	A	0.07	-0.04	0.00	A	0.24	-0.18	-0.02	A	0.01	0.01	0.00	A
18	22.63	-0.24	-0.02	A	41.91	-0.33	-0.02	A	1.63	-0.13	-0.01	A	86.68	-0.85	-0.07	A	3.02	-0.32	-0.02	A	0.01	0.04	0.00	A	0.10	-0.05	0.00	A
19	58.58	0.39	0.03	A	18.88	0.22	0.02	A	10.82	-0.32	-0.03	A	5.15	-0.21	-0.02	A	7.94	0.51	0.03	A	0.02	-0.06	0.00	A	0.01	-0.01	0.00	A
20	53.27	0.35	0.03	A	1.47	0.06	0.01	A	5.95	-0.23	-0.02	A	1.63	-0.11	-0.01	A	0.85	-0.15	-0.01	A	0.19	-0.16	-0.01	A	0.34	-0.08	-0.01	A
21	74.11	0.39	0.03	A	59.05	0.36	0.03	A	2.46	0.15	0.01	A	6.17	-0.22	-0.02	A	2.33	0.23	0.02	A	0.69	0.32	0.03	A	0.23	-0.06	-0.01	A
22	4.48	-0.09	-0.01	A	52.62	0.33	0.03	A	5.11	0.21	0.02	A	113.31	0.94	0.08	A	4.05	-0.28	-0.03	A	2.18	0.55	0.05	A	0.11	0.04	0.00	A
23	122.52	-0.51	-0.04	A	16.04	-0.19	-0.02	A	15.96	-0.36	-0.03	A	0.35	0.05	0.00	A	5.80	-0.36	-0.03	A	0.05	-0.08	-0.01	A	0.97	0.13	0.01	A
24	7.03	-0.13	-0.01	A	1.14	-0.05	0.00	A	5.23	-0.22	-0.02	A	6.24	0.23	0.02	A	0.19	-0.07	-0.01	A	2.19	-0.60	-0.05	A	0.09	0.04	0.00	A
25	72.92	0.37	0.04	A	4.58	-0.10	-0.01	A	0.01	0.01	0.00	A	12.52	-0.30	-0.03	A	1.11	-0.15	-0.01	A	0.02	-0.05	-0.01	A	0.00	0.00	0.00	A
26	10.33	0.14	0.01	A	0.87	-0.04	0.00	A	3.99	0.18	0.02	A	6.34	-0.22	-0.02	A	4.48	0.31	0.03	A	0.54	-0.28	-0.02	A	0.32	-0.08	-0.01	A
27	2.23	-0.08	-0.01	A	0.56	0.04	0.00	A	0.28	0.06	0.00	A	1.95	-0.14	-0.01	A	5.25	0.48	0.02	A	0.82	0.41	0.02	A	0.08	0.05	0.00	A
28	0.77	-0.04	0.00	A	28.48	-0.24	-0.02	A	3.15	-0.16	-0.01	A	10.75	0.29	0.03	A	2.38	-0.22	-0.02	A	0.17	-0.15	-0.01	A	1.27	0.15	0.01	A
29	14.32	-0.18	-0.02	A	40.33	-0.31	-0.02	A	9.17	-0.28	-0.02	A	0.04	0.02	0.00	A	3.08	-0.28	-0.02	A	0.00	-0.01	0.00	A	2.30	0.22	0.02	A
30	241.27	0.79	0.06	A	10.80	0.17	0.01	A	0.50	0.07	0.01	A	0.85	0.09	0.01	A	1.81	0.24	0.01	A	2.56	0.69	0.05	A	1.18	0.17	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.18 (continued)
Spring 2013 AIMS Differential Item Functioning Science

CRT High School

	Reference: Male N= 26891 Focal: Female N= 25709				Reference: Hispanic N= 28397 Focal: Non Hispanic N= 24249				Reference: White N= 41807 Focal: Africa American N= 3349				Reference: White N= 41807 Focal: Native American N= 3714				Reference: White N= 41807 Focal: Asian N= 1309				Reference: White N= 41807 Focal: Hawaii N= 193				Reference: White N= 41807 Focal: Multiple Indicator N= 15			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	6.58	0.14	0.01	A	172.77	-0.71	-0.05	A	2.83	-0.17	-0.01	A	5.32	0.22	0.02	A	0.96	-0.18	-0.01	A	0.06	0.11	0.01	A	1.07	0.17	0.01	A
32	233.56	-0.84	-0.05	A	360.12	-1.09	-0.06	B<	0.67	-0.10	-0.01	A	26.69	-0.64	-0.03	A	0.01	0.02	0.00	A	0.21	0.20	0.01	A	0.65	-0.13	-0.01	A
33	241.42	-0.72	-0.06	A	417.99	-0.96	-0.08	A	0.00	0.00	0.00	A	3.30	-0.16	-0.01	A	0.00	0.00	0.00	A	0.42	0.26	0.02	A	1.28	0.16	0.01	A
34	137.24	0.50	0.05	A	0.28	-0.02	0.00	A	3.86	0.17	0.02	A	8.08	0.24	0.02	A	8.24	0.40	0.04	A	0.26	0.18	0.02	A	0.04	-0.03	0.00	A
35	6.54	-0.12	-0.01	A	6.55	-0.13	-0.01	A	36.17	-0.57	-0.05	A	6.01	0.22	0.02	A	1.61	0.23	0.01	A	4.05	0.81	0.06	A	1.90	-0.19	-0.02	A
36	245.69	0.77	0.06	A	6.10	0.12	0.01	A	0.71	0.08	0.01	A	0.63	-0.07	-0.01	A	8.37	0.51	0.03	A	2.23	0.62	0.05	A	0.29	0.08	0.01	A
37	3.71	-0.09	-0.01	A	29.56	-0.26	-0.02	A	1.47	-0.12	-0.01	A	2.03	0.14	0.01	A	1.54	-0.18	-0.02	A	2.77	-0.66	-0.05	A	0.00	0.00	0.00	A
38	27.66	0.25	0.02	A	16.70	0.20	0.02	A	0.14	-0.04	0.00	A	0.61	-0.07	-0.01	A	5.08	0.40	0.03	A	0.09	-0.12	-0.01	A	2.15	-0.21	-0.02	A
39	226.49	0.78	0.05	A	10.48	0.17	0.01	A	0.48	-0.07	-0.01	A	0.91	0.09	0.01	A	2.75	0.33	0.02	A	0.09	0.13	0.01	A	3.74	-0.29	-0.02	A
40	0.00	0.00	0.00	A	1.27	0.06	0.01	A	4.25	-0.19	-0.02	A	0.00	0.00	0.00	A	0.59	0.13	0.01	A	0.25	-0.21	-0.02	A	0.21	-0.07	0.00	A
41	27.33	0.25	0.02	A	30.39	0.27	0.02	A	5.04	0.22	0.02	A	35.14	0.54	0.05	A	0.29	0.09	0.01	A	0.01	-0.03	0.00	A	0.04	0.03	0.00	A
42	41.01	-0.32	-0.03	A	0.05	-0.01	0.00	A	21.89	-0.46	-0.04	A	11.33	-0.31	-0.03	A	0.02	0.03	0.00	A	1.27	0.48	0.03	A	1.75	0.20	0.01	A
43	32.93	0.33	0.02	A	4.69	0.13	0.01	A	0.18	0.05	0.00	A	0.04	-0.02	0.00	A	0.20	0.09	0.00	A	0.45	0.31	0.02	A	2.19	0.27	0.01	A
44	8.04	0.16	0.01	A	0.34	0.03	0.00	A	10.21	-0.34	-0.02	A	4.75	-0.22	-0.02	A	16.86	-0.82	-0.04	A	0.42	-0.28	-0.02	A	1.10	-0.18	-0.01	A
45	24.95	0.27	0.01	A	4.96	-0.12	-0.01	A	19.30	-0.45	-0.03	A	1.66	-0.13	-0.01	A	0.00	0.01	0.00	A	0.23	-0.21	-0.01	A	0.13	0.06	0.00	A
46	29.79	0.30	0.02	A	0.40	0.04	0.00	A	9.44	0.33	0.02	A	0.59	-0.08	-0.01	A	1.28	0.25	0.01	A	1.49	-0.53	-0.03	A	0.92	0.16	0.01	A
47	9.76	0.15	0.01	A	2.22	-0.07	0.00	A	17.85	-0.40	-0.03	A	0.61	0.07	0.01	A	0.14	-0.06	0.00	A	0.58	0.27	0.02	A	1.10	0.15	0.01	A
48	13.11	-0.16	-0.01	A	0.44	0.03	0.01	A	0.88	0.09	0.01	A	6.16	-0.22	-0.02	A	9.94	0.45	0.04	A	2.75	-0.61	-0.05	A	0.25	0.07	0.01	A
49	1.16	0.05	0.00	A	0.00	0.00	0.00	A	0.54	-0.07	-0.01	A	16.99	-0.37	-0.03	A	1.50	-0.23	-0.01	A	0.08	-0.12	-0.01	A	9.09	-0.44	-0.03	A
50	4.69	0.09	0.01	A	3.88	0.09	0.01	A	4.64	0.19	0.02	A	2.35	-0.13	-0.01	A	18.03	0.59	0.06	A	2.00	0.49	0.05	A	0.14	0.05	0.00	A
51	92.48	0.44	0.04	A	0.21	0.02	0.00	A	7.94	0.27	0.02	A	6.72	0.23	0.02	A	30.32	0.82	0.07	A	2.63	0.57	0.05	A	0.09	-0.04	0.00	A
52	0.89	-0.04	0.00	A	5.96	-0.11	-0.01	A	3.96	0.18	0.02	A	1.87	-0.12	-0.01	A	0.25	0.07	0.01	A	0.33	0.22	0.02	A	0.40	0.08	0.01	A
53	16.17	0.18	0.02	A	9.44	-0.14	-0.01	A	0.20	0.04	0.00	A	1.83	-0.12	-0.01	A	0.06	-0.03	0.00	A	1.16	0.41	0.04	A	1.30	0.15	0.01	A
54	0.20	-0.02	0.00	A	9.00	-0.14	-0.01	A	3.80	-0.18	-0.02	A	2.14	-0.13	-0.01	A	13.70	0.54	0.05	A	0.02	0.05	0.00	A	0.70	-0.11	-0.01	A
55	168.22	-0.56	-0.05	A	3.79	-0.09	-0.01	A	21.10	-0.42	-0.04	A	0.90	0.08	0.01	A	0.54	-0.10	-0.01	A	0.02	0.05	0.01	A	2.28	-0.19	-0.02	A
56	85.52	-0.44	-0.03	A	0.00	0.00	0.00	A	0.00	0.00	0.00	A	3.42	0.18	0.01	A	2.68	0.24	0.02	A	0.09	0.12	0.01	A	0.14	-0.05	0.00	A
57	70.41	0.45	0.03	A	0.00	0.00	0.00	A	3.23	-0.18	-0.01	A	1.04	0.10	0.01	A	1.69	0.26	0.01	A	0.01	0.05	0.00	A	0.95	0.16	0.01	A
58	5.29	0.11	0.01	A	20.60	-0.22	-0.01	A	0.23	0.05	0.00	A	5.47	-0.22	-0.02	A	0.09	-0.05	0.00	A	0.17	-0.16	-0.01	A	1.97	-0.20	-0.02	A
59	3.09	-0.08	-0.01	A	34.20	-0.28	-0.02	A	0.31	-0.05	0.00	A	2.28	-0.13	-0.01	A	3.55	0.31	0.02	A	0.01	0.04	0.00	A	1.40	0.16	0.01	A
60	0.87	0.04	0.00	A	0.95	0.04	0.01	A	0.02	0.01	0.00	A	2.88	0.14	0.01	A	1.24	0.17	0.01	A	0.11	-0.12	-0.01	A	3.96	-0.26	-0.02	A
61	45.24	-0.30	-0.03	A	89.09	-0.44	-0.04	A	7.93	0.26	0.02	A	3.43	-0.17	-0.01	A	0.07	0.04	0.00	A	0.06	-0.09	-0.01	A	0.00	0.00	0.00	A
62	3.39	-0.08	-0.01	A	12.36	0.16	0.02	A	0.01	0.01	0.00	A	5.00	-0.20	-0.02	A	5.94	0.38	0.03	A	0.03	-0.06	-0.01	A	0.68	-0.11	-0.01	A
63	22.82	-0.22	-0.02	A	23.66	-0.23	-0.02	A	0.00	0.00	0.00	A	4.04	0.18	0.02	A	5.22	0.33	0.03	A	0.04	-0.08	-0.01	A	0.02	-0.02	0.00	A
64	173.49	0.63	0.05	A	20.43	0.22	0.02	A	0.01	0.01	0.00	A	3.50	-0.17	-0.01	A	14.06	0.66	0.04	A	0.28	0.21	0.02	A	14.49	-0.54	-0.04	A
65	115.46	0.52	0.04	A	31.51	0.28	0.02	A	11.09	-0.31	-0.03	A	2.68	-0.15	-0.01	A	2.45	-0.27	-0.02	A	0.75	0.34	0.03	A	0.01	-0.02	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.19
Spring 2013 AIMS Differential Item Functioning
Writing CRT Grade 5

	Reference: Male N= 41841 Focal: Female N= 40459				Reference: Hispanic N= 46479 Focal: Non Hispanic N= 35901				Reference: White N= 66084 Focal: Africa American N= 4824				Reference: White N= 66084 Focal: Native American N= 5981				Reference: White N= 66084 Focal: Asian N= 2455				Reference: White N= 66084 Focal: Hawaii N= 234				Reference: White N= 66084 Focal: Multiple Indicator N= 20			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	6.40	0.17	0.00	A	11.35	-0.22	-0.01	A	3.85	-0.24	-0.01	A	13.30	-0.37	-0.02	A	24.32	-1.08	-0.02	B<	0.25	0.32	0.01	A	1.36	0.27	0.01	A
2	182.04	0.51	0.04	A	0.05	-0.01	0.00	A	1.02	0.08	0.01	A	13.05	-0.25	-0.02	A	34.59	0.76	0.05	A	0.27	0.18	0.01	A	2.07	-0.17	-0.01	A
3	0.22	0.02	0.00	A	119.69	0.43	0.04	A	109.74	-0.83	-0.07	A	48.69	-0.50	-0.04	A	254.26	-1.72	-0.13	C<	10.06	-1.12	-0.09	B<	13.64	-0.45	-0.04	A
4	22.49	0.21	0.01	A	0.00	0.00	0.00	A	1.35	-0.10	-0.01	A	3.16	-0.13	-0.01	A	3.92	0.31	0.01	A	0.30	-0.21	-0.01	A	0.03	-0.02	0.00	A
5	19.42	-0.16	-0.01	A	67.87	-0.30	-0.03	A	1.37	0.09	0.01	A	3.14	-0.12	-0.01	A	12.76	0.40	0.03	A	1.52	0.41	0.04	A	1.96	0.16	0.01	A
6	97.45	0.37	0.03	A	106.24	-0.39	-0.03	A	7.07	-0.21	-0.02	A	3.32	-0.13	-0.01	A	1.40	0.13	0.01	A	7.34	-0.95	-0.08	A	0.65	-0.09	-0.01	A
7	49.47	0.33	0.02	A	0.53	-0.03	0.00	A	14.48	-0.34	-0.02	A	1.63	-0.10	-0.01	A	4.35	-0.33	-0.01	A	0.19	-0.20	-0.01	A	3.75	-0.29	-0.01	A
8	8.04	-0.11	-0.01	A	51.98	-0.27	-0.02	A	2.67	0.13	0.01	A	7.53	0.19	0.02	A	21.39	0.58	0.04	A	2.08	0.53	0.04	A	0.00	0.00	0.00	A
9	1.91	-0.05	-0.01	A	70.20	0.29	0.03	A	2.27	-0.11	-0.01	A	4.53	0.14	0.01	A	1.89	-0.14	-0.01	A	0.10	-0.10	-0.01	A	0.06	-0.03	0.00	A
10	93.02	-0.37	-0.03	A	50.91	-0.28	-0.02	A	10.67	-0.27	-0.02	A	13.07	-0.28	-0.02	A	5.61	0.26	0.02	A	0.10	0.11	0.01	A	0.02	0.02	0.00	A
11	2.16	-0.07	0.00	A	0.24	-0.02	0.00	A	3.89	-0.19	-0.01	A	0.58	-0.06	0.00	A	0.46	0.12	0.00	A	7.60	1.32	0.06	B>	1.23	0.18	0.01	A
12	32.14	-0.27	-0.01	A	26.82	-0.25	-0.01	A	5.93	-0.23	-0.01	A	25.20	-0.39	-0.03	A	0.15	0.07	0.00	A	0.02	0.07	0.00	A	0.19	0.07	0.00	A
13	1.98	0.05	0.00	A	103.72	-0.39	-0.03	A	19.72	0.35	0.03	A	2.98	-0.12	-0.01	A	18.90	-0.51	-0.04	A	0.63	-0.27	-0.02	A	16.28	0.50	0.04	A
14	96.99	-0.43	-0.03	A	0.65	-0.03	0.00	A	1.71	0.11	0.01	A	45.68	-0.50	-0.04	A	6.77	-0.37	-0.02	A	0.61	-0.31	-0.02	A	0.09	0.04	0.00	A
15	5.09	0.09	0.00	A	13.69	-0.16	-0.01	A	0.30	0.05	0.00	A	5.55	-0.17	-0.01	A	0.08	0.04	0.00	A	0.31	-0.21	-0.01	A	0.46	-0.09	-0.01	A
16	450.48	0.82	0.06	A	70.23	-0.33	-0.02	A	50.91	-0.58	-0.05	A	0.38	-0.04	0.00	A	34.51	0.75	0.05	A	0.44	0.25	0.02	A	0.49	-0.09	-0.01	A
17	37.16	-0.23	-0.02	A	0.36	-0.02	0.00	A	6.25	0.19	0.02	A	2.18	0.10	0.01	A	61.62	1.01	0.07	B>	3.05	0.60	0.05	A	0.31	0.07	0.01	A
18	25.95	0.25	0.01	A	5.28	0.11	0.01	A	0.70	0.08	0.00	A	1.24	-0.09	-0.01	A	2.44	0.29	0.01	A	4.22	1.08	0.04	A	0.58	0.13	0.01	A
19	37.21	0.26	0.01	A	181.47	0.58	0.04	A	2.65	-0.14	-0.01	A	11.92	0.27	0.02	A	9.43	0.44	0.02	A	0.45	0.27	0.02	A	2.30	-0.21	-0.01	A
20	0.07	-0.01	0.00	A	74.60	0.33	0.03	A	10.60	-0.26	-0.02	A	4.75	0.16	0.01	A	20.88	0.57	0.04	A	2.42	0.56	0.05	A	0.29	-0.07	-0.01	A
21	16.17	0.14	0.01	A	15.14	0.14	0.02	A	6.45	0.19	0.02	A	47.42	0.47	0.04	A	5.93	0.25	0.02	A	0.11	-0.11	-0.01	A	0.03	0.02	0.00	A
22	112.65	-0.43	-0.03	A	281.28	-0.67	-0.05	A	0.22	0.04	0.00	A	0.61	-0.06	0.00	A	10.46	0.45	0.02	A	1.55	0.47	0.03	A	3.54	0.26	0.02	A
23	1.09	-0.04	0.00	A	147.33	-0.48	-0.04	A	2.84	-0.13	-0.01	A	81.84	-0.65	-0.05	A	116.96	-1.28	-0.09	B<	3.36	-0.65	-0.05	A	1.43	0.15	0.01	A
24	0.00	0.00	0.00	A	61.34	-0.32	-0.02	A	8.11	-0.23	-0.02	A	36.35	-0.43	-0.04	A	0.07	-0.03	0.00	A	0.13	0.14	0.01	A	1.50	-0.16	-0.01	A
25	289.06	0.81	0.04	A	48.33	0.33	0.02	A	4.31	0.20	0.01	A	53.48	0.62	0.04	A	31.61	1.10	0.03	B>	3.57	0.93	0.04	A	2.44	0.25	0.01	A
26	150.54	0.57	0.03	A	14.59	-0.18	-0.01	A	0.00	0.00	0.00	A	0.11	0.03	0.00	A	0.64	-0.13	0.00	A	0.19	0.18	0.01	A	12.18	0.56	0.03	A
27	69.76	0.32	0.03	A	7.18	0.10	0.01	A	2.08	0.12	0.01	A	0.00	0.00	0.00	A	32.92	0.77	0.05	A	0.07	-0.10	-0.01	A	0.91	0.12	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.20
Spring 2013 AIMS Differential Item Functioning
Writing CRT Grade 6

	Reference: Male N= 42134 Focal: Female N= 40502				Reference: Hispanic N= 46757 Focal: Non Hispanic N= 35962				Reference: White N= 66616 Focal: Africa American N= 4728				Reference: White N= 66616 Focal: Native American N= 5827				Reference: White N= 66616 Focal: Asian N= 2522				Reference: White N= 66616 Focal: Hawaii N= 292				Reference: White N= 66616 Focal: Multiple Indicator N= 19			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	391.75	0.90	0.05	A	0.71	-0.04	0.00	A	23.10	-0.42	-0.03	A	53.57	0.59	0.04	A	30.16	0.95	0.03	A	0.50	0.28	0.01	A	0.06	-0.04	0.00	A
2	21.90	0.37	0.01	A	0.61	-0.06	0.00	A	0.77	0.13	0.00	A	11.17	0.44	0.01	A	2.15	-0.39	0.00	A	0.29	-0.35	-0.01	A	4.73	0.61	0.01	A
3	20.81	0.22	0.01	A	14.14	0.18	0.01	A	9.47	-0.29	-0.02	A	0.30	0.05	0.00	A	10.65	0.56	0.02	A	0.31	-0.22	-0.01	A	1.45	-0.19	-0.01	A
4	346.13	0.87	0.04	A	26.22	-0.23	-0.01	A	57.16	-0.67	-0.04	A	32.55	0.47	0.03	A	17.31	0.74	0.03	A	2.15	0.58	0.03	A	6.81	0.41	0.02	A
5	75.40	0.34	0.03	A	128.95	-0.44	-0.04	A	36.95	0.49	0.04	A	30.91	0.40	0.04	A	0.00	0.01	0.00	A	0.48	-0.22	-0.02	A	6.05	0.31	0.02	A
6	182.78	-0.55	-0.04	A	5.02	0.09	0.01	A	8.20	-0.23	-0.02	A	22.86	-0.35	-0.03	A	0.06	0.03	0.00	A	4.71	0.77	0.05	A	2.11	-0.19	-0.01	A
7	57.80	-0.26	-0.02	A	61.54	0.27	0.03	A	27.25	0.38	0.04	A	4.31	0.14	0.01	A	0.00	0.00	0.00	A	1.88	0.38	0.04	A	0.00	0.00	0.00	A
8	24.64	0.18	0.01	A	33.13	0.21	0.02	A	0.00	0.00	0.00	A	7.12	0.19	0.02	A	51.23	-0.75	-0.06	A	0.45	-0.20	-0.02	A	0.18	-0.05	0.00	A
9	173.25	-0.49	-0.04	A	373.41	-0.72	-0.06	A	4.12	0.16	0.01	A	85.77	-0.68	-0.06	A	0.04	-0.02	0.00	A	0.11	-0.10	-0.01	A	4.90	0.27	0.02	A
10	10.67	0.16	0.01	A	16.98	-0.19	-0.01	A	0.54	-0.07	0.00	A	2.65	0.13	0.01	A	10.91	0.57	0.02	A	3.67	0.89	0.04	A	11.44	0.56	0.03	A
11	292.30	-0.66	-0.05	A	1.49	-0.05	0.00	A	2.36	-0.12	-0.01	A	22.70	-0.33	-0.03	A	80.64	1.24	0.07	B>	0.74	0.28	0.02	A	0.67	0.10	0.01	A
12	1190.24	1.25	0.11	B>	2.24	-0.05	0.00	A	2.35	0.12	0.01	A	12.96	0.25	0.02	A	18.65	0.49	0.04	A	0.65	0.24	0.02	A	1.65	0.15	0.01	A
13	305.82	-0.63	-0.06	A	19.07	-0.16	-0.01	A	0.73	0.06	0.01	A	18.29	-0.29	-0.03	A	20.22	-0.47	-0.04	A	0.01	-0.03	0.00	A	0.05	-0.03	0.00	A
14	10.41	0.13	0.01	A	0.99	0.04	0.00	A	0.36	-0.05	0.00	A	1.29	0.08	0.01	A	21.46	0.62	0.04	A	0.97	-0.31	-0.02	A	1.26	0.15	0.01	A
15	67.61	0.36	0.02	A	6.74	-0.11	-0.01	A	0.02	-0.01	0.00	A	2.95	-0.13	-0.01	A	19.05	0.68	0.03	A	0.07	-0.10	-0.01	A	0.03	0.02	0.00	A
16	1.43	-0.04	0.00	A	0.01	0.00	0.00	A	5.55	-0.19	-0.02	A	3.10	-0.12	-0.01	A	3.00	0.20	0.02	A	0.25	-0.16	-0.01	A	3.68	-0.23	-0.02	A
17	117.77	-0.46	-0.03	A	68.31	-0.35	-0.02	A	9.53	-0.26	-0.02	A	6.53	-0.19	-0.01	A	1.08	0.15	0.01	A	0.53	-0.26	-0.02	A	0.25	-0.07	0.00	A
18	51.53	0.28	0.02	A	28.63	-0.21	-0.01	A	0.06	-0.02	0.00	A	0.56	-0.05	0.00	A	1.02	-0.12	-0.01	A	1.69	-0.41	-0.03	A	0.10	0.04	0.00	A
19	51.84	0.38	0.01	A	0.57	0.04	0.00	A	1.09	-0.11	-0.01	A	8.91	-0.25	-0.02	A	1.70	-0.24	-0.01	A	0.50	0.34	0.01	A	0.38	-0.11	0.00	A
20	9.27	-0.12	-0.01	A	133.81	-0.47	-0.03	A	0.68	-0.07	0.00	A	5.35	-0.19	-0.01	A	29.42	0.57	0.05	A	1.98	-0.46	-0.03	A	2.73	-0.21	-0.02	A
21	87.49	-0.34	-0.03	A	4.73	-0.08	-0.01	A	0.03	0.01	0.00	A	11.53	-0.24	-0.02	A	0.60	0.08	0.01	A	0.02	-0.04	0.00	A	0.40	-0.07	-0.01	A
22	81.63	0.37	0.02	A	49.74	0.29	0.02	A	5.40	-0.19	-0.01	A	0.77	0.06	0.01	A	1.22	-0.15	-0.01	A	0.06	0.09	0.01	A	0.70	-0.11	-0.01	A
23	0.28	0.02	0.00	A	239.37	-0.63	-0.05	A	0.03	-0.01	0.00	A	80.01	-0.66	-0.05	A	0.02	-0.02	0.00	A	5.48	-0.76	-0.06	A	2.86	0.22	0.02	A
24	18.99	0.15	0.02	A	18.91	0.16	0.02	A	0.19	-0.03	0.00	A	0.13	-0.02	0.00	A	58.15	-0.77	-0.07	A	5.82	-0.70	-0.07	A	3.36	-0.21	-0.02	A
25	3.36	0.07	0.01	A	2.08	-0.06	-0.01	A	0.74	-0.07	-0.01	A	44.14	-0.48	-0.04	A	24.31	-0.58	-0.04	A	2.37	-0.49	-0.04	A	1.64	0.17	0.01	A
26	194.09	0.60	0.03	A	54.76	0.32	0.02	A	4.43	-0.18	-0.01	A	4.95	0.17	0.01	A	20.22	0.69	0.03	A	0.10	0.12	0.01	A	0.86	0.13	0.01	A
27	491.90	1.07	0.05	B>	49.07	0.33	0.02	A	64.08	-0.75	-0.05	A	14.71	0.32	0.02	A	17.47	0.75	0.02	A	0.41	-0.26	-0.01	A	0.22	0.08	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.21
Spring 2013 AIMS Differential Item Functioning

Writing CRT Grade 7

	Reference: Male N= 41945 Focal: Female N= 40639				Reference: Hispanic N= 47269 Focal: Non Hispanic N= 35412				Reference: White N= 66354 Focal: Africa American N= 4921				Reference: White N= 66354 Focal: Native American N= 5974				Reference: White N= 66354 Focal: Asian N= 2401				Reference: White N= 66354 Focal: Hawaii N= 257				Reference: White N= 66354 Focal: Multiple Indicator N= 19			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	227.69	0.56	0.05	A	1.20	0.04	0.00	A	0.07	0.02	0.00	A	11.46	-0.23	-0.02	A	5.70	0.30	0.02	A	1.56	-0.43	-0.03	A	3.03	0.21	0.02	A
2	0.31	-0.02	0.00	A	3.86	-0.09	0.00	A	14.01	-0.35	-0.02	A	0.09	-0.03	0.00	A	99.94	1.09	0.09	B>	0.00	0.00	0.00	A	0.13	0.05	0.00	A
3	1.74	-0.05	0.00	A	13.88	-0.13	-0.01	A	3.62	0.14	0.01	A	0.01	0.01	0.00	A	0.86	-0.09	-0.01	A	0.79	0.27	0.03	A	0.52	0.08	0.01	A
4	115.18	-0.41	-0.03	A	222.96	-0.57	-0.05	A	0.05	-0.02	0.00	A	0.00	0.00	0.00	A	12.75	-0.43	-0.03	A	1.07	0.38	0.03	A	2.11	0.18	0.01	A
5	18.64	-0.20	-0.01	A	29.22	-0.24	-0.01	A	8.85	-0.26	-0.02	A	13.05	-0.27	-0.02	A	2.45	-0.25	-0.01	A	2.64	-0.66	-0.04	A	0.21	0.07	0.00	A
6	8.62	0.12	0.01	A	0.02	0.01	0.00	A	0.03	0.01	0.00	A	15.14	0.28	0.02	A	4.62	-0.28	-0.02	A	0.02	0.05	0.00	A	1.19	0.15	0.01	A
7	55.45	0.34	0.02	A	0.82	-0.04	0.00	A	19.08	-0.38	-0.03	A	16.79	0.33	0.02	A	16.57	0.70	0.03	A	0.05	0.09	0.00	A	0.59	0.12	0.01	A
8	264.59	0.80	0.03	A	52.73	0.35	0.02	A	1.39	0.11	0.01	A	4.36	0.18	0.01	A	0.63	-0.14	0.00	A	0.24	-0.20	-0.01	A	0.00	-0.01	0.00	A
9	86.58	0.45	0.02	A	12.40	-0.17	-0.01	A	0.72	-0.08	0.00	A	12.68	-0.29	-0.02	A	4.66	-0.37	-0.01	A	0.25	-0.23	-0.01	A	1.10	-0.17	-0.01	A
10	279.36	0.71	0.04	A	3.56	0.08	0.01	A	0.06	0.02	0.00	A	6.05	-0.18	-0.01	A	2.47	-0.22	-0.01	A	0.00	0.02	0.00	A	0.72	-0.12	-0.01	A
11	28.98	-0.26	-0.01	A	0.96	-0.05	0.00	A	6.11	0.25	0.01	A	36.62	-0.49	-0.03	A	3.49	-0.31	-0.01	A	2.09	-0.57	-0.03	A	0.01	-0.01	0.00	A
12	0.99	0.05	0.00	A	6.67	0.13	0.01	A	6.80	-0.24	-0.01	A	4.78	-0.18	-0.01	A	0.47	-0.12	0.00	A	0.25	0.21	0.01	A	0.13	0.06	0.00	A
13	10.41	-0.12	-0.01	A	86.15	-0.35	-0.03	A	6.12	-0.19	-0.02	A	23.35	-0.33	-0.03	A	0.49	0.09	0.01	A	0.43	-0.23	-0.02	A	0.03	-0.02	0.00	A
14	71.29	-0.34	-0.02	A	89.62	-0.38	-0.03	A	0.30	-0.05	0.00	A	39.68	-0.46	-0.04	A	7.45	0.37	0.02	A	2.67	-0.57	-0.04	A	0.04	-0.03	0.00	A
15	28.54	-0.19	-0.02	A	20.81	0.17	0.01	A	0.26	-0.04	0.00	A	23.18	0.34	0.03	A	26.30	0.56	0.05	A	1.06	0.33	0.03	A	1.48	0.15	0.01	A
16	1.70	-0.06	0.00	A	21.05	-0.19	-0.01	A	0.23	-0.04	0.00	A	9.16	0.23	0.02	A	15.23	-0.55	-0.03	A	0.11	-0.13	-0.01	A	1.12	-0.15	-0.01	A
17	345.60	1.03	0.03	B>	23.79	0.26	0.01	A	23.87	-0.50	-0.02	A	1.90	0.12	0.01	A	0.02	0.03	0.00	A	0.15	-0.19	-0.01	A	4.11	-0.37	-0.01	A
18	335.23	-0.70	-0.05	A	50.91	-0.27	-0.02	A	3.39	-0.14	-0.01	A	35.00	-0.42	-0.04	A	2.16	-0.18	-0.01	A	0.07	-0.08	-0.01	A	4.18	-0.25	-0.02	A
19	57.09	0.29	0.02	A	10.85	-0.13	-0.01	A	0.34	0.05	0.00	A	3.75	-0.14	-0.01	A	36.05	0.83	0.05	A	0.12	-0.12	-0.01	A	0.57	-0.10	-0.01	A
20	57.20	0.33	0.02	A	49.02	-0.30	-0.02	A	0.32	0.05	0.00	A	15.72	-0.30	-0.02	A	5.27	-0.34	-0.02	A	0.12	0.14	0.01	A	6.40	0.37	0.02	A
21	7.12	0.11	0.01	A	72.25	-0.34	-0.03	A	6.47	-0.20	-0.02	A	26.52	-0.37	-0.03	A	5.50	0.33	0.02	A	1.68	0.47	0.03	A	1.52	0.16	0.01	A
22	351.73	0.70	0.06	A	1.11	-0.04	0.00	A	3.27	0.14	0.01	A	19.34	-0.31	-0.03	A	50.39	0.90	0.06	A	5.39	0.82	0.06	A	2.23	0.18	0.02	A
23	64.57	0.35	0.02	A	4.55	0.09	0.01	A	1.91	-0.12	-0.01	A	4.36	0.16	0.01	A	3.77	0.31	0.01	A	0.57	-0.30	-0.02	A	2.88	-0.24	-0.01	A
24	242.08	-0.55	-0.05	A	61.48	0.28	0.03	A	1.15	-0.08	-0.01	A	4.48	0.15	0.01	A	0.07	-0.03	0.00	A	3.65	-0.62	-0.06	A	3.96	-0.23	-0.02	A
25	84.70	0.32	0.03	A	20.42	0.16	0.02	A	11.53	-0.25	-0.02	A	26.80	0.35	0.03	A	33.03	0.62	0.06	A	0.08	-0.09	-0.01	A	5.29	-0.27	-0.03	A
26	221.73	0.66	0.04	A	17.06	0.18	0.01	A	0.73	-0.07	-0.01	A	3.00	0.13	0.01	A	1.33	-0.18	-0.01	A	2.02	-0.54	-0.03	A	0.98	0.15	0.01	A
27	98.02	0.48	0.02	A	8.27	0.14	0.01	A	19.23	-0.40	-0.02	A	2.02	-0.11	-0.01	A	18.51	0.85	0.02	A	0.57	-0.33	-0.02	A	0.05	0.04	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.22
Spring 2013 AIMS Differential Item Functioning

Writing CRT High School

	Reference: Male N= 38690 Focal: Female N= 37836				Reference: Hispanic N= 44648 Focal: Non Hispanic N= 31941				Reference: White N= 61866 Focal: Africa American N= 4416				Reference: White N= 61866 Focal: Native American N= 4441				Reference: White N= 61866 Focal: Asian N= 2310				Reference: White N= 61866 Focal: Hawaii N= 291				Reference: White N= 61866 Focal: Multiple Indicator N= 20			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	59.71	-0.32	-0.02	A	2.29	0.06	0.01	A	2.53	0.14	0.01	A	23.85	-0.40	-0.04	A	0.42	0.09	0.01	A	0.67	0.29	0.02	A	1.04	0.14	0.01	A
2	4.68	0.08	0.01	A	223.12	0.56	0.05	A	0.46	-0.05	-0.01	A	0.08	-0.02	0.00	A	7.17	-0.30	-0.03	A	1.52	0.37	0.03	A	0.30	-0.06	-0.01	A
3	70.53	0.36	0.02	A	30.26	0.24	0.02	A	1.15	0.10	0.01	A	31.36	-0.46	-0.04	A	13.10	0.52	0.03	A	0.03	0.06	0.00	A	0.90	-0.13	-0.01	A
4	83.48	-0.38	-0.03	A	254.33	-0.66	-0.05	A	34.70	-0.49	-0.04	A	1.67	-0.11	-0.01	A	11.81	-0.45	-0.03	A	0.26	-0.17	-0.01	A	0.13	0.05	0.00	A
5	154.35	0.66	0.03	A	0.28	0.03	0.00	A	13.69	-0.38	-0.02	A	3.26	-0.18	-0.01	A	5.40	-0.39	-0.01	A	0.59	0.35	0.01	A	0.59	0.13	0.01	A
6	211.80	-0.59	-0.05	A	216.64	-0.63	-0.04	A	2.60	-0.15	-0.01	A	9.94	-0.31	-0.02	A	2.18	0.17	0.01	A	0.09	-0.09	-0.01	A	0.25	-0.06	0.00	A
7	70.30	-0.33	-0.02	A	198.41	-0.56	-0.05	A	17.08	-0.34	-0.03	A	4.49	-0.17	-0.02	A	14.05	0.48	0.03	A	0.05	0.08	0.01	A	0.80	0.11	0.01	A
8	68.08	0.31	0.03	A	6.47	-0.10	-0.01	A	8.01	0.22	0.02	A	34.86	0.47	0.04	A	139.18	1.43	0.11	B>	1.92	0.42	0.04	A	2.35	0.18	0.02	A
9	29.82	-0.28	-0.01	A	0.49	-0.04	0.00	A	38.45	-0.60	-0.04	A	49.65	-0.64	-0.04	A	36.98	-0.94	-0.04	A	7.24	-1.00	-0.05	A	0.00	-0.01	0.00	A
10	0.29	0.02	0.00	A	0.00	0.00	0.00	A	0.89	-0.08	-0.01	A	8.35	-0.23	-0.02	A	4.55	0.26	0.02	A	1.52	-0.37	-0.03	A	0.05	-0.03	0.00	A
11	0.00	0.00	0.00	A	10.10	0.12	0.01	A	9.90	0.25	0.02	A	3.77	-0.16	-0.01	A	41.09	0.71	0.06	A	0.28	-0.16	-0.01	A	0.13	-0.04	0.00	A
12	1.46	0.05	0.00	A	54.21	-0.32	-0.03	A	15.64	0.36	0.03	A	1.60	-0.11	-0.01	A	0.09	0.04	0.00	A	3.55	0.70	0.04	A	2.76	0.23	0.01	A
13	4.86	0.13	0.00	A	124.97	-0.66	-0.03	A	2.33	0.18	0.01	A	4.79	0.23	0.01	A	28.73	-0.96	-0.03	A	0.15	0.19	0.01	A	3.52	0.37	0.01	A
14	52.98	-0.28	-0.02	A	311.04	-0.68	-0.06	A	6.66	-0.20	-0.02	A	0.62	0.06	0.01	A	2.53	-0.19	-0.01	A	0.41	0.20	0.02	A	0.13	0.04	0.00	A
15	104.64	0.40	0.03	A	125.41	0.45	0.04	A	0.01	-0.01	0.00	A	2.41	0.12	0.01	A	16.89	0.56	0.04	A	0.59	0.25	0.02	A	1.63	-0.16	-0.01	A
16	154.56	0.49	0.04	A	0.36	-0.02	0.00	A	5.17	0.19	0.02	A	12.09	-0.32	-0.02	A	115.67	1.25	0.10	B>	0.06	0.08	0.01	A	1.41	0.15	0.01	A
17	486.38	1.02	0.06	B>	5.66	-0.11	-0.01	A	22.62	-0.44	-0.03	A	1.75	0.12	0.01	A	23.30	0.79	0.03	A	1.06	-0.36	-0.02	A	0.37	-0.09	0.00	A
18	22.37	0.19	0.01	A	0.68	0.03	0.00	A	9.25	-0.25	-0.02	A	4.63	-0.17	-0.02	A	4.03	-0.25	-0.02	A	1.59	-0.41	-0.03	A	1.48	-0.15	-0.01	A
19	282.27	0.74	0.05	A	211.12	0.66	0.05	A	16.46	-0.36	-0.03	A	3.29	0.16	0.01	A	181.21	-1.55	-0.10	C<	4.30	-0.69	-0.05	A	0.33	-0.08	-0.01	A
20	32.89	0.28	0.01	A	0.14	0.02	0.00	A	8.52	0.30	0.02	A	24.71	-0.44	-0.03	A	29.00	-0.77	-0.04	A	3.51	-0.69	-0.04	A	6.78	-0.38	-0.02	A
21	411.04	1.25	0.04	B>	22.56	0.28	0.01	A	7.90	-0.32	-0.01	A	6.80	-0.27	-0.01	A	18.27	-0.83	-0.02	A	1.74	-0.59	-0.02	A	1.13	0.22	0.01	A
22	319.41	-0.68	-0.06	A	198.56	-0.55	-0.05	A	3.89	0.16	0.01	A	70.35	-0.72	-0.06	A	2.11	-0.16	-0.01	A	0.46	0.20	0.02	A	0.02	-0.02	0.00	A
23	127.14	0.49	0.03	A	0.88	0.04	0.01	A	36.78	-0.52	-0.04	A	5.31	0.19	0.02	A	4.28	0.30	0.02	A	0.04	0.07	0.00	A	0.71	0.12	0.01	A
24	357.62	0.77	0.06	A	30.63	0.23	0.02	A	6.96	-0.22	-0.02	A	5.38	0.19	0.02	A	2.19	0.19	0.01	A	0.02	-0.05	0.00	A	0.67	-0.11	-0.01	A
25	704.92	-1.01	-0.09	B<	35.32	-0.23	-0.02	A	3.64	-0.15	-0.01	A	1.41	-0.10	-0.01	A	13.56	-0.40	-0.04	A	0.07	0.08	0.01	A	1.06	0.12	0.01	A
26	326.10	0.71	0.06	A	7.88	0.11	0.01	A	68.56	0.70	0.06	A	7.13	-0.22	-0.02	A	1.01	0.13	0.01	A	1.09	0.34	0.03	A	3.48	0.23	0.02	A
27	46.95	-0.25	-0.02	A	40.97	-0.24	-0.02	A	12.34	-0.28	-0.03	A	2.88	-0.13	-0.01	A	0.17	0.05	0.00	A	0.18	-0.12	-0.01	A	0.79	0.10	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.23
DIF Statistics for Items Exhibiting Strong DIF

Content	Grade	Item #	Item Type	In favor of / Against	Group	MH Delta	MH SMD
Mathematics	6	11	MC	Against	Female	1422.90	-1.56	-0.11
Mathematics	HS	33	MC	Against	Female	1975.46	-1.75	-0.15
Reading	5	46	MC	In favor of	Hawaii	8.24	1.60	0.06
Reading	8	1	MC	Against	Hawaii	30.52	-1.61	-0.16
Science	8	6	MC	Against	Female	875.55	-1.80	-0.06
Science	8	50	MC	In favor of	Female	1210.94	1.68	0.08
Writing	5	3	MC	Against	Asian	254.26	-1.72	-0.13
Writing	HS	19	MC	Against	Asian	181.21	-1.55	-0.10

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9.2.2 Correlations among AIMS Assessments

Correlations were examined between scale scores on Spring 2013 AIMS tests by grade level. Note that data used for the calculation of correlation included records with valid scale scores in all content areas and tests in each grade level. Sample sizes are therefore slightly lower than presented in other parts of this technical report.

In addition, because students in high school had different testing windows for the reading, writing, mathematics, and science tests, data merging was necessary to match reading and writing records with mathematics and science records. Once valid records were selected for each of the high school content areas and records with duplicate student identification numbers were removed, data was merged based on student identification number. Table 9.2.2.1 presents the resulting reduction in N size for each grade level. Scale score means and distributions prior to and after the merge were compared to ensure that the match did not substantially alter the data. Only slight changes in mean and standard deviation occurred after the merge, and density plots illustrated that the shape of the distribution prior to and after merging matched reasonably well. Therefore, correlations presented for the high school reading, writing, and mathematics and science are based on the matched data, with a total N size of 50,037.

All correlations are presented in Tables 9.2.2.2 through 9.2.2.8. The patterns of correlation presented in the tables are consistent with expectations given the constructs measured. Correlations were consistently high between tests designed to measure the same or very similar constructs (i.e., CRT math and NRT math or CRT reading and NRT reading). Correlations were much lower between tests designed to measure dissimilar constructs such as math and writing.

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Table 9.2.2.1
Spring 2013 Matched N Counts for Correlations Calculations

Grade	N Count
3	83165
4	82892
5	81548
6	81652
7	81506
8	81311
HG	50037

Table 9.2.2.2
Spring 2013 AIMS Correlations among Assessments
Grade 3

Test	1	2	3	4	5
1.RD CRT	1.00	0.82	0.90	0.80	0.78
2.MA CRT	0.82	1.00	0.76	0.74	0.89
3.RD NRT	0.90	0.76	1.00	0.75	0.73
4.LA NRT	0.80	0.74	0.75	1.00	0.71
5.MA NRT	0.78	0.89	0.73	0.71	1.00

Note: N size will be less than presented in other parts of this Technical Report due to missing or invalid test records in some, but not all, content areas. The N count for this table is 82,888.

Table 9.2.2.3
Spring 2013 AIMS Correlations among Assessments
Grade 4

Test	1	2	3	4	5	6
1.RD CRT	1.00	0.78	0.89	0.78	0.76	0.83
2.MA CRT	0.78	1.00	0.73	0.72	0.91	0.76
3.RD NRT	0.89	0.73	1.00	0.72	0.71	0.77
4.LA NRT	0.78	0.72	0.72	1.00	0.70	0.71
5.MA NRT	0.76	0.91	0.71	0.70	1.00	0.74
6.SC	0.83	0.76	0.77	0.71	0.74	1.00

Note: N size will be less than presented in other parts of this Technical Report due to missing or invalid test records in some, but not all, content areas. The N count for this table is 81,765.

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Table 9.2.2.4
Spring 2013 AIMS Correlations among Assessments
Grade 5

Test	1	2	3	4	5	6
1.RD CRT	1.00	0.73	0.77	0.89	0.78	0.71
2.WR CRT	0.73	1.00	0.69	0.67	0.74	0.64
3.MA CRT	0.77	0.69	1.00	0.72	0.73	0.91
4.RD NRT	0.89	0.67	0.72	1.00	0.73	0.66
5.LA NRT	0.78	0.74	0.73	0.73	1.00	0.68
6.MA NRT	0.71	0.64	0.91	0.66	0.68	1.00

Note: N size will be less than presented in other parts of this Technical Report due to missing or invalid test records in some, but not all, content areas. The N count for this table is 81,199.

Table 9.2.2.5
Spring 2013 AIMS Correlations among Assessments
Grade 6

Test	1	2	3	4	5	6
1.RD CRT	1.00	0.73	0.77	0.87	0.77	0.73
2.WR CRT	0.73	1.00	0.68	0.65	0.72	0.64
3.MA CRT	0.77	0.68	1.00	0.68	0.72	0.91
4.RD NRT	0.87	0.65	0.68	1.00	0.69	0.65
5.LA NRT	0.77	0.72	0.72	0.69	1.00	0.68
6.MA NRT	0.73	0.64	0.91	0.65	0.68	1.00

Note: N size will be less than presented in other parts of this Technical Report due to missing or invalid test records in some, but not all, content areas. The N count for this table is 81,323.

Table 9.2.2.6
Spring 2013 AIMS Correlations among Assessments
Grade 7

Test	1	2	3	4	5	6
1.RD CRT	1.00	0.74	0.79	0.88	0.77	0.75
2.WR CRT	0.74	1.00	0.69	0.68	0.74	0.66
3.MA CRT	0.79	0.69	1.00	0.73	0.73	0.91
4.RD NRT	0.88	0.68	0.73	1.00	0.71	0.69
5.LA NRT	0.77	0.74	0.73	0.71	1.00	0.69
6.MA NRT	0.75	0.66	0.91	0.69	0.69	1.00

Note: N size will be less than presented in other parts of this Technical Report due to missing or invalid test records in some, but not all, content areas. The N count for this table is 80,905.

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Table 9.2.2.7
Spring 2013 AIMS Correlations among Assessments
Grade 8

Test	1	2	3	4	5	6
1.RD CRT	1.00	0.78	0.85	0.74	0.74	0.81
2.MA CRT	0.78	1.00	0.7	0.68	0.92	0.79
3.RD NRT	0.85	0.7	1.00	0.68	0.66	0.74
4.LA NRT	0.74	0.68	0.68	1.00	0.65	0.71
5.MA NRT	0.74	0.92	0.66	0.65	1.00	0.75
6.SC	0.81	0.79	0.74	0.71	0.75	1.00

Note: N size will be less than presented in other parts of this Technical Report due to missing or invalid test records in some, but not all, content areas. The N count for this table is 79,837.

Table 9.2.2.8
Spring 2013 AIMS Correlations among Assessments
High School

Test	1	2	3	4
1.RD CRT	1.00	0.74	0.72	0.77
2.WR CRT	0.74	1.00	0.68	0.69
3.MA CRT	0.72	0.68	1.00	0.77
4.SC	0.77	0.69	0.77	1.00

Note: N size will be less than presented in other parts of this Technical Report due to 1) missing or invalid test records in some, but not all, content areas and 2) matching Reading, Writing, Mathematics, and Science records according to student identification number. The N-count for this table is 50,595.

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PART 10: CLASSIFICATION

Part 10 of this technical report provides information regarding classifying students into proficiency categories. The following AERA/APA/NCME standards are covered in this part: 1.5, 1.7, 2.14, 2.15, 4.9, 4.19, 4.20, 4.21, and 6.5.

Scores from the Spring 2013 AIMS assessments are used to classify students into one of four performance categories: *Falls Far Below the Standard*, *Approaches the Standard*, *Meets the Standard*, and *Exceeds the Standard*. This part of the technical report provides information regarding classifying students into these four performance categories. Arizona educators made recommendations for cut scores for each category in the standard setting workshops. Analyses were conducted to examine the consistency and accuracy with which students were assigned to performance categories.

10.1 Standard Setting Technical Documentation

Standard setting for the AIMS CRT Reading tests was conducted in early May 2005, using the bookmark standard setting procedure. All technical documentation regarding the standard setting is available in the bookmark standard setting technical report, available from the ADE at http://www.azed.gov/standards-development-assessment/files/2013/12/az-aims-reading-math-ss-report-2005.pdf.

Standard setting for the AIMS Science tests was conducted in early June, 2008, using the bookmark standard setting procedure. All technical documentation regarding the standard setting is available in the bookmark standard setting technical report, available from the ADE at http://www.azed.gov/standards-development-assessment/files/2011/12/aims2008sciencerevisedstandardsettingtechnicalreport.pdf.

Standard setting for the AIMS Mathematics tests was conducted in May and June, 2010, using the bookmark standard setting procedure. All technical documentation regarding the standard setting is available in the bookmark standard setting technical report, available on the ADE website at http://www.azed.gov/standards-development-assessment/files/2011/12/azaimsmathssreport2010.pdf.

Standard setting for the AIMS Writing tests was conducted in May and June, 2011, using a modified bookmark standard setting procedure. All technical documentation regarding the standard setting is available in the bookmark standard setting technical report, available on the ADE website at http://www.azed.gov/standards-development-assessment/files/2011/12/az-aims-writing-ss-report-final.pdf.

The scale score ranges for each of the four performance level categories for the AIMS CRT tests are presented below in Table 10.1.1.

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Table 10.1.1
Spring 2013 AIMS
Final Scale Score Ranges by Performance Level

Test	FFBS	AS	MS	ES
Mathematics				
3	169-299	303-344	347-405	410-540
4	201-329	332-365	368-415	420-560
5	250-346	349-379	382-434	439-580
6	266-363	366-395	398-444	448-600
7	284-381	383-409	412-456	460-620
8	301-408	411-425	428-472	476-640
HS	315-470	472-485	488-535	538-700
Reading				
3	310-377	382-429	432-512	519-640
4	220-399	403-449	452-532	539-660
5	354-422	426-466	470-555	563-675
6	359-432	436-477	481-566	574-690
7	391-439	444-485	489-584	591-720
8	354-449	454-496	500-593	603-800
HS	500-623	628-673	677-766	773-900
Writing				
5	300-437	441-491	495-592	601-700
6	343-446	449-492	496-573	581-700
7	323-447	450-491	495-590	598-700
HS	301-431	433-479	480-586	590-700
Science				
4	200-459	464-498	502-544	549-800
8	200-471	475-498	502-530	534-800
HS	240-471	475-497	501-535	540-800

10.2 Classification Consistency and Accuracy

This section describes the analyses conducted to estimate classification consistency and accuracy for the 2013 AIMS 3-8 and high school test administrations. Classification consistency can be defined as the agreement between examinees' performance category classification from two independent administrations of the same test (or two parallel forms of the test). Classification accuracy can be defined as the agreement between the actual classifications using observed cut scores and true classifications based on known true cut scores (Livingston & Lewis, 1995).

In conjunction with internal consistency, classification consistency is an important type of reliability and is particularly relevant to high-stakes pass/fail tests such as the AIMS high school tests. As a form of reliability, classification consistency represents how reliably students can be classified into performance categories. Please see Part 9 of this report for more information on the internal consistency of the AIMS assessments.

For tests such as the AIMS high school assessments, classification consistency is most important for students whose ability is near the pass/fail cut score. Students whose ability is far above or far below the value established for passing are unlikely to be misclassified because repeated administration of the test will nearly always result in the same classification. Examinees whose true

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scores are close to the cut score are a more serious concern. These students' true scores will likely lie within the standard error of measurement of the cut score. For this reason, the measurement error at the cut scores should be considered when evaluating the classification consistency of a test. For convenience, the cut scores and their associated standard errors are presented in Table 10.2.3.1. Furthermore, the number of students near the cut scores should also be considered when evaluating classification consistency; these numbers show the number of students who are most likely to be misclassified. The number of students near the cut scores for each grade and content area can be found in the state scale score frequency distributions presented in Part 8 of this report.

Classification consistency and accuracy were estimated using the IRT procedure suggested by Lee, Hanson, and Brennan (2002) and Wang, Kolen, and Harris (2000) for the AIMS assessments in reading, mathematics, and science. For the AIMS assessment for writing, procedures described by Livingston and Lewis (1995) were used to estimate classification consistency and accuracy. The following description of classification consistency and accuracy is based on the paper by Lee et al. (2002).

10.2.1 Classification Consistency

Assume that θ is a single latent trait measured by a test and denote Φ as a latent random variable. When a test X consists of K items and its maximum number-correct score is N, the marginal probability of the number-correct (NC) score *x* is:

$$P(X = x) = \int P(X = x \mid \Phi = \theta) g(\theta) d\theta, \qquad x = 0,1,..., N.,$$

where $g(\theta)$ is the density of θ.

In this report, the marginal distribution $P(X = x)$ is denoted as $f(x)$, and the conditional error distribution $P(X = x \mid \Phi = \theta)$ is denoted as $f(x \mid \theta)$. It is assumed that examinees are classified into one of H mutually exclusive categories on the basis of predetermined H-1 observed score cutoffs, $C_1, C_2, \ldots, C_{H-1}$. Let L_h represent the hth category into which examinees with $C_{h-1} \le X \le C_h$ are classified. $C_0 = 0$ and $C_H =$ the maximum number-correct score. Then, the conditional and marginal probabilities of each category classification are as follows:

$$P(X \in L_h \mid \theta) = \sum_{x=C_{h-1}}^{C_{h-1}} f(x \mid \theta), \quad h = 1, 2, \ldots, \text{H}.$$

$$P(X \in L_h) = \int \sum_{x=C_{h-1}}^{C_{h-1}} f(x \mid \theta) g(\theta) d\theta, \quad h = 1, 2, \ldots, \text{H}.$$

Because obtaining test scores from two independent administrations of AIMS was not feasible due to security, logistic, and cost constraints, a psychometric model was used to obtain the estimated classification consistency indices using test scores from a single administration. Based on the psychometric model, a symmetric H*H contingency table can be constructed. The elements of H*H contingency table consist of the joint probabilities of the row and column observed category classifications.

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That two administrations are independent implies that if X_1 and X_2 represent the raw score random variables on the two administrations, then, conditioned on θ, X_1 and X_2 are independent and identically distributed. Consequently, the conditional bivariate distribution of X_1 and X_2 is:

$$f(x_1,\ x_2 \mid \theta) = f(x_1 \mid \theta) f(x_2 \mid \theta).$$

The marginal bivariate distribution of X_1 and X_2 can be expressed as follows:

$$f(x_1,\ x_2) = \int f(x_1, x_2 \mid \theta) f(\theta) d\theta.$$

Consistent classification means that both X_1 and X_2 fall in the same category. The conditional probability of falling in the same category on the two administrations is:

$$P(X_1 \in L_h,\ X_2 \in L_h \mid \theta) = \left[\sum_{x_1 = C_{h-1}}^{C_{h-1}} f(x_1 \mid \theta) \right]^2,$$
$$h = 1, 2, \ldots, \mathrm{H}.$$

The agreement index P, conditional on theta, is obtained by:

$$P(\theta) = \sum_{h=1}^{H} P(X_1 \in L_h,\ X_2 \in L_h \mid \theta).$$

The agreement index (classification consistency) can be computed as:

$$P = \int P(\theta) g(\theta) d(\theta).$$

The probability of consistent classification by chance, P_C, is the sum of squared marginal probabilities of each category classification:

$$P_C = \sum_{h=1}^{H} P(X_1 \in L_h) P(X_2 \in L_h) = \sum_{h=1}^{H} \left[P(X_1 \in L_h) \right]^2.$$

Then, the coefficient kappa (Cohen, 1960) is:

$$k = \frac{P - P_C}{1 - P_C}$$

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10.2.2 Classification Accuracy

Let Γ_w denote true category. When an examinee has an observed score, $x \in L_h$ (h =1, 2,…, H), and a latent score , $\theta \in \Gamma_w$(w=1, 2,…, H), an accurate classification is made when $h = w$. The conditional probability of accurate classification is

$$\gamma(\theta) = P(X \in L_w \mid \theta),$$

where w is the category such that $\theta \in \Gamma_w$.

10.2.3 Classification Consistency and Accuracy Results

For convenience, the cut scores and their associated standard errors are presented in Table 10.2.3.1. Table 10.2.3.2 presents results from the classification consistency and classification accuracy analyses. These results are for classifying students into four performance levels. Included in the table for each grade and content area are case counts (N), classification consistency (Agreement), classification inconsistency (Inconsistency), probability of consistent classification by chance (Chance), Cohen's Kappa (Kappa), and classification accuracy (Accuracy). Inconsistency is defined as 1-agreement.

The 2013 AIMS classification consistency and accuracy results are consistent with classification analyses from the previous AIMS administration. It is important to note that the classification results are dependent on the number of cut scores maintained in a testing program. Moreover, the acceptability of the classification results should be evaluated with respect to the associated stakes of the testing program. The results for the AIMS assessments are quite consistent with other testing programs with similar structure and purpose.

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Table 10.2.3.1
Spring 2013 AIMS
Standard Error of Measurement at Cut Scores

Test	AS		MS		ES	
	Cut Score	SEM	Cut Score	SEM	Cut Score	SEM
Mathematics						
3	303	12	347	12	406	14
4	331	11	366	11	416	14
5	348	11	381	12	436	14
6	366	11	398	11	446	13
7	382	11	411	11	460	13
8	409	11	426	11	475	13
HS	471	10	487	10	537	11
Reading						
3	379	14	431	12	516	17
4	402	12	450	11	536	17
5	424	13	468	12	556	17
6	433	13	478	12	571	18
7	443	15	489	13	587	17
8	452	15	499	15	602	24
HS	627	14	674	13	773	18
Writing						
5	439	10	494	10	601	17
6	449	10	493	11	581	16
7	450	9	495	10	595	15
HS	433	10	480	10	587	15
Science						
4	462	15	500	14	547	16
8	473	14	500	14	532	15
HS	475	14	500	14	537	16

Note: FFBS = Falls Far Below the Standard; AS = Approaches the Standard; MS = Meets the Standard; ES = Exceeds the Standard

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Table 10.2.3.2
Spring 2013 AIMS
Classification Consistency and Accuracy

Test	N	Agreement	Inconsistency	Chance	Kappa	Accuracy
Mathematics						
3	83196	0.77	0.23	0.30	0.67	0.84
4	83048	0.75	0.25	0.28	0.65	0.82
5	82223	0.75	0.25	0.29	0.64	0.82
6	82587	0.74	0.26	0.27	0.64	0.81
7	82491	0.75	0.25	0.27	0.66	0.82
8	81432	0.74	0.26	0.27	0.65	0.81
HS	105757	0.76	0.24	0.29	0.66	0.82
Reading						
3	83187	0.79	0.21	0.43	0.64	0.85
4	83045	0.81	0.19	0.46	0.64	0.86
5	82223	0.79	0.21	0.48	0.60	0.85
6	82598	0.80	0.20	0.50	0.61	0.86
7	82502	0.81	0.19	0.51	0.61	0.86
8	81433	0.78	0.22	0.44	0.60	0.84
HS	91745	0.82	0.18	0.56	0.59	0.87
Writing						
5	81573	0.79	0.21	0.43	0.64	0.85
6	81711	0.75	0.25	0.37	0.60	0.82
7	81525	0.78	0.22	0.40	0.64	0.85
HS-A	94448	0.92	0.08	0.80	0.61	0.95
HS-T	2953	0.85	0.15	0.62	0.61	0.89
Science						
4	83028	0.70	0.30	0.26	0.59	0.78
8	81485	0.67	0.33	0.28	0.55	0.76
HS	76744	0.74	0.26	0.30	0.63	0.81

Note: High school results include students in all cohorts. Results for Reading, Mathematics, and Science were computed with the IRT method suggested by Lee, Hanson and Brennan (2002) and Wang, Kolen and Harris (2000). Results for Writing were computed using the Livingston-Lewis procedure (1995), implemented with BB-CLASS (Brennan, 2004).

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PART 11: SCORING OF OPEN-ENDED ITEMS

Arizona's Instrument to Measure Standards (AIMS) assessment requires students to write an essay in response to a specific writing topic or prompt. Students are given two pages to write their response. Writing is administered to students in Grades 5, 6, 7, and High School only. Grades 5, 6 and 7 are administered in the spring. The High School Writing assessment is a graduation requirement and is administered in the spring and fall. The procedure for scoring these writing essays is described in this chapter.

11.1 Scoring Process

Outlined below is the scoring process that the AIMS testing contractor follows. The AIMS Writing essays are scored using the distributed model in which scorers are able to train and score at home. Only the PSC (Performance Scoring Center) supervisory staff which monitors the training and scoring is at a regional site. This procedure is used to score all written essays for the AIMS assessments.

11.1.1 Rangefinding and Rubric Review

No Rangefinding was conducted this year since the operational items selected were already reviewed by committees during the previous year's rangefinding.

11.1.2 Recruiting and Training Scorers

Highly qualified scorers are essential to achieving and maintaining a high degree of reliability in scoring students' responses. Thus, the careful selection of professional scorers to evaluate writing essay response items is critical in scoring the AIMS assessments. Scorers are recruited by our Human Resources department and must have extensive experience scoring this type of writing on previous projects. Scorers must also have performed well based on our internal quality metrics of Inter-rater reliability and validity to have achieved a high enough performance rating on previous multi-trait writing to be recruited for the AIMS assessment. Included in our scorer pool is a core group of veteran scorers with experience in working on other holistic writing projects whose insight, flexibility, and dedication have been demonstrated while working on a range of performance assessments.

Scoring supervisors are chosen from the pool of scorers based on demonstrated expertise in all facets of the scoring process, including strong organizational abilities and training skills. Individuals chosen to perform these assignments possess practical skills, leadership abilities, and sensitivity to interpersonal communication requirements. Supervisors also possess the essential capability of assimilating and helping scorers understand the particular scoring requirements of the AIMS.

Upon being hired, scorers sign a confidentiality agreement in which they pledge to keep all information and student responses confidential. Scorers and scoring supervisors are trained to thoroughly learn the rubric and score responses according to the scoring guidelines developed for the AIMS assessment.

At the beginning of each scoring project, all scoring supervisors and scorers assigned to the project must complete project-specific training and qualification.

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11.1.3 Training

Thorough training is vital to the successful completion of any scoring. PSC content specialists and scoring directors follow a series of prescribed steps to ensure training is consistent and of the highest quality. The PSC staff develops its training materials to facilitate learning through visual, auditory and kinesthetic channels. The training for AIMS is conducted using on-line modules designed to take scorers through the background of the assessment and through the rubric and anchor sets for each item. Scorers are then required to take two sets of practice papers and two sets of qualification papers once they complete the item specific modules. Once the scorer completes the practice and qualification sets for that item and qualifies, the scorer takes a calibration set and then is allowed to score live responses for that item. There is a single holistic writing rubric for scoring all grades for the AIMS. A scorer is only required to train and qualify on a particular item.

Prior to scorer training, the PSC subject leaders conduct scoring supervisor training. A primary goal of this session is to ensure scoring supervisors clearly understand the scoring protocols and the training materials. This ensures all responses are scored in a manner consistent with the scores assigned to the anchor papers and according to the intentions of ADE. Scoring supervisors read and discuss the assessment items along with the rubrics used to score them. Scoring supervisors are then required to complete the online training for the item they are assigned. They must qualify for that item in order to be on the project.

The online project training module includes an introduction to the assessment program whose tests are being scored. It is important for scorers to have an understanding of the history and goals of the assessments and the context within which students' responses are evaluated. This gives them a better understanding of what types of responses can be expected. The scorers receive a description of the scoring criteria applied to the responses. Next, the item specific training module presents the writing prompt to be scored and the scoring rubric itself for that item. These online training modules are listed as follows:

Module 1 – Scoring AIMS Writing (Project Specific)

Module 2 – Scoring Grade ____Writing. (Item Specific)

The primary goal of training is to convey to the scorers the decisions made during training paper selection about what type(s) of responses correspond to each score point and to help scorers internalize the scoring protocol so they may effectively apply those decisions. Scorers are better able to comprehend the scoring guidelines in context, so the rubric is presented in conjunction with the anchor papers. Anchor papers are the primary points of reference for scorers as they internalize the rubric. There are three to four anchor papers for each score point value represented in the rubric. The item specific training modules direct scorers' attention to the score point description from the scoring guide, as well as the illustrative anchor papers, thereby enabling scorers to immediately connect the language of the rubric with actual student performance.

After presentation and discussion of the anchor papers, each scorer is shown two practice sets. Practice papers represent each score point and are used during training to help scorers become familiar with applying the rubric. Some papers clearly represent the score point. Others are selected because they represent borderline responses. Use of these practice sets provides guidance to scorers in defining the line between score points. Training is a continuous process, and scorers are consistently given feedback as they score. Scorers must then pass one of two qualification sets to show a grasp of all the training they have received.

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11.1.4 Quality Control

A variety of reports are produced throughout the scoring process to allow scoring supervisory staff to monitor the progress of the project, the reliability of scores assigned, and individual scorers' work. Those reports include:

- Daily and Cumulative Inter-Rater Reliability Reports by Item and Scorer. These reports provide information about how many times scorers were in exact agreement or assigned adjacent scores. The reliability is computed and is monitored daily and cumulatively for the project.
- Pre-scored Validity responses are channeled through the ePEN scoring system and delivered to scorers randomly. Scoring supervisors can get a sense of each reader's grasp of scoring by monitoring their validity agreement rates.
- Daily and Cumulative Frequency Distributions. These reports show how many times each score point has been assigned to the item being scored by readers. The frequency distributions are produced both on a daily basis and cumulatively for the entire scoring project. This report allows scoring supervisors and scoring directors to see whether scorers have a tendency to score consistently high or low.

The most immediate method of monitoring a scorer's performance is through backreading by scoring supervisors. If a scoring supervisor discovers that a scorer is consistently assigning scores other than those the scoring supervisor would assign, he or she can message that scorer using the backreading function and through the instant messaging system in the ePEN scoring system. The validity papers also have annotations that can be reviewed by that scorer after it is scored, using the original anchor papers and training materials. This immediate check and remedial correction also provide an effective guard against scorer drift.

With the help of the individual scorer reliability and validity reports, the scoring staff can closely monitor each scorer's performance. As a distributed project, scorers are monitored for quality using the scorer exception process. Criteria are entered into the ePEN scoring system for Inter-Rater Reliability, validity and scoring rate. A scorer must meet and maintain the quality metrics established for AIMS in these areas in order to continue scoring the project. If a scorer fails to meet validity, IRR or scoring rate for the first time, the scorer receives a warning and must contact the scoring staff for feedback. If a scorer fails to meet validity a second time, they must then take and pass a 10 paper calibration set in order to continue on the project. Scorers also receive daily calibration sets which they must pass or be targeted for exception. In addition, scorers that have been warned for low IRR or validity are continuously monitored through backreading.

If a scorer fails the targeted calibration for low validity, the scorer is automatically locked out of the system and can no longer score. The scorer receives an e-mail notification that he or she is dismissed from the project. Scorers who have low IRR or a lower or higher than desired scoring rate are closely monitored in backreading and through reports. If in the opinion of the Scoring Director and Content Specialist, these scorers are still performing below acceptable standard after receiving sufficient feedback and given every reasonable opportunity to improve; they will be manually locked out of the system and notified by email that they are dismissed from the project.

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11.1.5 Appeals

The ADE must approve all requests for appeals submitted by district test coordinators. Once PSC receives a request from ADE that a rescore is required for a student, the process outlined below will be followed.

A PSC Scoring Director will use the following procedure to score appeals for an AIMS Writing response:

- Review the scoring rubric, anchor papers, and training materials.
- Read the student's response.
- Score each response based on the scoring rubric and anchor papers.
- Compare rescored response scores to the original scores. For scores that are the same or adjacent, the original score will stand. For scores that are discrepant, the new score will override the original score.
- Determine if the student's response was written in No. 2 pencil.

Pearson will determine the performance level of the rescored response. If the student's rescored performance level (*Falls Far Below*, *Approaches*, *Meets*, or *Exceeds*) is the same as the student's original performance level, Pearson will submit an invoice to the district. No paper reports will be generated.

If the student's rescored performance level is different from the student's original performance level **and** the student's response **was not** in No. 2 pencil, Pearson will submit an invoice to the district. Pearson will provide the district with two copies of the revised Student Report.

If the student's rescored performance level is different from the student's original performance level **and** the student's response **was** in No. 2 pencil, Pearson will provide the district with two copies of the revised Student Report at no charge.

No appeals were received for the Fall 2012 or Spring 2013 administrations.

11.1.6 Security

To ensure security is never compromised, the following safeguards are employed:

- Scoring materials are accessed by scorers on a secure website that is managed by Pearson Scoring Support. Only scorers hired for AIMS are allowed access.
- No scorers are hired who reside in Arizona as per contract requirement.
- Scorers and scoring staff personnel must sign a non-disclosure and confidentiality form in which they agree not to use or divulge any information concerning the tests.
- Any contact with the press is handled through ADE

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APPENDIX A: FALL 2012 AIMS ADMINISTRATION

Overview:

The Fall 2012 AIMS assessments were administered in reading, writing, and mathematics to students in high school who were in Grades 11 and 12 and had not yet obtained a passing score on one or more of the content areas. These assessments were written to the Arizona content standards and were designed to measure student performance with respect to these standards. The Fall 2012 AIMS assessments in reading and mathematics were multiple-choice, criterion-referenced tests. The Fall 2012 AIMS Writing assessment consisted of multiple-choice items and a single extended response essay prompt.

Test Design, Development, and Administration:

The design and development of the Fall 2012 AIMS assessments reflect the same guiding principles that were followed for the Spring 2012 AIMS assessments. Arizona teachers, curriculum specialists, and administrators from across the state were an integral part of the AIMS test development process. More information regarding the committee meetings, the test blueprints, and the test development process is contained in Parts 3 and 4 of this technical report.

The test design and structure of the Fall 2012 AIMS assessment mirrored the structure of the AIMS assessments administered in spring. That is, the AIMS Reading test consisted of 54 multiple-choice items developed by Arizona teachers. Raw scores ranged from 0-54 and scale scores ranged from 500 to 900. Similarly, the AIMS Mathematics test consisted of 85 multiple-choice items developed by Arizona teachers. Raw scores ranged from 0-85 and scale scores ranged from 500 to 900. Finally, the AIMS Writing assessment consisted of one extended response writing prompt and 27 multiple-choice items. The multiple-choice component is weighted 40% and the essay response is weighted 60% in the total score. Responses to the prompt were scored on the holistic six-point rubric (see appendix D). Each essay response received two ratings. Final scores for responses with adjacent ratings were derived by averaging the two ratings. Final scores for responses with discrepant ratings (difference of 2 points) were resolved by a third rater. The raw scores ranged from 0-138, and scale scores were designed to range from 300-700. There are no norm-referenced items included in the high school AIMS assessments.

The test selection process for the Fall 2012 AIMS was designed such that resulting tests matched the Spring 2012 AIMS in overall test difficulty and content coverage. The test selection process is described in Part 4 of this report.

Test administration procedures for the Fall 2012 AIMS are described in Part 5 of this report.

Scaling and Equating:

The Fall 2012 AIMS administration was designed for students who were retaking the assessment because they had not obtained a passing score on one or more of the content areas. The population of students that retake the AIMS assessments varies from administration to administration in terms of its composition and achievement. Moreover, expediency in the reporting of results to the population of students who are retaking the AIMS assessments was

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considered to be a priority. For these reasons, a pre-equating model was adopted for the Fall AIMS administration.

Pre-equating takes advantage of an existing bank of previously calibrated and scaled items such that an equated form and an associated number correct to scale score conversion table can be constructed prior to operational administration. The Fall 2012 assessment was constructed from items that had been previously administered in the Spring 2012 AIMS administration and had been calibrated and linked to the operational scale of measurement using the Rasch measurement model. Using the existing item parameters for the items selected to be on the Fall 2012 AIMS assessment, the number correct to AIMS scale score conversion tables were created. The raw score to scale score conversions, including the standard error of measurement (SEM) for each scaled score, are presented in Tables A.1 through A.3.

Fall 2012 AIMS Test Results:

The results of the Fall 2012 AIMS are reported in Tables A.4 through A.6. Results presented below are based on population data contained within the final electronic data files. The results presented in this part of the technical report may differ slightly from final testing results presented on the Arizona Department of Education website due to slight differences in the application of exclusion rules. Official final results typically use more detailed school-level information than is used to conduct research analyses. The results in the following tables are presented as evidence of reliability and validity of the AIMS assessments and should not be used for state accountability purposes.

Results for AIMS high school assessments are reported by graduating cohort. Cohort 14 is defined as the group of students that will be graduating in 2014, and typically includes 11th grade students. Cohort 13 is defined as the group of students that will be graduating in 2013, and is typically comprised of seniors. Cohort 12 is defined as the group of students that were expected to have graduated in 2012 or prior. For each cohort, scale score means and standard deviations as well as the percentages of students in each performance level are presented for the state as a whole and disaggregated into various demographic groups. Disaggregated results were produced for the various groups by using demographic data on student answer documents.

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Table A.1
Fall 2012 AIMS Raw Score to Scale Score Table
Mathematics CRT High School

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	300	59	43	477	10
1	300	42	44	479	10
2	308	30	45	481	10
3	326	25	46	483	10
4	338	22	47	486	10
5	348	19	**48**	**488**	**10**
6	357	18	49	490	10
7	364	17	50	493	10
8	371	16	51	495	10
9	376	15	52	497	10
10	382	14	53	500	10
11	386	14	54	502	10
12	391	13	55	505	10
13	395	13	56	507	10
14	399	13	57	510	10
15	403	12	58	512	10
16	406	12	59	515	10
17	410	12	60	518	11
18	413	12	61	520	11
19	416	11	62	523	11
20	419	11	63	526	11
21	422	11	64	529	11
22	425	11	65	532	11
23	428	11	66	535	11
24	431	11	**67**	**539**	**12**
25	434	10	68	542	12
26	436	10	69	545	12
27	439	10	70	549	12
28	441	10	71	553	13
29	444	10	72	557	13
30	446	10	73	561	14
31	449	10	74	566	14
32	451	10	75	571	15
33	454	10	76	576	15
34	456	10	77	582	16
35	458	10	78	589	17
36	461	10	79	596	18
37	463	10	80	605	20
38	465	10	81	615	22
39	468	10	82	629	25
40	470	10	83	647	30
41	**472**	**10**	84	677	42
42	474	10	85	700	59

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Note: SEM is the standard error of measurement for the scale score. High school Mathematics scale scores are not on the same vertical scale as Grades 3-8.

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Table A.2
Fall 2012 AIMS Raw Score to Scale Score Table
Reading CRT High School

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	500	61	28	681	13
1	500	44	29	684	13
2	515	32	30	688	13
3	534	26	31	692	13
4	548	23	32	696	13
5	560	21	33	700	13
6	570	20	34	704	13
7	578	19	35	709	13
8	586	18	36	713	14
9	593	17	37	717	14
10	599	16	38	722	14
11	605	16	39	726	14
12	611	15	40	731	14
13	616	15	41	736	15
14	621	15	42	741	15
15	626	14	43	747	16
16	**631**	**14**	44	753	16
17	635	14	45	759	17
18	640	14	46	766	17
19	644	14	**47**	**773**	**18**
20	648	13	48	782	20
21	653	13	49	791	21
22	657	13	50	803	23
23	661	13	51	817	26
24	665	13	52	836	32
25	669	13	53	867	44
26	673	13	54	900	61
27	**677**	**13**			

Note: SEM is the standard error of measurement for the scale score. High school Reading scale scores are not on the same vertical scale as Grades 3-8.

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Table A.3
Fall 2012 AIMS Raw Score to Scale Score Table
Writing CRT High School

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	300	55	35	386	10	70	457	9	105	537	11
1	300	55	36	389	10	71	459	9	106	540	11
2	300	55	37	391	10	72	461	9	107	543	11
3	300	55	38	393	10	73	463	9	108	546	11
4	300	55	39	396	10	74	465	9	109	549	11
5	300	55	40	398	9	75	467	9	110	552	11
6	300	55	41	400	9	76	469	9	111	555	11
7	300	55	42	403	9	77	471	9	112	558	11
8	300	55	43	405	9	78	473	9	113	561	11
9	300	55	44	407	9	79	475	9	114	564	11
10	300	55	45	409	9	80	477	9	115	567	11
11	300	55	46	411	9	81	479	9	116	570	11
12	300	55	47	413	9	**82**	**481**	**9**	117	573	11
13	300	55	48	415	9	83	483	9	118	576	11
14	300	55	49	417	9	84	485	9	119	579	11
15	300	38	50	419	9	85	487	9	120	582	11
16	300	26	51	421	9	86	489	9	121	585	11
17	311	21	52	423	9	87	491	9	**122**	**588**	**11**
18	321	19	53	425	9	88	493	9	123	592	12
19	329	17	54	427	9	89	496	9	124	595	12
20	335	15	55	429	9	90	498	9	125	599	12
21	341	14	56	431	9	91	500	10	126	603	13
22	345	13	**57**	**433**	**9**	92	502	10	127	607	13
23	350	13	58	435	9	93	505	10	128	612	14
24	354	12	59	437	9	94	507	10	129	617	14
25	357	12	60	439	9	95	510	10	130	622	15
26	361	11	61	440	9	96	512	10	131	628	16
27	364	11	62	442	9	97	515	10	132	635	17
28	367	11	63	444	9	98	518	10	133	643	19
29	370	11	64	446	9	99	520	10	134	653	21
30	373	10	65	448	9	100	523	10	135	665	23
31	376	10	66	450	9	101	526	10	136	682	28
32	379	10	67	452	9	102	529	11	137	700	40
33	381	10	68	454	9	103	531	11	138	700	56
34	384	10	69	455	9	104	534	11			

Note: SEM is the standard error of measurement for the scale score. The writing scores range from 0 to 138 because the single essay response is scored by two raters on a scale of 1 to 6 on six traits. The trait scores are summed to produce the final score. Scores below 12 are artificial.

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Table A.4
Fall 2012 AIMS Results
Mathematics CRT High School

		Scale Score		% at Performance Level			
	N	M	SD	FFBS	AS	MS	ES
Cohort 14							
Total	28386	474.01	28.02	46	24	29	2
Ethnic Background							
Hispanic	14614	471.72	25.58	48	25	26	1
Non Hispanic	13442	476.07	29.81	43	23	31	3
White	21458	474.70	27.62	44	24	30	2
Black	2175	469.03	26.72	52	23	24	1
American Indian	2488	467.91	25.64	55	23	21	1
Asian	506	483.39	37.71	38	21	32	9
Secial Program Membership							
English Learner Program	832	454.51	25.80	77	11	11	1
Special Education	4133	451.45	23.51	81	11	8	0
SES	16872	470.71	26.08	50	24	25	1
Migrant	261	466.60	23.77	53	25	22	0
Cohort 13							
Total	14477	470.34	25.73	50	25	24	1
Ethnic Background							
Hispanic	7778	469.24	23.82	51	26	22	0
Non Hispanic	6578	471.57	27.68	48	24	26	2
White	10397	470.97	25.39	48	26	25	1
Black	1231	468.04	26.00	54	23	23	1
American Indian	1594	466.99	24.43	56	24	19	1
Asian	239	481.08	38.59	44	17	31	8
Secial Program Membership							
English Learner Program	545	458.21	24.38	74	13	12	1
Special Education	2820	451.62	22.21	80	13	7	0
SES	8802	468.45	24.21	52	25	22	0
Migrant	136	464.08	19.63	61	26	13	0
Cohort 12							
Total	4180	461.80	22.46	66	21	12	0
Ethnic Background							
Hispanic	2640	462.06	21.60	66	22	11	0
Non Hispanic	1483	461.40	23.83	66	20	13	1
White	2709	462.94	22.53	64	23	13	0
Black	348	456.57	23.42	75	15	9	0
American Indian	532	459.44	22.28	71	18	11	0
Asian	82	460.05	21.31	62	27	11	0
Secial Program Membership							
English Learner Program	289	454.82	23.22	80	13	7	0
Special Education	554	445.21	20.03	89	7	3	0
SES	2442	461.24	22.71	67	21	12	0
Migrant	44	460.25	18.16	68	27	5	0

Note: FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, off-grade, or a non-standard accommodation are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. The results are not final results and are presented here for purpose of addressing reliability and validity. These results should not be used for accountability purposes.

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Table A.5
Fall 2012 AIMS Results
Reading CRT High School

Group	N	Scale Score M	Scale Score SD	% at Performance Level FFBS	AS	MS	ES
Cohort 14							
Total	16922	686.52	44.78	8	36	51	6
Ethnic Background							
Hispanic	8442	679.09	38.30	8	40	49	3
Non Hispanic	8063	692.53	48.60	7	33	51	9
White	12053	687.10	44.42	7	36	51	6
Black	1320	676.35	39.59	10	41	47	2
American Indian	1585	671.04	34.08	10	46	43	1
Asian	526	700.76	56.13	8	29	49	13
Secial Program Membership							
English Learner Program	817	646.76	25.94	26	59	15	0
Special Education	3242	653.28	29.91	21	56	23	0
SES	10203	677.20	38.40	9	41	48	2
Migrant	176	665.28	31.55	13	51	35	1
Cohort 13							
Total	6518	671.55	37.30	10	48	40	2
Ethnic Background							
Hispanic	3550	668.11	32.71	10	52	38	1
Non Hispanic	2844	675.66	41.39	11	43	43	3
White	4386	672.02	37.72	10	48	40	2
Black	579	670.72	38.53	12	46	41	2
American Indian	802	666.09	30.44	10	52	37	0
Asian	215	677.51	42.10	13	39	46	3
Secial Program Membership							
English Learner Program	583	648.95	25.65	21	64	15	0
Special Education	1854	649.69	28.20	23	59	18	0
SES	4229	667.53	33.46	11	52	37	1
Migrant	96	656.63	25.70	14	61	25	0
Cohort 12							
Total	1961	661.55	30.89	13	55	31	0
Ethnic Background							
Hispanic	1232	661.81	28.38	12	57	31	0
Non Hispanic	707	661.02	34.70	16	53	31	1
White	1204	662.41	31.14	13	56	31	0
Black	173	656.95	32.86	21	49	29	1
American Indian	278	659.60	28.16	13	58	29	0
Asian	67	652.66	29.30	16	63	21	0
Secial Program Membership							
English Learner Program	275	649.16	24.51	21	64	15	0
Special Education	381	643.23	28.48	29	59	12	0
SES	1237	660.01	30.36	15	56	29	0
Migrant	29	656.90	23.41	10	69	21	0

Note: FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, off-grade, or a non-standard accommodation are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. The results are not final results and are presented here for purpose of addressing reliability and validity. These results should not be used for accountability purposes.

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Table A.6
Fall 2012 AIMS Results
Writing CRT High School

		Scale Score		% at Performance Level			
Group	**N**	**M**	**SD**	**FFBS**	**AS**	**MS**	**ES**
Cohort 14							
Total	24237	488.03	43.87	8	36	53	3
Ethnic Background							
Hispanic	11947	480.56	36.86	8	42	50	1
Non Hispanic	11786	494.16	48.06	7	32	56	4
White	18029	488.58	42.81	7	36	54	3
Black	1690	480.02	39.16	10	39	50	1
American Indian	2063	471.17	34.54	12	49	39	0
Asian	683	505.28	63.18	11	25	54	10
Secial Program Membership							
English Learner Program	817	431.63	33.03	47	47	6	0
Special Education	3854	452.69	34.77	26	54	21	0
SES	14094	478.39	37.16	9	42	48	1
Migrant	237	467.29	33.63	14	51	35	0
Cohort 13							
Total	9604	473.90	36.12	11	47	42	1
Ethnic Background							
Hispanic	5282	471.49	33.10	11	49	40	0
Non Hispanic	4229	476.67	39.21	11	44	44	1
White	6724	474.67	36.14	10	47	42	1
Black	746	472.79	36.25	12	47	41	0
American Indian	1197	466.92	31.38	12	52	36	0
Asian	279	473.23	42.55	15	44	39	1
Secial Program Membership							
English Learner Program	624	439.72	30.82	38	53	9	0
Special Education	2366	451.93	31.67	24	58	18	0
SES	6157	470.34	33.43	12	50	38	0
Migrant	121	461.56	30.55	17	55	28	0
Cohort 12							
Total	2319	459.85	32.49	18	56	26	0
Ethnic Background							
Hispanic	1482	460.29	29.97	16	59	25	0
Non Hispanic	795	459.10	36.56	23	50	27	0
White	1466	461.00	31.74	17	56	27	0
Black	185	454.62	33.63	25	54	22	0
American Indian	286	456.54	32.69	22	57	21	0
Asian	79	446.35	33.64	29	53	18	0
Secial Program Membership							
English Learner Program	285	438.41	31.25	39	53	8	0
Special Education	395	439.23	33.15	43	47	10	0
SES	1400	457.67	32.56	21	55	24	0
Migrant	26	451.96	30.18	19	65	15	0

Note: FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, off-grade, or a non-standard accommodation are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. The results are not final results and are presented here for purpose of addressing reliability and validity. These results should not be used for accountability purposes.

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APPENDIX B: ITEM WRITER SELECTION CRITERIA

AIMS Committee Participant Selection Criteria

ARIZONA DEPARTMENT OF EDUCATION

PROCEDURE FOR SELECTION OF EDUCATOR COMMITTEES
ARIZONA ASSESSMENT SECTION

Although our database contains over 1000 educators, the Assessment Section is always recruiting new teachers to serve on the committees, and have prevailed upon veteran teachers to become Ambassadors of the Assessment by encouraging their colleagues to apply.

Once Arizona educators are identified and entered into the database, the Assessment Section uses the following procedures for selecting membership for a committee:

- Identify the purpose/function of the committee
- Establish the date and time of the committee
- Determine the criteria for membership on the committee:
    - Content area of expertise
    - Grade level experience
    - Specific skill or knowledge expertise for committee function
    - Prior experience on ADE committees—a minimum 50% of each committee will have prior experience
    - Location of district/school
        - Rural/urban/suburban
        - Approximately 50% of committee members from Maricopa County when appropriate for purpose of committee
    - Ethnicity of school population or committee member
    - SES of school population
    - Number of committees served on recently—a committee member cannot serve on a series of committees used to develop items. Otherwise, they would be passing judgment on their own prior work. (This is a change in procedure)*
- Review the database for educators that meet the criteria established
- Select committee members based on criteria for particular committee for primary and alternate list
- Invitations are sent to selected committee members on primary list **
- After decline and accept emails are received by established deadline, additional invitations issued to members on alternate list
- Committee meeting held
- Review performance of participants

* ADE is concerned that utilizing the same committee members on a series of committees will reduce the input from a variety of educators and have requested that past committee participation be part of the selection process. As the pool of teachers expands, individual members will serve on fewer committees.

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** It is not the policy to inform all members in our database of scheduled committee meetings, but only those invited to a particular meeting.

Beginning in April 2006, all past participants have been invited to update their applications on a yearly basis in order to have the most current information in the database. Also, when Arizona educators participate on a committee, they are asked to review their information and note anything that might have changed. The application identifies the demographics of each committee member: geographic location in Arizona, ethnicity of school/district population and/or committee participant, and a detailed biographical background including participation on AIMS committees.

When there has been the need to replace participants who have moved, changed positions, or no longer possess the time to serve, recruitment letters have been sent to solicit recommendations from District Superintendents regarding prospective educators whose expertise and participation could be of great benefit. For the last seven years the ADE has constantly recruited Arizona educators to serve on various AIMS committees as well as encouraged the retention of its veteran contributors. These dedicated educators have been, and will continue to be, recognized as excellent Ambassadors of the Assessment.

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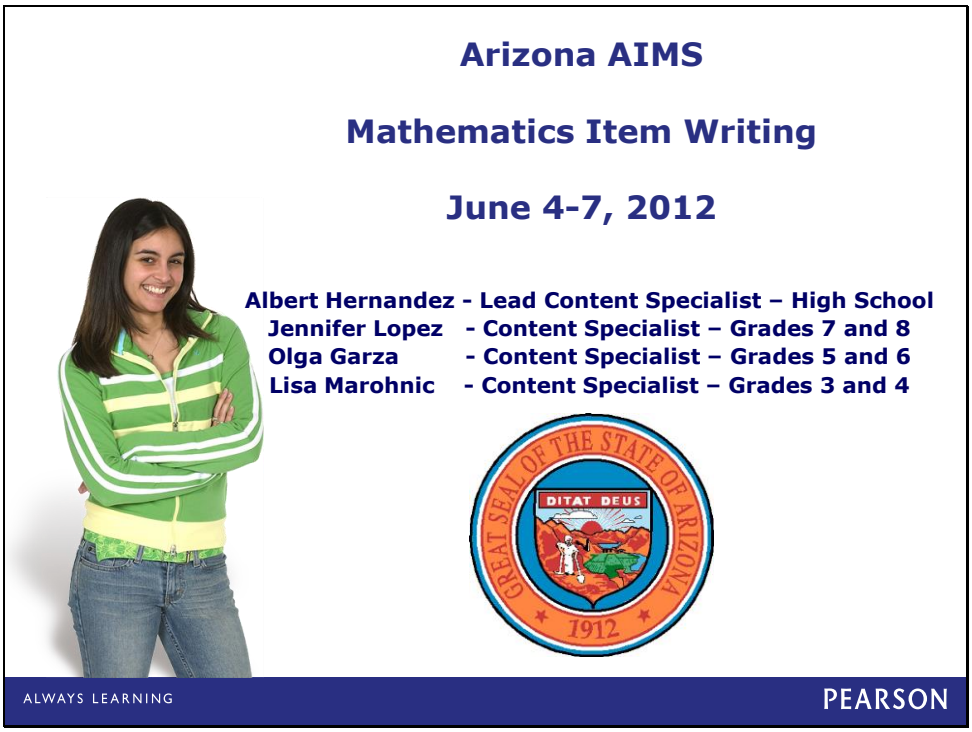
APPENDIX C: ITEM WRITING / EDITING WORKSHOPS TO SUPPORT 2013 AIMS

Following are the PowerPoint slides used during the AIMS Item Writing Workshop in June 2012.

Appendix C.1: 2012 AIMS Mathematics Item Writing Training

Slide 1



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Slide 2

Item Writer Responsibilities

Confidentiality – Item writers must not copy, discuss, or disclose in any manner the information or materials used during this training, while writing items, or after the assignment has been completed.

Nondisclosure – Item writers must maintain the security of the test items, documents, and materials being created. Item writers will not retain paper or electronic copies of materials after the assignment has been completed.

Ownership – All materials developed for the assessment program must be original and may not appear in any other source. They are the property of the state and may not be used for any other purpose.

ALWAYS LEARNING PEARSON

Slide 3

Assignment Description

Each item writer will be assigned 5-8 multiple choice items to write.

Assignment document specifies which the 2010 Standards and the number of items written to each.

Item writers will be asked to write items which are part of a single scenario/item set as part of their assignment.

All Items will be submitted through our secure AMS.

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Slide 4

Guidelines for Writing Good Multiple-Choice Items

1. Most items should require conceptual understanding, selection of a problem solving strategy, or other higher order thinking skills.
2. Present the problem or question as clearly as possible. Be straightforward and brief.
3. Use contexts that will engage students at the targeted grade level.
4. Avoid bias toward or against any group of individuals.
5. Use multicultural contexts and names.
   (However, names should not distract the student by being difficult to pronounce or spell).

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Slide 5

Guidelines for Writing Good Multiple-Choice Items

6. Use content and grade level appropriate terms.
7. Supply four viable options.
8. Be certain there is only **one** correct response and that correct response could not be derived for the wrong reason (mathematical error).
9. Use options that are parallel in grammar and length.
10. Use options (distractors) that represent common errors of students at the target grade level. Have a rationale for each distracter.

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Slide 6

Guidelines for Writing Good Multiple-Choice Items

11. Be cautious with the use of negative stems (e.g., Which measures could **not** be the lengths of the sides of a right triangle? Do not use double negatives (e.g., negative in stem and another negative in one or more options).

12. Write numbers needed for problem solving or computation in numeric form.

13. Don't include unnecessary or redundant information in the stem or options.

14. Don't be tricky or cute. Avoid names like Jack and Jill, Farmer John, Patty Cakes, etc.

15. Avoid names that have multiple meanings in contextual items. (e.g., Pat, Bill, Sue, Mark, June, Cliff, etc.)

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Slide 7

Content Considerations

Written items Do Not have to assess all aspects of the standard.

Grade 5	**Number and Operations in Base Ten**
5.NBT.7	**Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawing and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.**
M05-S1C2-01	**Add and subtract decimals through thousandths and fractions expressing solutions in simplest form.**

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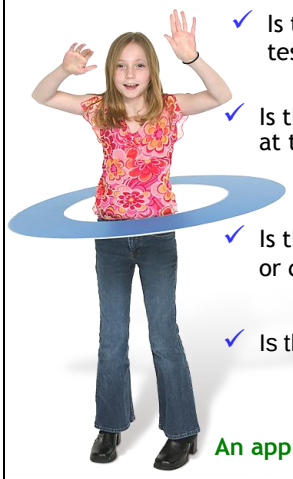
Slide 8

Format and Style



- ✓ Is the format appropriate for the grade level being tested?
- ✓ Is the format sufficiently simple and interesting for students at this level?
- ✓ Is the item formatted so that it is not unnecessarily wordy or difficult?
- ✓ Is the item written in a question format?

An appropriate item format can improve student performance.

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Slide 9

Samples (Caution)

The following Sample test items are included with its 2010 Standard to illustrate formatting and style. These are not templates to be repeated with new numbers.

In addition, the sample test items are not intended to be definitive in nature or construction - the test items may differ from test form to test form, as may their presentations.

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Slide 10

Formatting

Grade 6 Expressions and Equations

6.EE.2 **Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).** ***For example, use the formulas*** $V = s^3$ ***and*** $A = 6s^2$ ***to find the volume and surface area of a cube with sides (edges) of length*** $s = \frac{1}{2}$.

M06-S3C3-04 Evaluate an expression involving the four basic operations by substituting given fractions and decimals for the variable.

Poor formatting

In order for Javier to complete his homework, he needs to evaluate the expression $\frac{-2(3-n)+n-4}{5}$ when $n = \frac{1}{2}$. What is the value of the expression?

Improved formatting

What is the value of the expression when $n = \frac{1}{2}$?

$$\frac{-2(3-n)+n-4}{5}$$

To provide access to more students, take out formulas, expressions, lists, etc. buried in the text and center on a single line.

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Slide 11

Formatting

Grade 6 Statistics and Probability

6.SP.5 Summarize numerical data sets in relation to their context, such as by:

c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.

M06-S2C1-03 Use extreme values, mean, median, mode, and range to analyze and describes the distribution of a given data set. (does not include mean absolute deviation)

Poor formatting

Karissa asked four of her friends, Alice, Clark, Ruth, and Matt, if she could measure their heights. She measure Alice to be 58 inches tall; Clark 62 inches tall; Ruth 60 inches tall; and Matt 61 inches tall. To the nearest inch, which measure of data describes the height of Karissa's four friends?

Improved formatting

This list shows the heights of four students.

- Alice: 58 inches
- Ruth: 60 inches
- Clark: 61 inches
- Matt: 61 inches

Which statement describes the distribution of the set of data?

Use a chart, table, a bulleted list, a graphic, etc. to break up reading.

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Option Formatting

An item's difficulty level is often a function of its incorrect options (distractors). An item with distractors related to the correct response will give a good indication of which students have mastered the skill being measured.

- ✓ Are the options reasonably parallel in structure?
- ✓ Are the options worded clearly and concisely?
- ✓ Does any option eliminate another?
- ✓ Is there a unique correct answer?

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Slide 13

Option Formatting

Grade 4 Geometry

4.G.2 Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.

M04-S4C1-03 Describe and classify triangles by angles and sides.

The triangle shown only has two side lengths of 3 centimeters.

Which statement about the triangle is true?

Poor Options

A. At least two side of the triangle are the same length.
B. It is scalene.
C. All sides of the triangle are the same length.
D. It is right triangle.

Improved question and options

What is the classification of the triangle?

A. equilateral
B isosceles
C right
D scalene

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Slide 14

Free of Stereotypes

Grade HS Standards for Mathematical Practice

HS.MP.1 Make sense of problems and persevere in solving them.

MHS-S5C2-06. Synthesize mathematical information from multiple sources to draw a conclusion, make inferences based on the mathematical information, evaluate the conclusions of others, analyze a mathematical argument, and recognize flaws or gaps in reasoning

Juan used the following steps to solve an equation.

Given equation:	$3(x - 2) = 10$
Step 1:	$3x - 2 = 10$
Step 2:	$3x = 12$
Step 3:	$x = 4$

In which step does Juan's error first appear?

If concern for stereotyping exists based on the ethnicity of a name, try using common names like: Kelly, Chad, John, or David.

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Slide 15

Don'ts & Do's of Item Writing

Grade 6 Number System

6.NS.4 Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor. *For example, express 36 + 8 as 4(9+2).*

M06-S1C2-06 Apply the commutative associative, distributive, and identify properties to evaluate numerical expressions involving whole numbers.

Don't **Simplify:**

$2(5x - 3)$

Do **Which expression is equivalent to $2(5x - 3)$?**

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Don'ts & Do's of Item Writing

Grade 5 Number and Operations in Base Ten

5.NBT.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

M05-S1C2-03 Divide multi-digit whole numbers by whole number divisors with and without remainders.

Don't Marcie ran 54 miles over a three day race. Determine the number of miles she ran per day.

Do Marcie ran 54 miles in 3 days. Each day she ran the same number of miles. What is the number of miles Marcie ran each day?

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Don'ts & Do's of Item Writing

Grade 7 Statistics and Probability

7.SP.8 Find probabilities of compound events using organized list, tables, tree diagrams, and simulation.

a. Understand that, just as with simple events, the probability of a compound events is the fraction of outcomes in the sample space for which the compound event occurs.

M07-S2C2-01 Determine conditional probabilities (experimental) in compound probability experiments.

Don't Mr. Perez has 32 marbles inside a bag. There are 10 blue, 14 green, and 8 yellow. He hands two at random to Steven. What is the probability that Mr. Perez hands Steven a red marble and a blue marble?

Do The list shows the different number of color marbles Mr. Perez has inside a bag. Each marble is the same size and shape.

- 8 blue
- 10 green
- 14 red

What is the probability Mr. Perez will randomly select a red marble on his first try, without replacement, then a blue marble on his second try?

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Slide 18

Depth of Knowledge Levels (DOK) (Webb, 1999)

Level I: Recall – Recall of a fact, definitions, or procedure

Level II: Basic Reasoning – Requires students to make some decisions as to how to approach a problem; comparing, classifying, organizing, estimating, ordering, or displaying; typically involves multi-step procedures

Level III: Complex Reasoning – Requires students to solve problems with more than one possible answer and requires students to justify responses

Level IV: Extended Reasoning – Requires an investigation; time to think and process multiple conditions of the problem

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Slide 19

Materials Provided

- PPT Presentation – Mathematics Item Writing
- Assessment Management System (AMS) web address: http://www.pearsonaccess.com
- Math Item Writing Checklist
- Bloom's Taxonomy Wheel
- DOK Information Wheel
- DOK Information Chart
- Hess – Cognitive Rigor Math

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Slide 20

Raising the Depth of Knowledge (DOK)

- Items should target DOK levels 2 and 3
- DOK 1 to DOK 2
  - explain the relationships between facts, terms, properties or operations
  - solve routine multiple-step problems
  - determine the procedure and perform it
- DOK 2 to DOK 3
  - analyze similarities and differences
  - formulate the original problem given a situation
  - formulate a mathematical model for a complex situation

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Slide 21

Raising the Depth of Knowledge (DOK)

Combining POs within the same concept

- Combining POs within the same concept could also help raise the DOK level of the item.
- When combining POs make sure to stay true to the PO the item is assessing.
- Each distractor should be based upon the same combination of the POs used in the stem of the item.

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Quick Summary

Each item:

1. Must be written with dual alignment by addressing both the 2008 and 2010 Mathematics Standards
2. Variety of items (Do **Not** clone the item spec items, released items, sample items, textbook items, etc.)
3. Document sources for facts used when applicable
4. DOK and difficulty levels should vary through out each item writer assignment

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Resources

AIMS – Arizona Academic Standards

http://www.ade.az.gov/sa/sdi/math.asp

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Appendix C.2: 2012 AIMS Reading Item Editing Workshop

Slide 1

AIMS Item Editing Workshop
-Reading-

June 4-6, 2012

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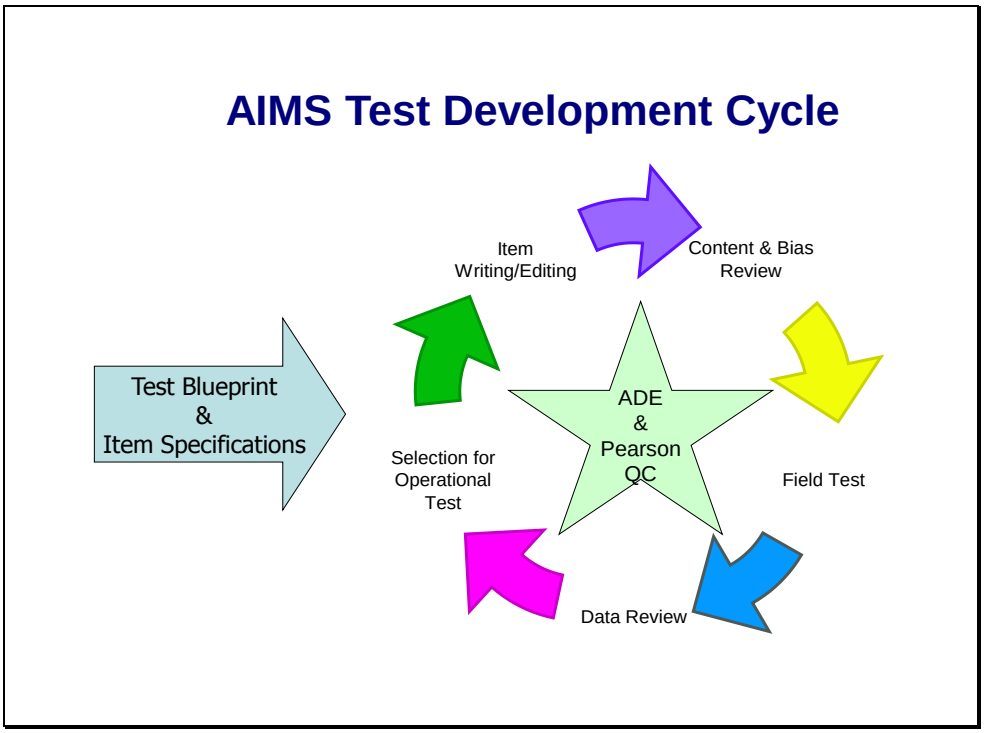
Slide 2



Slide 3

What is the purpose of an item?

Questions that are written for AIMS are called items. They serve two basic and related purposes.

1. To assess a student's command of important reading skills.

2. To demonstrate the student's understanding of a particular reading passage.

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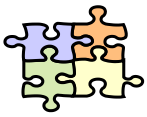

Parts of an Item

1. Complete Item **Reading Grade HS: 2.1.1**

What is the purpose of Hamlet's soliloquies? ← **Stem**

A. to provide insight into his thoughts and feelings * ← **Correct Response**
B. to supply additional time for scenery changes
C. to demonstrate that he is of unsound mind
D. to create an interaction between actors and audience

Distractors (Incorrect Options)

Note: The correct option or correct response is often abbreviated CR.

Slide 5

Parts of an Item

2. Items with art **Reading Grade 6: 1.6.4**

Look at the graphic organizer. ← **Stem**

Graphic/Art

Buster is late for school.	Buster takes a nap under the tree.		Buster watches baseball with his dad.
1	2	3	4

Which sentence belongs in box 3? ← **Question**

A. Buster finishes his breakfast.
B. Buster completes his homework.*
C. Buster rides his bicycle to school.
D. Buster plays a game during recess.

Note that art should be used to separate the lead information from the question to be answered.

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Slide 6

Things to Consider When Writing or Reviewing Items

- Performance Objective Match
- Appropriateness
  - Clarity
  - Format
  - Answer Options
- Bias
- DOK (Depth of Knowledge)

Slide 7

Writing to Two Standards

- When writing items, please make sure you address two standards: the 2003 AIMS standards as well as the revised 2010 standards. In nearly all cases, there is a simple correspondence between the old and new standards.

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Slide 8

For example, all eight of the 2003 grade 8 AIMS standards that pertain to plot, theme, character, setting, mood, and sequence (R08.S2C1.01, etc.), will also be coded to the revised standard 8.RL.2.

Any items that seem to fall beyond the purview of the revised standards can be discussed with the group.

Slide 9

Performance Objective Match

- ✓ Does the item assess the strand, concept, performance objective (PO) it is supposed to assess?
- ✓ Does the item pose a clearly defined problem or task appropriate to the PO?

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Appropriateness: *Clarity*

- ✓ Does the item test only one PO in both standards?
- ✓ Is the item well-written, clear, and concise? Avoid unnecessary context, wordiness, and "fluff." Use direct words, phrases, or clauses.
- ✓ Does the item contain confusing wording? Use age-appropriate, domain-based language with text vocabulary at or slightly below the grade level.
- ✓ Does the item use unnecessary synonyms? Word usage within the item must be consistent.
- ✓ Is the artwork clear, correct, and appropriate? Be precise when labeling figures, graphs, charts, and diagrams. Avoid unnecessary graphics and pictures.

Clearly stated items enhance student performance.

Slide 11

Appropriateness: *Format*

- ✓ Is the format appropriate for the grade level being tested?
- ✓ Is the format sufficiently simple and interesting for students at this level?
- ✓ Is the item formatted so that it is not unnecessarily wordy or difficult?
- ✓ Is the item in a question format wherever possible? Avoid items where students do not know what is being asked until they read the answer options.

An appropriate item format can improve student performance.

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Slide 12

Appropriateness: *Options*

An item's difficulty level is often a function of its incorrect options (distractors). An item with distractors that are plausible, text-based, and connected to the question being asked (as well as being incorrect), will provide a better indication of which students have mastered the skill being measured.

- ✓ Are the options plausible and still incorrect?
- ✓ Is there only one correct answer?
- ✓ Does any option eliminate (or subsume) another?
- ✓ Are the options worded clearly and concisely?
- ✓ Are the options reasonably parallel in structure?

Slide 13

Bias and Sensitivity

Issues of culture, ethnicity, gender, economic disparity, and stereotyping may unfairly inhibit the performance of groups of students.

- ✓ Does the item assume racial, class, or gender values and/ or suggest stereotypes?
- ✓ Does the item provide an unfair advantage or disadvantage to certain groups of students?
- ✓ Does the item broach issues of cultural/community sensitivity?

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Depth of Knowledge

Depth of Knowledge - a measure of the cognitive demand or degree of complexity of the task students are being asked to perform.

This is a measure of complexity, not difficulty.

Slide 15

Depth of Knowledge Levels

(Webb, 1999)

Level I: Recall – recall of a fact, definitions, or procedure

Level II: Basic Reasoning – Requires students to make some decisions as to how to approach a problem; comparing, classifying, organizing, estimating, ordering, or displaying; typically involves multi-step procedures

Level III: Complex Reasoning – Requires students to solve problems with more than one possible answer and requires students to justify responses

Level IV: Extended Reasoning – Requires an investigation; time to think and process multiple conditions of the problem

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Slide 16

Higher DOK

- Review items in current state.
- Determine whether many of the items in a set focus on tasks such as locating, recalling, or identifying. If so, can the passage support items asking students to analyze, hypothesize, or explain?
- Edit existing items (when possible) to engage the students in more complex thought.
- Consider whether any new items can be written to a passage set that will be DOK 2 or 3.

Slide 17

Higher DOK

Combining POs is a new option for crafting items to a higher DOK. When combining POs, make sure to remain within the same Concept.

For example: Grade 7

- 2.1.2: Recognize multiple themes.
- 2.1.3: Describe a character.

How do Emma's choices illustrate the main theme of the passage?

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Slide 18

Common Problems in Multiple-Choice Items

Stems should be closed. Distractors should be closely parallel in length, grammar, and style.

Grade 6: 3.3.2

Poor

According to the article, candy should usually be avoided between meals because

A it causes diabetes.
B it causes energy to decrease.
C it causes headaches.
D it dulls the appetite for foods rich in other necessary elements.

Improved

According to the article, why should candy be avoided?

A The threat of diabetes
B The reduction of energy
C The suppression of appetite
D The frequency of headaches

Slide 19

Items should not present stereotypes.

Grade 10: 2.1.1

Poor

In what way is Martha an unusual teenage girl?

A She often wears jeans and tennis shoes.
B She has little interest in learning to drive.
C She plays football on the varsity team.
D She likes to help with chores at home.

Improved

What is Martha's unique accomplishment during high school?

A She learns to drive a car.
B She joins the yearbook club.
C She creates her own style of dress.
D She plays football on the varsity team.

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Slide 20

Avoid writing items that require prior knowledge.

Grade 4: 1.6.6

Poor

What is the **best** location for a ski vacation?

A. Georgia
B. Kansas
C. Colorado*
D. Mississippi

While the passage included information about ski equipment and tips for safe skiing, locations and weather information were not provided. Although the PO asks for the student to "make inferences," there has to be enough information in the passage upon which to base an inference. In this case, an inference could only be made based on prior knowledge of ski vacations, which would make this item biased.

Slide 21

Roles

- Facilitator
- Recorder
- Time Keeper
- Code Checker

Please complete two surveys before leaving on June 6.

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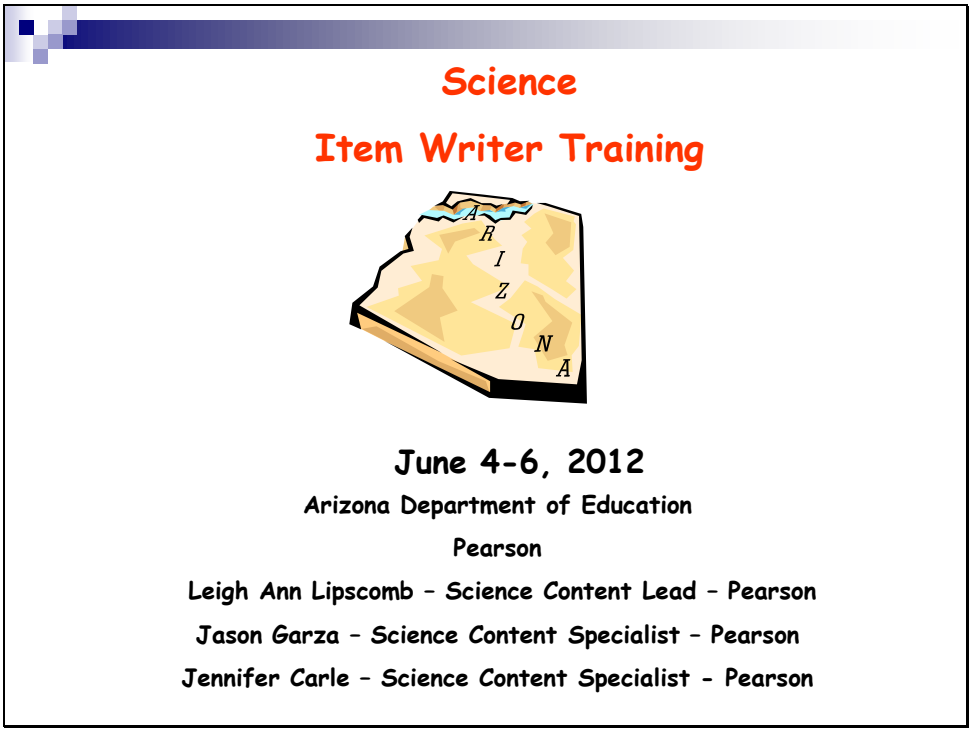
Appendix C.3: 2012 Science Item Writer Training

Slide 1



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Slide 2

Scenario Set

- Some writers will prepare 1 scenario set.
- These will consist of a science situation. It may be
  - Text based description of an experiment, situation, or data
  - A data table and/or chart or graph
  - A diagram of an experiment or situation
- It may be a combination of the above, but it must remain short and to the point.
- The writer will devote about 5 questions to the scenario set.
- Writer may choose standards for the questions from their assignment.
- The items should be based on the scenario, not just tacked on or mentioned in the scenario.

Slide 3

Formatting f1

Science Grade 4: 1.2.4

The students in a science class measured the mass of four objects and found that a pencil had a mass of 5.5 g, an eraser had a mass of 141.7 g, a textbook had a mass of 1360.7 g, and a stapler had a mass of 680.4 g.

Instead of the above, do the following formatting:

Students in a science class obtained the data in the table below during a classroom investigation using four different objects.

Object	Mass (g)
Pencil	5.5
Eraser	141.7
Textbook	1360.7
Stapler	680.4

Which tool did the students use to measure the mass of the objects?

Use a chart, a table, a graph, a bulleted list, etc. to break up reading.

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Slide 4

Common Issues Related to Multiple-Choice Items

Options should be closely parallel in length, grammar, and style.

Science Grade 8: 1.1.1

Matthew noticed that the plant in his classroom was growing toward the window. Which of these questions can be tested based on this observation?

Options Not Parallel

A Is the plant growing in a large, red pot that will allow the plant to grow 2 feet tall?
B Are there bugs on the plant?
C Does the plant grow toward light?
D How old is the plant?

Options Parallel

A How old is the plant?
B Are there bugs on the plant?
C Does the plant grow toward light?
D Is the plant growing in a large pot?

Slide 5

Science Content Issues

- ✓ Data (Realism)
- ✓ Sources
- ✓ Technological Design
- ✓ Value Judgments

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Slide 6

Resources

- ✓ **Double and triple check Web site resources.**
- ✓ **Avoid the use of any non-authentic data.**
- ✓ **Some good sources for ideas, data, sample problems, etc.**
  - ✓ **ADE website**
  - ✓ **Academic journals and other materials**
  - ✓ **Almanacs**
  - ✓ **Books of lists**
  - ✓ **Newspapers**
  - ✓ **Government Web sites**

Slide 7

Depth of Knowledge Levels

(Webb, 1999)

Level I: Recall – recall of a fact, definitions, or procedure

Level II: Basic Reasoning – Requires students to make some decisions as to how to approach a problem; comparing, classifying, organizing, estimating, ordering, or displaying; typically involves multi-step procedures

Level III: Complex Reasoning – Requires students to solve problems with more than one possible answer and requires students to justify responses

Level IV: Extended Reasoning – Requires an investigation; time to think and process multiple conditions of the problem

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Slide 8

Tips

- DOK relates to the thinking process, not the difficulty of the item
  - "What enzyme promotes stem lengthening?" is a difficult question, but it is still a recall (DOK 1) question
  - An item where the student must compare data on two graphs and draw a conclusion is a DOK 3, even if the question is simple
- The question should be based on the text of the stimulus or scenario set
  - Rarely is a complex scenario needed to ask a DOK 1 question
  - Rarely is a simple scenario needed to ask a DOK 3 question
- Just mentioning concepts in a standard/PO does not always mean the item meets the PO.
  - The item must test the student's knowledge of the PO.

Slide 9

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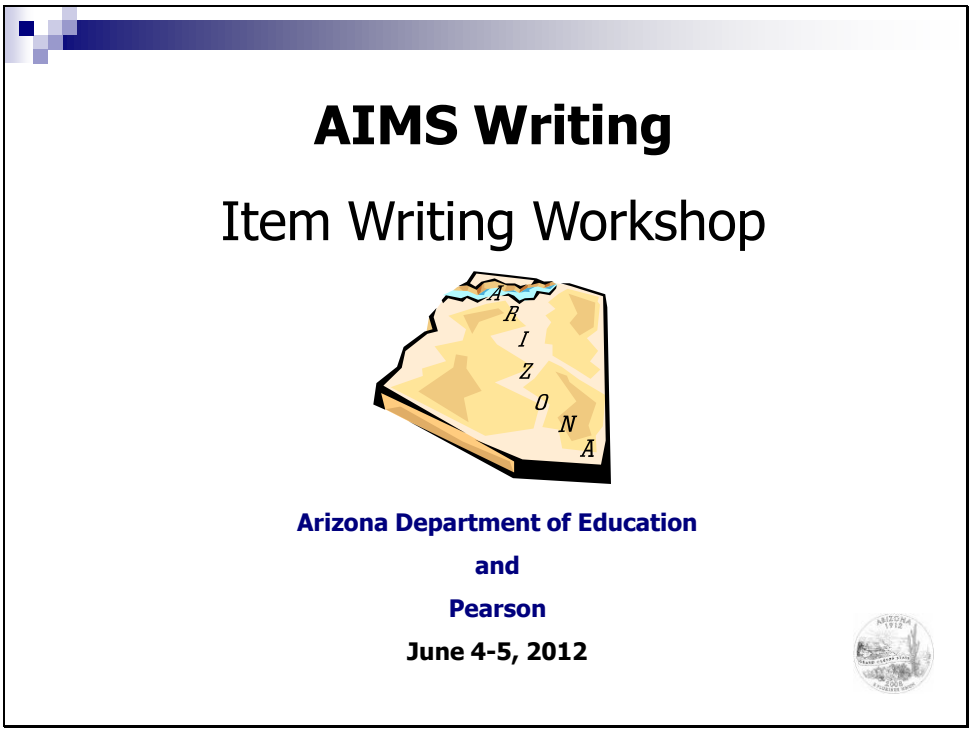
Appendix C.4: 2012 AIMS Writing Item Writing Workshop

Slide 1



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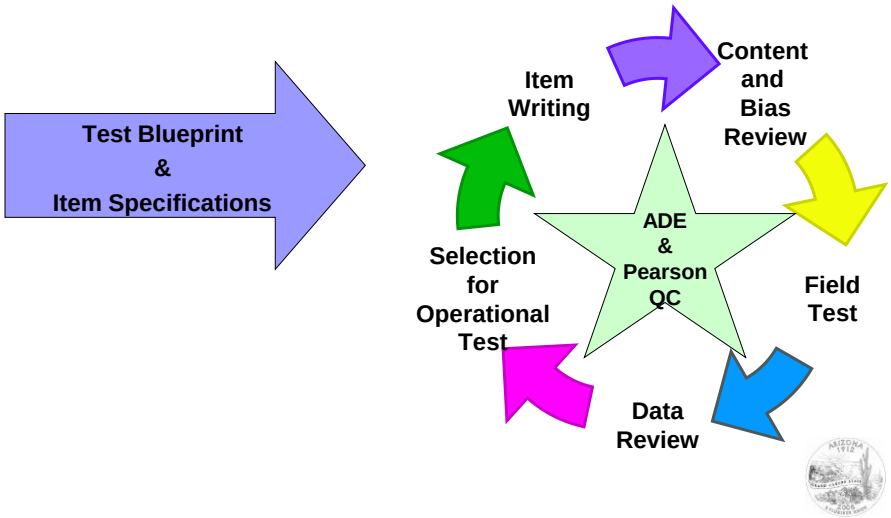
Slide 2

Overview

- AIMS Test Development Cycle
- Item Writing Considerations
- Bias/Sensitivity
- Depth of Knowledge (DOK)
- Item Writing Goals, Roles, Resources, and Process

Slide 3

AIMS Test Development Cycle



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Slide 4

AIMS MC Writing

- **Requires multiple-choice items for grade 5, 6, 7, and High School**
- **Uses multiple-choice items associated to fiction and nonfiction stimuli**
- **Uses stand alone multiple-choice items**
- **Measures the grade-specific AIMS Performance Objectives aligned to the 2010 Arizona English Language Arts Standards**

Slide 5

Parts of a Stand Alone Item

1. Complete Item **Writing, High School: 2.6.9**

In which sentence are all the words used correctly? ← **Stem**

A* The playful puppy wags its fluffy tail. ← – – **Correct Response**

B The eager students turned in there homework.

C We will be threw the canyon in just five more minutes.

D Your doing a fantastic job with research for that science project.

Distractors (Incorrect Options)

Note: The correct option or correct response is often abbreviated CR.

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Slide 6

Parts of an Item Associated to a Stimulus

1. Complete Item **Writing, High School: 2.2.2**

Read the sentences.

(1) Mollie wants to go shopping and see a movie next Saturday. (2) She doesn't have any money. ← **Stimulus**

What is the best transition for the beginning of sentence 2? ← **Stem**

A* However ← **Correct Response**

B Likewise

C Namely

D Thus

Distractors (Incorrect Options)

Slide 7

Things to Consider When Writing Items

- Performance Objective Match
- Appropriateness
  - Clarity
  - Format
  - Answer Options
- Bias
- DOK (Depth of Knowledge)

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Performance Objective Match

- ✓ Does the item assess the strand, concept, performance objective (PO) it is supposed to assess?
- ✓ Does the item pose a clearly defined problem or task appropriate to the PO?

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2010 Arizona English Language Arts Standards Objective Match

- ✓ Does the item show a secondary alignment to the 2010 Standards ?
- ✓ Does the item pose a clearly defined problem or task appropriate to the 2010 Standards?

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Appropriateness: *Clarity*

- ✓ Does the item test only one PO as appropriate to the assigned DOK level? Items written at a DOK 3 may test more than one PO within the same Concept.
- ✓ Is the item well-written, clear, and concise? Avoid unnecessary context, wordiness, and "fluff." Use the simpler word, phrase, or clause.
- ✓ Does the item contain confusing wording? Use age-appropriate, domain-based language with text vocabulary at or slightly below the grade level.
- ✓ Does the item use unnecessary synonyms? Word usage within the item must be consistent.

Clearly stated items enhance student performance.

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Appropriateness: *Format*

- ✓ Is the format appropriate for the grade level being tested?
- ✓ Is the format sufficiently simple and interesting for students at this level?
- ✓ Is the item formatted so that it is not unnecessarily wordy or difficult?
- ✓ Is the item in a question format wherever possible?

An appropriate item format can improve student performance.

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Appropriateness: *Options*

An item's difficulty level is often a function of its incorrect options (distractors). An item with distractors that are incorrect, but plausible will provide a better indication of which students have mastered the skill being measured.

- ✓ Are the options plausible yet still remain incorrect?
- ✓ Is there only one correct answer?
- ✓ Does any option eliminate another?
- ✓ Are the options worded clearly and concisely?
- ✓ Are the options reasonably parallel in structure?

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Sample Item A

Grade	4
Concept	1: Ideas and Content
PO	*3. Use relevant details to provide adequate support for the ideas.*

Trevor is writing sentences that describe what his neighborhood school looks like. Which sentence will support his topic?

A All of my favorite subjects are in the morning.
B Ms. Gilleran is my homeroom teacher this year.
C The area near our school is used for classroom experiments.
D The building is made of red brick used on other buildings in our neighborhood.

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Sample Item A

Trevor is writing sentences that describe what his neighborhood school looks like. Which sentence will support his topic?

A All of my favorite subjects are in the morning.
B Ms. Gilleran is my homeroom teacher this year.
C The area near our school is used for classroom experiments.
D The building is made of red brick used on other buildings in our neighborhood.

" Ms. Gilleran" is the only option with a proper noun

" area" implies part of a description and creates two possible correct responses

" neighborhood " in this distractor repeats part of the stem and clues the correct response

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Sample Item B

Grade	3
Concept	1: Ideas and Content
PO	1. Express ideas that are clear and directly related to the topic.

Maria is writing a research report on Arizona travel. She wants to encourage visitors to the state she has lived in all her life. Which sentence will she not include in her writing?

A The terrain presents numerous challenges but rewards those who hike tremendous vistas.
B I don't have to tell you how it's never too cold here.
C People who travel don't want to ever go home!
D Many varieties of cacti are found throughout Arizona.

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Vocabulary in A is not accessible for most third grade students

Sample Item B

awkward wording of second sentence in stem creates confusing context for student

" not " uses negative wording in option

Maria is writing a research report on Arizona travel. She wants to encourage visitors to the state she has lived in all her life. Which sentence will she not include in her writing?

" don't" uses negative wording in option

A The terrain presents numerous challenges but rewards those who hike tremendous vistas.

" ! " makes C an outlier

B I don't have to tell you how it's never too cold here.

C People who travel don't want to ever go home!

D Many varieties of cacti are found throughout Arizona.

" I " creates only one option with a proper noun or specific personal reference

" Arizona" repeats a proper noun in the stem

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Bias and Sensitivity

Cultural, ethnic, gender, and economic imbalance (and stereotyping) can appear subtly in items and may unfairly inhibit the performance of groups of students.

- ✓ Does the item assume racial, class, or gender values or suggest stereotypes?
- ✓ Does the item provide an unfair advantage or disadvantage to certain groups of students?
- ✓ Does the item consider cultural and community sensitivity?

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Grade	5
Concept	5: Sentence Fluency
PO	*1. Write **simple and compound sentences**.*

Sample Item C

Read this sentence.

With club membership, boys will enjoy excellent golf and the most skilled personal trainers in all of Scottsdale.

What is the correct way to punctuate this sentence?

A With club membership boys will enjoy excellent golf and the most skilled, personal, trainers in all of Scottsdale.

B With club membership, boys will enjoy excellent golf and the most skilled personal trainers in all of Scottsdale.

C With club membership, boys will enjoy excellent golf and the most skilled personal trainers, in all of Scottsdale.

D With club membership boys will enjoy excellent golf, and the most skilled, personal trainers, in all of Scottsdale.

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Sample Item C

" club " and other sentence context presents strong socioeconomic bias

Read this sentence.

With club membership, boys will enjoy excellent golf and the most skilled personal trainers in all of Scottsdale.

What is the correct way to punctuate this sentence?

A With club membership boys will enjoy excellent golf and the most skilled, personal, trainers in all of Scottsdale.

B With club membership, boys will enjoy excellent golf and the most skilled personal trainers in all of Scottsdale.

C With club membership, boys will enjoy excellent golf and the most skilled personal trainers, in all of Scottsdale.

D With club membership boys will enjoy excellent golf, and the most skilled, personal trainers, in all of Scottsdale.

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Depth of Knowledge

Depth of Knowledge - a measure of the cognitive demand or degree of complexity of the task students are being asked to perform.

This is a measure of complexity not difficulty.

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Components of DOK

- The level of conceptualization required of students
- The type and level of generalization students must reach
- The amount of prerequisite knowledge and contexts students need to synthesize in order to complete the task

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Components of DOK

- The level and complexity of reasoning required
- The types and variety of representations (written, verbal, pictorial, symbolic, etc) required to complete a response
- The number and strength of connections students must make between facts, procedures, mental networks, concepts and ideas

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Components of DOK

- The required degree of generalization and transfer of knowledge and experience into new and/or different situations
- The grade level to which the item is assigned

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Hess' Cognitive Rigor Matrix: Applies Webb's DOK to Bloom's Cognitive Process Dimensions

Depth + thinking	Level 1 Recall & Reproduction	Level 2 Basic Skills & Concepts	Level 3 Strategic Thinking & Reasoning	Level 4 Extended Thinking
Remember	- Recall, locate basic facts, details, events			
Understand	- Select appropriate words to use when intended meaning is clearly evident	- Specify, explain relationships - summarize - identify main ideas	- Explain, generalize, or connect ideas using supporting evidence (quote, example...)	- Explain how concepts or ideas specifically relate to other content domains or concepts
Apply	- Use language structure (pre/suffix) or word relationships (synonym/antonym) to determine meaning	- Use context to identify meaning of word - Obtain and interpret information using text features	- Use concepts to solve non-routine problems	- Devise an approach among many alternatives to research a novel problem
Analyze	- Identify whether information is contained in a graph, table, etc.	- Compare literary elements, terms, facts, events - analyze format, organization, & text structures	- Analyze or interpret author's craft (literary devices, viewpoint, or potential bias) to critique a text	- Analyze multiple sources or texts - Analyze complex/abstract themes
Evaluate			- Cite evidence and develop a logical argument for conjectures	- Evaluate relevancy, accuracy, & completeness of information
Create	- Brainstorm ideas about a topic	- Generate conjectures based on observations or prior knowledge	- Synthesize information within one source or text	- Synthesize information across multiple sources or texts

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DOK Levels for AIMS MC Writing Items

- Items should target DOK levels II and III with few items at DOK level I.
  - Combining POs written at DOK level I, such as those for Conventions, will help to raise the DOK level.
    - When combining POs, make sure to remain within the same Concept.
    - If PO allows, write options to combine Convention errors from a single PO.
    - To keep students focused on the intent of the item, limit the number of conventions used in the options.
    - Each option should assess the same combination of conventions.

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Example: DOK Level I

Read the sentence.

Last Fall, Chris wrote a paper for his English class on The Grapes of Wrath by American writer John Steinbeck.

Which part of the sentence has an error in capitalization?

A Last Fall, Chris wrote a paper

B for his English class on

C The Grapes of Wrath by

D American writer John Steinbeck.

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Example: DOK Level II

Grade	3
Concept	3: Voice
PO	*1. Show awareness of the audience through word choice and style.*

Read the paragraph.

(1) Whales are very interesting animals. (2) These big animals swim to the surface of the water to breathe. (3) Many people choose whales as their favorite marine animals. (4) They can dive as deep as 600 feet on one breath.

Which sentence is off topic?

A sentence 1

B sentence 2

C sentence 3

D sentence 4

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Example: DOK Level III

Grade	6
Concept	4: Word Choice
PO	PO 1. Use accurate, specific, powerful words that effectively convey the intended message.

Mari wants to add a sentence to her composition. Which sentence is the most descriptive and precise?

A For some reason, Michael liked the classical music better than modern music.

B Michael savored the soothing melodies of classical music to a greater degree than the unique pulse of modern music.

C The melodies of classical music Michael found more attractive than the rhythm of modern music.

D As was his preference, the particular melodies of classical music were what Michael liked rather than the different sound of modern music.

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Items will be deemed "acceptable" based on the following criteria:

- Align to performance objective
- Meet the following standards of appropriateness:
  - Clarity
  - Format
  - Answer Options
- Are free of bias
- Written to the assigned DOK (Depth of Knowledge) level

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Goals

- Number of multiple-choice items per grade
  - Grade 5 – 30 items
  - Grade 6 – 30 items
  - Grade 7 – 30 items
  - High School – 60 items

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Roles

- Facilitator
- Recorder
- Time Keeper
- Code Checker

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Resources

- AIMS (2004) Writing Standards
- 2010 Arizona English Language Arts Standards
- Item Specifications
- AIMS Style Guide
- Word lists
- Checklists

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Process

- Write stimuli.
- Write items associated to the stimuli.
- Write stand alone items.
- Confirm PO, 2010 standard, and DOK match.
- Review items for grammar and format.
- Review items for grade-appropriate vocabulary.
- Review item stimuli for grade-appropriate complexity and length.
- Review item for bias.
- Revise as necessary.

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Facilitators

Grade 5 – Matthew Malay

Grade 6 – Kellie Schmidt

Grade 7 – Tony Vannella

High School – Lillian Moore

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Questions?

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Please complete two surveys before leaving on June 5.

Slide 37

Thank You

for being

Ambassadors of the Assessment

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APPENDIX D: AIMS HOLISTIC RUBRIC BASED ON 6 TRAITS OF WRITING

HOLISTIC RUBRIC BASED ON 6 TRAITS OF WRITING

SCORE POINT 6	SCORE POINT 5	SCORE POINT 4
Response is sophisticated and skillful in written communication, demonstrated by • exceptional clarity, focus, and control in topic development and organization that often show insight. • in-depth and/or creative exploration of the topic using rich, relevant, and credible details. • a strong, perhaps creative, beginning and a satisfying conclusion. • specifically and carefully chosen words that are skillfully crafted into phrases and sentences that enhance meaning. • intentional and committed interaction between the writer and the reader. • effective and/or creative use of a wide range of conventions with few errors.	Response is excellent and skillful in written communication, demonstrated by • clarity, focus, and control in topic development and organization. • a balanced and thorough exploration of the topic using relevant details. • an inviting beginning and a satisfying sense of closure. • a broad range of carefully chosen words crafted into phrases and varied sentences that sound natural. • awareness of the reader and commitment to the audience and topic. • effective use of a wide range of conventions with few errors.	Response is appropriate and acceptable in written communication, demonstrated by • ideas adequately developed with a clear and coherent presentation of ideas with order and structure that can be formulaic. • relevant details that are sometimes general or limited; organization that is clear, but sometimes predictable. • a recognizable beginning and ending, although one or both may be somewhat weak. • effective word choice that is functional and, at times, shows interaction between writer and audience. • somewhat varied sentence structure with good control of simple constructions; a natural sound. • control of standard conventions although a wide range is not used; errors that do not impede readability.

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SCORE POINT 3	SCORE POINT 2	SCORE POINT 1
Response is inadequate in written communication, demonstrated by • broad or simplistic ideas that are understood but often ineffective. • attempts at organizing that are inconsistent or ineffective; beginnings and endings that are underdeveloped; repetitive transitional devices. • developmental details that are uneven, somewhat predictable, or leave information gaps; details not always placed effectively in the writing. • reliance on clichés and overused words that do not connect with the reader; limited audience awareness. • monotonous and sometimes misused words; sentences may sound mechanical, although simple constructions are usually correct. • limited control of standard conventions with significant errors.	Response is poor in written communication, demonstrated by • overly simplistic and sometimes unclear ideas that have insufficiently developed details. • sequencing of ideas that is often just a list; missing or ineffective details that require reader inference to comprehend and follow. • missing beginning and/or ending. • repetitive, monotonous, and often misused words awkwardly strung into sentences that are difficult to read because they are either choppy or rambling; many sentences that begin with repetitive noun + verb pattern. • lack of audience awareness. • little control of basic conventions resulting in errors impeding readability.	Response is inferior in written communication, demonstrated by • lack of purpose or ideas and sequencing. • organization that obscures the main point. • an attempt that is too short to offer coherent development of an idea, if it is stated. • extremely limited vocabulary that shows no commitment to communicating a message. • sentences with confusing word order that may not permit oral reading. • severe and frequent errors in conventions.

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HOLISTIC RUBRIC BASED ON SIX TRAITS OF WRITING

Score Point 1: The writing skill in a Score Point 1 response is inferior. A paper receiving a SP 1 can be long or short. Length alone is not sufficient reason to score the response a SP 1. One or more bullets in the SP 1 rubric will describe this paper. It may also satisfy a bullet from a higher SP, but the majority of the response attributes are SP 1.

Score Point 2: The writing skill in a Score Point 2 response is poor. Ideas are presented but are not clear or organized. The reader must often reread and infer meaning because of the poor quality of writing. As with the SP 1, this paper may satisfy a bullet from a higher SP, but it fits into the SP 2 rubric more clearly than another.

Score Point 3: The writing in a Score Point 3 response is less than adequate. Ideas are simple; organization is inconsistent; development is uneven. While this paper may meet one or two bullets in a higher score, the majority of the attributes fall in the SP 3 rubric.

Score Point 4: The writing skill in a Score Point 4 response is appropriate and acceptable, demonstrating competent written communication. Clear ideas are organized coherently, although the paper is often formulaic. The message is presented so that most readers can easily understand it. The attributes from higher score points may emerge in some papers, but unless the paper satisfies a majority of bullets above the SP 4, it will earn a SP 4.

Score Point 5: The writing skill in a Score Point 5 response is excellent and shows skill above acceptable. This paper presents ideas clearly, organizes them with care, and uses vocabulary and sentences that demonstrate thoughtful choice and craftsmanship. A SP 5 paper may satisfy a bullet or two in SP 6, but it still does not meet a majority of the criteria in the SP 6. The majority of the SP 5 bullets will be represented.

Score Point 6: The writing skill in a Score Point 6 response is exemplary. The exceptional and sophisticated craftsmanship shows a thoughtful and exacting writer who strives to communicate clearly and creatively. While the paper may not fit every bullet in the SP 6 rubric, it will meet the majority of them. A SP 6 paper is not perfect. Errors may be noticed, but they do not detract from the message.

Condition codes for non-scored papers: BL = Blank; IL = illegible; NE = non-English; and OT = off-topic.

Always score papers by recognizing what the student has done well before looking for errors. Remember that the student is writing to a cold prompt with no assistance from a teacher. Score for the skills demonstrated. An error that is repeated still only counts as one error. For instance, if a student misspells "beautiful" four times, it is evident that he/she cannot spell "beautiful;" it is one error. Or if a student doesn't put a comma after introductory clauses throughout the paper, it is evident that he/she does not apply this comma rule; it is one error. If a student misuses the word "except" for "accept," the same applies whether it is done one time or five times. Strive to assign the score that is best represented by the bullets in a score point.

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