

Arizona

Arizona's Instrument to Measure Standards Alternate

AIMS A

2011

Technical Report

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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 2011 Spring Arizona's Instrument to Measure Standards Alternate (AIMS A) assessments for the development of tests, analysis of data, scoring, and scaling. This document also describes the results of the 2011 Spring AIMS A 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). Each part of this technical report addresses different standards. The standards addressed by each part are listed at the beginning of each part. Part 1 of the Technical Report addresses standards 2.7, 3.2, 3.3, 6.3, 6.4, 6.15, and 13.6.

Arizona includes all students with disabilities in state-wide assessments with or without accommodations, however, a small percentage of students are unable to participate in these assessments even with accommodations. Arizona's Instrument to Measure Standards Alternate (AIMS A) is an alternate assessment based on alternate achievement standards that was specifically developed to assess students with significant cognitive disabilities (SCDs) as prescribed by Title I of the Elementary and Secondary Education Act (ESEA) and the Individuals with Disabilities in Education Act (IDEA). AIMS A measures student ability on grade-level alternate academic standards; these standards are based on the Arizona Academic Standards, however, the breadth, depth, and complexity has been reduced as delineated in federal laws covering this population (NCLB, 2001 and IDEA, 2004).

Arizona has established eligibility criteria for students to qualify for an Alternate Assessment. Individualized Education Program (IEP) teams have been trained to utilize the AIMS A eligibility form and flow chart (<http://www.azed.gov/wp-content/uploads/PDF/AIMSEligibilityForm.pdf>) to identify students with significant cognitive disabilities who would be eligible to take AIMS A. (A copy of the eligibility form can be found in Appendix A.) Students who are tested with AIMS A are students who function at developmental and instructional levels significantly below those students who are assessed with the general standardized state assessment, AIMS. Students who are eligible for AIMS A are students with significant cognitive disabilities (SCDs) meeting the three eligibility requirements: students function like students with various levels of intellectual disabilities, and their skills and abilities are commensurate to their level of cognitive functioning based on empirical evidence preventing the acquisition of grade-level Arizona Academic Content Standards; they require intensive instruction, as it is extremely difficult for students with significant cognitive disabilities to acquire, maintain, generalize, and apply academic skills across environments even with extensive/intensive, pervasive, frequent, and individualized instruction in multiple settings; and the curricular outcomes for students with significant cognitive disabilities are based on the goals and objectives in the student IEPs and instruction is aligned to the enrolled grade level Arizona Alternate Academic Standards (<http://www.azed.gov/special-education/aimsa/teachers/>).

Children with SCDs are a unique population of students with extremely diverse abilities as well as limitations. Kleinert, Browder, and Towles-Reeves (2005) characterized students with SCDs as students who have:

- varied levels of symbolic communication
- issues attending to salient features of stimuli
- difficulty with memory
- limited motor response repertoire
- difficulty generalizing learned information or skills
- difficulty with meta-cognition
- difficulty with skill synthesis
- sensory deficits and
- special health care needs.

IDEA 2004 mandates that students in special education participate in the regular state assessments. If students in special education need accommodations, accommodations are provided as long as they still produce valid scores for individuals. Using non-standard accommodations, like a calculator or reading the reading passages, would invalidate the assessment and would not produce valid scores that in turn cannot be aggregated with other scores that are valid. However, alternate assessments based on alternate achievement standards are designed specifically for students with SCDs and these students require specialized instruction (Flowers, C. & Browder, D., 2004). Substantial modifications and adaptations are made to the curriculum so that students with SCDs can access the information and demonstrate what they know (Lehr, C., & Thurlow, M., 2003). Instructional adaptation strategies, like accommodations, should be implemented during daily instruction. Only those adaptations and instructional strategies used consistently during instructional activities should be made available to the students with SCDs being assessed with AIMS A. When administering AIMS A, test administrators are trained to utilize best practice strategies, adaptations, and assistive technology to ensure students have access to and are able to demonstrate what they know. Implementing adaptations specifically to meet a student's individual needs promotes participation and progress in the general curriculum (Kleinert, H. and Kearns Farmer, J. 2001).

Items on the multiple choice, performance tasks, and rater items sections of AIMS A represent the essential fundamentals taught to students with significant cognitive disabilities. The Kentucky Statewide Alternate Assessment Project (1999) suggests that states create alternate assessments that mirror the elements of daily classroom instruction. Arizona's teachers receive regular training on implementing the use of instructional adaptations as long as they allow the student to demonstrate their knowledge or respond to AIMS A items presented during the assessment administration. Teachers are trained not to influence the students' response. While this is not an exhaustive list of adaptations, teachers are encouraged to support students' access by utilizing any of the following (Kleinert, H. and Kearns Farmer, J. 2001; Denham, A, 2006):

- Visual/verbal cueing;
- Varied level of independence;
- Hand-over-hand assistance;
- Re-reading questions/passages;
- Manipulatives such as number line, calculator, clocks, or counters;
- Communication devices;
- Use symbols, pictures, or tactile objects that represent concepts.

AIMS A test administration procedures support the inclusion of assistive technology, prompting, and scaffolding to help students with SCDs demonstrate what they know. The state regional trainings conducted by ADE staff for district representatives emphasize these strategies to support student achievement and success.

Assistive technology (AT) as defined by IDEA is “any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability.” AT has become a necessary component in ensuring academic success for some students with disabilities. Effective use of AT in daily instruction allows students to access the curriculum, facilitates testing accommodations, and helps improve the performance of students who are struggling (Satterfield, B. and Satterfield, P., 2009). AIMS A allows for the use of AT as an adaptation to support student access to the online assessment and to demonstrate their knowledge.

AIMS A assesses mathematics and reading in Grades 3 – 8 and High School, and science in Grades 4, 8, and 10. AIMS A consists of three item types for each of the content areas: Multiple Choice items (presented to the student online), Performance Tasks, and Rater Items. The Multiple Choice items include a stem and three possible answer choices. The Performance Tasks are standardized, constructed response items which are scored on standardized data sheets. A 0-2 point scoring rubric has been established to assign specific score points to specific student responses. This 0-2 point scoring rubric is modified to a 0, 2, 4 point rubric to allow for equal weighting of Performance Tasks with Multiple Choice items which are translated to a 0, 4 point score. The Rater Items are constructed response items specific to the student’s environment which are scored using a similar 1-4 point rubric. This rubric is translated to a 0, 1, 2, 4 scoring rubric to allow for equal weighting of Performance Tasks with Multiple Choice items. Based on the input of Arizona educators and the results of Arizona’s Instrument to Measure Standards Alternate, 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.

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 2011 AIMS A Mathematics, Reading, and Science assessments. These committees included special education teachers, general education teachers, curriculum specialists, and other related service professionals (i.e. school psychologists and administrators). The committee participants were selected from across the state and were an integral part of the AIMS A test development processes and AIMS A results interpretation. In addition to these committees, internal review teams consisting of various Arizona Department of Education specialists and administrators were conducted as well to support quality assurance.

The test development committee and internal review team meetings included:

- Multiple Choice Item Review, conducted in June, 2010, in which the internal team reviewed each item that was administered in 2010. The team members made notations related to the overall appearance of the items; size and clarity of font and graphics; punctuation; grammar; and clarity of items and content;
- Blueprint Review and Gap Analysis, conducted June 2010, in which the internal team reviewed the current academic standards. No adjustments were made to the blueprint as the most important concepts for assessment were identified. The internal review team reviewed the 2010 item bank. From this analysis a gap was identified and a plan developed for the Item Writing committees. The plan identified which standards and concepts needed items to be developed and field tested during the 2011 administration;
- Item Writing, conducted in July 2010, in which educators wrote Multiple Choice items, and Performance Tasks aligned to the alternate content standards for possible use in the spring of 2011 as field test items; new rater items were not developed as they are being phased out and will no longer be an item type on the 2012 AIMS A.
- Content and Bias Review, conducted in July 2010, in which educators reviewed Multiple Choice items, and Performance Tasks, from all content areas for content, bias, and sensitivity. Items that survived these committees were eligible for inclusion on the spring 2011 AIMS A assessment;
- External Consultant Final Document Review, conducted in November 2010, external consultants (special education and general education teachers, school psychologists, and special education directors) were hired to review all final test documents that were assembled and placed on the ADE development site prior to the administration of AIMS A. After they logged on to the AIMS A training system they were instructed to critique the screens utilizing a checklist to evaluate the items and online system. Consultants had a two week block of time to review the assigned grades in mathematics, reading, and science. The printed copies of all test items (multiple choice, rater items, and performance tasks) matched the test items that would be reviewed online. The consultants were informed that they could use the hard copies of the actual test to document suggested changes, but they must also document all of their comments on the provided review form;

- ADE Internal Review Team, December 2010, the internal team (AIMS A coordinator, specialist, project specialist, director, and deputy associate superintendent) reviewed the documents returned by the external consultants. Decisions were made based on the feedback to make edits and revisions. A final internal review of every item was conducted prior to the test administration.

Part 3: Test Design

3.1 Content Standards

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.

AIMS A assessment is designed to measure performance on the Arizona Alternate Content Standards adopted in May 2006 for Mathematics and Reading in Grades 3–8 and HS and Grades 4, 8, and 10 for Science. These standards are organized by strand, concept, and performance objective. Performance Objectives are specific tasks and skills that the student is expected to know and is able to perform. Only the strand and concept level are described below, and scores are only reported at the strand level. The AIMS A Mathematics, Reading and Science test blueprints are based on the concepts and strands of the Arizona Alternate Content Standards.

Figure 3.1.1
Arizona Alternate Reading Strands and Concepts

Reading Grade 3	Reading Grade 4 – 8 and High School
<p>Strand 1: Reading Process</p> <ul style="list-style-type: none"> Concept 1: Print Concepts Concept 3: Phonics Concept 4: Vocabulary Concept 5: Fluency Concept 6: Comprehension Strategies <p>Strand 2: Comprehending Literary Text</p> <ul style="list-style-type: none"> Concept 1: Elements of Literature <p>Strand 3: Comprehending Informational Text</p> <ul style="list-style-type: none"> Concept 1: Expository Text Concept 2: Functional Text 	<p>Strand 1: Reading Process</p> <ul style="list-style-type: none"> Concept 4: Vocabulary Concept 5: Fluency Concept 6: Comprehension Strategies <p>Strand 2: Comprehending Literary Text</p> <ul style="list-style-type: none"> Concept 1: Elements of Literature <p>Strand 3: Comprehending Informational Text</p> <ul style="list-style-type: none"> Concept 1: Expository Text Concept 2: Functional Text

Figure 3.1.2
Arizona Alternate Mathematics Strands and Concepts

Mathematics Grade 3	Mathematics Grades 4, 5	Mathematics Grades 6, 7
Strand 1: Number Sense and Operations Concept 1: Number Sense Concept 2: Numerical Operations Concept 3: Estimation Strand 2: Data Analysis, Probability, and Discrete Mathematics Concept 1: Data Analysis (Statistics) Strand 3: Patterns, Algebra, and Functions Concept 1: Patterns Concept 3: Algebraic Representations Strand 4: Geometry and Measurement Concept 1: Geometric Properties Concept 4: Measurement	Strand 1: Number Sense and Operations Concept 1: Number Sense Concept 2: Numerical Operations Concept 3: Estimation Strand 2: Data Analysis, Probability, and Discrete Mathematics Concept 1: Data Analysis (Statistics) Concept 2: Probability Strand 3: Patterns, Algebra, and Functions Concept 1: Patterns Concept 3: Algebraic Representations Strand 4: Geometry and Measurement Concept 1: Geometric Properties Concept 4: Measurement Strand 5: Structure and Logic Concept 2: Logic and Reasoning	Strand 1: Number Sense and Operations Concept 1: Number Sense Concept 2: Numerical Operations Concept 3: Estimation Strand 2: Data Analysis, Probability, and Discrete Mathematics Concept 1: Data Analysis (Statistics) Concept 2: Probability Concept 4: Vertex-Edge Graphs Strand 3: Patterns, Algebra, and Functions Concept 1: Patterns Concept 3: Algebraic Representations Strand 4: Geometry and Measurement Concept 1: Geometric Properties Concept 3: Coordinate Geometry Concept 4: Measurement Strand 5: Structure and Logic Concept 2: Logic and Reasoning

Figure 3.1.2
Arizona Alternate Mathematics Strands and Concepts

Mathematics Grade 8	Mathematics Grade High School
<p>Strand 1: Number Sense and Operations</p> <ul style="list-style-type: none"> Concept 1: Number Sense Concept 2: Numerical Operations Concept 3: Estimation <p>Strand 2: Data Analysis, Probability, and Discrete Mathematics</p> <ul style="list-style-type: none"> Concept 1: Data Analysis (Statistics) Concept 2: Probability Concept 4: Vertex-Edge Graphs <p>Strand 3: Patterns, Algebra, and Functions</p> <ul style="list-style-type: none"> Concept 1: Patterns Concept 3: Algebraic Representations <p>Strand 4: Geometry and Measurement</p> <ul style="list-style-type: none"> Concept 1: Geometric Properties Concept 3: Coordinate Geometry Concept 4: Measurement <p>Strand 5: Structure and Logic</p> <ul style="list-style-type: none"> Concept 2: Logic and Reasoning 	<p>Strand 1: Number Sense and Operations</p> <ul style="list-style-type: none"> Concept 1: Number Sense Concept 2: Numerical Operations Concept 3: Estimation <p>Strand 2: Data Analysis, Probability, and Discrete Mathematics</p> <ul style="list-style-type: none"> Concept 1: Data Analysis (Statistics) Concept 2: Probability <p>Strand 3: Patterns, Algebra, and Functions</p> <ul style="list-style-type: none"> Concept 1: Patterns Concept 2: Functions and Relationships Concept 3: Algebraic Representations <p>Strand 4: Geometry and Measurement</p> <ul style="list-style-type: none"> Concept 1: Geometric Properties Concept 2: Transformation of Shapes Concept 3: Coordinate Geometry Concept 4: Measurement <p>Strand 5: Structure and Logic</p> <ul style="list-style-type: none"> Concept 1: Algorithms and Algorithmic Thinking Concept 2: Logic and Reasoning

Figure 3.1.3
Arizona Alternate Science Strands and Concepts – Grades 4, 8, and 10

Science Grade 4	Science Grade 8
<p>Strand 1: Inquiry Process</p> <ul style="list-style-type: none"> Concept 1: Observations, Questions, and Hypotheses Concept 2: Scientific Testing (Investigating and Modeling) Concept 3: Analysis and Conclusions Concept 4: Communication <p>Strand 2: History and Nature of Science</p> <ul style="list-style-type: none"> Concept 1: History of Science as a Human Endeavor <p>Strand 3: Science in Personal and Social Perspectives</p> <ul style="list-style-type: none"> Concept 1: Changes in Environments Concept 2: Science and Technology in Society <p>Strand 4: Life Science</p> <ul style="list-style-type: none"> Concept 1: Characteristics of Organisms Concept 3: Organisms and Environments Concept 4: Diversity, Adaptation, and Behavior <p>Strand 5: Physical Science</p> <ul style="list-style-type: none"> Concept 3: Energy and Magnetism <p>Strand 6: Earth and Space Science</p> <ul style="list-style-type: none"> Concept 2: Earth's Processes and Systems Concept 3: Changes in the Earth and Sky 	<p>Strand 1: Inquiry Process</p> <ul style="list-style-type: none"> Concept 1: Observations, Questions, and Hypotheses Concept 2: Scientific Testing (Investigating and Modeling) Concept 3: Analysis and Conclusions Concept 4: Communication <p>Strand 2: History and Nature of Science</p> <ul style="list-style-type: none"> Concept 1: History of Science as a Human Endeavor <p>Strand 3: Science in Personal and Social Perspectives</p> <ul style="list-style-type: none"> Concept 1: Changes in Environments Concept 2: Science and Technology in Society <p>Strand 4: Life Science</p> <ul style="list-style-type: none"> Concept 2: Reproduction and Heredity Concept 4: Diversity, Adaptation, and Behavior <p>Strand 5: Physical Science</p> <ul style="list-style-type: none"> Concept 1: Properties and Changes of Properties in Matter Concept 2: Motion and Forces

Science Grade 10

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**

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**

3.2 Test Blueprints

A test blueprint designates the percentage of items that should measure each strand and concept. All AIMS A 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. The blueprints were revised to address changes in the test and greater development efforts.

Table 3.2.1
AIMS A Blueprint for Reading

RDG	GRADE 3		GRADE 4		GRADE 5		GRADE 6	
	POs	Percent of test	POs	Percent of test	POs	Percent of test	POs	Percent of test
Strand 1	10	57%	6	40%	6	37%	8	40%
Strand 2	3	13%	5	23%	4	20%	3	27%
Strand 3	8	30%	6	37%	6	43%	7	33%
TOTAL	21	100%	17	100%	16	100%	18	100%

RDG	GRADE 7		GRADE 8		GRADE HS	
	POs	Percent of test	POs	Percent of test	POs	Percent of test
Strand 1	10	50%	10	43%	7	50%
Strand 2	3	23%	4	13%	2	27%
Strand 3	6	27%	8	43%	5	23%
TOTAL	19	100%	22	100%	14	100%

Table 3.2.2
AIMS A Blueprint for Mathematics

	GRADE 3		GRADE 4		GRADE 5		GRADE 6	
MATH	POs	Percent of test	POs	Percent of test	POs	Percent of test	POs	Percent of test
Strand 1	15	67%	12	53%	11	50%	12	33%
Strand 2	2	7%	3	13%	4	13%	7	30%
Strand 3	2	10%	3	13%	3	13%	2	10%
Strand 4	5	17%	7	20%	4	23%	8	27%
Strand 5								
TOTAL	24	100%	25	100%	22	100%	29	100%

	GRADE 7		GRADE 8		GRADE HS	
MATH	POs	Percent of test	POs	Percent of test	POs	Percent of test
Strand 1	8	23%	5	13%	6	17%
Strand 2	8	37%	7	27%	8	20%
Strand 3	4	23%	4	33%	5	30%
Strand 4	7	17%	7	27%	10	33%
Strand 5						
TOTAL	27	100%	23	100%	29	100%

Table 3.2.3
AIMS A Blueprint for Science Grades 4, 8, and 10

	GRADE 4		GRADE 8		GRADE 10	
MATH	POs	Percent of test	POs	Percent of test	POs	Percent of test
Strand 1	10	30%	16	47%	12	27%
Strand 2	4	13%	5	27%	5	13%
Strand 3						
Strand 4	12	57%	6	27%	20	60%
Strand 5						
Strand 6						
TOTAL	24	100%	25	100%	22	100%

3.3 Description of AIMS A 2011 Tests

The test blueprints were used with the processes described in Part 4 to develop all AIMS A tests administered in 2011. All viable items were used to as closely as possible match the blueprint. The resulting test configurations are as follows.

3.3.1 Reading

The AIMS A CRT Reading tests consisted of 15 multiple-choice items, 10 performance tasks, and 5 rater items developed by Arizona teachers. All items were scored on a basis of 4 raw score points per item. The raw scores ranged from 0-100 and scale scores were designed to range from 1000 to 1500. All items on the Reading tests reported to a criterion-referenced score. All Reading tests included 10 embedded field test items.

3.3.2 Mathematics

The AIMS A CRT Mathematics tests consisted of 15 multiple-choice items, 10 performance tasks, and 5 rater items developed by Arizona teachers. All items were scored on a basis of 4 raw score points per item. The raw scores ranged from 0-100 and scale scores were designed to range from 1000 to 1500. All items on the Mathematics tests reported to a criterion-referenced score. All Mathematics tests included 10 embedded field test items.

3.3.3 Science

The AIMS A CRT Science consisted of 15 multiple-choice items, 10 performance tasks, and 5 rater items developed by Arizona teachers. All items were scored on a basis of 4 raw score points per item. The raw scores ranged from 0-100 and scale scores were designed to range from 1000 to 1500. All items on the Science tests reported to a criterion-referenced score. All Science tests included 10 embedded field test items.

Table 3.3.1
2011 AIMS A Test Structure Reading

Test items and item types address all strands. Strands not represented on the 2011 AIMS A assessments will be represented on future assessments.

	Number of Items	Multiple Choice	Performance Tasks	Rater Items
Grade 3				
Strand 1 - Reading Process	16	6	6	4
Strand 2 - Comprehending Literary Text	4	3	1	0
Strand 3 - Comprehending Informational Text	10	6	3	1
Total	30	6	10	5
Grade 4				
Strand 1 - Reading Process	12	7	3	2
Strand 2 - Comprehending Literary Text	4	4	0	0
Strand 3 - Comprehending Informational Text	14	4	7	3
Total	30	15	10	5
Grade 5				
Strand 1 - Reading Process	11	7	1	3
Strand 2 - Comprehending Literary Text	7	2	5	0
Strand 3 - Comprehending Informational Text	12	6	4	2
Total	30	15	10	5
Grade 6				
Strand 1 - Reading Process	12	6	3	3
Strand 2 - Comprehending Literary Text	4	3	0	1
Strand 3 - Comprehending Informational Text	14	6	7	1
Total	30	15	10	5
Grade 7				
Strand 1 - Reading Process	15	9	3	3
Strand 2 - Comprehending Literary Text	4	0	4	0
Strand 3 - Comprehending Informational Text	11	6	3	2
Total	30	15	10	5
Grade 8				
Strand 1 - Reading Process	15	8	4	3
Strand 2 - Comprehending Literary Text	2	0	2	0
Strand 3 - Comprehending Informational Text	13	7	4	2
Total	30	15	10	5
High School				
Strand 1 - Reading Process	13	6	4	3
Strand 2 - Comprehending Literary Text	7	3	4	0
Strand 3 - Comprehending Informational Text	10	6	2	2
Total	30	15	10	5

Table 3.3.2
2011 AIMS A Test Structure Mathematics

	Number of Items	Multiple Choice	Performance Tasks	Rater Items
Grade 3				
Strand 1- Number Sense and Operations	13	4	8	1
Strand 2- Data Analysis, Probability, and Discrete Mathematics	5	4	0	1
Strand 3- Patterns, Algebra, and Functions	8	5	2	1
Strands 4 & 5- Geometry, Measurement, Structure & Logic	4	2	0	2
Total	30	15	10	5
Grade 4				
Strand 1- Number Sense and Operations	16	5	9	2
Strand 2- Data Analysis, Probability, and Discrete Mathematics	5	3	0	2
Strand 3- Patterns, Algebra, and Functions	4	3	1	0
Strands 4 & 5- Geometry, Measurement, Structure & Logic	5	4	0	1
Total	30	15	10	5
Grade 5				
Strand 1- Number Sense and Operations	12	3	7	2
Strand 2- Data Analysis, Probability, and Discrete Mathematics	7	4	1	2
Strand 3- Patterns, Algebra, and Functions	5	4	0	1
Strands 4 & 5- Geometry, Measurement, Structure & Logic	6	4	2	0
Total	30	15	10	5
Grade 6				
Strand 1- Number Sense and Operations	7	4	1	2
Strand 2- Data Analysis, Probability, and Discrete Mathematics	12	2	8	2
Strand 3- Patterns, Algebra, and Functions	5	4	0	1
Strands 4 & 5- Geometry, Measurement, Structure & Logic	6	5	1	0
Total	30	15	10	5
Grade 7				
Strand 1- Number Sense and Operations	7	5	0	2
Strand 2- Data Analysis, Probability, and Discrete Mathematics	9	2	5	2
Strand 3- Patterns, Algebra, and Functions	8	3	5	0
Strands 4 & 5- Geometry, Measurement, Structure & Logic	6	5	0	1
Total	30	15	10	5
Grade 8				
Strand 1- Number Sense and Operations	5	3	0	2
Strand 2- Data Analysis, Probability, and Discrete Mathematics	9	3	5	1
Strand 3- Patterns, Algebra, and Functions	8	3	5	0
Strands 4 & 5- Geometry, Measurement, Structure & Logic	8	6	0	2
Total	30	15	10	5
High School				
Strand 1- Number Sense and Operations	6	5	0	1
Strand 2- Data Analysis, Probability, and Discrete Mathematics	7	3	2	2
Strand 3- Patterns, Algebra, and Functions	11	3	8	0
Strands 4 & 5- Geometry, Measurement, Structure & Logic	6	4	0	2
Total	30	15	10	5

Table 3.3.3
2011 AIMS A Test Structure Science

	Number of Items	Multiple Choice	Performance Tasks	Rater Items
Grade 4				
Strand 1- Inquiry Process	7	5	2	0
Strands 2 & 3- History, Nature, Personal and Social	4	2	2	0
Strands 4, 5 & 6 - Science Content	19	8	6	5
Total	30	15	10	5
Grade 8				
Strand 1- Inquiry Process	8	2	1	5
Strands 2 & 3- History, Nature, Personal and Social	9	4	5	0
Strands 4, 5 & 6 - Science Content	13	9	4	0
Total	30	15	10	5
Grade 10				
Strand 1- Inquiry Process	8	4	1	3
Strands 2 & 3- History, Nature, Personal and Social	4	2	2	0
Strands 4, 5 & 6- Science Content	18	9	7	2
Total	30	15	10	5

Table 3.3.4
Raw Score and Scale Score Ranges of AIMS A 2011 Assessments

AIMS A 2011
Scale Scores and Performance Levels

Gr. Performance Level	Reading		Mathematics		Science	
	Scale Score 2011	Raw Score 2011	Scale Score 2011	Raw Score 2011	Scale Score 2011	Raw Score 2011
3 rd Falls Far Below Approaches Meets Exceeds	1000-1210	0-26	1000-1221	0-21		
	1211-1249	27-54	1222-1249	22-46		
	1250-1301	55-96	1250-1294	47-92		
	1302-1500	97-120	1295-1500	93-120		
4 th Falls Far Below Approaches Meets Exceeds	1000-1186	0-17	1000-1221	0-21	1000-1187	0-17
	1187-1249	18-50	1222-1249	22-44	1188-1249	18-56
	1250-1331	51-103	1250-1301	45-90	1250-1330	57-106
	1332-1500	104-120	1302-1500	91-120	1331-1500	107-120
5 th Falls Far Below Approaches Meets Exceeds	1000-1162	0-19	1000-1222	0-24		
	1163-1249	20-61	1223-1249	25-46		
	1250-1330	62-102	1250-1302	47-96		
	1331-1500	103-120	1303-1500	97-120		
6 th Falls Far Below Approaches Meets Exceeds	1000-1164	0-20	1000-1186	0-23		
	1165-1249	21-61	1187-1249	24-57		
	1250-1336	62-101	1250-1313	58-96		
	1337-1500	102-120	1314-1500	97-120		
7 th Falls Far Below Approaches Meets Exceeds	1000-1181	0-24	1000-1181	0-14		
	1182-1249	25-59	1182-1249	15-47		
	1250-1339	60-103	1250-1315	48-94		
	1340-1500	104-120	1316-1500	95-120		
8 th Falls Far Below Approaches Meets Exceeds	1000-1195	0-21	1000-1200	0-19	1000-1196	0-19
	1196-1249	22-54	1201-1249	20-47	1197-1249	20-55
	1250-1330	55-105	1250-1300	48-86	1250-1314	56-106
	1331-1500	106-120	1301-1500	87-120	1315-1500	107-120
HS Falls Far Below Approaches Meets Exceeds	1000-1186	0-15	1000-1198	0-20	1000-1196	0-15
	1187-1249	16-54	1199-1249	21-47	1197-1249	16-55
	1250-1344	55-109	1250-1328	48-98	1250-1308	56-105
	1345-1500	110-120	1329-1500	99-120	1309-1500	106-120

5/12/2011

Part 4: Test Development

Part 4 of the Technical Report provides a summary of the test development activities that occurred in preparation for the spring 2011 AIMS A.

A comprehensive, multi-segment development process guides the development of assessment materials. The following section outlines this process in general terms and 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 A Test Development and Editing Process

4.1.1 Blueprint Development

The development of the 2011 AIMS A assessment blueprint was derived from the 2009 blueprint and input received from the field and the Technical Advisory Committee (TAC) about the length and structure of the assessment. The length of the test was increased slightly.

4.1.2 Item Writing and Editing

The development of the 2011 AIMS A assessments involved many educators, content specialists, and professionals from across Arizona and ADE collaborating in an effort to ensure that all newly developed items closely match the Arizona Alternate Content Standards and the item specifications. The Arizona teachers and education professionals selected to serve on item writing committees all possessed content and assessment expertise, many of whom had special education expertise. These committee members were selected for their ability to be creative while adhering to the test blueprint, detailed item specifications, and content limits. The participants received a considerable amount of professional development prior to writing items. Items from the previous administration were reviewed and clarified. The appearance of the items were modified to match the new format and new test items were developed by Arizona teachers using a template to capture all requirements and supporting information such as strand, concept, performance objective, and content reference documentation. New Performance Tasks and Rater Items were constructed and reviewed by committees of special educators and content specialists. These new items were constructed in response to an internal review of the test map and a thorough gap analysis. After the item writing workshops were concluded, test items were edited and revised by in-house content specialists, assessment specialists, and research scientists for content appropriateness and standards match.

4.1.3 Item Specifications and Review Procedures

Prior to item writing, ADE reviewed the item specifications. The Item Specifications are living documents and need to be constantly reviewed. The purpose of the review and revision was to provide further clarity for how AIMS A will measure students' understanding of the alternate content standards. This is based on feedback from previous item writing workshops and best practices utilized in the development of AIMS items. ADE staff reviewed the definition of what is being tested by each Performance Objective (PO) and where needed, clarified the PO statements, the content limits, and the stimulus and response attribute descriptions. Taken together, these revisions further 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.

The resulting documents were used during item writing. Refinements and inputs were implemented. During item writing, it became clear that the item specifications would continue to require clarification and refinement in order to assure varied PO coverage within the test blueprint each year. More and varied illustrative samples for each PO need to be created each year and adapted from prior assessment items that truly reflect the item specification components and clearly test the PO. These item specifications will continue to be refined continuously where needed.

4.1.4 Test Construction Process

Test construction for the 2011 test administration began with an internal review of the items developed at the item writing workshops. Although in 2009, the TAC suggested that fewer items be administered, after further analysis it was determined to slightly increase the number of items to be tested and without impacting the reliabilities so that student frustration levels would not be impacted. A maximum of 30 items were chosen to be administered for 2011. Each grade and content area was administered the same number of items. Each test form contained 15 Multiple Choice items, 10 Performance Tasks, and 5 Rater Items. This may be adjusted after final analysis of the results and a review of the reliabilities of each assessment. After the assessments were constructed they went to a quality and content review.

4.1.5 Quality Reviews

ADE personnel implemented a series of quality review checks at various stages of production to assure all AIMS A materials were as error free as possible. ADE first reviewed each component at a relatively early stage of screen production. Items were compared to the way they were presented to the content/bias review committee to be sure no unauthorized changes have been introduced. In addition to the ADE personnel conducting the quality review checks, external consultants were acquired to conduct a thorough review of all items. During this review period, they provided comments for any suggested changes or improvement to items, instructions, materials, and online system usability. A smooth AIMS A test administration requires that all test materials, including online test, Data Sheets, Performance Task Materials, and directions to test administrators are in alignment. A final quality review of all forms and documents were reviewed and approved by ADE personnel.

Table 4.1.1
Number of Field Test Items Selected

Content Area	Number of Grades	Number of Forms	Number of Items Selected
Reading	7 (grades 3-8 & HS)	7	10
Math	7 (grades 3-8 & HS)	7	10
Science	3 (grades 4, 8, & 10)	3	10
TOTAL			170

Table 4.1.2
CRT Item Selection

Grade	Content	Multiple Choice	Performance Tasks	Rater Items
3	Mathematics	15	10	5
4	Mathematics	15	10	5
5	Mathematics	15	10	5
6	Mathematics	15	10	5
7	Mathematics	15	10	5
8	Mathematics	15	10	5
HS	Mathematics	15	10	5
3	Reading	15	10	5
4	Reading	15	10	5
5	Reading	15	10	5
6	Reading	15	10	5
7	Reading	15	10	5
8	Reading	15	10	5
HS	Reading	15	10	5
4	Science	15	10	5
8	Science	15	10	5
10	Science	15	10	5

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. 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 Adaptations

5.1.1 Overview of Adaptations

Some students taking the general assessment (AIMS) are allowed accommodations. Accommodations are specific practices and procedures that provide students with equitable access during instruction and assessment. Students with Significant Cognitive Disabilities (SCDs) require much more intensive instructional support which is provided through instructional adaptations. Significant adaptations and best practice strategies are necessary to develop an instructional environment to meet the unique abilities of students with SCDs. Instructional adaptation strategies, like accommodations, should be implemented during daily instruction. Only those adaptations and instructional strategies used consistently during instructional activities should be made available to the students with SCDs being assessed on AIMS A. Table 5.1.1 illustrates the adaptations (accommodations) actually provided to students during the 2011 administration.

Students identified as having a SCD are dismissed from ELL programs based on the IEP team decisions. This is in accordance with Federal and State mandates that the IEP team decisions need to be documented in the student's IEP. This documentation drives the educational program and all services for the student and supersedes Arizona Revised Statutes and Arizona Administrative Code (<http://www.ade.az.gov/oelas/downloads/SPEDPowerPoint-HandlingIssueswithDualLabels.pdf>).

Multiple Choice Items, Performance Tasks, and Rater Items include text with reduced cognitive loads and are supported with graphics as appropriate. Test administrators adhere to the accommodation and adaption guidance when administering the test. To further encourage appropriate access to AIMS A so that all students with SCDs can demonstrate their knowledge, guidance is also provided in the test instructions to utilize verbal and non-verbal support, objects, pictures, symbol systems, and manipulatives.

Table 5.1.1
2011 AIMS A Adaptations Provided

Any instructional adaptations or strategies can be used to support students with SCDs as long as the students indicate the response choices. The following are adaptations actually provided to students on the 2011 AIMS A assessments; however, this is not an exhaustive list of adaptations that could be utilized.

Adaptation	Number of Students Using Adaptation									
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 10	Grade 11	Grade 12	
Adaptive calculators	70	97	130	156	178	164	234	26	24	
Alphabet line	516	477	447	408	390	323	275	30	28	
Graph paper	85	109	117	148	150	127	101	9	14	
Highlight or mark key phrases, words, or letters	384	365	419	410	428	384	381	42	44	
Line drawings	233	227	191	213	225	220	198	22	26	
Magnifier	31	35	51	69	51	46	39	5	7	
Manipulatives	765	743	731	725	667	609	660	81	91	
Number line	644	609	603	583	555	492	465	45	49	
Other	171	204	188	204	185	190	140	18	18	
Picture/Object system	411	362	365	349	338	301	335	31	50	
Read passages or any test item/describe graphics	713	767	727	753	707	635	706	75	86	
Sign language	162	148	153	127	129	107	84	11	21	
Switch	94	110	107	132	113	101	77	8	13	
Symbolic/Picture system	416	366	346	365	322	316	310	34	46	
Use of objects	550	530	506	510	458	430	458	50	72	
Total Used	5272	5175	5106	5187	4918	4480	4520	495	605	

5.2 Test Security

All AIMS A tests were administered under secure testing conditions. Figure 5.2.1 includes the security agreement signed by personnel involved with testing administration.

Figure 5.2.1
2011 AIMS A Test Security Agreement

Arizona’s Instrument to Measure Standards **AIMS A Test Security / Testing Ethics Agreement 2011**

I acknowledge that AIMS A is a secure test, and I agree to the following conditions of use to ensure the security of the test:

1. I will take necessary precautions to safeguard test materials.
 - a. Limit access to persons with a responsible, professional interest in the test’s security.
 - b. Names of all persons having access to the materials will be kept on file by the special education director.
 - c. All persons having access to the AIMS A test materials (other than students to whom the test is administered) will sign the test security agreement.
 - i. Building administrators will maintain signed agreements of building staff.
 - ii. Special Education Directors will maintain signed agreements of building administrators.
2. I will keep all test materials secure, limiting access to Test Administrators.
 - a. Test materials will be kept secure until they are actually distributed to students.
 - b. In no case will students be permitted to remove test materials from the room where testing takes place except under supervision of staff.
3. I will not report students’ answer choices based on previous experience outside the testing window.
4. I will attend training and properly administer all sections of AIMS A.
5. I will not examine the AIMS A to determine the content beyond the requirements to administer the test.
 - a. No content of the test will be disclosed or allowed to be disclosed.
 - b. No test item will be discussed at any time.
6. After completing the test administration, I will store all testing materials, including student data sheets, in a secure area.
7. I will not use any test materials for instruction before or after test administration.
8. I understand the district superintendent or charter operator will develop, distribute, and enforce disciplinary procedures for the violation of test security by district or agency staff.

Individuals that will be administering the AIMS A for 2011 must also:

- participate in training activities prior to administering the AIMS A;
- review *AIMS A Test Administration Directions* for 2011 prior to test date;
- follow *AIMS A Test Administration Directions*; and
- secure all AIMS A test materials upon completion of testing, including all student data sheets.

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 2011 AIMS A test will also sign a Test Security Agreement.

Signed By: _____

Printed Name: _____

Title: _____

School: _____

5.3 Test Administration

In order to ensure standardized testing administration for all students, a Special Education Director's Manual was made available to all special education directors for the spring 2011 administration. The manual included the following topics:

- Schedule of Important Dates
- Special Education Director's Responsibilities
- Scheduling Test Administration
- Students to be Tested
- Student Identification Information
- Test Materials
- Procedures During Test Administration
- Procedures Following Test Administration
- Test Security.

A separate document called the Test Administration Directions was made available to all test administrators for the spring 2011 assessments. It included the following:

- Test Administrator Responsibilities
- Arrangements Prior to Test Administration
- Test Materials and Testing Schedule
- Test Administration Guidelines
- Student Identification Information
- Detailed Scripts for Administration of Each Part of Each Test
- Procedures Following Test Administration.

For specific information related to test administration, refer to the Special Education Director's Manual and/or the Test Administration Directions. These documents can be found online at www.ade.az.gov/ess/AltAssessment/AIMSA/SpedDirectors.asp.

Pre-test workshops were presented to special education directors across the state. All district special education directors were given the opportunity to attend a pre-test workshop. These workshops can be found under the title "AIMS A 2011 Fall Regional Training" at the link above. All districts were required to send a representative responsible for AIMS A coordination to attend one of the workshops for the 2011 AIMS A.

Part 6: Data for Operational Analysis

Part 6 of the Technical Report describes the data that were used for calibrating and scaling of the 2011 Spring AIMS A. This part also presents classical test statistics and item analysis statistics for each content area and grade level. 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.

6.1 Data

AIMS A has one test window spanning six weeks. The 2011 assessments were administered between February 15th and March 31st. Live calibration with census data was used for operational analysis of Reading, Mathematics, and Science tests. In order to ensure valid calibration results, several data cleaning steps occurred upon receipt of raw data from the ADE Information Technology (IT) department which hosts the online test and publishes the results. These steps allowed for calibration to be conducted on valid student responses at the targeted grade level. Records for students taking each content area test were included.

The cleaning process employed after the data were received from IT was applied to the calibration data sets for each content area and grade level:

- Multiple files were received from IT with scored multiple choice results, performance tasks scores, and rater item scores, multiple choice items were also sent with distractors identified for analysis purposes. These files and records were merged and sorted into administered sequence as a first step.
- Records of non-responsive students and partially non-responsive students (those answering at least one item) were identified.
- Totally non-responsive students (those students who did not respond to any items) were coded blank and excluded from the calibration data set.
- Students who did respond to at least one item of any item type had their non-response coded as omit and were included in the calibration data set.
- Records of total non-responders were removed from the calibration analysis but not removed from the final scale and reports.
- No other records were excluded.

More details on calibration are included in Part 7: Calibration, Scaling, and Scoring.

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 population data in Reading, Mathematics, Science. The table identifies the test, grade, number of students (N), the maximum obtainable raw score (Max Score), the raw score mean (RS M), the raw score standard deviation (RS SD), and Cronbach's alpha as a measure of internal consistency by item type, Multiple Choice (MC), Performance Task (PT), and Rater Item (RI). It should be noted though that the accuracy of the reliability coefficient is questionable due to the large number of non-responders in the sample and the low number of test items in the rater and performance tasks subtests.

Table 6.2.1
2011 AIMS A Classical Test Analysis Statistics

Test	N	MAX Score MC	RS M MC	RS SD MC	Reliability (alpha) MC	MAX Score PT	RS M PT	RS SD PT	Reliability (alpha) PT	MAX Score RI	RS M RI	RS SD RI	Reliability (alpha) RI
Math													
03	894	60	34.40	3.86	0.82	40	17.99	11.39	0.91	20	11.14	6.30	0.86
04	920	60	35.92	4.14	0.85	40	19.50	12.26	0.93	20	9.94	5.73	0.79
05	903	60	32.12	3.54	0.78	40	20.64	11.01	0.89	20	10.17	6.11	0.84
06	940	60	31.20	3.62	0.78	40	25.41	12.10	0.93	20	9.06	6.11	0.84
07	892	60	32.32	3.71	0.79	40	22.40	11.12	0.91	20	11.29	6.41	0.86
08	836	60	30.72	3.62	0.78	40	21.58	11.67	0.92	20	9.20	6.11	0.84
HS	1156	60	31.56	3.74	0.79	40	20.20	11.34	0.92	20	9.72	6.85	0.89
Reading													
03	894	60	32.40	4.00	0.83	40	23.90	11.94	0.92	20	10.48	6.50	0.86
04	920	60	33.36	3.94	0.83	40	25.02	12.54	0.93	20	9.20	6.42	0.86
05	903	60	36.88	4.15	0.85	40	26.95	11.61	0.93	20	9.30	6.32	0.86
06	940	60	36.36	4.22	0.86	40	25.54	11.94	0.93	20	9.43	6.50	0.88
07	892	60	38.48	3.94	0.85	40	27.93	11.86	0.93	20	10.71	6.36	0.87
08	836	60	37.68	4.12	0.86	40	25.72	12.11	0.93	20	10.47	6.66	0.88
HS	1156	60	40.48	4.28	0.89	40	28.03	13.43	0.96	20	9.44	6.82	0.89
Science													
04	919	60	39.00	4.24	0.88	40	23.89	12.47	0.93	20	11.03	6.59	0.86
08	836	60	35.68	4.49	0.89	40	27.21	11.58	0.93	20	12.18	6.69	0.91
10	907	60	36.08	4.07	0.85	40	27.22	12.48	0.94	20	9.55	6.69	0.89

Tables 6.2.2, 6.2.3, and 6.2.4 present the Lertap analysis of the 2011 AIMS A assessment standard statistics for each grade and content area tested.

Table 6.2.2
2011 AIMS A Mathematics Test Analysis

	Grade						
	3	4	5	6	7	8	HS
Number Tested	894	920	903	940	892	836	1,156
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Median	67.00	70.50	67.00	72.00	69.00	63.00	65.00
Mean	63.53	65.35	62.94	65.68	66.02	61.50	61.50
Maximum	120.00	120.00	118.00	118.00	120.00	118.00	120.00
Std. Deviation	30.30	31.93	28.12	29.58	28.91	29.21	30.00
Variance	917.95	1,019.44	790.54	874.86	835.55	853.13	900.00
Range	120.00	120.00	118.00	118.00	120.00	118.00	120.00
Interquartile Range	46.00	50.00	40.00	44.00	42.00	42.25	43.00
Skewness	-0.36	-0.38	-0.56	-0.65	-0.39	-0.38	-0.34
Kurtosis	-0.71	-0.80	-0.46	-0.44	-0.60	-0.66	-0.67
Min. Possible	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max. Possible	120.00	120.00	120.00	120.00	120.00	120.00	120.00
# No Response	33	39	36	35	25	31	43
% No Response	3.7%	4.2%	4.0%	3.7%	2.8%	3.7%	3.7%

Table 6.2.3
2011 AIMS A Reading Test Analysis

	Grade						
	3	4	5	6	7	8	HS
Number Tested	894	920	903	940	892	836	1,156
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Median	71.50	73.00	80.00	78.00	86.00	78.00	88.00
Mean	66.77	67.56	73.13	71.33	77.10	73.88	77.96
Maximum	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Std. Deviation	31.49	31.80	31.24	32.08	30.96	32.20	34.22
Variance	991.84	1,011.09	975.91	1,029.36	958.36	1,037.09	1,170.73
Range	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Interquartile Range	49.00	46.00	44.00	48.00	45.00	47.25	50.00
Skewness	-0.47	-0.56	-0.74	-0.66	-0.83	-0.69	-0.78
Kurtosis	-0.70	-0.57	-0.27	-0.47	-0.21	-0.36	-0.45
Min. Possible	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max. Possible	120.00	120.00	120.00	120.00	120.00	120.00	120.00
# No Response	30	40	39	39	23	34	49
% No Response	3.4%	4.3%	4.3%	4.1%	2.6%	4.1%	4.2%

Table 6.2.4
2011 AIMS A Science Test Analysis

	Grade						
	3	4	5	6	7	8	10
Number Tested		919				836	907
Minimum		0.00				0.00	0.00
Median		83.00				81.00	80.00
Mean		73.91				75.07	72.86
Maximum		120.00				120.00	120.00
Std. Deviation		33.30				33.12	32.44
Variance		1,109.19				1,096.94	1,052.08
Range		120.00				120.00	120.00
Interquartile Range		48.50				47.25	47.50
Skewness		-0.76				-0.68	-0.68
Kurtosis		-0.40				-0.39	-0.51
Min. Possible		0.00				0.00	0.00
Max. Possible		120.00				120.00	120.00
# No Response		41				35	35
% No Response		4.5%				4.2%	3.9%

6.3 Classical Item Analysis

Classical item analyses were conducted for all grades and content areas. Tables 6.3.1-6.3.17 present item statistics for the tests. Note that operational items are reported in sequence without embedded field test items. The tables show the number of students (N), the item difficulty (P-Value), point biserial correlation (r_{pb}) and biserial correlation (r_{bi}) for dichotomous items, percentage of students responding to, and point biserial for the key and each distractor, and the percentage of students who omitted a multiple choice item (% Omit). The point biserial correlation (r_{pb}) reported is the correlation of the item and the total scores of the other items on the test. The biserial correlation (r_{bi}) is a statistical measure indicating the strength of the relationship between the right answer for each item relative to the total number of correct answers for all other items on the test. It is arrived at by comparing how well students did answering one item, relative to how well they did answering all the items. These coefficients answer this question: How did the people who selected an item option do on the criterion measure? If they did well on the criterion, both (r_{pb}) and (r_{bi}) will be “high,” where “high” may be taken as anything over 0.30 for (r_{pb}), and anything over 0.40 for (r_{bi}). A low point-biserial implies that students who get the item correct tend to do poorly on the overall test, and students who get the item wrong tend to do well on the test, each of which indicates an anomaly.

Table 6.3.1
2011 AIMS A Classical Item Analysis
Mathematics Grade 3

Multiple Choice

Item	Item ID	N	P-Value	%	Correct		Distractor 1		Distractor 2		% Omit
					r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	
1	61093022-MC	833	0.74	74%	0.34	0.46	8%	-0.32	18%	-0.29	7%
2	61093033-MC	833	0.66	66%	0.39	0.51	11%	-0.29	24%	-0.35	7%
3	61093034-MC	839	0.64	64%	0.41	0.53	13%	-0.31	23%	-0.36	6%
4	61093025-MC	839	0.81	81%	0.37	0.53	10%	-0.38	10%	-0.25	6%
5	61093010-MC	841	0.55	55%	0.39	0.49	17%	-0.21	28%	-0.38	6%
6	61093032-MC	839	0.83	83%	0.42	0.62	8%	-0.39	9%	-0.29	6%
7	61093016-MC	826	0.73	73%	0.45	0.60	9%	-0.38	17%	-0.36	8%
8	61093019-MC	838	0.50	50%	0.27	0.34	28%	-0.35	22%	-0.11	6%
9	61103013-MC	817	0.58	58%	0.34	0.43	26%	-0.21	16%	-0.38	9%
10	61103002-MC	828	0.59	59%	0.29	0.37	18%	-0.24	22%	-0.29	7%
11	61093028-MC	832	0.47	47%	0.32	0.40	17%	-0.29	35%	-0.25	7%
12	61093008-MC	819	0.52	52%	0.13	0.16	27%	-0.18	21%	-0.15	8%
13	61093007-MC	830	0.43	43%	0.22	0.28	33%	-0.22	24%	-0.18	7%
14	61093013-MC	826	0.65	65%	0.44	0.56	19%	-0.31	17%	-0.38	8%
15	61093024-MC	824	0.55	55%	0.26	0.33	18%	-0.28	27%	-0.21	8%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}
16	61093101-PT	894	15%	0.67	12%	-0.27	73%	-0.59
17	61103106-PT	894	44%	0.37	46%	0.45	10%	-0.67
18	61093103-PT	894	36%	0.55	34%	0.20	30%	-0.73
19	61093104-PT	894	38%	0.69	28%	0.09	34%	-0.76
20	61093105-PT	894	44%	0.63	31%	0.22	25%	-0.76
21	61103101-PT	894	33%	0.61	32%	0.09	35%	-0.71
22	61103102-PT	894	41%	0.61	36%	0.24	23%	-0.76
23	61103103-PT	894	37%	0.59	38%	0.23	25%	-0.76
24	61103104-PT	894	43%	0.42	39%	0.33	18%	-0.66
25	61103105-PT	894	53%	0.36	38%	0.46	9%	-0.66

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
26	61093201-RI	894	43%	0.74	15%	0.08	16%	-0.16	27%	-0.76
27	61093202-RI	894	44%	0.70	19%	0.05	16%	-0.21	22%	-0.70
28	61093203-RI	894	71%	0.75	9%	-0.16	8%	-0.34	12%	-0.62
29	61093204-RI	894	12%	0.41	19%	0.35	28%	0.14	41%	-0.68
30	61093205-RI	894	52%	0.78	13%	-0.03	14%	-0.27	21%	-0.71

Table 6.3.2
2011 AIMS A Classical Item Analysis
Mathematics Grade 4

Multiple Choice

Item	Item ID	N	P-Value	%	Correct		Distractor 1		Distractor 2		% Omit
					r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	
1	61094029-MC	854	0.72	72%	0.49	0.65	14%	-0.41	14%	-0.35	7%
2	61104020-MC	845	0.55	55%	0.34	0.43	17%	-0.25	28%	-0.31	8%
3	61094025-MC	853	0.82	82%	0.43	0.63	10%	-0.32	8%	-0.38	7%
4	61094019-MC	857	0.54	54%	0.31	0.38	27%	-0.37	19%	-0.12	7%
5	61094042-MC	846	0.57	57%	0.35	0.44	18%	-0.28	25%	-0.29	8%
6	61094035-MC	858	0.74	74%	0.39	0.52	15%	-0.30	11%	-0.35	7%
7	61094022-MC	851	0.69	69%	0.30	0.39	25%	-0.27	6%	-0.33	8%
8	61094040-MC	848	0.67	67%	0.52	0.67	18%	-0.40	15%	-0.37	8%
9	61094039-MC	850	0.56	56%	0.36	0.45	25%	-0.22	19%	-0.37	8%
10	61094012-MC	845	0.71	71%	0.42	0.56	12%	-0.34	17%	-0.35	8%
11	61094007-MC	843	0.63	63%	0.43	0.55	14%	-0.27	23%	-0.40	8%
12	61094003-MC	853	0.83	83%	0.46	0.68	8%	-0.36	9%	-0.37	7%
13	61094018-MC	850	0.47	47%	0.20	0.25	17%	-0.22	36%	-0.17	8%
14	61094043-MC	844	0.68	68%	0.44	0.58	16%	-0.33	16%	-0.37	8%
15	61094044-MC	845	0.55	55%	0.29	0.36	16%	-0.27	29%	-0.24	8%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}
16	61094101-PT	919	73%	0.70	11%	-0.28	16%	-0.61
17	61104106-PT	919	63%	0.69	20%	-0.25	17%	-0.62
18	61094103-PT	919	33%	0.63	30%	0.15	37%	-0.76
19	61094104-PT	919	28%	0.69	27%	0.21	45%	-0.80
20	61094105-PT	919	24%	0.63	26%	0.27	50%	-0.78
21	61104101-PT	919	60%	0.72	19%	-0.20	21%	-0.67
22	61104102-PT	919	23%	0.54	31%	0.31	47%	-0.74
23	61104103-PT	919	24%	0.63	26%	0.29	50%	-0.79
24	61104104-PT	919	21%	0.61	30%	0.30	49%	-0.77
25	61104105-PT	919	12%	0.41	36%	0.46	53%	-0.70

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
26	61094201-RI	919	62%	0.72	10%	-0.11	12%	-0.30	16%	-0.60
27	61104206-RI	919	10%	0.46	12%	0.36	19%	0.23	59%	-0.70
28	61094203-RI	919	45%	0.65	20%	0.03	14%	-0.25	21%	-0.62
29	61104207-RI	919	6%	0.37	8%	0.32	21%	0.33	65%	-0.65
30	61094205-RI	919	27%	0.66	12%	0.18	19%	0.04	43%	-0.74

Table 6.3.3
2011 AIMS A Classical Item Analysis
Mathematics Grade 5

Multiple Choice

Item	Item ID	N	P-Value	%	Correct		Distractor 1		Distractor 2		% Omit
					r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	
1	61105009-MC	839	0.45	45%	0.24	0.30	38%	-0.19	18%	-0.27	7%
2	61095044-MC	851	0.81	81%	0.39	0.56	12%	-0.36	7%	-0.30	6%
3	61095017-MC	849	0.75	75%	0.31	0.42	16%	-0.31	9%	-0.26	6%
4	61095024-MC	841	0.77	77%	0.45	0.63	11%	-0.38	12%	-0.37	7%
5	61095015-MC	846	0.43	43%	0.29	0.36	29%	-0.36	28%	-0.12	6%
6	61095043-MC	844	0.57	57%	0.31	0.39	16%	-0.23	26%	-0.32	7%
7	61095042-MC	841	0.47	47%	0.35	0.44	26%	-0.16	27%	-0.39	7%
8	61095032-MC	842	0.78	78%	0.32	0.45	6%	-0.27	16%	-0.32	7%
9	61095041-MC	841	0.41	41%	0.27	0.34	32%	-0.28	27%	-0.17	7%
10	61115006-MC	849	0.53	53%	0.27	0.34	21%	-0.28	26%	-0.22	6%
11	61095045-MC	851	0.38	38%	0.15	0.19	18%	-0.24	45%	-0.12	6%
12	61095046-MC	837	0.59	59%	0.32	0.41	19%	-0.32	23%	-0.25	7%
13	61105019-MC	842	0.53	53%	0.28	0.36	22%	-0.27	25%	-0.24	7%
14	61105020-MC	849	0.74	74%	0.31	0.42	11%	-0.27	15%	-0.30	6%
15	61105012-MC	823	0.39	39%	0.01	0.01	22%	-0.15	39%	-0.04	9%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}
16	61095101-PT	903	43%	0.55	30%	0.07	27%	-0.68
17	61105106-PT	903	35%	0.54	35%	0.14	30%	-0.70
18	61105107-PT	903	31%	0.49	40%	0.19	29%	-0.70
19	61095104-PT	903	19%	0.39	41%	0.38	40%	-0.70
20	61095105-PT	903	15%	0.42	36%	0.41	49%	-0.70
21	61105101-PT	903	48%	0.63	30%	-0.03	22%	-0.73
22	61105102-PT	903	58%	0.71	21%	-0.12	21%	-0.74
23	61105103-PT	903	12%	0.36	38%	0.46	50%	-0.68
24	61105104-PT	903	47%	0.62	31%	-0.03	22%	-0.71
25	61105105-PT	903	36%	0.47	42%	0.07	22%	-0.63

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
26	61095201-RI	903	53%	0.72	17%	-0.03	14%	-0.33	16%	-0.63
27	61095202-RI	903	38%	0.65	21%	0.11	20%	-0.24	21%	-0.64
28	61095203-RI	903	46%	0.70	19%	0.02	18%	-0.31	17%	-0.64
29	61095204-RI	903	18%	0.55	15%	0.30	24%	0.11	44%	-0.73
30	61095205-RI	903	28%	0.59	20%	0.24	23%	-0.14	29%	-0.66

Table 6.3.4
2011 AIMS A Classical Item Analysis
Mathematics Grade 6

Multiple Choice

Item	Item ID	N	P-Value	%	Correct		Distractor 1		Distractor 2		% Omit
					r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	
1	61096036-MC	877	0.51	51%	0.35	0.43	23%	-0.24	26%	-0.32	7%
2	61096039-MC	877	0.47	47%	0.34	0.42	26%	-0.27	27%	-0.27	7%
3	61096007-MC	877	0.73	73%	0.36	0.48	16%	-0.24	12%	-0.39	7%
4	61106011-MC	868	0.38	38%	0.17	0.21	30%	-0.08	31%	-0.25	8%
5	61116006-MC	884	0.73	73%	0.36	0.48	14%	-0.25	13%	-0.37	6%
6	61096027-MC	875	0.73	73%	0.32	0.42	9%	-0.22	18%	-0.34	7%
7	61096038-MC	867	0.57	57%	0.42	0.53	25%	-0.30	18%	-0.37	8%
8	61096008-MC	872	0.55	55%	0.24	0.30	23%	-0.18	22%	-0.28	7%
9	61096040-MC	872	0.77	77%	0.34	0.47	12%	-0.25	11%	-0.35	7%
10	61096022-MC	869	0.47	47%	0.22	0.28	24%	-0.20	29%	-0.22	8%
11	61096035-MC	875	0.43	43%	0.12	0.15	39%	-0.02	18%	-0.32	7%
12	61106001-MC	861	0.52	52%	0.24	0.30	23%	-0.16	25%	-0.29	8%
13	61106002-MC	859	0.38	38%	0.10	0.13	26%	-0.19	36%	-0.08	9%
14	61106015-MC	867	0.57	57%	0.36	0.45	24%	-0.24	19%	-0.37	8%
15	61106019-MC	862	0.59	59%	0.35	0.44	25%	-0.25	16%	-0.36	8%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}
16	61096101-PT	939	63%	0.73	23%	-0.24	14%	-0.72
17	61096102-PT	939	58%	0.63	27%	-0.10	16%	-0.73
18	61096103-PT	939	54%	0.67	26%	-0.06	20%	-0.77
19	61096104-PT	939	54%	0.69	28%	-0.11	18%	-0.77
20	61096105-PT	939	53%	0.69	27%	-0.08	19%	-0.78
21	61106101-PT	939	54%	0.63	26%	-0.05	19%	-0.74
22	61106102-PT	939	58%	0.76	23%	-0.17	18%	-0.78
23	61106103-PT	939	14%	0.34	46%	0.41	40%	-0.66
24	61106104-PT	939	33%	0.53	38%	0.20	29%	-0.76
25	61106105-PT	939	45%	0.60	33%	0.03	22%	-0.75

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
26	61096201-RI	939	38%	0.62	20%	0.16	20%	-0.24	22%	-0.65
27	61096202-RI	939	25%	0.60	19%	0.24	23%	-0.07	33%	-0.70
28	61096203-RI	939	43%	0.69	19%	0.05	17%	-0.27	21%	-0.64
29	61096204-RI	939	15%	0.56	18%	0.31	26%	0.05	41%	-0.70
30	61096205-RI	939	31%	0.64	20%	0.21	18%	-0.13	31%	-0.71

Table 6.3.5
2011 AIMS A Classical Item Analysis
Mathematics Grade 7

Multiple Choice

Item	Item ID	N	P-Value	%	Correct		Distractor 1		Distractor 2		% Omit
					r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	
1	61097012-MC	854	0.60	60%	0.30	0.38	29%	-0.20	11%	-0.38	4%
2	61097015-MC	849	0.46	46%	0.24	0.30	17%	-0.29	37%	-0.16	5%
3	61097034-MC	845	0.55	55%	0.37	0.46	25%	-0.31	19%	-0.27	5%
4	61097007-MC	851	0.62	62%	0.37	0.47	23%	-0.23	15%	-0.39	5%
5	61097035-MC	844	0.49	49%	0.29	0.36	12%	-0.18	39%	-0.31	5%
6	61117007-MC	842	0.64	64%	0.39	0.50	14%	-0.33	22%	-0.31	6%
7	61097037-MC	842	0.62	62%	0.36	0.46	15%	-0.20	22%	-0.39	6%
8	61097023-MC	851	0.78	78%	0.42	0.58	12%	-0.35	10%	-0.33	5%
9	61097039-MC	840	0.47	47%	0.25	0.32	26%	-0.15	27%	-0.29	6%
10	61097040-MC	844	0.50	50%	0.28	0.35	26%	-0.12	23%	-0.37	5%
11	61097010-MC	844	0.62	62%	0.39	0.50	16%	-0.32	22%	-0.32	5%
12	61097042-MC	835	0.50	50%	0.22	0.27	26%	-0.20	23%	-0.22	6%
13	61097043-MC	832	0.52	52%	0.28	0.35	19%	-0.21	30%	-0.27	7%
14	61097044-MC	848	0.61	61%	0.42	0.53	15%	-0.35	24%	-0.31	5%
15	61097008-MC	844	0.56	56%	0.32	0.41	24%	-0.20	20%	-0.35	5%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}
16	61097101-PT	892	65%	0.65	23%	-0.31	11%	-0.57
17	61097102-PT	892	59%	0.59	27%	-0.19	14%	-0.60
18	61097103-PT	892	56%	0.62	26%	-0.12	18%	-0.67
19	61097104-PT	892	47%	0.63	34%	-0.11	19%	-0.67
20	61097105-PT	892	62%	0.71	22%	-0.25	16%	-0.66
21	61107101-PT	892	15%	0.43	41%	0.41	44%	-0.72
22	61107102-PT	892	22%	0.52	41%	0.27	37%	-0.72
23	61107103-PT	892	24%	0.55	39%	0.25	37%	-0.75
24	61107104-PT	892	18%	0.51	36%	0.33	45%	-0.72
25	61107105-PT	892	28%	0.60	35%	0.18	37%	-0.73

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
26	61097201-RI	892	52%	0.69	17%	0.01	16%	-0.35	14%	-0.62
27	61097202-RI	892	38%	0.65	21%	0.07	22%	-0.22	19%	-0.63
28	61097203-RI	892	59%	0.75	12%	-0.06	14%	-0.38	15%	-0.62
29	61097204-RI	892	29%	0.63	21%	0.21	19%	-0.09	31%	-0.73
30	61097205-RI	892	36%	0.67	19%	0.16	17%	-0.16	28%	-0.73

Table 6.3.6
2011 AIMS A Classical Item Analysis
Mathematics Grade 8

Multiple Choice

Item	Item ID	N	P-Value	%	Correct		Distractor 1		Distractor 2		% Omit
					r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	
1	61098017-MC	780	0.53	53%	0.28	0.35	21%	-0.29	25%	-0.21	0.07
2	61098019-MC	777	0.72	72%	0.43	0.58	12%	-0.37	15%	-0.33	0.07
3	61098035-MC	776	0.53	53%	0.34	0.43	23%	-0.25	23%	-0.32	0.07
4	61098037-MC	783	0.56	56%	0.34	0.43	21%	-0.32	23%	-0.25	0.06
5	61098038-MC	776	0.54	54%	0.25	0.31	17%	-0.31	29%	-0.18	0.07
6	61098039-MC	780	0.47	47%	0.22	0.28	21%	-0.34	32%	-0.10	0.07
7	61108015-MC	771	0.41	41%	0.23	0.30	15%	-0.26	44%	-0.19	0.08
8	61098027-MC	776	0.65	65%	0.43	0.55	11%	-0.33	24%	-0.38	0.07
9	61098002-MC	774	0.80	80%	0.38	0.54	8%	-0.34	12%	-0.31	0.07
10	61098028-MC	777	0.54	54%	0.40	0.51	26%	-0.31	20%	-0.32	0.07
11	61098040-MC	775	0.61	61%	0.31	0.40	15%	-0.27	23%	-0.28	0.07
12	61098007-MC	772	0.47	47%	0.27	0.34	28%	-0.27	25%	-0.20	0.08
13	61098034-MC	767	0.55	55%	0.29	0.37	20%	-0.30	25%	-0.22	0.08
14	61108014-MC	771	0.25	25%	-0.16	-0.21	36%	-0.07	39%	0.08	0.08
15	61108021-MC	771	0.64	64%	0.29	0.37	17%	-0.25	19%	-0.28	0.08

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}
16	61098101-PT	836	59%	0.67	25%	-0.18	16%	-0.68
17	61098102-PT	836	56%	0.62	26%	-0.13	18%	-0.65
18	61098103-PT	836	53%	0.70	30%	-0.21	18%	-0.67
19	61098104-PT	836	47%	0.66	33%	-0.14	19%	-0.66
20	61098105-PT	836	65%	0.72	19%	-0.25	16%	-0.67
21	61108101-PT	836	24%	0.55	37%	0.23	39%	-0.71
22	61108102-PT	836	25%	0.59	35%	0.25	41%	-0.76
23	61108103-PT	836	18%	0.53	38%	0.33	43%	-0.73
24	61108104-PT	836	14%	0.48	39%	0.40	47%	-0.73
25	61108105-PT	836	22%	0.59	32%	0.28	47%	-0.75

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
26	61098201-RI	836	49%	0.73	15%	0.01	14%	-0.25	22%	-0.67
27	61098202-RI	836	43%	0.71	17%	0.06	17%	-0.23	23%	-0.68
28	61098203-RI	836	44%	0.70	18%	0.07	15%	-0.27	23%	-0.67
29	61108206-RI	836	8%	0.39	11%	0.33	20%	0.22	62%	-0.60
30	61098205-RI	836	28%	0.64	16%	0.24	20%	-0.05	36%	-0.73

Table 6.3.7
2011 AIMS A Classical Item Analysis
Mathematics High School

Multiple Choice

Item	Item ID	N	P-Value	%	Correct		Distractor 1		Distractor 2		% Omit
					r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	
1	61090001-MC	1,090	0.54	54%	0.28	0.35	19%	-0.30	26%	-0.20	6%
2	61100004-MC	1,073	0.57	57%	0.19	0.24	14%	-0.29	29%	-0.15	7%
3	61090003-MC	1,087	0.66	66%	0.35	0.46	10%	-0.36	24%	-0.28	6%
4	61090012-MC	1,069	0.66	66%	0.29	0.37	18%	-0.29	16%	-0.24	8%
5	61090014-MC	1,071	0.55	55%	0.40	0.50	21%	-0.24	24%	-0.38	7%
6	61090006-MC	1,068	0.56	56%	0.38	0.48	16%	-0.27	27%	-0.34	8%
7	61090008-MC	1,077	0.71	71%	0.48	0.64	13%	-0.32	16%	-0.43	7%
8	61090009-MC	1,074	0.59	59%	0.34	0.43	15%	-0.29	26%	-0.29	7%
9	61090010-MC	1,079	0.66	66%	0.43	0.55	22%	-0.37	12%	-0.32	7%
10	61090013-MC	1,068	0.47	47%	0.18	0.23	23%	-0.21	31%	-0.17	8%
11	61090015-MC	1,072	0.52	52%	0.22	0.27	25%	-0.18	23%	-0.24	7%
12	61090016-MC	1,070	0.55	55%	0.32	0.40	16%	-0.24	28%	-0.30	7%
13	61090017-MC	1,071	0.58	58%	0.33	0.42	21%	-0.32	21%	-0.24	7%
14	61090018-MC	1,076	0.36	36%	0.11	0.14	35%	-0.05	29%	-0.22	7%
15	61100016-MC	1,069	0.51	51%	0.27	0.34	28%	-0.24	21%	-0.23	8%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}
16	61090101-PT	1,156	56%	0.66	27%	-0.16	17%	-0.68
17	61090102-PT	1,156	50%	0.71	28%	-0.12	22%	-0.73
18	61090103-PT	1,156	49%	0.71	26%	-0.06	25%	-0.76
19	61090104-PT	1,156	71%	0.67	14%	-0.19	15%	-0.67
20	61090105-PT	1,156	61%	0.68	20%	-0.15	18%	-0.70
21	61100101-PT	1,156	21%	0.50	41%	0.29	38%	-0.71
22	61100102-PT	1,156	13%	0.45	37%	0.41	50%	-0.70
23	61100103-PT	1,156	12%	0.47	37%	0.45	51%	-0.74
24	61100104-PT	1,156	12%	0.49	32%	0.42	56%	-0.72
25	61100105-PT	1,156	13%	0.45	33%	0.42	54%	-0.70

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
26	61090201-RI	1,156	39%	0.75	14%	0.08	19%	-0.20	28%	-0.71
27	61100206-RI	1,156	40%	0.74	16%	0.08	18%	-0.22	26%	-0.70
28	61090203-RI	1,156	53%	0.77	12%	-0.06	14%	-0.30	20%	-0.65
29	61090204-RI	1,156	22%	0.63	18%	0.27	18%	0.00	41%	-0.75
30	61090205-RI	1,156	27%	0.66	18%	0.19	19%	-0.03	36%	-0.74

Table 6.3.8
2011 AIMS A Classical Item Analysis
Reading Grade 3

Multiple Choice

Item	Item ID	N	P-Value	%	Correct		Distractor 1		Distractor 2		% Omit
					r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	
1	62093030-MC	833	0.81	81%	0.43	0.62	6%	-0.27	13%	-0.41	7%
2	62093052-MC	836	0.39	39%	0.30	0.39	33%	-0.28	28%	-0.17	6%
3	62093031-MC	833	0.43	43%	0.33	0.42	23%	-0.30	34%	-0.21	7%
4	62093050-MC	833	0.67	67%	0.41	0.53	12%	-0.23	21%	-0.41	7%
5	62103005-MC	830	0.61	61%	0.38	0.48	11%	-0.29	28%	-0.34	7%
6	62103006-MC	832	0.66	66%	0.33	0.43	9%	-0.26	25%	-0.32	7%
7	62093051-MC	834	0.61	61%	0.45	0.58	17%	-0.37	22%	-0.33	7%
8	62093006-MC	828	0.64	64%	0.32	0.41	15%	-0.21	21%	-0.34	7%
9	62103012-MC	817	0.55	55%	0.28	0.36	15%	-0.22	30%	-0.27	9%
10	62093021-MC	827	0.62	62%	0.39	0.49	20%	-0.27	18%	-0.35	7%
11	62103014-MC	828	0.52	52%	0.30	0.38	11%	-0.20	37%	-0.32	7%
12	62093017-MC	824	0.50	50%	0.37	0.46	22%	-0.34	28%	-0.23	8%
13	62103002-MC	824	0.54	54%	0.33	0.41	25%	-0.34	22%	-0.19	8%
14	62103009-MC	824	0.50	50%	0.42	0.52	30%	-0.30	20%	-0.32	8%
15	62103010-MC	825	0.70	70%	0.39	0.51	13%	-0.26	17%	-0.38	8%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}
16	62103106-PT	894	61%	0.64	22%	-0.12	17%	-0.69
17	62103107-PT	894	66%	0.73	17%	-0.18	17%	-0.74
18	62103108-PT	894	20%	0.43	42%	0.32	37%	-0.68
19	62093104-PT	894	24%	0.45	43%	0.30	33%	-0.73
20	62103109-PT	894	33%	0.55	33%	0.21	35%	-0.75
21	62103101-PT	894	55%	0.66	23%	-0.01	22%	-0.78
22	62103102-PT	894	50%	0.62	26%	0.01	23%	-0.74
23	62103103-PT	894	55%	0.68	23%	-0.04	22%	-0.78
24	62103104-PT	894	57%	0.67	24%	-0.09	19%	-0.75
25	62103105-PT	894	31%	0.45	38%	0.29	31%	-0.75

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
26	62093201-RI	894	64%	0.77	11%	-0.11	11%	-0.36	15%	-0.63
27	62093202-RI	894	21%	0.52	18%	0.27	24%	0.04	37%	-0.69
28	62103206-RI	894	45%	0.75	15%	0.04	15%	-0.19	25%	-0.74
29	62103207-RI	894	51%	0.78	12%	0.01	13%	-0.22	24%	-0.75
30	62103208-RI	894	25%	0.57	16%	0.22	18%	0.07	41%	-0.73

Table 6.3.9
2011 AIMS A Classical Item Analysis
Reading Grade 4
Multiple Choice

Item	Item ID	N	P-Value	%	Correct		Distractor 1		Distractor 2		% Omit
					r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	
1	62094030-MC	859	0.85	85%	0.39	0.59	8%	-0.32	8%	-0.33	7%
2	62094035-MC	844	0.67	67%	0.44	0.57	19%	-0.38	14%	-0.31	8%
3	62094032-MC	848	0.68	68%	0.38	0.49	17%	-0.33	15%	-0.30	8%
4	62104001-MC	837	0.65	65%	0.46	0.59	16%	-0.35	18%	-0.37	9%
5	62094028-MC	841	0.69	69%	0.34	0.45	12%	-0.26	19%	-0.34	9%
6	62104002-MC	830	0.69	69%	0.33	0.44	14%	-0.21	17%	-0.37	10%
7	62104003-MC	843	0.74	74%	0.28	0.38	9%	-0.15	17%	-0.36	8%
8	62104007-MC	838	0.62	62%	0.36	0.46	16%	-0.24	22%	-0.35	9%
9	62104008-MC	839	0.47	47%	0.21	0.26	26%	-0.16	26%	-0.24	9%
10	62104009-MC	832	0.54	54%	0.29	0.36	20%	-0.20	26%	-0.30	10%
11	62104010-MC	830	0.44	44%	0.33	0.41	26%	-0.23	30%	-0.28	10%
12	62094001-MC	843	0.70	70%	0.23	0.30	13%	-0.18	17%	-0.27	8%
13	62104005-MC	826	0.49	49%	0.34	0.42	20%	-0.30	31%	-0.25	10%
14	62104012-MC	831	0.47	47%	0.23	0.29	19%	-0.22	34%	-0.21	10%
15	62104014-MC	838	0.43	43%	0.27	0.34	28%	-0.29	29%	-0.15	9%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}
16	62094101-PT	919	38%	0.57	39%	0.05	23%	-0.71
17	62094102-PT	919	42%	0.63	34%	0.01	24%	-0.74
18	62094103-PT	919	49%	0.64	28%	-0.01	23%	-0.75
19	62094104-PT	919	67%	0.70	19%	-0.21	15%	-0.71
20	62094105-PT	919	53%	0.71	25%	-0.08	22%	-0.78
21	62104101-PT	919	54%	0.69	25%	-0.06	22%	-0.78
22	62104102-PT	919	24%	0.45	42%	0.30	34%	-0.72
23	62104103-PT	919	45%	0.65	30%	0.05	25%	-0.80
24	62104104-PT	919	55%	0.69	25%	-0.08	20%	-0.77
25	62104105-PT	919	55%	0.67	23%	-0.03	23%	-0.76

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
26	62094201-RI	919	34%	0.66	20%	0.17	19%	-0.18	26%	-0.70
27	62094202-RI	919	24%	0.62	18%	0.25	23%	-0.06	35%	-0.70
28	62094203-RI	919	39%	0.71	19%	0.07	21%	-0.27	21%	-0.64
29	62104206-RI	919	23%	0.62	21%	0.22	25%	-0.12	31%	-0.65
30	62104207-RI	919	37%	0.69	16%	0.13	16%	-0.10	32%	-0.74

Table 6.3.10
2011 AIMS A Classical Item Analysis
Reading Grade 5

Multiple Choice

Item	Item ID	N	P-Value	%	Correct		Distractor 1		Distractor 2		% Omit
					r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	
1	62095001-MC	851	0.79	79%	0.40	0.56	9%	-0.39	12%	-0.28	6%
2	62095002-MC	844	0.64	64%	0.42	0.54	21%	-0.34	15%	-0.32	7%
3	62105001-MC	836	0.66	66%	0.42	0.54	22%	-0.33	12%	-0.34	7%
4	62105006-MC	838	0.65	65%	0.37	0.48	16%	-0.38	19%	-0.23	7%
5	62095006-MC	847	0.64	64%	0.45	0.58	18%	-0.30	19%	-0.39	6%
6	62095007-MC	845	0.63	63%	0.22	0.28	22%	-0.24	15%	-0.18	6%
7	62095008-MC	835	0.75	75%	0.42	0.58	9%	-0.35	16%	-0.35	8%
8	62095009-MC	845	0.58	58%	0.36	0.45	15%	-0.27	28%	-0.32	6%
9	62095011-MC	841	0.70	70%	0.42	0.55	15%	-0.30	15%	-0.38	7%
10	62095012-MC	841	0.66	66%	0.47	0.61	15%	-0.39	18%	-0.34	7%
11	62105012-MC	841	0.77	77%	0.28	0.39	12%	-0.23	11%	-0.29	7%
12	62115006-MC	832	0.57	57%	0.38	0.48	22%	-0.36	21%	-0.25	8%
13	62105011-MC	839	0.62	62%	0.35	0.44	23%	-0.33	15%	-0.24	7%
14	62105007-MC	838	0.71	71%	0.49	0.65	16%	-0.39	12%	-0.36	7%
15	62105008-MC	839	0.54	54%	0.35	0.43	24%	-0.30	23%	-0.25	7%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}
16	62095101-PT	903	61%	0.71	25%	-0.19	14%	-0.76
17	62095102-PT	903	56%	0.64	30%	-0.16	14%	-0.71
18	62095103-PT	903	49%	0.62	32%	-0.02	19%	-0.76
19	62095104-PT	903	62%	0.67	23%	-0.16	15%	-0.74
20	62095105-PT	903	66%	0.74	21%	-0.24	13%	-0.74
21	62105101-PT	903	52%	0.65	29%	-0.05	19%	-0.78
22	62105102-PT	903	35%	0.47	42%	0.18	23%	-0.75
23	62105103-PT	903	39%	0.48	43%	0.06	18%	-0.69
24	62105104-PT	903	61%	0.68	24%	-0.15	15%	-0.75
25	62105105-PT	903	39%	0.50	38%	0.16	23%	-0.77

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
26	62095201-RI	903	27%	0.64	19%	0.16	24%	-0.09	30%	-0.67
27	62095202-RI	903	30%	0.64	21%	0.17	23%	-0.16	26%	-0.67
28	62095203-RI	903	28%	0.66	23%	0.16	24%	-0.17	26%	-0.66
29	62095204-RI	903	35%	0.69	20%	0.12	15%	-0.16	29%	-0.70
30	62095205-RI	903	33%	0.65	23%	0.16	21%	-0.22	23%	-0.67

Table 6.3.11
2011 AIMS A Classical Item Analysis
Reading Grade 6
Multiple Choice

Item	Item ID	N	P-Value	%	Correct		Distractor 1		Distractor 2		% Omit
					r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	
1	62096010-MC	875	0.78	78%	0.44	0.61	12%	-0.33	10%	-0.37	0.07
2	62096009-MC	866	0.74	74%	0.47	0.63	12%	-0.31	15%	-0.41	0.08
3	62096014-MC	873	0.65	65%	0.46	0.59	20%	-0.32	15%	-0.39	0.07
4	62096013-MC	863	0.71	71%	0.45	0.59	13%	-0.29	16%	-0.41	0.08
5	62096015-MC	868	0.57	57%	0.27	0.34	16%	-0.28	27%	-0.21	0.08
6	62096012-MC	872	0.46	46%	0.30	0.37	36%	-0.20	18%	-0.30	0.07
7	62096004-MC	877	0.67	67%	0.35	0.46	13%	-0.22	20%	-0.37	0.07
8	62106001-MC	875	0.73	73%	0.47	0.63	16%	-0.39	12%	-0.33	0.07
9	62106010-MC	870	0.76	76%	0.50	0.69	9%	-0.29	15%	-0.47	0.07
10	62096007-MC	867	0.75	75%	0.40	0.54	11%	-0.29	14%	-0.36	0.08
11	62096002-MC	861	0.73	73%	0.52	0.70	13%	-0.38	14%	-0.41	0.08
12	62096003-MC	871	0.65	65%	0.41	0.53	19%	-0.39	16%	-0.25	0.07
13	62096011-MC	870	0.62	62%	0.48	0.61	17%	-0.34	21%	-0.38	0.07
14	62106004-MC	862	0.63	63%	0.40	0.51	15%	-0.30	23%	-0.33	0.08
15	62106007-MC	857	0.40	40%	0.09	0.12	37%	0.06	23%	-0.33	0.09

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}
16	62096101-PT	939	36%	0.53	42%	0.08	22%	-0.70
17	62096102-PT	939	52%	0.65	31%	-0.09	17%	-0.75
18	62096103-PT	939	50%	0.64	33%	-0.08	17%	-0.75
19	62096104-PT	939	55%	0.65	29%	-0.12	16%	-0.73
20	62096105-PT	939	44%	0.54	37%	0.09	19%	-0.79
21	62106101-PT	939	33%	0.46	44%	0.22	23%	-0.77
22	62106102-PT	939	50%	0.63	28%	0.02	22%	-0.78
23	62106103-PT	939	45%	0.56	34%	0.08	20%	-0.78
24	62106104-PT	939	59%	0.71	24%	-0.14	17%	-0.77
25	62106105-PT	939	49%	0.63	30%	0.02	21%	-0.79

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
26	62096201-RI	939	23%	0.61	22%	0.26	23%	-0.08	32%	-0.70
27	62096202-RI	939	22%	0.63	20%	0.28	24%	-0.08	34%	-0.71
28	62106206-RI	939	40%	0.72	17%	0.08	17%	-0.19	26%	-0.71
29	62096204-RI	939	37%	0.69	22%	0.08	19%	-0.25	22%	-0.65
30	62096205-RI	939	39%	0.72	20%	0.06	19%	-0.23	22%	-0.68

Table 6.3.12
2011 AIMS A Classical Item Analysis
Reading Grade 7
Multiple Choice

Item	Item ID	N	P-Value	%	Correct		Distractor 1		Distractor 2		% Omit
					r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	
1	62097012-MC	848	0.60	60%	0.22	0.28	12%	-0.20	28%	-0.24	0.05
2	62097007-MC	849	0.79	79%	0.40	0.56	8%	-0.27	14%	-0.39	0.05
3	62097006-MC	846	0.59	59%	0.51	0.64	26%	-0.35	16%	-0.40	0.05
4	62097003-MC	842	0.62	62%	0.48	0.61	19%	-0.35	19%	-0.37	0.06
5	62097004-MC	839	0.80	80%	0.42	0.60	8%	-0.26	12%	-0.42	0.06
6	62097005-MC	838	0.58	58%	0.46	0.59	20%	-0.36	22%	-0.34	0.06
7	62107005-MC	837	0.32	32%	0.15	0.19	29%	-0.12	39%	-0.16	0.06
8	62097010-MC	849	0.68	68%	0.50	0.66	12%	-0.31	19%	-0.45	0.05
9	62107006-MC	839	0.60	60%	0.26	0.32	24%	-0.13	16%	-0.37	0.06
10	62097008-MC	838	0.73	73%	0.40	0.54	9%	-0.24	18%	-0.41	0.06
11	62097002-MC	845	0.76	76%	0.48	0.65	8%	-0.29	16%	-0.45	0.05
12	62097001-MC	842	0.76	76%	0.40	0.55	12%	-0.33	12%	-0.34	0.06
13	62097015-MC	836	0.83	83%	0.40	0.60	8%	-0.32	9%	-0.34	0.06
14	62107004-MC	848	0.67	67%	0.35	0.46	18%	-0.23	16%	-0.36	0.05
15	62107002-MC	849	0.86	86%	0.40	0.63	8%	-0.33	7%	-0.34	0.05

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}
16	62097101-PT	892	58%	0.69	26%	-0.17	16%	-0.74
17	62097102-PT	892	51%	0.64	29%	-0.06	20%	-0.73
18	62107106-PT	892	62%	0.70	24%	-0.20	14%	-0.75
19	62097104-PT	892	63%	0.68	24%	-0.19	13%	-0.73
20	62097105-PT	892	54%	0.65	27%	-0.08	18%	-0.75
21	62107101-PT	892	36%	0.49	43%	0.08	21%	-0.67
22	62107102-PT	892	56%	0.66	29%	-0.16	15%	-0.71
23	62107103-PT	892	59%	0.70	25%	-0.17	16%	-0.74
24	62107104-PT	892	67%	0.75	21%	-0.28	13%	-0.72
25	62107105-PT	892	56%	0.67	26%	-0.10	18%	-0.76

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
26	62097201-RI	892	31%	0.64	22%	0.14	20%	-0.11	27%	-0.70
27	62097202-RI	892	44%	0.70	22%	0.00	17%	-0.28	17%	-0.64
28	62097203-RI	892	25%	0.60	24%	0.24	24%	-0.12	28%	-0.70
29	62097204-RI	892	48%	0.71	18%	0.01	19%	-0.33	16%	-0.62
30	62097205-RI	892	45%	0.71	17%	0.04	18%	-0.26	20%	-0.68

Table 6.3.13
2011 AIMS A Classical Item Analysis
Reading Grade 8
Multiple Choice

Item	Item ID	N	P-Value	%	Correct		Distractor 1		Distractor 2		% Omit
					r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	
1	62108004-MC	780	0.81	81%	0.81	0.42	10%	-0.35	9%	-0.34	0.07
2	62098007-MC	788	0.90	90%	0.90	0.40	5%	-0.34	5%	-0.30	0.06
3	62098005-MC	776	0.72	72%	0.72	0.48	14%	-0.38	13%	-0.36	0.07
4	62098010-MC	783	0.62	62%	0.62	0.34	22%	-0.28	16%	-0.29	0.06
5	62098009-MC	784	0.63	63%	0.63	0.45	18%	-0.38	19%	-0.32	0.06
6	62098008-MC	785	0.87	87%	0.87	0.39	6%	-0.31	7%	-0.33	0.06
7	62108015-MC	779	0.70	70%	0.70	0.36	13%	-0.27	17%	-0.33	0.07
8	62098014-MC	779	0.74	74%	0.74	0.39	13%	-0.37	13%	-0.28	0.07
9	62098006-MC	775	0.57	57%	0.57	0.51	20%	-0.38	23%	-0.36	0.07
10	62098011-MC	772	0.66	66%	0.66	0.35	17%	-0.24	17%	-0.35	0.08
11	62098012-MC	771	0.69	69%	0.69	0.38	16%	-0.24	15%	-0.39	0.08
12	62098013-MC	771	0.61	61%	0.61	0.47	17%	-0.27	22%	-0.43	0.08
13	62108012-MC	764	0.35	35%	0.35	0.16	34%	-0.17	30%	-0.13	0.09
14	62108011-MC	770	0.57	57%	0.57	0.41	19%	-0.22	24%	-0.41	0.08
15	62108013-MC	767	0.69	69%	0.69	0.47	14%	-0.33	17%	-0.40	0.08

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}
16	62098101-PT	836	54%	0.68	27%	-0.14	19%	-0.71
17	62098102-PT	836	66%	0.71	22%	-0.27	12%	-0.70
18	62098103-PT	836	58%	0.69	26%	-0.15	17%	-0.75
19	62098104-PT	836	47%	0.65	32%	-0.04	22%	-0.74
20	62098105-PT	836	63%	0.68	22%	-0.19	15%	-0.71
21	62108101-PT	836	50%	0.66	30%	-0.07	20%	-0.75
22	62108102-PT	836	38%	0.58	37%	0.11	25%	-0.76
23	62108103-PT	836	48%	0.65	29%	0.00	23%	-0.76
24	62108104-PT	836	34%	0.52	36%	0.21	30%	-0.75
25	62108105-PT	836	36%	0.53	37%	0.14	27%	-0.72

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
26	62098201-RI	836	30%	0.67	17%	0.20	22%	-0.11	31%	-0.73
27	62098202-RI	836	46%	0.72	19%	0.02	15%	-0.26	20%	-0.68
28	62098203-RI	836	28%	0.66	21%	0.21	21%	-0.12	30%	-0.73
29	62098204-RI	836	52%	0.75	16%	-0.06	14%	-0.30	18%	-0.64
30	62098205-RI	836	36%	0.68	21%	0.09	19%	-0.19	24%	-0.68

Table 6.3.14
2011 AIMS A Classical Item Analysis
Reading High School
Multiple Choice

Item	Item ID	N	P-Value	%	Correct		Distractor 1		Distractor 2		% Omit
					r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	
1	62090013-MC	1,091	0.92	92%	0.38	0.70	4%	-0.32	4%	-0.29	6%
2	62090009-MC	1,083	0.82	82%	0.45	0.66	9%	-0.35	9%	-0.37	6%
3	62100001-MC	1,080	0.67	67%	0.45	0.58	14%	-0.33	19%	-0.37	7%
4	62090003-MC	1,080	0.73	73%	0.46	0.62	12%	-0.34	14%	-0.38	7%
5	62090004-MC	1,083	0.71	71%	0.47	0.62	20%	-0.37	9%	-0.38	6%
6	62100006-MC	1,075	0.59	59%	0.37	0.47	16%	-0.16	25%	-0.41	7%
7	62100008-MC	1,081	0.77	77%	0.38	0.53	14%	-0.31	9%	-0.33	6%
8	62100009-MC	1,073	0.50	50%	0.32	0.40	27%	-0.15	22%	-0.37	7%
9	62090007-MC	1,073	0.78	78%	0.49	0.69	8%	-0.36	14%	-0.41	7%
10	62090008-MC	1,071	0.74	74%	0.51	0.69	12%	-0.35	14%	-0.43	7%
11	62100010-MC	1,077	0.70	70%	0.42	0.56	13%	-0.34	16%	-0.34	7%
12	62090012-MC	1,079	0.72	72%	0.42	0.57	17%	-0.30	11%	-0.39	7%
13	62090011-MC	1,084	0.85	85%	0.48	0.74	9%	-0.38	6%	-0.37	6%
14	62100002-MC	1,077	0.66	66%	0.48	0.61	14%	-0.25	20%	-0.47	7%
15	62100011-MC	1,069	0.68	68%	0.48	0.62	17%	-0.33	15%	-0.40	8%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}
16	62090101-PT	1,156	56%	0.69	26%	-0.10	19%	-0.77
17	62090102-PT	1,156	64%	0.72	22%	-0.20	14%	-0.76
18	62090103-PT	1,156	61%	0.75	21%	-0.15	18%	-0.80
19	62090104-PT	1,156	65%	0.79	19%	-0.17	17%	-0.82
20	62090105-PT	1,156	68%	0.77	16%	-0.22	16%	-0.77
21	62100101-PT	1,156	60%	0.76	20%	-0.11	20%	-0.83
22	62100102-PT	1,156	46%	0.63	28%	0.07	26%	-0.79
23	62100103-PT	1,156	55%	0.72	22%	-0.02	23%	-0.83
24	62100104-PT	1,156	61%	0.76	18%	-0.09	21%	-0.82
25	62100105-PT	1,156	60%	0.74	19%	-0.09	21%	-0.81

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
26	62090201-RI	1,156	28%	0.67	19%	0.18	20%	-0.11	33%	-0.70
27	62090202-RI	1,156	26%	0.67	19%	0.23	21%	-0.11	34%	-0.71
28	62090203-RI	1,156	36%	0.70	17%	0.11	19%	-0.17	29%	-0.70
29	62090204-RI	1,156	41%	0.75	17%	0.07	18%	-0.28	25%	-0.67
30	62090205-RI	1,156	37%	0.72	17%	0.12	17%	-0.18	29%	-0.72

Table 6.3.15
2011 AIMS A Classical Item Analysis
Science Grade 4
Multiple Choice

Item	Item ID	N	P-Value	%	Correct		Distractor 1		Distractor 2		% Omit
					r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	
1	64094015-MC	848	0.71	71%	0.25	0.32	19%	-0.22	10%	-0.28	0.08
2	64094016-MC	848	0.67	67%	0.54	0.70	20%	-0.49	13%	-0.30	0.08
3	64094021-MC	844	0.79	79%	0.46	0.65	13%	-0.45	8%	-0.27	0.08
4	64094019-MC	848	0.73	73%	0.43	0.58	13%	-0.39	14%	-0.31	0.08
5	64094022-MC	844	0.82	82%	0.41	0.60	10%	-0.34	8%	-0.33	0.08
6	64104007-MC	842	0.59	59%	0.08	0.10	14%	-0.17	27%	-0.12	0.08
7	64104008-MC	843	0.66	66%	0.46	0.59	19%	-0.37	15%	-0.34	0.08
8	64094013-MC	844	0.68	68%	0.36	0.47	16%	-0.26	16%	-0.35	0.08
9	64094003-MC	843	0.78	78%	0.52	0.72	11%	-0.42	12%	-0.38	0.08
10	64094025-MC	845	0.77	77%	0.50	0.69	12%	-0.38	11%	-0.40	0.08
11	64104005-MC	842	0.42	42%	0.15	0.19	27%	-0.08	31%	-0.23	0.08
12	64104009-MC	846	0.74	74%	0.37	0.50	11%	-0.20	16%	-0.41	0.08
13	64104001-MC	846	0.68	68%	0.53	0.69	13%	-0.38	18%	-0.42	0.08
14	64104002-MC	840	0.66	66%	0.51	0.66	22%	-0.38	13%	-0.40	0.09
15	64094005-MC	852	0.91	91%	0.37	0.64	5%	-0.34	4%	-0.26	0.07

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}
16	64094101-PT	919	50%	0.67	29%	-0.06	21%	-0.75
17	64094102-PT	919	47%	0.67	29%	0.00	24%	-0.79
18	64094103-PT	919	53%	0.67	26%	-0.05	22%	-0.76
19	64104106-PT	919	37%	0.52	39%	0.14	24%	-0.74
20	64104107-PT	919	35%	0.55	38%	0.14	26%	-0.75
21	64104101-PT	919	36%	0.56	37%	0.10	27%	-0.72
22	64104102-PT	919	48%	0.68	29%	-0.02	23%	-0.78
23	64104103-PT	919	39%	0.55	37%	0.13	24%	-0.77
24	64104104-PT	919	34%	0.55	38%	0.14	28%	-0.73
25	64104105-PT	919	57%	0.70	22%	-0.07	22%	-0.77

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
26	64094201-RI	919	51%	0.74	16%	-0.03	14%	-0.26	19%	-0.70
27	64094203-RI	919	52%	0.71	14%	-0.02	14%	-0.24	19%	-0.67
28	64094204-RI	919	45%	0.69	14%	0.08	18%	-0.18	24%	-0.72
29	64094205-RI	919	32%	0.62	20%	0.20	20%	-0.11	28%	-0.72
30	64104211-RI	919	32%	0.63	19%	0.17	22%	-0.12	27%	-0.69

Table 6.3.16
2011 AIMS A Classical Item Analysis
Science Grade 8
Multiple Choice

Item	Item ID	N	P-Value	%	Correct		Distractor 1		Distractor 2		% Omit
					r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	
1	64098010-MC	785	0.62	62%	0.54	0.69	19%	-0.30	19%	-0.47	6%
2	64098015-MC	786	0.78	78%	0.42	0.59	16%	-0.41	6%	-0.24	6%
3	64098017-MC	784	0.56	56%	0.55	0.69	14%	-0.27	31%	-0.48	6%
4	64098019-MC	774	0.62	62%	0.56	0.71	12%	-0.31	26%	-0.48	7%
5	64098020-MC	781	0.78	78%	0.50	0.69	10%	-0.30	13%	-0.45	7%
6	64098023-MC	768	0.68	68%	0.48	0.63	11%	-0.17	21%	-0.53	8%
7	64098009-MC	770	0.59	59%	0.57	0.72	18%	-0.29	23%	-0.49	8%
8	64098028-MC	767	0.57	57%	0.48	0.60	16%	-0.31	27%	-0.38	8%
9	64098025-MC	772	0.64	64%	0.45	0.58	12%	-0.32	24%	-0.36	8%
10	64098022-MC	780	0.75	75%	0.52	0.71	9%	-0.27	16%	-0.50	7%
11	64098029-MC	771	0.63	63%	0.55	0.71	13%	-0.24	25%	-0.53	8%
12	64098027-MC	772	0.80	80%	0.39	0.56	8%	-0.28	12%	-0.35	8%
13	64108004-MC	775	0.52	52%	0.37	0.47	32%	-0.18	15%	-0.43	7%
14	64118006-MC	771	0.57	57%	0.45	0.56	22%	-0.34	20%	-0.32	8%
15	64108007-MC	773	0.51	51%	0.20	0.25	20%	-0.11	29%	-0.25	8%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}
16	64098101-PT	836	75%	0.75	14%	-0.26	11%	-0.74
17	64108106-PT	836	43%	0.55	38%	0.04	19%	-0.74
18	64098103-PT	836	59%	0.69	25%	-0.13	17%	-0.77
19	64098104-PT	836	71%	0.72	16%	-0.18	14%	-0.77
20	64098105-PT	836	65%	0.72	22%	-0.20	14%	-0.76
21	64108101-PT	836	29%	0.44	45%	0.20	25%	-0.70
22	64108102-PT	836	37%	0.54	41%	0.08	21%	-0.73
23	64108103-PT	836	49%	0.60	33%	-0.04	18%	-0.73
24	64108104-PT	836	52%	0.64	31%	-0.09	17%	-0.74
25	64108105-PT	836	55%	0.63	26%	-0.05	19%	-0.75

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
26	64108201-RI	836	68%	0.80	10%	-0.18	10%	-0.37	12%	-0.63
27	64108202-RI	836	61%	0.81	15%	-0.15	11%	-0.37	13%	-0.66
28	64108203-RI	836	48%	0.77	22%	-0.02	14%	-0.35	16%	-0.69
29	64108204-RI	836	23%	0.60	23%	0.27	22%	-0.03	32%	-0.76
30	64108205-RI	836	42%	0.75	16%	0.07	20%	-0.23	22%	-0.74

Table 6.3.17
2011 AIMS A Classical Item Analysis
Science Grade 10
Multiple Choice

Item	Item ID	N	P-Value	%	Correct		Distractor 1		Distractor 2		% Omit
					r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	
1	64090006-MC	859	0.88	88%	0.39	0.63	6%	-0.29	7%	-0.34	5%
2	64090007-MC	848	0.58	58%	0.32	0.40	26%	-0.30	16%	-0.23	7%
3	64090002-MC	854	0.63	63%	0.37	0.47	11%	-0.34	26%	-0.29	6%
4	64100006-MC	855	0.47	47%	0.28	0.35	20%	-0.19	33%	-0.27	6%
5	64090013-MC	850	0.64	64%	0.46	0.59	18%	-0.35	18%	-0.35	6%
6	64090015-MC	852	0.74	74%	0.44	0.59	12%	-0.33	14%	-0.37	6%
7	64090017-MC	849	0.66	66%	0.50	0.64	19%	-0.34	15%	-0.42	6%
8	64090018-MC	851	0.39	39%	0.26	0.33	23%	-0.32	38%	-0.11	6%
9	64090020-MC	851	0.76	76%	0.47	0.65	12%	-0.31	12%	-0.44	6%
10	64090023-MC	852	0.73	73%	0.60	0.80	13%	-0.43	14%	-0.45	6%
11	64090024-MC	852	0.54	54%	0.34	0.42	17%	-0.23	29%	-0.32	6%
12	64090027-MC	855	0.75	75%	0.38	0.52	10%	-0.31	15%	-0.33	6%
13	64100008-MC	844	0.63	63%	0.46	0.59	11%	-0.46	26%	-0.30	7%
14	64090009-MC	843	0.70	70%	0.46	0.60	13%	-0.36	17%	-0.36	7%
15	64100001-MC	849	0.51	51%	0.25	0.31	29%	-0.37	20%	-0.06	6%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}
16	64090101-PT	907	68%	0.75	17%	-0.21	16%	-0.75
17	64090102-PT	907	76%	0.74	13%	-0.28	12%	-0.69
18	64090103-PT	907	47%	0.61	27%	0.09	26%	-0.79
19	64090104-PT	907	47%	0.58	32%	0.03	21%	-0.74
20	64090105-PT	907	53%	0.65	28%	-0.05	19%	-0.77
21	64100101-PT	907	59%	0.71	22%	-0.10	19%	-0.79
22	64100102-PT	907	47%	0.63	32%	-0.01	22%	-0.75
23	64100103-PT	907	55%	0.67	25%	-0.06	20%	-0.77
24	64100104-PT	907	52%	0.66	28%	-0.02	20%	-0.80
25	64100105-PT	907	53%	0.65	28%	-0.03	19%	-0.78

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0	
			%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
26	64100201-RI	907	37%	0.67	20%	0.13	20%	-0.26	23%	-0.66
27	64100202-RI	907	30%	0.67	22%	0.20	20%	-0.15	28%	-0.73
28	64100203-RI	907	30%	0.69	20%	0.20	17%	-0.11	33%	-0.76
29	64100204-RI	907	44%	0.74	15%	0.06	18%	-0.26	23%	-0.69
30	64100205-RI	907	27%	0.62	16%	0.23	22%	-0.02	35%	-0.73

Part 7: Calibration, Scaling, and Scoring

Part 7 of the Technical Report describes the scaling procedures and results for the 2011 AIMS A assessments. All grade levels and content areas were 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.

7.1 Calibration Methods

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

7.1.1 Calibration Models

The AIMS A Mathematics, Reading, and Science criterion-reference assessments are comprised of multiple-choice items, performance tasks and rater items. All items contributing to the AIMS A scores were calibrated using the Rasch model to create the scale scores. The Rasch model (Rasch, 1960; Wright, 1977) can be conceptualized as a one-parameter IRT 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

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

where b_i is the item difficulty.

7.1.2 Calibration Software

Parameter estimation for items on the tests using the Rasch model was implemented using Winsteps 3.71.0.1 (Linacre, 2011). Winsteps uses joint maximum likelihood estimation (JMLE) as described by Wright and Masters (1982). Additionally, Lertap 5.7.2 (Larry Nelson, Curtin University of Technology 2010) was utilized to provide classical item and test analysis, and SPSS V17 was used to provide correlations, frequencies and demographic distributions. Finally, Excel 2007 was used to produce final scale scores.

7.2 Calibration Results

7.2.1 IRT Item Statistics

Item statistics resulting from calibration of the AIMS A tests in reading, mathematics, and science are presented in tables 7.2.1.2 through 7.2.1.18. All items for all reading, mathematics, and science 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 indicated 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 weighted mean-square statistic is sensitive to unexpected

responses at or near the item’s calibrated level, whereas unweighted mean-square statistics is sensitive to unexpected responses away from the item’s calibrated level. Typically, values less than 0.6 and greater than 1.4 for weighted MNSQ indicate misfit, and values greater than 1.4 for unweighted MNSQ indicate misfit (Wright & Linacre, 1994). Thirteen items were flagged as having misfit as indicated by weighted MNSQ and 82 items were flagged as having misfit as indicated by unweighted MNSQ. Items on 17 of the 17 tests, with between three and eight items flagged per test, had misfit as indicated by unweighted MNSQ. It should be noted that the amount of difference between the limits and actual measure was as little as 0.01. The items that were flagged for both weighted and unweighted MNSQ along with low point biserials and P-Values are included in Table 7.2.1.1.

**Table 7.2.1.1
Weighted and Unweighted Flagged Items**

	Subject	Grade	Item	IN.MSQ	OUT.MS	PT. BISE	P-VALUE
1	Math	Grade 3	3		1.54		
2	Math	Grade 3	5		1.63		
3	Math	Grade 3	8	1.48	2.29		
4	Math	Grade 3	11		1.80		
5	Math	Grade 3	12	1.59	2.84	0.21	
6	Math	Grade 3	13	1.53	1.85	0.23	
7	Math	Grade 3	14		1.50		
8	Math	Grade 3	15		1.51		
9	Math	Grade 3	25				0.29
10	Math	Grade 3	29				0.29
11	Math	Grade 4	2	1.43	1.95		
12	Math	Grade 4	4	1.45	2.26		
13	Math	Grade 4	5		1.61		
14	Math	Grade 4	7	1.43	2.94		
15	Math	Grade 4	9		1.94		
16	Math	Grade 4	13	1.66	2.35	0.24	
17	Math	Grade 4	15	1.51	2.26		
18	Math	Grade 4	27				0.22
19	Math	Grade 4	29				0.16
20	Math	Grade 5	1		1.79	0.27	
21	Math	Grade 5	3		1.44		
22	Math	Grade 5	7		1.08		
23	Math	Grade 5	9		1.79	0.28	
24	Math	Grade 5	10		1.67		
25	Math	Grade 5	11	1.43	1.87	0.16	
26	Math	Grade 5	12		1.64		
27	Math	Grade 5	13		1.60		
28	Math	Grade 5	14		1.65		
29	Math	Grade 5	15	1.58	2.18	0.06	
30	Math	Grade 6	1		1.51		
31	Math	Grade 6	2		1.60		
32	Math	Grade 6	4		1.80	0.20	
33	Math	Grade 6	8		1.85	0.28	
34	Math	Grade 6	9		1.44		
35	Math	Grade 6	10		2.69	0.27	
36	Math	Grade 6	11	1.47	2.58	0.15	
37	Math	Grade 6	12		1.67	0.27	
38	Math	Grade 6	13	1.44	2.53	0.14	
39	Math	Grade 7	1		1.56		
40	Math	Grade 7	2	1.46	2.87	0.20	
41	Math	Grade 7	3		1.59		

42	Math	Grade 7	4		1.65	
43	Math	Grade 7	5		2.15	
44	Math	Grade 7	9		1.78	0.27
45	Math	Grade 7	10		1.69	0.29
46	Math	Grade 7	12	1.43	1.91	0.22
47	Math	Grade 7	13		1.57	
48	Math	Grade 7	15		1.75	
49	Math	Grade 8	1		1.56	
50	Math	Grade 8	3		1.54	
51	Math	Grade 8	4		1.86	
52	Math	Grade 8	6	1.44	1.99	0.24
53	Math	Grade 8	7		1.91	0.26
54	Math	Grade 8	11		1.51	
55	Math	Grade 8	12		2.89	
56	Math	Grade 8	14	1.51	2.50	0.18
57	Math	Grade 8	15		2.17	
58	Math	Grade HS	1		2.30	
59	Math	Grade HS	2	1.46	2.02	0.25
60	Math	Grade HS	3		1.70	
61	Math	Grade HS	4		1.53	
62	Math	Grade HS	10	1.47	2.38	0.21
63	Math	Grade HS	11		1.93	0.28
64	Math	Grade HS	12		1.51	
65	Math	Grade HS	13		1.66	
66	Math	Grade HS	14	1.55	3.66	0.14
67	Math	Grade HS	15		1.80	
68	Reading	Grade 3	2		3.70	0.28
69	Reading	Grade 3	3		2.17	
70	Reading	Grade 3	6		1.46	
71	Reading	Grade 3	7		1.77	
72	Reading	Grade 3	8		1.64	
73	Reading	Grade 3	9		1.55	
74	Reading	Grade 3	11		1.71	
75	Reading	Grade 3	12		2.30	
76	Reading	Grade 3	13		1.51	
77	Reading	Grade 4	5		1.68	
78	Reading	Grade 4	9	1.45	1.90	0.27
79	Reading	Grade 4	10		1.49	
80	Reading	Grade 4	11		1.71	
81	Reading	Grade 4	12		1.48	
82	Reading	Grade 4	13		1.55	
83	Reading	Grade 4	14	1.42	2.39	0.27
84	Reading	Grade 4	15		2.31	0.29
85	Reading	Grade 5	1		1.46	
86	Reading	Grade 5	2		1.45	
87	Reading	Grade 5	3		1.56	
88	Reading	Grade 5	6	1.55	2.16	0.23
89	Reading	Grade 5	8		1.50	
90	Reading	Grade 5	10		1.51	
91	Reading	Grade 5	12		1.91	
92	Reading	Grade 5	13		1.61	
93	Reading	Grade 5	15		2.65	
94	Reading	Grade 6	5	1.54	2.63	0.28
95	Reading	Grade 6	6		3.71	
96	Reading	Grade 6	7		1.65	
97	Reading	Grade 6	10		1.43	
98	Reading	Grade 6	12		1.58	
99	Reading	Grade 6	13		1.92	
100	Reading	Grade 6	14		1.61	
101	Reading	Grade 6	15	1.77	3.73	0.14
102	Reading	Grade 7	1	1.64	3.47	0.25
103	Reading	Grade 7	7	1.68	2.98	0.16
104	Reading	Grade 7	9	1.48	2.07	

105	Reading	Grade 7	12		1.46	
106	Reading	Grade 7	14	1.46	1.88	
107	Reading	Grade 8	4		1.95	
108	Reading	Grade 8	5		1.64	
109	Reading	Grade 8	7		1.58	
110	Reading	Grade 8	8		1.41	
111	Reading	Grade 8	10		1.77	
112	Reading	Grade 8	11		1.57	
113	Reading	Grade 8	13	1.71	3.25	0.20
114	Reading	Grade 8	14		1.61	
115	Reading	Grade HS	3		1.79	
116	Reading	Grade HS	4		1.53	
117	Reading	Grade HS	5		1.75	
118	Reading	Grade HS	6	1.53	2.59	
119	Reading	Grade HS	7	1.42	2.09	
120	Reading	Grade HS	8	1.62	3.00	
121	Reading	Grade HS	11		1.49	
122	Reading	Grade HS	12		1.90	
123	Reading	Grade HS	14		1.78	
124	Reading	Grade HS	19		0.56	
125	Reading	Grade HS	20		0.59	
126	Reading	Grade HS	24		0.58	
127	Science	Grade 4	1	1.55	2.35	0.25
128	Science	Grade 4	2		1.41	
129	Science	Grade 4	4		1.61	
130	Science	Grade 4	6	1.81	3.45	0.12
131	Science	Grade 4	8		1.60	
132	Science	Grade 4	11	1.63	2.93	0.15
133	Science	Grade 4	12		1.66	
134	Science	Grade 4	15		1.49	0.91
135	Science	Grade 8	1		1.71	
136	Science	Grade 8	2		1.42	
137	Science	Grade 8	3		1.75	
138	Science	Grade 8	8		2.01	
139	Science	Grade 8	9		1.60	
140	Science	Grade 8	12		1.57	
141	Science	Grade 8	13	1.46	2.67	
142	Science	Grade 8	14		1.95	
143	Science	Grade 8	15	1.69	3.92	0.24
144	Science	Grade 10	2	1.43	1.76	
145	Science	Grade 10	3		1.99	
146	Science	Grade 10	4	1.49	3.00	0.28
147	Science	Grade 10	8	1.43	2.64	0.27
148	Science	Grade 10	11		2.07	
149	Science	Grade 10	14		1.53	
150	Science	Grade 10	15	1.59	3.53	0.27

Table 7.2.1.2
2011 AIMS A IRT Item Statistics
Mathematics Grade 3

Item	Rasch Measure	SE	IN.MSQ	OUT.MS	PT. BIASE.	P-VALUE
1	-0.2949	0.0265	1.02	0.85	0.57	0.78
2	0.3570	0.0212	1.30	3.70	0.28	0.38
3	0.3574	0.0212	1.30	2.17	0.32	0.42
4	-0.0199	0.0224	1.16	1.15	0.49	0.65
5	0.0993	0.0215	1.20	1.24	0.44	0.59
6	0.1059	0.0215	1.23	1.46	0.40	0.64
7	0.0402	0.0219	1.14	1.77	0.50	0.59
8	0.1517	0.0213	1.27	1.64	0.38	0.61
9	0.2062	0.0211	1.30	1.55	0.37	0.52
10	0.0795	0.0216	1.15	1.17	0.47	0.60
11	0.2293	0.0211	1.32	1.71	0.35	0.50
12	0.2500	0.0211	1.19	2.30	0.41	0.48
13	0.2151	0.0211	1.28	1.51	0.38	0.51
14	0.2569	0.0211	1.15	1.19	0.44	0.48
15	-0.0341	0.0226	1.13	1.15	0.49	0.67
16	-0.3513	0.0288	0.88	0.79	0.63	0.74
17	-0.4308	0.0300	0.81	0.70	0.69	0.77
18	0.3705	0.0250	0.77	0.76	0.56	0.43
19	0.2850	0.0248	0.72	0.72	0.59	0.47
20	0.2086	0.0248	0.78	0.74	0.66	0.51
21	-0.2123	0.0272	0.79	0.71	0.70	0.69
22	-0.1251	0.0264	0.87	0.83	0.63	0.66
23	-0.1947	0.0270	0.80	0.74	0.69	0.69
24	-0.2620	0.0277	0.80	0.72	0.67	0.71
25	0.1938	0.0248	0.87	0.88	0.54	0.52
26	-0.3821	0.0275	0.72	0.65	0.70	0.74
27	0.4209	0.0254	0.76	0.72	0.59	0.37
28	-0.0214	0.0245	0.74	0.72	0.70	0.59
29	-0.1021	0.0248	0.73	0.68	0.72	0.62
30	0.3807	0.0251	0.88	0.83	0.58	0.39

Table 7.2.1.2
2011 AIMS A IRT Item Statistics
Mathematics Grade 4

Item	Rasch Measure	SE	IN.MSQ	OUT.MS	PT. BIASE.	P-VALUE
1	-0.1215	0.0235	1.04	1.05	0.55	0.70
2	0.1811	0.0217	1.43	1.95	0.37	0.53
3	-0.3083	0.0262	1.04	0.89	0.52	0.79
4	0.2160	0.0217	1.45	2.26	0.36	0.52
5	0.1821	0.0217	1.35	1.61	0.40	0.54
6	-0.1190	0.0235	1.15	1.16	0.46	0.72
7	-0.0726	0.0230	1.43	2.94	0.35	0.67
8	0.0163	0.0223	0.99	0.91	0.57	0.65
9	0.1859	0.0217	1.30	1.94	0.43	0.54
10	-0.0300	0.0227	1.01	0.91	0.55	0.69
11	0.1368	0.0218	1.12	1.19	0.51	0.60
12	-0.3610	0.0273	1.02	0.74	0.54	0.81
13	0.3634	0.0218	1.66	2.35	0.24	0.46
14	0.0004	0.0224	1.16	1.02	0.50	0.65
15	0.2103	0.0217	1.51	2.26	0.33	0.53
16	-0.5582	0.0321	0.90	0.62	0.63	0.82
17	-0.3506	0.0286	0.79	0.69	0.66	0.76
18	0.2507	0.0246	0.73	0.67	0.69	0.50
19	0.3970	0.0248	0.66	0.61	0.75	0.43
20	0.5049	0.0253	0.74	0.69	0.68	0.39
21	-0.2630	0.0274	0.80	0.73	0.68	0.73
22	0.4794	0.0252	0.75	0.71	0.65	0.40
23	0.5023	0.0253	0.70	0.64	0.70	0.39
24	0.5177	0.0254	0.68	0.65	0.69	0.38
25	0.6854	0.0266	0.73	0.74	0.57	0.31
26	-0.3298	0.0269	0.80	0.73	0.65	0.73
27	0.9032	0.0314	1.01	0.91	0.49	0.22
28	-0.0537	0.0249	0.88	0.96	0.55	0.61
29	1.1291	0.0362	1.10	1.20	0.38	0.16
30	0.4225	0.0256	0.74	0.68	0.71	0.39

Table 7.2.1.4
2011 AIMS A IRT Item Statistics
Mathematics Grade 5

Item	Rasch Measure	SE	IN.MSQ	OUT.MS	PT. BIASE.	P-VALUE
1	0.2663	0.0202	1.26	1.79	0.27	0.43
2	-0.3393	0.0259	1.08	1.02	0.48	0.79
3	-0.2467	0.0241	1.27	1.44	0.40	0.73
4	-0.2223	0.0237	0.89	0.78	0.56	0.75
5	0.2827	0.0202	1.15	1.40	0.34	0.42
6	0.0815	0.0205	1.19	1.26	0.37	0.56
7	0.2404	0.0202	1.10	1.80	0.39	0.45
8	-0.2571	0.0243	1.17	1.06	0.43	0.76
9	0.3399	0.0204	1.23	1.79	0.28	0.40
10	0.1407	0.0203	1.25	1.67	0.31	0.52
11	0.3835	0.0207	1.43	1.87	0.16	0.37
12	0.0580	0.0206	1.17	1.64	0.39	0.57
13	0.1925	0.0202	1.17	1.60	0.35	0.51
14	-0.1766	0.0230	1.27	1.65	0.33	0.73
15	0.3574	0.0205	1.58	2.18	0.06	0.37
16	-0.0605	0.0253	0.82	0.78	0.66	0.61
17	0.0631	0.0248	0.85	0.84	0.58	0.55
18	0.1022	0.0247	0.81	0.80	0.54	0.53
19	0.3437	0.0248	0.88	0.92	0.45	0.41
20	0.4866	0.0256	0.81	0.77	0.54	0.35
21	-0.1857	0.0261	0.84	0.79	0.62	0.66
22	-0.3248	0.0275	0.93	0.86	0.64	0.72
23	0.5518	0.0260	0.77	0.74	0.51	0.32
24	-0.1599	0.0259	0.84	0.82	0.60	0.65
25	-0.0363	0.0251	0.83	0.85	0.49	0.59
26	-0.3129	0.0256	0.75	0.72	0.66	0.68
27	-0.0582	0.0243	0.75	0.72	0.62	0.56
28	-0.2041	0.0249	0.72	0.71	0.65	0.63
29	0.4496	0.0269	0.83	0.77	0.61	0.33
30	0.1498	0.0245	0.84	0.82	0.55	0.46

Table 7.2.1.5
2011 AIMS A IRT Item Statistics
Mathematics Grade 6

Item	Rasch Measure	SE	IN.MSQ	OUT.MS	PT. BIASE.	P-VALUE
1	0.2004	0.0199	1.16	1.51	0.38	0.49
2	0.2495	0.0199	1.16	1.60	0.37	0.46
3	-0.0750	0.0218	1.08	1.34	0.45	0.71
4	0.3743	0.0202	1.38	1.80	0.20	0.37
5	-0.1604	0.0229	1.15	1.39	0.48	0.72
6	-0.1505	0.0227	1.10	1.02	0.50	0.71
7	0.1059	0.0203	1.05	0.99	0.48	0.55
8	0.1038	0.0203	1.39	1.85	0.28	0.53
9	-0.2039	0.0235	1.12	1.44	0.46	0.75
10	0.2449	0.0199	1.32	2.69	0.27	0.45
11	0.3115	0.0200	1.47	2.58	0.15	0.41
12	0.1876	0.0200	1.35	1.67	0.27	0.50
13	0.3825	0.0203	1.44	2.53	0.14	0.37
14	0.1134	0.0202	1.14	1.38	0.42	0.55
15	0.0887	0.0204	1.12	1.32	0.43	0.57
16	-0.4865	0.0296	0.74	0.67	0.69	0.77
17	-0.3853	0.0281	0.83	0.85	0.60	0.74
18	-0.2757	0.0268	0.80	0.76	0.66	0.70
19	-0.3062	0.0271	0.68	0.62	0.73	0.71
20	-0.2757	0.0268	0.69	0.63	0.75	0.70
21	-0.2887	0.0269	0.85	0.80	0.63	0.70
22	-0.3619	0.0278	0.71	0.62	0.77	0.73
23	0.4045	0.0245	0.71	0.77	0.52	0.39
24	0.0845	0.0243	0.76	0.73	0.61	0.54
25	-0.1343	0.0255	0.78	0.75	0.63	0.64
26	-0.0328	0.0240	0.83	0.84	0.58	0.55
27	0.2451	0.0245	0.80	0.78	0.59	0.42
28	-0.1184	0.0243	0.74	0.70	0.67	0.59
29	0.4720	0.0264	0.75	0.68	0.60	0.32
30	0.1392	0.0241	0.79	0.75	0.65	0.47

Table 7.2.1.6
2011 AIMS A IRT Item Statistics
Mathematics Grade 7

Item	Rasch Measure	SE	IN.MSQ	OUT.MS	PT. BIASE.	P-VALUE
1	0.1160	0.0208	1.29	1.56	0.32	0.59
2	0.3170	0.0205	1.46	2.87	0.20	0.45
3	0.1739	0.0206	1.13	1.59	0.42	0.54
4	0.0846	0.0210	1.16	1.65	0.40	0.61
5	0.3221	0.0206	1.26	2.15	0.32	0.47
6	0.0687	0.0211	1.10	1.16	0.45	0.62
7	0.1259	0.0208	1.09	1.20	0.43	0.61
8	-0.1545	0.0235	0.88	0.68	0.54	0.77
9	0.2693	0.0205	1.35	1.78	0.27	0.45
10	0.2599	0.0205	1.32	1.69	0.29	0.49
11	0.0573	0.0211	1.06	1.07	0.48	0.61
12	0.2625	0.0205	1.43	1.91	0.22	0.49
13	0.2452	0.0205	1.29	1.57	0.31	0.50
14	0.1153	0.0208	1.03	1.02	0.48	0.59
15	0.1843	0.0206	1.26	1.75	0.33	0.54
16	-0.4734	0.0306	0.81	0.71	0.60	0.79
17	-0.3340	0.0285	0.88	0.81	0.54	0.75
18	-0.2285	0.0273	0.89	0.84	0.58	0.71
19	-0.1103	0.0262	0.78	0.74	0.62	0.66
20	-0.3405	0.0286	0.81	0.69	0.70	0.75
21	0.5391	0.0257	0.73	0.79	0.57	0.37
22	0.3711	0.0249	0.73	0.71	0.61	0.44
23	0.3476	0.0249	0.78	0.77	0.60	0.45
24	0.5090	0.0255	0.79	0.78	0.58	0.38
25	0.3057	0.0248	0.79	0.76	0.65	0.47
26	-0.2030	0.0253	0.75	0.72	0.62	0.67
27	0.0409	0.0243	0.71	0.69	0.64	0.56
28	-0.2908	0.0261	0.79	0.72	0.64	0.71
29	0.2361	0.0246	0.83	0.80	0.61	0.46
30	0.1249	0.0243	0.82	0.81	0.63	0.51

Table 7.2.1.7
2011 AIMS A IRT Item Statistics
Mathematics Grade 8

Item	Rasch Measure	SE	IN.MSQ	OUT.MS	PT. BIASE.	P-VALUE
1	0.1116	0.0216	1.31	1.56	0.35	0.52
2	-0.1177	0.0235	0.99	0.84	0.53	0.70
3	0.1766	0.0214	1.21	1.54	0.38	0.51
4	0.1250	0.0215	1.24	1.86	0.37	0.55
5	0.1059	0.0216	1.32	2.33	0.33	0.52
6	0.2572	0.0214	1.44	1.99	0.24	0.46
7	0.3502	0.0218	1.39	1.91	0.26	0.40
8	0.0212	0.0221	1.00	0.92	0.52	0.62
9	-0.2515	0.0257	0.97	0.80	0.53	0.77
10	0.1512	0.0215	1.10	1.21	0.45	0.52
11	0.1493	0.0215	1.25	1.51	0.36	0.59
12	0.2637	0.0214	1.25	2.89	0.33	0.45
13	0.2055	0.0214	1.23	1.29	0.38	0.53
14	0.3808	0.0219	1.51	2.50	0.18	0.38
15	0.0207	0.0221	1.24	2.17	0.37	0.62
16	-0.3869	0.0299	0.76	0.67	0.67	0.74
17	-0.3091	0.0289	0.91	0.86	0.57	0.72
18	-0.2729	0.0285	0.73	0.67	0.70	0.70
19	-0.1819	0.0276	0.74	0.70	0.65	0.67
20	-0.4787	0.0313	0.80	0.67	0.69	0.77
21	0.3182	0.0259	0.75	0.74	0.63	0.44
22	0.3249	0.0259	0.72	0.68	0.69	0.44
23	0.4258	0.0263	0.72	0.68	0.62	0.39
24	0.5204	0.0269	0.71	0.69	0.60	0.35
25	0.4299	0.0263	0.77	0.72	0.66	0.39
26	-0.1253	0.0254	0.84	0.82	0.61	0.62
27	-0.0361	0.0251	0.75	0.70	0.66	0.58
28	-0.0626	0.0252	0.81	0.79	0.60	0.59
29	0.8970	0.0344	0.92	0.83	0.48	0.19
30	0.2726	0.0255	0.79	0.73	0.64	0.42

Table 7.2.1.8
2011 AIMS A IRT Item Statistics
Mathematics High School

Item	Rasch Measure	SE	IN.MSQ	OUT.MS	PT. BIASE.	P-VALUE
1	0.1859	0.0182	1.35	2.30	0.30	0.53
2	0.0790	0.0185	1.46	2.02	0.25	0.55
3	-0.1048	0.0198	1.28	1.70	0.41	0.65
4	-0.0094	0.0190	1.22	1.53	0.39	0.63
5	0.1465	0.0183	1.04	1.27	0.49	0.53
6	0.1209	0.0183	1.13	1.20	0.44	0.54
7	-0.1137	0.0199	0.90	0.91	0.58	0.69
8	0.0691	0.0185	1.21	1.32	0.40	0.57
9	0.0447	0.0187	1.05	0.99	0.47	0.64
10	0.2676	0.0183	1.47	2.38	0.21	0.45
11	0.209	0.0182	1.37	1.93	0.28	0.51
12	0.1459	0.0183	1.26	1.51	0.36	0.53
13	0.0848	0.0185	1.21	1.66	0.40	0.56
14	0.4205	0.0190	1.55	3.66	0.14	0.35
15	0.2011	0.0182	1.35	1.80	0.31	0.49
16	-0.3280	0.0247	0.80	0.74	0.63	0.72
17	-0.1827	0.0234	0.73	0.68	0.71	0.67
18	-0.13000	0.0230	0.78	0.73	0.71	0.64
19	-0.6143	0.0287	0.97	0.77	0.60	0.81
20	-0.3948	0.0255	0.86	0.73	0.66	0.75
21	0.3396	0.0221	0.70	0.69	0.62	0.43
22	0.5613	0.0232	0.77	0.73	0.56	0.33
23	0.5983	0.0235	0.66	0.61	0.62	0.32
24	0.6453	0.0239	0.70	0.63	0.63	0.30
25	0.6116	0.0236	0.78	0.71	0.59	0.31
26	0.0413	0.0212	0.67	0.62	0.73	0.53
27	0.0229	0.0212	0.79	0.75	0.63	0.54
28	-0.2135	0.0221	0.74	0.68	0.68	0.66
29	0.3651	0.0223	0.78	0.73	0.63	0.38
30	0.2683	0.0217	0.68	0.63	0.70	0.42

Table 7.2.1.9
2011 AIMS A IRT Item Statistics
Reading Grade 3

Item	Rasch Measure	SE	IN.MSQ	OUT.MS	PT. BIASE.	P-VALUE
1	-0.2949	0.0265	1.02	0.85	0.57	0.78
2	0.3570	0.0212	1.30	3.70	0.28	0.38
3	0.3574	0.0212	1.30	2.17	0.32	0.42
4	-0.0199	0.0224	1.16	1.15	0.49	0.65
5	0.0993	0.0215	1.20	1.24	0.44	0.59
6	0.1059	0.0215	1.23	1.46	0.40	0.64
7	0.0402	0.0219	1.14	1.77	0.50	0.59
8	0.1517	0.0213	1.27	1.64	0.38	0.61
9	0.2062	0.0211	1.30	1.55	0.37	0.52
10	0.0795	0.0216	1.15	1.17	0.47	0.60
11	0.2293	0.0211	1.32	1.71	0.35	0.50
12	0.250	0.0211	1.19	2.30	0.41	0.48
13	0.2151	0.0211	1.28	1.51	0.38	0.51
14	0.2569	0.0211	1.15	1.19	0.44	0.48
15	-0.0341	0.0226	1.13	1.15	0.49	0.67
16	-0.3513	0.0288	0.88	0.79	0.63	0.74
17	-0.4308	0.0300	0.81	0.70	0.69	0.77
18	0.3705	0.0250	0.77	0.76	0.56	0.43
19	0.2850	0.0248	0.72	0.72	0.59	0.47
20	0.2086	0.0248	0.78	0.74	0.66	0.51
21	-0.2123	0.0272	0.79	0.71	0.70	0.69
22	-0.1251	0.0264	0.87	0.83	0.63	0.66
23	-0.1947	0.0270	0.80	0.74	0.69	0.69
24	-0.2620	0.0277	0.80	0.72	0.67	0.71
25	0.1938	0.0248	0.87	0.88	0.54	0.52
26	-0.3821	0.0275	0.72	0.65	0.70	0.74
27	0.4209	0.0254	0.76	0.72	0.59	0.37
28	-0.0214	0.0245	0.74	0.72	0.70	0.59
29	-0.1021	0.0248	0.73	0.68	0.72	0.62
30	0.3807	0.0251	0.88	0.83	0.58	0.39

Table 7.2.1.10
2011 AIMS A IRT Item Statistics
Reading Grade 4

Item	Rasch Measure	SE	IN.MSQ	OUT.MS	PT. BIASE.	P-VALUE
1	-0.2245	0.0278	1.07	0.97	0.51	0.83
2	0.0773	0.0226	1.13	1.10	0.52	0.65
3	0.1281	0.0221	1.19	1.35	0.45	0.66
4	0.1949	0.0216	1.05	1.09	0.52	0.62
5	0.1099	0.0223	1.17	1.68	0.47	0.66
6	0.0602	0.0228	1.23	1.28	0.47	0.66
7	0.0288	0.0232	1.34	1.52	0.38	0.71
8	0.2921	0.0210	1.15	1.22	0.45	0.59
9	0.4453	0.0209	1.45	1.90	0.27	0.45
10	0.3478	0.0209	1.28	1.49	0.38	0.52
11	0.4647	0.0209	1.18	1.71	0.39	0.42
12	0.1711	0.0217	1.35	1.48	0.34	0.67
13	0.4331	0.0209	1.27	1.55	0.37	0.46
14	0.4592	0.0209	1.42	2.39	0.27	0.44
15	0.5085	0.0210	1.34	2.31	0.29	0.41
16	0.1358	0.0254	0.71	0.70	0.63	0.61
17	0.1137	0.0255	0.68	0.67	0.70	0.62
18	0.0023	0.0263	0.80	0.78	0.66	0.66
19	-0.3794	0.0313	0.83	0.70	0.65	0.80
20	-0.0572	0.0269	0.72	0.66	0.73	0.69
21	-0.0718	0.0270	0.79	0.73	0.69	0.69
22	0.4188	0.0247	0.77	0.78	0.56	0.48
23	0.0795	0.0258	0.78	0.75	0.67	0.63
24	-0.1043	0.0274	0.80	0.73	0.68	0.70
25	-0.0718	0.0270	0.90	0.87	0.64	0.69
26	0.2433	0.0249	0.76	0.74	0.65	0.51
27	0.4807	0.0258	0.83	0.83	0.60	0.41
28	0.1320	0.0249	0.69	0.66	0.70	0.56
29	0.4517	0.0256	0.73	0.69	0.64	0.42
30	0.2470	0.0249	0.90	0.87	0.64	0.51

Table 7.2.1.11
2011 AIMS A IRT Item Statistics
Reading Grade 5

Item	Rasch Measure	SE	IN.MSQ	OUT.MS	PT. BIASE.	P-VALUE
1	-0.0792	0.0238	1.02	1.46	0.46	0.78
2	0.1125	0.0218	1.16	1.45	0.45	0.63
3	0.0486	0.0223	1.16	1.56	0.47	0.64
4	0.1114	0.0218	1.21	1.28	0.42	0.63
5	0.1290	0.0217	1.10	1.17	0.47	0.62
6	0.1358	0.0216	1.55	2.16	0.23	0.61
7	-0.0237	0.0230	1.07	0.90	0.48	0.73
8	0.2298	0.0212	1.30	1.5	0.36	0.56
9	0.0926	0.0219	1.16	1.22	0.42	0.68
10	0.0272	0.0225	1.15	1.51	0.49	0.65
11	-0.1068	0.0242	1.32	1.39	0.36	0.75
12	0.2398	0.0212	1.17	1.91	0.42	0.55
13	0.1526	0.0215	1.25	1.61	0.39	0.60
14	0.0028	0.0227	0.97	0.91	0.56	0.69
15	0.1952	0.0213	1.25	2.65	0.41	0.52
16	-0.3607	0.0302	0.80	0.72	0.67	0.77
17	-0.2900	0.0293	0.78	0.75	0.62	0.74
18	-0.1172	0.0274	0.82	0.78	0.62	0.68
19	-0.3681	0.0303	0.83	0.72	0.66	0.77
20	-0.4725	0.0320	0.83	0.71	0.66	0.80
21	-0.1584	0.0278	0.82	0.76	0.65	0.70
22	0.1164	0.0260	0.90	0.96	0.50	0.59
23	-0.0022	0.0266	0.85	0.88	0.48	0.64
24	-0.3408	0.0299	0.88	0.80	0.62	0.76
25	0.0605	0.0262	0.83	0.84	0.58	0.61
26	0.3336	0.0260	0.86	0.86	0.58	0.45
27	0.2525	0.0256	0.82	0.79	0.61	0.48
28	0.2782	0.0257	0.77	0.73	0.61	0.47
29	0.1749	0.0255	0.83	0.79	0.66	0.52
30	0.1678	0.0255	0.74	0.72	0.66	0.52

Table 7.2.1.12
2011 AIMS A IRT Item Statistics
Reading Grade 6

Item	Rasch Measure	SE	IN.MSQ	OUT.MS	PT. BIASE.	P-VALUE
1	-0.2005	0.0243	1.03	0.89	0.54	0.76
2	-0.0818	0.0228	1.03	1.27	0.54	0.71
3	0.0515	0.0217	1.16	1.12	0.48	0.63
4	-0.0765	0.0227	1.17	1.23	0.49	0.68
5	0.1615	0.0212	1.54	2.63	0.28	0.55
6	0.3155	0.0212	1.33	3.71	0.36	0.45
7	0.0024	0.0220	1.30	1.65	0.41	0.65
8	-0.1098	0.0231	1.14	1.02	0.50	0.71
9	-0.1624	0.0237	0.99	0.80	0.57	0.74
10	-0.1667	0.0238	1.12	1.43	0.52	0.72
11	-0.0742	0.0227	0.98	0.79	0.57	0.70
12	0.0267	0.0218	1.18	1.58	0.47	0.63
13	0.0335	0.0218	1.18	1.92	0.49	0.60
14	0.1099	0.0214	1.25	1.61	0.42	0.60
15	0.4447	0.0216	1.77	3.73	0.14	0.38
16	0.0106	0.0261	0.81	0.78	0.58	0.60
17	-0.2767	0.0281	0.75	0.72	0.68	0.71
18	-0.2501	0.0278	0.75	0.73	0.67	0.70
19	-0.3314	0.0287	0.81	0.75	0.64	0.73
20	-0.1234	0.0268	0.84	0.83	0.58	0.65
21	0.0591	0.0259	0.87	0.90	0.52	0.58
22	-0.1641	0.0271	0.92	0.90	0.63	0.67
23	-0.1306	0.0269	0.87	0.88	0.60	0.65
24	-0.3783	0.0292	0.76	0.67	0.75	0.74
25	-0.1729	0.0272	0.81	0.75	0.68	0.67
26	0.3520	0.0260	0.79	0.79	0.61	0.41
27	0.3847	0.0262	0.78	0.75	0.63	0.40
28	0.0278	0.0252	0.86	0.82	0.66	0.55
29	0.0386	0.0251	0.83	0.81	0.61	0.55
30	0.0063	0.0252	0.75	0.71	0.68	0.56

Table 7.2.1.13
2011 AIMS A IRT Item Statistics
Reading Grade 7

Item	Rasch Measure	SE	IN.MSQ	OUT.MS	PT. BIASE.	P-VALUE
1	0.2101	0.0221	1.64	3.47	0.25	0.58
2	-0.1656	0.0259	1.28	1.19	0.46	0.77
3	0.1951	0.0222	1.09	1.18	0.53	0.57
4	0.1457	0.0224	1.18	1.10	0.50	0.60
5	-0.1004	0.0249	1.07	0.91	0.51	0.77
6	0.2995	0.0218	1.12	1.27	0.50	0.56
7	0.6685	0.0229	1.68	2.98	0.16	0.31
8	0.0338	0.0234	1.14	1.39	0.52	0.67
9	0.2198	0.0220	1.48	2.07	0.33	0.58
10	-0.0449	0.0242	1.22	1.26	0.50	0.71
11	-0.0836	0.0247	1.11	1.03	0.53	0.74
12	0.0107	0.0236	1.12	1.46	0.48	0.74
13	-0.3134	0.0288	1.20	1.15	0.55	0.80
14	0.0872	0.0229	1.46	1.88	0.35	0.65
15	-0.3208	0.0290	1.10	0.84	0.52	0.84
16	-0.2196	0.0286	0.73	0.66	0.71	0.73
17	-0.0562	0.0270	0.77	0.73	0.69	0.67
18	-0.3115	0.0298	0.74	0.64	0.70	0.76
19	-0.3312	0.0301	0.78	0.72	0.66	0.77
20	-0.1340	0.0277	0.83	0.78	0.64	0.70
21	0.1302	0.0259	0.85	0.95	0.52	0.59
22	-0.2017	0.0284	0.76	0.73	0.66	0.72
23	-0.2295	0.0287	0.74	0.68	0.71	0.73
24	-0.4023	0.0311	0.78	0.65	0.70	0.79
25	-0.1541	0.0279	0.80	0.73	0.67	0.71
26	0.2814	0.0260	0.87	0.84	0.60	0.48
27	-0.0198	0.0262	0.81	0.78	0.63	0.61
28	0.3841	0.0264	0.77	0.77	0.60	0.44
29	-0.0646	0.0264	0.82	0.86	0.65	0.63
30	0.0129	0.0261	0.75	0.72	0.72	0.60

Table 7.2.1.14
2011 AIMS A IRT Item Statistics
Reading Grade 8

Item	Rasch Measure	SE	IN.MSQ	OUT.MS	PT. BIASE.	P-VALUE
1	-0.1407	0.0273	1.06	0.97	0.52	0.79
2	-0.4565	0.0358	1.11	0.63	0.48	0.89
3	0.0443	0.0244	1.11	1.01	0.52	0.70
4	0.2862	0.0228	1.34	1.95	0.38	0.61
5	0.1526	0.0234	1.25	1.64	0.46	0.62
6	-0.3552	0.0325	1.23	0.80	0.50	0.85
7	0.0773	0.0241	1.28	1.58	0.42	0.68
8	0.0605	0.0243	1.17	1.41	0.45	0.72
9	0.1716	0.0233	1.28	1.39	0.49	0.56
10	0.1604	0.0234	1.32	1.77	0.41	0.64
11	0.1726	0.0233	1.24	1.57	0.44	0.66
12	0.2695	0.0228	1.10	1.28	0.51	0.59
13	0.6693	0.0241	1.71	3.25	0.20	0.34
14	0.3116	0.0228	1.31	1.61	0.41	0.55
15	0.1251	0.0236	1.09	1.02	0.53	0.66
16	-0.1137	0.0294	0.78	0.75	0.69	0.71
17	-0.4200	0.0336	0.75	0.65	0.66	0.81
18	-0.1954	0.0303	0.77	0.69	0.68	0.74
19	0.0326	0.0281	0.68	0.65	0.74	0.65
20	-0.3170	0.0319	0.84	0.89	0.63	0.78
21	-0.0430	0.0287	0.82	0.82	0.64	0.68
22	0.1866	0.0272	0.81	0.78	0.62	0.59
23	0.0263	0.0281	0.82	0.75	0.67	0.66
24	0.2876	0.0269	0.97	0.96	0.54	0.55
25	0.2396	0.0270	0.93	0.97	0.54	0.57
26	0.3923	0.0272	0.83	0.79	0.65	0.46
27	0.0290	0.0271	0.80	0.75	0.67	0.62
28	0.3997	0.0272	0.81	0.79	0.64	0.46
29	-0.0795	0.0277	0.77	0.69	0.70	0.66
30	0.2254	0.0268	0.73	0.71	0.68	0.53

Table 7.2.1.15
2011 AIMS A IRT Item Statistics
Reading High School

Item	Rasch Measure	SE	IN.MSQ	OUT.MS	PT. BIASE.	P-VALUE
1	-0.481	0.0311	0.94	0.9	0.46	0.91
2	-0.1831	0.0246	1.19	1.28	0.51	0.80
3	0.1161	0.0214	1.40	1.79	0.46	0.65
4	0.0188	0.0222	1.28	1.53	0.50	0.72
5	0.0351	0.0220	1.32	1.75	0.50	0.70
6	0.3106	0.0205	1.53	2.59	0.39	0.58
7	-0.0554	0.0229	1.42	2.09	0.41	0.76
8	0.4726	0.0204	1.62	3.00	0.33	0.49
9	-0.0717	0.0231	1.18	1.08	0.54	0.75
10	0.0766	0.0217	1.08	1.12	0.57	0.72
11	0.1690	0.0211	1.27	1.49	0.49	0.68
12	0.0195	0.0222	1.31	1.90	0.50	0.70
13	-0.2024	0.0250	0.98	0.96	0.54	0.84
14	0.1883	0.0210	1.29	1.78	0.49	0.64
15	0.1527	0.0212	1.24	1.38	0.52	0.66
16	-0.0576	0.0247	0.70	0.75	0.71	0.72
17	-0.2576	0.0268	0.66	0.64	0.71	0.78
18	-0.1496	0.0255	0.68	0.68	0.74	0.75
19	-0.2278	0.0264	0.65	0.56	0.75	0.77
20	-0.3062	0.0275	0.74	0.59	0.71	0.80
21	-0.1009	0.0251	0.68	0.60	0.75	0.73
22	0.1720	0.0232	0.83	0.85	0.65	0.62
23	0.0009	0.0242	0.79	0.78	0.70	0.69
24	-0.1047	0.0251	0.71	0.58	0.76	0.73
25	-0.1047	0.0251	0.79	0.73	0.70	0.73
26	0.5094	0.0239	0.81	0.76	0.65	0.45
27	0.5652	0.0241	0.82	0.77	0.63	0.43
28	0.3443	0.0235	0.83	0.80	0.68	0.51
29	0.2214	0.0234	0.77	0.72	0.71	0.56
30	0.3284	0.0234	0.79	0.73	0.70	0.52

Table 7.2.1.16
2011 AIMS A IRT Item Statistics
Science Grade 4

Item	Rasch Measure	SE	IN.MSQ	OUT.MS	PT. BIASE.	P-VALUE
1	0.1216	0.0235	1.55	2.35	0.25	0.71
2	0.1789	0.0229	0.98	1.41	0.56	0.67
3	-0.0395	0.0258	1.12	0.94	0.46	0.79
4	0.1187	0.0235	1.18	1.61	0.41	0.73
5	-0.1354	0.0276	1.28	1.10	0.38	0.82
6	0.3382	0.0220	1.81	3.45	0.12	0.59
7	0.3009	0.0221	1.07	1.06	0.49	0.66
8	0.1285	0.0234	1.34	1.60	0.38	0.68
9	-0.0284	0.0256	1.06	0.95	0.51	0.78
10	0.0013	0.0251	1.09	0.88	0.50	0.77
11	0.6094	0.0219	1.63	2.93	0.15	0.42
12	0.0732	0.024	1.24	1.66	0.39	0.74
13	0.1737	0.0229	1.02	1.14	0.53	0.68
14	0.2242	0.0226	1.06	0.96	0.51	0.66
15	-0.4318	0.0365	1.37	1.49	0.33	0.91
16	0.0127	0.0276	0.80	0.73	0.68	0.68
17	0.1031	0.0269	0.76	0.70	0.71	0.64
18	-0.0087	0.0278	0.86	0.78	0.68	0.69
19	0.2295	0.0262	0.83	0.85	0.59	0.59
20	0.2718	0.0260	0.76	0.74	0.64	0.57
21	0.2731	0.0260	0.81	0.79	0.63	0.57
22	0.0681	0.0271	0.73	0.68	0.74	0.66
23	0.1923	0.0264	0.82	0.85	0.61	0.61
24	0.3216	0.0259	0.83	0.88	0.60	0.55
25	-0.0684	0.0283	0.88	0.77	0.70	0.71
26	-0.0068	0.0262	0.78	0.72	0.68	0.66
27	-0.0143	0.0262	0.90	0.85	0.62	0.66
28	0.1491	0.0254	0.75	0.70	0.71	0.59
29	0.3705	0.0253	0.81	0.78	0.63	0.49
30	0.3647	0.0253	0.90	0.87	0.57	0.49

Table 7.2.1.17
2011 AIMS A IRT Item Statistics
Science Grade 8

Item	Rasch Measure	SE	IN.MSQ	OUT.MS	PT. BIASE.	P-VALUE
1	0.3062	0.0236	1.13	1.71	0.53	0.61
2	0.0464	0.0266	1.23	1.42	0.48	0.77
3	0.4684	0.0231	1.10	1.75	0.52	0.55
4	0.3603	0.0233	1.07	1.14	0.54	0.60
5	0.0632	0.0263	0.99	0.96	0.58	0.76
6	0.2611	0.0239	1.11	1.18	0.54	0.65
7	0.5058	0.0231	1.01	1.09	0.57	0.57
8	0.4423	0.0231	1.19	2.01	0.49	0.55
9	0.3025	0.0236	1.26	1.60	0.47	0.62
10	0.1198	0.0255	1.03	0.85	0.57	0.73
11	0.3259	0.0235	1.08	1.32	0.55	0.61
12	0.0646	0.0263	1.08	1.57	0.52	0.78
13	0.5271	0.0231	1.46	2.67	0.35	0.51
14	0.4441	0.0231	1.27	1.95	0.45	0.55
15	0.5527	0.0231	1.69	3.92	0.24	0.49
16	-0.5443	0.0393	0.91	0.61	0.66	0.86
17	0.1737	0.0289	0.84	0.86	0.59	0.65
18	-0.1019	0.0315	0.79	0.69	0.71	0.74
19	-0.3866	0.0359	0.91	0.68	0.67	0.82
20	-0.2630	0.0338	0.77	0.63	0.71	0.79
21	0.4366	0.0278	0.99	1.04	0.46	0.54
22	0.2765	0.0283	0.83	0.82	0.58	0.61
23	0.0728	0.0296	0.84	0.82	0.62	0.68
24	0.0138	0.0302	0.82	0.81	0.65	0.70
25	-0.0082	0.0304	0.99	0.93	0.59	0.71
26	-0.3018	0.0320	0.84	0.68	0.67	0.79
27	-0.1693	0.0301	0.78	0.68	0.68	0.74
28	0.0720	0.0281	0.70	0.71	0.71	0.65
29	0.6405	0.0286	0.83	0.79	0.63	0.42
30	0.2554	0.0275	0.72	0.66	0.74	0.58

Table 7.2.1.18
2011 AIMS A IRT Item Statistics
Science Grade 10

Item	Rasch Measure	SE	IN.MSQ	OUT.MS	PT. BIASE.	P-VALUE
1	-0.3728	0.0315	1.24	0.96	0.46	0.87
2	0.2981	0.0218	1.43	1.76	0.36	0.57
3	0.1855	0.0224	1.33	1.99	0.42	0.62
4	0.4536	0.0216	1.49	3.00	0.28	0.46
5	0.2154	0.0222	1.13	1.32	0.50	0.62
6	0.0323	0.0238	1.12	1.06	0.51	0.73
7	0.1791	0.0224	1.10	1.13	0.52	0.64
8	0.5818	0.0219	1.43	2.64	0.27	0.38
9	-0.1661	0.0268	1.34	1.37	0.52	0.75
10	-0.0478	0.0248	0.93	0.78	0.65	0.72
11	0.3474	0.0216	1.38	2.07	0.36	0.53
12	-0.0235	0.0245	1.28	1.30	0.46	0.74
13	0.1889	0.0224	1.15	1.20	0.51	0.61
14	0.0829	0.0233	1.16	1.53	0.50	0.68
15	0.3978	0.0216	1.59	3.53	0.27	0.49
16	-0.3424	0.0308	0.77	0.63	0.71	0.79
17	-0.5705	0.0352	0.90	0.69	0.62	0.85
18	0.0953	0.0259	0.73	0.69	0.72	0.63
19	0.0423	0.0262	0.83	0.85	0.60	0.65
20	-0.0659	0.0272	0.73	0.69	0.68	0.70
21	-0.1593	0.0282	0.75	0.74	0.71	0.73
22	0.0492	0.0262	0.76	0.74	0.65	0.65
23	-0.0883	0.0274	0.78	0.73	0.67	0.70
24	-0.0498	0.0270	0.69	0.64	0.71	0.69
25	-0.0689	0.0272	0.76	0.77	0.66	0.70
26	0.1970	0.0253	0.79	0.76	0.63	0.55
27	0.3493	0.0254	0.72	0.70	0.68	0.48
28	0.3784	0.0255	0.76	0.72	0.68	0.46
29	0.1115	0.0254	0.77	0.72	0.70	0.58
30	0.4812	0.0259	0.83	0.76	0.64	0.42

7.3 Scaling Methods

A raw score to scale score table was determined for each of the Spring 2011 AIMS A Reading, Mathematics, and Science tests. The scale of measurement was determined for each test using spring 2009 operational test results and cut scores from the subsequent standard setting. The desired AIMS A scales for Grades 3-8 and High School ranged from 1000 to 1500. AIMS A scales are not on a vertical scale as are the general assessment AIMS scales. Each grade has its own unique scale within the 1000-1500 range. The scale scores for different grades cannot be compared.

7.4 Scoring and Standard Error of Measurement

Item response theory makes available number-correct scoring. Number-correct scoring was used to derive scales scores for the AIMS A tests. With number-correct scoring, a student's number-correct score (or raw score) is converted to a scale score through the use of transformation constants. These constants were calculated for each test and each grade. A direct linear transformation was then applied in Excel to transform the logit value generated in the score file provided by Winsteps to the necessary scale score. The formula utilized for calculating the M1 and M2 values was as follows:

$$M1 = \text{Desired SD/Logit SD}$$

$$M2 = \text{Desired Mean}/(\text{Logit Mean} * M1)$$

Figure 7.4.1
AIMS A Transformation Constants Established 2009

Math	M1	M2
4	71.42857142857140	1252
3	78.12500000000000	1255
5	75.75757575757580	1256
6	119.04761904761900	1246
7	108.69565217391300	1252
8	104.16666666666700	1252
10	113.63636363636400	1252

Reading	M1	M2
3	96.15384615384610	1247
4	108.69565217391300	1240
5	131.57894736842100	1240
6	138.88888888888900	1248
7	131.57894736842100	1249
8	100.00000000000000	1246
10	100.00000000000000	1251

Science	M1	M2
4	100.00000000000000	1240
8	83.33333333333330	1235
10	75.75757575757580	1245

The desired mean for all tests was set to 1250 with a standard deviation of 25. With that information, all transformation constants were calculated.

Typically, a test score is obtained from a single observation of behavior 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 7.4.2 through 7.4.18 present raw score to scale score conversion tables and IRT conditional standard errors of measurement for all AIMS A tests.

Table 7.4.2
2011 AIMS A Raw Score to Scale Score
Mathematics Grade 3

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	312	61	1262	8
1	1098	60	62	1263	8
2	1131	40	63	1264	8
3	1149	32	64	1265	8
4	1161	27	65	1266	8
5	1170	23	66	1267	8
6	1176	21	67	1268	8
7	1182	19	68	1269	8
8	1187	18	69	1270	8
9	1191	17	70	1270	8
10	1195	16	71	1271	8
11	1198	15	72	1272	8
12	1201	14	73	1273	8
13	1204	14	74	1274	8
14	1206	13	75	1275	8
15	1209	13	76	1276	8
16	1211	12	77	1277	8
17	1213	12	78	1278	8
18	1215	12	79	1279	8
19	1217	11	80	1280	9
20	1218	11	81	1281	9
21	1220	11	82	1282	9
22	1222	11	83	1283	9
23	1223	10	84	1284	9
24	1225	10	85	1285	9
25	1226	10	86	1286	9
26	1227	10	87	1288	9
27	1229	10	88	1289	9
28	1230	10	89	1290	9
29	1231	9	90	1291	9
30	1232	9	91	1292	10
31	1234	9	92	1294	10
32	1235	9	93	1295	10
33	1236	9	94	1296	10
34	1237	9	95	1298	10
35	1238	9	96	1299	10
36	1239	9	97	1301	11
37	1240	9	98	1303	11
38	1241	9	99	1304	11
39	1242	9	100	1306	11
40	1243	8	101	1308	12
41	1244	8	102	1310	12
42	1245	8	103	1312	12
43	1246	8	104	1314	13
44	1247	8	105	1316	13
45	1248	8	106	1319	13
46	1249	8	107	1321	14
47	1250	8	108	1324	14
48	1251	8	109	1327	15
49	1252	8	110	1330	16
50	1253	8	111	1334	17
51	1254	8	112	1338	18
52	1255	8	113	1343	19
53	1255	8	114	1348	20
54	1256	8	115	1355	22
55	1257	8	116	1362	25
56	1258	8	117	1372	29
57	1259	8	118	1386	35
58	1260	8	119	1410	50
59	1261	8	120	1500	225
60	1262	8			

Table 7.4.3
2011 AIMS A Raw Score to Scale Score
Mathematics Grade 4

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	332	61	1266	9
1	1103	61	62	1267	9
2	1134	41	63	1268	9
3	1151	32	64	1269	9
4	1162	27	65	1270	9
5	1170	24	66	1271	9
6	1177	22	67	1272	9
7	1182	20	68	1273	9
8	1187	18	69	1274	9
9	1191	17	70	1275	9
10	1195	16	71	1277	9
11	1198	16	72	1278	9
12	1201	15	73	1279	9
13	1203	14	74	1280	9
14	1206	14	75	1281	9
15	1208	13	76	1282	9
16	1211	13	77	1283	9
17	1213	13	78	1284	10
18	1215	12	79	1285	10
19	1216	12	80	1287	10
20	1218	12	81	1288	10
21	1220	11	82	1289	10
22	1222	11	83	1290	10
23	1223	11	84	1292	10
24	1225	11	85	1293	10
25	1226	11	86	1294	10
26	1228	11	87	1296	10
27	1229	10	88	1297	11
28	1230	10	89	1299	11
29	1232	10	90	1300	11
30	1233	10	91	1302	11
31	1234	10	92	1303	11
32	1236	10	93	1305	11
33	1237	10	94	1306	12
34	1238	10	95	1308	12
35	1239	10	96	1310	12
36	1240	9	97	1312	12
37	1242	9	98	1314	12
38	1243	9	99	1316	13
39	1244	9	100	1318	13
40	1245	9	101	1320	13
41	1246	9	102	1323	14
42	1247	9	103	1325	14
43	1248	9	104	1328	14
44	1249	9	105	1330	15
45	1250	9	106	1333	15
46	1251	9	107	1336	16
47	1252	9	108	1340	16
48	1253	9	109	1343	17
49	1254	9	110	1347	18
50	1255	9	111	1351	19
51	1256	9	112	1356	20
52	1257	9	113	1361	21
53	1258	9	114	1367	22
54	1259	9	115	1374	24
55	1260	9	116	1382	27
56	1261	9	117	1393	31
57	1262	9	118	1407	37
58	1263	9	119	1432	53
59	1264	9	120	1500	244
60	1265	9			

Table 7.4.4
2011 AIMS A Raw Score to Scale Score
Mathematics Grade 5

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	330	61	1263	9
1	1088	64	62	1264	9
2	1123	43	63	1265	9
3	1142	34	64	1266	9
4	1154	28	65	1267	9
5	1163	25	66	1268	9
6	1171	22	67	1269	9
7	1177	20	68	1270	9
8	1182	19	69	1271	9
9	1186	18	70	1272	9
10	1190	17	71	1273	9
11	1194	16	72	1274	9
12	1197	15	73	1275	9
13	1200	14	74	1276	9
14	1202	14	75	1277	9
15	1205	13	76	1278	9
16	1207	13	77	1279	9
17	1209	13	78	1280	9
18	1211	12	79	1281	9
19	1213	12	80	1282	9
20	1215	12	81	1283	9
21	1217	11	82	1284	9
22	1219	11	83	1285	9
23	1220	11	84	1286	9
24	1222	11	85	1287	9
25	1223	11	86	1288	9
26	1225	10	87	1290	9
27	1226	10	88	1291	10
28	1228	10	89	1292	10
29	1229	10	90	1293	10
30	1230	10	91	1294	10
31	1232	10	92	1296	10
32	1233	10	93	1297	10
33	1234	10	94	1298	10
34	1235	10	95	1300	10
35	1237	9	96	1301	11
36	1238	9	97	1303	11
37	1239	9	98	1304	11
38	1240	9	99	1306	11
39	1241	9	100	1308	11
40	1242	9	101	1309	12
41	1243	9	102	1311	12
42	1244	9	103	1313	12
43	1245	9	104	1315	13
44	1246	9	105	1317	13
45	1247	9	106	1320	13
46	1249	9	107	1322	14
47	1250	9	108	1325	15
48	1251	9	109	1328	15
49	1252	9	110	1331	16
50	1253	9	111	1334	17
51	1254	9	112	1338	18
52	1255	9	113	1343	19
53	1255	9	114	1348	21
54	1256	9	115	1354	23
55	1257	9	116	1362	25
56	1258	9	117	1372	30
57	1259	9	118	1386	36
58	1260	9	119	1410	52
59	1261	9	120	1500	239
60	1262	9			

Table 7.4.5
2011 AIMS A Raw Score to Scale Score
Mathematics Grade 6

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	506	61	1254	13
1	1000	96	62	1256	13
2	1025	65	63	1257	13
3	1053	52	64	1258	13
4	1073	45	65	1260	13
5	1088	40	66	1261	13
6	1100	36	67	1263	13
7	1110	33	68	1264	13
8	1118	31	69	1266	13
9	1126	29	70	1267	13
10	1133	27	71	1269	13
11	1139	26	72	1270	13
12	1144	25	73	1272	13
13	1149	24	74	1273	13
14	1154	23	75	1275	13
15	1158	22	76	1276	13
16	1162	22	77	1278	14
17	1166	21	78	1279	14
18	1170	20	79	1281	14
19	1173	20	80	1282	14
20	1176	19	81	1284	14
21	1179	19	82	1286	14
22	1182	18	83	1287	14
23	1185	18	84	1289	14
24	1188	18	85	1290	14
25	1190	17	86	1292	14
26	1193	17	87	1294	14
27	1195	17	88	1296	15
28	1198	17	89	1297	15
29	1200	16	90	1299	15
30	1202	16	91	1301	15
31	1204	16	92	1303	15
32	1206	16	93	1305	15
33	1208	15	94	1307	16
34	1210	15	95	1309	16
35	1212	15	96	1311	16
36	1214	15	97	1314	16
37	1216	15	98	1316	17
38	1218	15	99	1318	17
39	1220	15	100	1321	17
40	1221	14	101	1323	18
41	1223	14	102	1326	18
42	1225	14	103	1329	19
43	1226	14	104	1332	19
44	1228	14	105	1335	20
45	1230	14	106	1339	20
46	1231	14	107	1342	21
47	1233	14	108	1346	22
48	1235	14	109	1350	23
49	1236	14	110	1355	24
50	1238	14	111	1360	25
51	1239	14	112	1366	27
52	1241	13	113	1372	29
53	1242	13	114	1380	31
54	1244	13	115	1389	34
55	1245	13	116	1400	39
56	1247	13	117	1414	45
57	1248	13	118	1435	55
58	1250	13	119	1472	80
59	1251	13	120	1500	373
60	1253	13			

Table 7.4.6
2011 AIMS A Raw Score to Scale Score
Mathematics Grade 7

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	470	61	1268	12
1	1009	90	62	1269	12
2	1059	61	63	1270	12
3	1086	49	64	1271	12
4	1104	42	65	1273	12
5	1119	37	66	1274	12
6	1130	33	67	1275	12
7	1139	31	68	1276	12
8	1147	28	69	1278	12
9	1154	27	70	1279	12
10	1160	25	71	1280	12
11	1166	24	72	1281	12
12	1171	23	73	1283	12
13	1175	22	74	1284	12
14	1180	21	75	1285	12
15	1184	20	76	1287	12
16	1187	20	77	1288	12
17	1191	19	78	1289	12
18	1194	18	79	1291	12
19	1197	18	80	1292	12
20	1200	17	81	1294	12
21	1203	17	82	1295	12
22	1205	17	83	1296	13
23	1208	16	84	1298	13
24	1210	16	85	1299	13
25	1212	16	86	1301	13
26	1215	15	87	1302	13
27	1217	15	88	1304	13
28	1219	15	89	1306	13
29	1221	15	90	1307	14
30	1223	14	91	1309	14
31	1225	14	92	1311	14
32	1226	14	93	1313	14
33	1228	14	94	1314	14
34	1230	14	95	1316	15
35	1232	13	96	1318	15
36	1233	13	97	1320	15
37	1235	13	98	1323	15
38	1236	13	99	1325	16
39	1238	13	100	1327	16
40	1239	13	101	1330	16
41	1241	13	102	1332	17
42	1242	13	103	1335	17
43	1244	13	104	1338	18
44	1245	12	105	1341	18
45	1247	12	106	1344	19
46	1248	12	107	1347	20
47	1249	12	108	1351	21
48	1251	12	109	1355	21
49	1252	12	110	1360	23
50	1254	12	111	1364	24
51	1255	12	112	1370	25
52	1256	12	113	1376	27
53	1257	12	114	1384	29
54	1259	12	115	1392	32
55	1260	12	116	1403	36
56	1261	12	117	1417	42
57	1263	12	118	1438	52
58	1264	12	119	1473	75
59	1265	12	120	1500	343
60	1266	12			

Table 7.4.7
2011 AIMS A Raw Score to Scale Score
Mathematics Grade 8

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	439	61	1266	11
1	1031	83	62	1268	11
2	1075	56	63	1269	11
3	1099	45	64	1270	11
4	1115	39	65	1271	11
5	1128	34	66	1272	11
6	1138	31	67	1274	11
7	1147	28	68	1275	11
8	1154	26	69	1276	11
9	1160	25	70	1278	12
10	1166	23	71	1279	12
11	1171	22	72	1280	12
12	1175	21	73	1281	12
13	1179	20	74	1283	12
14	1183	20	75	1284	12
15	1187	19	76	1285	12
16	1190	18	77	1287	12
17	1193	18	78	1288	12
18	1196	17	79	1289	12
19	1199	17	80	1291	12
20	1202	16	81	1292	12
21	1204	16	82	1294	12
22	1207	16	83	1295	12
23	1209	15	84	1297	13
24	1211	15	85	1298	13
25	1213	15	86	1300	13
26	1215	15	87	1301	13
27	1217	14	88	1303	13
28	1219	14	89	1304	13
29	1221	14	90	1306	13
30	1223	14	91	1308	14
31	1225	13	92	1310	14
32	1226	13	93	1312	14
33	1228	13	94	1313	14
34	1230	13	95	1315	14
35	1231	13	96	1317	15
36	1233	13	97	1320	15
37	1234	13	98	1322	15
38	1236	13	99	1324	16
39	1237	12	100	1326	16
40	1239	12	101	1329	16
41	1240	12	102	1332	17
42	1242	12	103	1334	17
43	1243	12	104	1337	18
44	1245	12	105	1340	18
45	1246	12	106	1344	19
46	1247	12	107	1347	20
47	1249	12	108	1351	21
48	1250	12	109	1356	21
49	1251	12	110	1360	22
50	1252	12	111	1365	24
51	1254	12	112	1371	25
52	1255	12	113	1377	27
53	1256	11	114	1385	29
54	1258	11	115	1393	32
55	1259	11	116	1404	35
56	1260	11	117	1418	41
57	1261	11	118	1437	50
58	1263	11	119	1471	71
59	1264	11	120	1500	327
60	1265	11			

Table 7.4.8
2011 AIMS A Raw Score to Scale Score
Mathematics High School

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	482	61	1268	12
1	1010	91	62	1269	12
2	1058	62	63	1270	12
3	1085	50	64	1272	12
4	1103	42	65	1273	12
5	1117	37	66	1274	12
6	1129	34	67	1276	12
7	1138	31	68	1277	12
8	1146	29	69	1278	12
9	1153	27	70	1280	13
10	1159	26	71	1281	13
11	1164	24	72	1282	13
12	1169	23	73	1284	13
13	1174	22	74	1285	13
14	1178	21	75	1287	13
15	1182	21	76	1288	13
16	1186	20	77	1290	13
17	1189	19	78	1291	13
18	1192	19	79	1293	13
19	1195	18	80	1294	13
20	1198	18	81	1296	13
21	1201	17	82	1297	13
22	1204	17	83	1299	14
23	1206	17	84	1300	14
24	1209	16	85	1302	14
25	1211	16	86	1304	14
26	1213	16	87	1306	14
27	1215	15	88	1307	14
28	1217	15	89	1309	14
29	1219	15	90	1311	15
30	1221	15	91	1313	15
31	1223	15	92	1315	15
32	1225	14	93	1317	15
33	1227	14	94	1319	15
34	1228	14	95	1321	16
35	1230	14	96	1323	16
36	1232	14	97	1326	16
37	1234	14	98	1328	17
38	1235	13	99	1330	17
39	1237	13	100	1333	17
40	1238	13	101	1336	18
41	1240	13	102	1339	18
42	1241	13	103	1342	19
43	1243	13	104	1345	19
44	1244	13	105	1348	20
45	1246	13	106	1352	21
46	1247	13	107	1356	21
47	1249	13	108	1360	22
48	1250	13	109	1364	23
49	1251	13	110	1369	24
50	1253	13	111	1375	26
51	1254	12	112	1381	27
52	1256	12	113	1388	29
53	1257	12	114	1396	31
54	1258	12	115	1405	34
55	1260	12	116	1417	39
56	1261	12	117	1432	45
57	1262	12	118	1454	55
58	1264	12	119	1491	79
59	1265	12	120	1500	358
60	1266	12			

Table 7.4.9
2011 AIMS A Raw Score to Scale Score
Reading Grade 3

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	410	61	1257	10
1	1041	77	62	1258	10
2	1082	52	63	1259	10
3	1104	42	64	1260	10
4	1119	35	65	1261	10
5	1131	31	66	1262	10
6	1140	28	67	1264	10
7	1148	26	68	1265	10
8	1154	24	69	1266	10
9	1160	23	70	1267	10
10	1165	21	71	1268	10
11	1169	20	72	1269	10
12	1174	19	73	1270	11
13	1177	19	74	1272	11
14	1181	18	75	1273	11
15	1184	17	76	1274	11
16	1187	17	77	1275	11
17	1190	16	78	1276	11
18	1193	16	79	1277	11
19	1195	15	80	1279	11
20	1198	15	81	1280	11
21	1200	15	82	1281	11
22	1202	14	83	1282	11
23	1204	14	84	1284	11
24	1206	14	85	1285	11
25	1208	14	86	1286	11
26	1210	13	87	1288	11
27	1212	13	88	1289	12
28	1214	13	89	1291	12
29	1215	13	90	1292	12
30	1217	13	91	1293	12
31	1219	12	92	1295	12
32	1220	12	93	1297	12
33	1222	12	94	1298	12
34	1223	12	95	1300	13
35	1225	12	96	1301	13
36	1226	12	97	1303	13
37	1228	12	98	1305	13
38	1229	12	99	1307	14
39	1231	11	100	1309	14
40	1232	11	101	1311	14
41	1233	11	102	1313	15
42	1234	11	103	1315	15
43	1236	11	104	1318	15
44	1237	11	105	1320	16
45	1238	11	106	1323	16
46	1240	11	107	1326	17
47	1241	11	108	1329	18
48	1242	11	109	1332	18
49	1243	11	110	1336	19
50	1244	11	111	1340	20
51	1246	11	112	1345	22
52	1247	11	113	1350	23
53	1248	11	114	1356	25
54	1249	11	115	1363	28
55	1250	10	116	1372	31
56	1251	10	117	1383	36
57	1252	10	118	1400	45
58	1254	10	119	1430	65
59	1255	10	120	1500	302
60	1256	10			

Table 7.4.10
2011 AIMS A Raw Score to Scale Score
Reading Grade 4

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	465	61	1263	12
1	1014	88	62	1264	12
2	1062	60	63	1266	12
3	1088	47	64	1267	12
4	1105	40	65	1268	12
5	1118	36	66	1270	12
6	1129	32	67	1271	12
7	1138	30	68	1272	12
8	1145	28	69	1274	12
9	1152	26	70	1275	12
10	1158	24	71	1276	12
11	1163	23	72	1278	12
12	1167	22	73	1279	12
13	1172	21	74	1280	12
14	1176	20	75	1282	12
15	1179	20	76	1283	12
16	1183	19	77	1284	12
17	1186	19	78	1286	12
18	1189	18	79	1287	12
19	1192	18	80	1289	13
20	1195	17	81	1290	13
21	1197	17	82	1292	13
22	1200	16	83	1293	13
23	1202	16	84	1295	13
24	1205	16	85	1296	13
25	1207	15	86	1298	13
26	1209	15	87	1299	13
27	1211	15	88	1301	13
28	1213	15	89	1303	13
29	1215	15	90	1304	14
30	1217	14	91	1306	14
31	1219	14	92	1308	14
32	1221	14	93	1310	14
33	1223	14	94	1311	14
34	1224	14	95	1313	15
35	1226	14	96	1315	15
36	1228	13	97	1317	15
37	1229	13	98	1319	15
38	1231	13	99	1322	16
39	1232	13	100	1324	16
40	1234	13	101	1326	16
41	1236	13	102	1329	17
42	1237	13	103	1331	17
43	1239	13	104	1334	18
44	1240	13	105	1337	18
45	1241	13	106	1340	19
46	1243	12	107	1343	19
47	1244	12	108	1347	20
48	1246	12	109	1351	21
49	1247	12	110	1355	22
50	1248	12	111	1360	23
51	1250	12	112	1365	25
52	1251	12	113	1371	26
53	1253	12	114	1378	28
54	1254	12	115	1386	31
55	1255	12	116	1396	35
56	1257	12	117	1409	41
57	1258	12	118	1428	51
58	1259	12	119	1462	73
59	1260	12	120	1500	341
60	1262	12			

Table 7.4.11
2011 AIMS A Raw Score to Scale Score
Reading Grade 5

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	557	61	1249	14
1	1000	105	62	1250	14
2	1000	72	63	1252	14
3	1025	58	64	1253	14
4	1047	50	65	1255	14
5	1064	45	66	1256	14
6	1077	40	67	1258	14
7	1089	37	68	1259	14
8	1099	35	69	1261	14
9	1107	33	70	1262	14
10	1115	31	71	1264	14
11	1122	29	72	1266	14
12	1128	28	73	1267	15
13	1134	27	74	1269	15
14	1139	26	75	1270	15
15	1144	25	76	1272	15
16	1149	24	77	1274	15
17	1153	23	78	1275	15
18	1157	23	79	1277	15
19	1161	22	80	1279	15
20	1165	22	81	1280	15
21	1168	21	82	1282	15
22	1171	21	83	1284	15
23	1174	20	84	1286	16
24	1177	20	85	1288	16
25	1180	19	86	1290	16
26	1183	19	87	1292	16
27	1186	19	88	1293	16
28	1188	18	89	1296	16
29	1191	18	90	1298	17
30	1193	18	91	1300	17
31	1196	17	92	1302	17
32	1198	17	93	1304	17
33	1200	17	94	1306	18
34	1202	17	95	1309	18
35	1204	16	96	1311	18
36	1206	16	97	1314	19
37	1208	16	98	1316	19
38	1210	16	99	1319	19
39	1212	16	100	1322	20
40	1214	16	101	1325	20
41	1216	16	102	1328	21
42	1218	15	103	1332	21
43	1219	15	104	1335	22
44	1221	15	105	1339	23
45	1223	15	106	1343	23
46	1225	15	107	1347	24
47	1226	15	108	1352	25
48	1228	15	109	1357	26
49	1230	15	110	1362	27
50	1231	15	111	1368	29
51	1233	15	112	1375	31
52	1234	15	113	1383	33
53	1236	14	114	1392	36
54	1238	14	115	1402	39
55	1239	14	116	1415	44
56	1241	14	117	1432	51
57	1242	14	118	1456	63
58	1244	14	119	1497	90
59	1245	14	120	1500	413
60	1247	14			

Table 7.4.12
2011 AIMS A Raw Score to Scale Score
Reading Grade 6

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	591	61	1249	15
1	1000	112	62	1251	15
2	1000	77	63	1253	15
3	1019	61	64	1254	15
4	1042	53	65	1256	15
5	1060	47	66	1258	15
6	1074	42	67	1260	15
7	1086	39	68	1261	15
8	1096	36	69	1263	15
9	1105	34	70	1265	15
10	1113	32	71	1266	16
11	1120	30	72	1268	16
12	1126	29	73	1270	16
13	1132	28	74	1272	16
14	1137	27	75	1273	16
15	1142	26	76	1275	16
16	1147	25	77	1277	16
17	1151	24	78	1279	16
18	1155	23	79	1281	16
19	1159	23	80	1283	16
20	1163	22	81	1285	16
21	1166	22	82	1287	17
22	1169	21	83	1289	17
23	1172	21	84	1291	17
24	1175	20	85	1293	17
25	1178	20	86	1295	17
26	1181	19	87	1297	17
27	1184	19	88	1299	18
28	1186	19	89	1301	18
29	1189	19	90	1304	18
30	1191	18	91	1306	18
31	1194	18	92	1308	18
32	1196	18	93	1311	19
33	1198	18	94	1313	19
34	1200	17	95	1316	19
35	1203	17	96	1319	20
36	1205	17	97	1322	20
37	1207	17	98	1324	20
38	1209	17	99	1327	21
39	1211	17	100	1331	21
40	1213	16	101	1334	22
41	1215	16	102	1337	22
42	1217	16	103	1341	23
43	1218	16	104	1345	23
44	1220	16	105	1349	24
45	1222	16	106	1353	25
46	1224	16	107	1358	26
47	1226	16	108	1363	27
48	1227	16	109	1368	28
49	1229	16	110	1374	29
50	1231	16	111	1380	31
51	1233	15	112	1387	33
52	1234	15	113	1396	35
53	1236	15	114	1405	38
54	1238	15	115	1416	41
55	1239	15	116	1430	46
56	1241	15	117	1448	54
57	1243	15	118	1473	66
58	1244	15	119	1500	95
59	1246	15	120	1500	436
60	1248	15			

Table 7.4.13
2011 A AIMS A Raw Score to Scale Score
Reading Grade 7

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	568	61	1252	15
1	1000	108	62	1253	15
2	1003	73	63	1255	15
3	1035	58	64	1257	15
4	1057	50	65	1258	15
5	1074	44	66	1260	15
6	1087	40	67	1262	15
7	1098	36	68	1263	15
8	1107	34	69	1265	15
9	1115	32	70	1267	15
10	1122	30	71	1268	15
11	1129	28	72	1270	15
12	1134	27	73	1272	15
13	1140	26	74	1273	15
14	1145	25	75	1275	15
15	1149	24	76	1277	15
16	1153	23	77	1279	15
17	1157	23	78	1280	15
18	1161	22	79	1282	15
19	1165	21	80	1284	16
20	1168	21	81	1286	16
21	1171	20	82	1288	16
22	1174	20	83	1290	16
23	1177	19	84	1291	16
24	1180	19	85	1293	16
25	1183	19	86	1295	16
26	1185	18	87	1297	16
27	1188	18	88	1300	17
28	1190	18	89	1302	17
29	1193	18	90	1304	17
30	1195	17	91	1306	17
31	1197	17	92	1308	17
32	1200	17	93	1311	18
33	1202	17	94	1313	18
34	1204	17	95	1315	18
35	1206	16	96	1318	18
36	1208	16	97	1321	19
37	1210	16	98	1323	19
38	1212	16	99	1326	19
39	1214	16	100	1329	20
40	1216	16	101	1332	20
41	1218	16	102	1335	21
42	1220	16	103	1339	21
43	1221	15	104	1342	22
44	1223	15	105	1346	22
45	1225	15	106	1350	23
46	1227	15	107	1354	24
47	1228	15	108	1359	25
48	1230	15	109	1363	26
49	1232	15	110	1369	27
50	1234	15	111	1375	28
51	1235	15	112	1381	30
52	1237	15	113	1388	32
53	1239	15	114	1397	35
54	1240	15	115	1407	38
55	1242	15	116	1419	43
56	1244	15	117	1435	49
57	1245	15	118	1458	61
58	1247	15	119	1498	88
59	1248	15	120	1500	412
60	1250	15			

Table 7.4.14
2011 AIMS A Raw Score to Scale Score
Reading Grade 8

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	429	61	1257	11
1	1026	81	62	1258	11
2	1070	55	63	1260	11
3	1094	44	64	1261	11
4	1110	37	65	1262	11
5	1122	33	66	1263	11
6	1132	30	67	1265	11
7	1140	27	68	1266	11
8	1147	25	69	1267	11
9	1153	24	70	1268	11
10	1158	22	71	1270	11
11	1163	21	72	1271	11
12	1167	20	73	1272	11
13	1171	19	74	1274	11
14	1174	19	75	1275	11
15	1178	18	76	1276	12
16	1181	18	77	1277	12
17	1184	17	78	1279	12
18	1187	17	79	1280	12
19	1190	16	80	1282	12
20	1192	16	81	1283	12
21	1195	16	82	1284	12
22	1197	15	83	1286	12
23	1199	15	84	1287	12
24	1201	15	85	1289	12
25	1204	14	86	1290	12
26	1206	14	87	1292	12
27	1208	14	88	1293	13
28	1209	14	89	1295	13
29	1211	14	90	1297	13
30	1213	13	91	1298	13
31	1215	13	92	1300	13
32	1217	13	93	1302	13
33	1218	13	94	1304	14
34	1220	13	95	1305	14
35	1222	13	96	1307	14
36	1223	13	97	1309	14
37	1225	12	98	1311	15
38	1226	12	99	1314	15
39	1228	12	100	1316	15
40	1229	12	101	1318	15
41	1231	12	102	1321	16
42	1232	12	103	1323	16
43	1234	12	104	1326	17
44	1235	12	105	1329	17
45	1236	12	106	1332	18
46	1238	12	107	1335	18
47	1239	12	108	1338	19
48	1241	12	109	1342	20
49	1242	12	110	1346	21
50	1243	11	111	1351	22
51	1244	11	112	1356	23
52	1246	11	113	1361	25
53	1247	11	114	1368	27
54	1248	11	115	1376	29
55	1250	11	116	1385	33
56	1251	11	117	1398	38
57	1252	11	118	1416	47
58	1253	11	119	1447	68
59	1255	11	120	1500	314
60	1256	11			

Table 7.4.15
2011 AIMS A Raw Score to Scale Score
Reading High School

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	424	61	1257	11
1	1048	79	62	1258	11
2	1089	52	63	1260	11
3	1110	41	64	1261	11
4	1125	35	65	1262	11
5	1135	31	66	1263	11
6	1144	28	67	1264	11
7	1151	25	68	1266	11
8	1157	24	69	1267	11
9	1162	22	70	1268	11
10	1167	21	71	1269	11
11	1171	20	72	1271	11
12	1175	19	73	1272	11
13	1178	18	74	1273	11
14	1182	18	75	1274	11
15	1185	17	76	1276	11
16	1187	17	77	1277	12
17	1190	16	78	1278	12
18	1193	16	79	1280	12
19	1195	15	80	1281	12
20	1197	15	81	1282	12
21	1200	15	82	1284	12
22	1202	14	83	1285	12
23	1204	14	84	1287	12
24	1206	14	85	1288	12
25	1208	14	86	1290	12
26	1209	13	87	1291	12
27	1211	13	88	1293	13
28	1213	13	89	1294	13
29	1215	13	90	1296	13
30	1216	13	91	1298	13
31	1218	13	92	1299	13
32	1219	12	93	1301	13
33	1221	12	94	1303	14
34	1223	12	95	1305	14
35	1224	12	96	1307	14
36	1225	12	97	1309	14
37	1227	12	98	1311	15
38	1228	12	99	1313	15
39	1230	12	100	1315	15
40	1231	12	101	1318	16
41	1232	12	102	1320	16
42	1234	11	103	1323	16
43	1235	11	104	1326	17
44	1236	11	105	1329	17
45	1238	11	106	1332	18
46	1239	11	107	1335	18
47	1240	11	108	1338	19
48	1241	11	109	1342	20
49	1243	11	110	1346	21
50	1244	11	111	1351	22
51	1245	11	112	1356	23
52	1246	11	113	1362	25
53	1247	11	114	1369	27
54	1249	11	115	1376	29
55	1250	11	116	1386	33
56	1251	11	117	1398	38
57	1252	11	118	1416	47
58	1254	11	119	1446	67
59	1255	11	120	1500	312
60	1256	11			

Table 7.4.16
2011 AIMS A Raw Score to Scale Score
Science Grade 4

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	434	61	1255	11
1	1030	83	62	1256	11
2	1075	55	63	1257	11
3	1099	44	64	1259	11
4	1116	37	65	1260	11
5	1127	32	66	1261	11
6	1137	29	67	1262	11
7	1145	27	68	1263	11
8	1151	25	69	1265	11
9	1157	23	70	1266	11
10	1162	22	71	1267	11
11	1166	21	72	1268	11
12	1170	20	73	1270	11
13	1174	19	74	1271	11
14	1178	18	75	1272	11
15	1181	18	76	1273	11
16	1184	17	77	1275	11
17	1187	17	78	1276	12
18	1189	16	79	1277	12
19	1192	16	80	1279	12
20	1194	15	81	1280	12
21	1197	15	82	1281	12
22	1199	15	83	1283	12
23	1201	14	84	1284	12
24	1203	14	85	1286	12
25	1205	14	86	1287	12
26	1207	14	87	1289	12
27	1209	13	88	1290	13
28	1210	13	89	1292	13
29	1212	13	90	1294	13
30	1214	13	91	1295	13
31	1215	13	92	1297	13
32	1217	13	93	1299	13
33	1219	12	94	1301	14
34	1220	12	95	1302	14
35	1222	12	96	1304	14
36	1223	12	97	1306	14
37	1225	12	98	1308	15
38	1226	12	99	1311	15
39	1227	12	100	1313	15
40	1229	12	101	1315	15
41	1230	12	102	1318	16
42	1231	12	103	1320	16
43	1233	11	104	1323	17
44	1234	11	105	1326	17
45	1235	11	106	1329	18
46	1237	11	107	1332	18
47	1238	11	108	1336	19
48	1239	11	109	1339	20
49	1240	11	110	1344	21
50	1242	11	111	1348	22
51	1243	11	112	1353	23
52	1244	11	113	1359	25
53	1245	11	114	1366	27
54	1247	11	115	1374	30
55	1248	11	116	1384	33
56	1249	11	117	1397	39
57	1250	11	118	1415	48
58	1251	11	119	1448	69
59	1253	11	120	1500	315
60	1254	11			

Table 7.4.17
2011 AIMS A Raw Score to Scale Score
Science Grade 8

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	360	61	1255	9
1	1041	69	62	1256	9
2	1079	47	63	1257	9
3	1101	38	64	1258	9
4	1116	33	65	1259	9
5	1127	29	66	1260	9
6	1136	27	67	1261	9
7	1144	25	68	1262	9
8	1151	23	69	1263	9
9	1157	22	70	1264	9
10	1162	20	71	1265	9
11	1167	20	72	1266	9
12	1171	19	73	1267	9
13	1175	18	74	1268	9
14	1179	17	75	1269	9
15	1183	17	76	1270	9
16	1186	16	77	1272	9
17	1189	16	78	1273	10
18	1192	15	79	1274	10
19	1194	15	80	1275	10
20	1197	14	81	1276	10
21	1199	14	82	1277	10
22	1201	14	83	1278	10
23	1204	13	84	1279	10
24	1206	13	85	1281	10
25	1208	13	86	1282	10
26	1210	13	87	1283	10
27	1212	12	88	1284	10
28	1213	12	89	1285	10
29	1215	12	90	1287	10
30	1217	12	91	1288	11
31	1218	12	92	1289	11
32	1220	11	93	1291	11
33	1221	11	94	1292	11
34	1223	11	95	1294	11
35	1224	11	96	1295	11
36	1226	11	97	1297	11
37	1227	11	98	1298	12
38	1229	11	99	1300	12
39	1230	10	100	1302	12
40	1231	10	101	1304	12
41	1233	10	102	1305	13
42	1234	10	103	1307	13
43	1235	10	104	1310	13
44	1236	10	105	1312	14
45	1237	10	106	1314	14
46	1239	10	107	1317	15
47	1240	10	108	1319	15
48	1241	10	109	1322	16
49	1242	10	110	1326	17
50	1243	10	111	1329	18
51	1244	10	112	1333	19
52	1245	10	113	1338	20
53	1246	10	114	1343	22
54	1248	9	115	1350	24
55	1249	9	116	1358	27
56	1250	9	117	1368	32
57	1251	9	118	1383	39
58	1252	9	119	1409	57
59	1253	9	120	1500	262
60	1254	9			

Table 7.4.18
2011 AIMS A Raw Score to Scale Score
Science Grade 10

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	321	61	1255	8
1	1085	60	62	1256	8
2	1116	41	63	1257	8
3	1134	32	64	1258	8
4	1146	28	65	1259	8
5	1154	24	66	1260	8
6	1162	22	67	1261	8
7	1167	20	68	1262	8
8	1172	19	69	1262	8
9	1177	18	70	1263	8
10	1181	17	71	1264	9
11	1184	16	72	1265	9
12	1188	15	73	1266	9
13	1191	15	74	1267	9
14	1193	14	75	1268	9
15	1196	14	76	1269	9
16	1198	13	77	1270	9
17	1200	13	78	1271	9
18	1203	13	79	1272	9
19	1205	12	80	1273	9
20	1206	12	81	1274	9
21	1208	12	82	1275	9
22	1210	11	83	1276	9
23	1212	11	84	1277	9
24	1213	11	85	1279	9
25	1215	11	86	1280	9
26	1216	11	87	1281	9
27	1218	10	88	1282	9
28	1219	10	89	1283	9
29	1221	10	90	1284	10
30	1222	10	91	1286	10
31	1223	10	92	1287	10
32	1225	10	93	1288	10
33	1226	10	94	1289	10
34	1227	10	95	1291	10
35	1228	10	96	1292	10
36	1230	9	97	1294	11
37	1231	9	98	1295	11
38	1232	9	99	1297	11
39	1233	9	100	1298	11
40	1234	9	101	1300	11
41	1235	9	102	1302	12
42	1236	9	103	1303	12
43	1237	9	104	1305	12
44	1238	9	105	1307	13
45	1239	9	106	1310	13
46	1240	9	107	1312	13
47	1241	9	108	1314	14
48	1242	9	109	1317	15
49	1243	9	110	1320	15
50	1244	9	111	1323	16
51	1245	9	112	1327	17
52	1246	9	113	1331	18
53	1247	9	114	1336	20
54	1248	9	115	1341	22
55	1249	9	116	1348	24
56	1250	8	117	1357	28
57	1251	8	118	1370	35
58	1252	8	119	1393	50
59	1253	8	120	1500	237
60	1254	8			

Part 8: Test Results

8.1 Data

Part 8 of this Technical Report contains information about the results of the 2011 spring administration of AIMS A. This section provides information on the scores from the AIMS A assessments. 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.

Results presented 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 A assessments and should not be used for state accountability purposes.

8.1.1 AIMS A State Test Results

The AIMS A test results for Mathematics, Reading, and Science are each on a scale for Grades 3-8 and High School that runs from a lowest obtainable scale score (LOSS) of 1000 to a highest obtainable scale score (HOSS) of 1500. The LOSS and HOSS values for each grade/subject can be found in Table 8.1.1.1.

Test results for each grade level and content area test follow in Tables 8.1.1.2 through 8.1.1.4. 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 8.1.1.4, scale score frequency distributions are also presented in Tables 8.1.1.5 through 8.1.1.22. Each grade and content area is presented in a separate table. These tables show the raw score, scale score, frequency (FREQ), percent, and cumulative percentage (Cuml Pct).

Table 8.1.1.1
2011 AIMS A LOSS and HOSS Table

Content	Grade	LOSS	HOSS
Mathematics	3	1000	1500
	4	1000	1500
	5	1000	1500
	6	1000	1500
	7	1000	1500
	8	1000	1500
	9	1000	1500
	HS	1000	1500
	Reading	3	1000
4		1000	1500
5		1000	1500
6		1000	1500
7		1000	1500
8		1000	1500
HS		1000	1500
Science		4	1000
	8	1000	1500
	10	1000	1500

Table 8.1.1.2
2011 AIMS A State Test Results
Mathematics Grades 3-8 and High School

	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 3									
Total	892	1225.71	62.67	11%	17%	55%	16%	4%	0%
Ethnic Background									
White	343	1254.64	66.28	11%	18%	53%	18%	4%	0%
Black	60	1267.62	33.25	10%	13%	60%	17%	0%	0%
Hispanic	399	1255.15	61.06	12%	17%	57%	14%	4%	0%
American Indian	51	1262.37	64.06	8%	10%	61%	22%	4%	0%
Asian	24	1231.87	95.32	21%	21%	42%	17%	13%	0%
Hawaiian Pacific Islander	2	1280.00	25.46	0%	0%	50%	50%	0%	0%
Multiracial	11	1256.36	23.14	0%	46%	46%	9%	0%	9%
Other	2	1281.50	20.51	0%	0%	50%	50%	0%	0%
Gender									
Male	575	1259.98	55.87	10%	18%	54%	19%	3%	0%
Female	317	1247.96	72.88	14%	16%	58%	12%	6%	1%
Need									
Autism	271	1257.10	58.00	10%	19%	54%	17%	3%	0%
DD	7	1300.71	39.23	0%	0%	57%	43%	0%	0%
ED	6	1296.33	28.66	0%	0%	67%	33%	0%	0%
EDP	3	1296.67	41.74	0%	0%	67%	33%	0%	0%
HI	5	1291.00	23.32	0%	0%	40%	60%	0%	0%
MD	20	1262.25	42.17	20%	10%	45%	25%	0%	0%
MDSSI	43	1154.30	110.22	56%	23%	19%	2%	28%	0%
MIMR	274	1280.09	25.52	0%	9%	68%	23%	0%	1%
MOMR	118	1249.75	33.14	12%	33%	52%	3%	0%	0%
OHI	22	1278.82	21.98	0%	5%	64%	32%	0%	0%
OI	65	1211.86	96.40	28%	28%	39%	6%	14%	0%
SLD	29	1283.66	16.43	0%	3%	76%	21%	0%	0%
SLI	4	1260.50	28.07	0%	25%	75%	0%	0%	0%
SMR	18	1189.56	90.94	56%	22%	22%	0%	17%	0%
VI	5	1180.40	110.25	60%	20%	20%	0%	20%	0%
Other	2	1304.00	28.28	0%	0%	50%	50%	0%	0%
SES									
Free/Reduced Lunch	589	1258.69	59.07	10%	17%	56%	17%	3%	0%
No Lunch Assistance	301	1249.69	69.04	14%	18%	53%	15%	5%	0%
Other	2	1281.50	20.51	0%	0%	50%	50%	0%	0%
Migrant									
Non-Migrant	884	1255.51	62.87	11%	17%	55%	16%	4%	0%
Migrant	6	1276.83	30.57	0%	17%	67%	17%	0%	0%
Other	2	1281.50	20.51	0%	0%	50%	50%	0%	0%
ELL									
Non-ELL	835	1254.84	62.30	12%	17%	55%	16%	4%	0%
ELL	55	1267.95	68.25	7%	14%	54%	25%	4%	0%
Other	2	1281.50	20.51	0%	0%	50%	50%	0%	0%

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 4									
Total	915	1259.08	71.91	12%	19%	49%	20%	4%	0%
Ethnic Background									
White	352	1262.00	62.63	10%	20%	51%	18%	3%	0%
Black	77	1256.43	77.84	14%	20%	47%	20%	5%	0%
Hispanic	397	1257.44	76.60	13%	18%	48%	21%	5%	1%
American Indian	55	1265.58	65.18	7%	18%	53%	22%	4%	0%
Asian	23	1252.65	89.25	13%	9%	57%	22%	0%	0%
Hawaiian Pacific Islander	0	0.00	0.00	0%	0%	0%	0%	0%	0%
Multiracial	11	1224.36	118.32	27%	27%	18%	27%	18%	0%
N/A	0	0.00	0.00	0%	0%	0%	0%	0%	0%
Gender									
Male	584	1266.68	65.42	10%	18%	47%	24%	3%	1%
Female	331	1245.67	80.49	15%	20%	53%	13%	6%	0%
Need									
Autism	245	1267.59	59.08	11%	18%	49%	22%	1%	0%
DD	1	1377.00	0.00	0%	0%	0%	100%	0%	0%
ED	11	1295.27	29.91	0%	9%	45%	45%	0%	0%
EDP	4	1269.00	21.60	0%	25%	75%	0%	0%	0%
HI	5	1269.20	48.86	20%	0%	60%	20%	0%	0%
MD	20	1228.75	103.94	20%	25%	45%	10%	10%	0%
MDSSI	57	1160.93	113.57	51%	28%	21%	0%	30%	2%
MIMR	295	1286.39	37.03	1%	10%	58%	31%	0%	0%
MOMR	112	1250.15	24.17	11%	36%	53%	1%	0%	1%
OHI	20	1297.15	42.74	0%	5%	65%	30%	0%	0%
OI	83	1229.34	86.67	19%	34%	39%	8%	8%	0%
SLD	31	1301.23	30.14	0%	6%	45%	48%	0%	0%
SLI	7	1292.86	11.16	0%	0%	86%	14%	0%	0%
SMR	21	1123.86	112.45	71%	19%	10%	0%	33%	0%
VI	3	1078.67	136.26	67%	33%	0%	0%	67%	0%
SES									
Free/Reduced Lunch	583	1266.11	69.92	10%	16%	50%	24%	4%	1%
No Lunch Assistance	332	1246.73	73.77	16%	24%	48%	13%	5%	0%
Migrant									
Non-Migrant	912	1259.08	72.02	12%	19%	49%	20%	4%	0%
Migrant	3	1260.67	27.54	0%	33%	67%	0%	0%	0%
ELL									
Non-ELL	880	1258.59	71.85	12%	19%	49%	20%	4%	0%
ELL	35	1271.49	73.36	9%	9%	51%	31%	3%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 5									
Total	902	1255.83	63.02	11%	17%	62%	9%	4%	0%
Ethnic Background									
White	355	1253.54	67.22	11%	19%	62%	9%	5%	0%
Black	70	1257.06	76.06	9%	16%	66%	10%	7%	0%
Hispanic	381	1257.00	59.82	13%	15%	62%	10%	3%	0%
American Indian	52	1264.08	46.70	10%	15%	64%	12%	2%	0%
Asian	27	1248.11	57.26	11%	26%	59%	4%	0%	0%
Hawaiian Pacific Islander	1	1260.00	0.00	0%	0%	100%	0%	0%	0%
Multiracial	12	1269.25	27.94	8%	17%	67%	8%	0%	0%
Other	4	1230.50	24.15	50%	25%	25%	0%	0%	0%
Gender									
Male	564	1255.85	36.73	12%	17%	62%	10%	4%	0%
Female	338	1255.80	61.90	11%	18%	63%	9%	4%	0%
Need									
Autism	206	1260.97	38.95	7%	24%	61%	7%	1%	0%
DD	0	0.00	0.00	0%	0%	0%	0%	0%	0%
ED	15	1282.07	24.80	0%	20%	60%	20%	0%	0%
EDP	7	1273.29	11.49	0%	0%	100%	0%	0%	0%
HI	3	1261.67	21.36	0%	33%	67%	0%	0%	0%
MD	20	1249.00	88.90	15%	10%	55%	20%	10%	0%
MDSSI	54	1157.69	116.64	50%	22%	28%	0%	31%	0%
MIMR	310	1280.51	21.02	1%	6%	80%	13%	0%	0%
MOMR	116	1255.61	35.97	9%	30%	56%	5%	1%	1%
OHI	17	1276.65	35.80	6%	6%	65%	24%	0%	0%
OI	84	1222.81	83.88	27%	27%	43%	2%	8%	0%
SLD	32	1298.12	24.64	0%	0%	66%	34%	0%	0%
SLI	5	1282.20	13.76	0%	0%	100%	0%	0%	0%
SMR	27	1148.30	102.52	78%	19%	4%	0%	26%	0%
VI	6	1266.17	21.20	0%	33%	67%	0%	0%	0%
SES									
Free/Reduced Lunch	579	1263.65	54.02	8%	16%	65%	11%	2%	0%
No Lunch Assistance	319	1241.96	75.02	17%	18%	57%	6%	7%	0%
Other	4	1230.50	24.15	50%	25%	25%	0%	0%	0%
Migrant									
Non-Migrant	895	1255.93	63.20	11%	17%	63%	9%	4%	0%
Migrant	3	1262.67	36.47	0%	67%	0%	33%	0%	0%
Other	4	1230.50	24.15	50%	25%	25%	0%	0%	0%
ELL									
Non-ELL	864	1255.09	64.00	12%	17%	62%	9%	4%	0%
ELL	34	1277.85	25.46	3%	6%	77%	15%	0%	0%
Other	4	1230.50	24.15	50%	25%	25%	0%	0%	0%

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 6									
Total	939	1265.84	75.92	10%	16%	63%	10%	4%	0%
Ethnic Background									
White	389	1263.18	81.39	11%	16%	61%	12%	4%	0%
Black	66	1273.68	48.46	8%	18%	65%	9%	0%	0%
Hispanic	385	1268.58	75.37	9%	16%	66%	10%	4%	0%
American Indian	61	1264.30	68.93	16%	12%	62%	10%	2%	0%
Asian	26	1244.31	83.36	15%	27%	58%	0%	8%	0%
Hawaiian Pacific Islander	2	1291.00	49.50	0%	0%	100%	0%	0%	0%
Multiracial	10	1272.40	44.67	10%	20%	60%	10%	0%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%
Gender									
Male	575	1271.13	73.68	9%	16%	63%	12%	3%	0%
Female	364	1257.48	78.71	13%	17%	64%	7%	5%	0%
Need									
Autism	212	1272.33	60.10	6%	18%	66%	10%	2%	0%
DD	0	0.00	0.00	0%	0%	0%	0%	0%	0%
ED	8	1325.50	49.64	0%	0%	75%	25%	0%	0%
EDP	8	1295.38	18.70	0%	0%	88%	13%	0%	0%
HI	2	1288.00	8.49	0%	0%	100%	0%	0%	0%
MD	16	1269.81	28.46	0%	31%	69%	0%	0%	0%
MDSSI	68	1158.31	108.67	52%	29%	16%	3%	22%	0%
MIMR	319	1300.19	33.51	0%	4%	81%	14%	0%	0%
MOMR	135	1260.42	45.70	4%	33%	60%	3%	1%	0%
OHI	17	1266.00	104.35	12%	6%	65%	18%	12%	0%
OI	74	1220.28	94.21	28%	24%	43%	4%	7%	0%
SLD	40	1318.70	26.58	0%	0%	68%	33%	0%	0%
SLI	2	1310.00	15.56	0%	0%	100%	0%	0%	0%
SMR	31	1135.55	98.28	71%	26%	3%	0%	26%	0%
VI	7	1292.14	35.59	0%	14%	71%	14%	0%	0%
SES									
Free/Reduced Lunch	552	1279.29	61.87	6%	14%	68%	12%	2%	0%
No Lunch Assistance	387	1246.65	88.97	16%	19%	56%	8%	7%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%
Migrant									
Non-Migrant	936	1265.83	76.02	11%	16%	63%	10%	4%	0%
Migrant	3	1269.33	43.66	0%	33%	67%	0%	0%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%
ELL									
Non-ELL	907	1264.62	76.58	11%	16%	63%	10%	4%	0%
ELL	32	1300.34	41.94	3%	6%	81%	9%	0%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 7									
Total	891	1271.85	68.93	8%	19%	61%	13%	3%	0%
Ethnic Background									
White	339	1270.79	66.08	8%	20%	59%	13%	2%	0%
Black	53	1283.55	74.74	6%	17%	53%	25%	4%	0%
Hispanic	392	1272.07	70.06	8%	16%	64%	13%	3%	0%
American Indian	73	1279.45	61.05	6%	22%	60%	12%	1%	0%
Asian	18	1246.56	85.12	11%	28%	61%	0%	6%	0%
Hawaiian Pacific Islander	2	1189.50	85.56	50%	0%	50%	0%	0%	0%
Multiracial	9	1248.67	110.27	11%	33%	44%	11%	11%	0%
Other	5	1257.60	31.21	0%	40%	60%	0%	0%	0%
Gender									
Male	548	1275.62	69.69	7%	16%	62%	15%	3%	0%
Female	343	1265.84	67.35	8%	23%	59%	11%	3%	0%
Need									
Autism	193	1270.36	65.04	6%	26%	56%	12%	2%	0%
DD	0	0.00	0.00	0%	0%	0%	0%	0%	0%
ED	9	1312.56	29.12	0%	0%	67%	33%	0%	0%
EDP	5	1257.60	23.02	0%	40%	60%	0%	0%	0%
HI	1	1228.00	.00	0%	100%	0%	0%	0%	0%
MD	12	1251.83	84.89	8%	8%	83%	0%	8%	0%
MDSSI	42	1183.33	104.91	40%	31%	26%	2%	21%	2%
MIMR	314	1300.24	38.00	0%	6%	75%	19%	0%	0%
MOMR	139	1255.44	39.24	6%	35%	58%	1%	1%	0%
OHI	21	1301.62	45.49	5%	0%	76%	19%	0%	0%
OI	97	1233.04	91.15	21%	27%	47%	5%	8%	0%
SLD	36	1332.81	41.88	0%	0%	53%	47%	0%	0%
SLI	2	1350.00	43.84	0%	0%	50%	50%	0%	0%
SMR	17	1159.59	93.77	53%	35%	12%	0%	18%	0%
VI	2	1296.00	4.24	0%	0%	100%	0%	0%	0%
SES	1	1287.00	0.00	0%	0%	100%	0%	0%	0%
Free/Reduced Lunch									
No Lunch Assistance	541	1279.22	61.55	6%	18%	61%	15%	2%	0%
Other	345	1260.50	78.20	11%	19%	60%	10%	5%	0%
Migrant									
Non-Migrant	5	1257.60	31.21	0%	40%	60%	0%	0%	0%
Migrant									
Migrant	879	1272.71	67.91	7%	18%	61%	13%	3%	0%
Other	7	1174.00	133.38	43%	29%	14%	14%	29%	0%
ELL									
Non-ELL	5	1257.60	31.21	0%	40%	60%	0%	0%	0%
ELL									
ELL	851	1257.60	31.21	8%	19%	60%	13%	3%	0%
Other	35	1292.66	31.46	0%	9%	80%	11%	0%	0%

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 8									
Total	835	1259.24	73.84	11%	19%	46%	25%	4%	0%
Ethnic Background									
White	364	1259.73	77.72	12%	18%	42%	28%	4%	0%
Black	63	1261.19	61.49	8%	17%	59%	16%	2%	0%
Hispanic	329	1255.47	76.00	12%	21%	44%	23%	4%	0%
American Indian	52	1269.25	51.72	6%	12%	60%	23%	2%	0%
Asian	18	1271.00	48.21	0%	28%	56%	17%	0%	0%
Hawaiian Pacific Islander	1	1404.00	0.00	0%	0%	0%	100%	0%	0%
Multiracial	4	1256.50	64.77	25%	25%	25%	25%	0%	0%
Other	4	1278.25	26.32	0%	0%	75%	25%	0%	0%
Gender									
Male	523	1262.13	71.43	10%	19%	45%	26%	3%	0%
Female	312	1254.40	77.59	12%	20%	46%	22%	4%	0%
Need									
Autism	162	1261.93	77.84	10%	22%	43%	25%	4%	0%
DD	0	0.00	0.00	0%	0%	0%	0%	0%	0%
ED	12	1299.42	48.38	0%	8%	33%	58%	0%	0%
EDP	2	1300.00	24.04	0%	0%	50%	50%	0%	0%
HI	3	1314.67	33.61	0%	0%	33%	67%	0%	0%
MD	22	1265.64	43.24	9%	14%	55%	23%	0%	0%
MDSSI	56	1167.39	105.69	43%	27%	30%	0%	20%	0%
MIMR	257	1294.21	32.98	1%	6%	51%	42%	0%	0%
MOMR	151	1244.33	55.33	11%	34%	50%	5%	2%	0%
OHI	23	1295.26	27.97	0%	4%	57%	39%	0%	0%
OI	93	1222.82	85.72	19%	30%	44%	6%	8%	0%
SLD	24	1317.33	30.24	0%	0%	29%	71%	0%	0%
SLI	2	1295.00	21.21	0%	0%	50%	50%	0%	0%
SMR	24	1178.58	89.14	46%	38%	17%	0%	17%	0%
VI	3	1278.00	23.39	0%	0%	100%	0%	0%	0%
Other	1	1332.00	0.00	0%	0%	0%	100%	0%	0%
SES									
Free/Reduced Lunch	477	1267.17	64.38	7%	18%	48%	27%	2%	0%
No Lunch Assistance	354	1248.35	84.14	16%	21%	41%	22%	6%	0%
Other	4	1278.25	26.32	0%	0%	75%	25%	0%	0%
Migrant									
Non-Migrant	825	1259.34	74.16	11%	19%	45%	25%	4%	0%
Migrant	6	1233.17	39.89	17%	50%	33%	0%	0%	0%
Other	4	1278.25	26.32	0%	0%	75%	25%	0%	0%
ELL									
Non-ELL	811	1258.67	74.65	11%	19%	45%	25%	4%	0%
ELL	20	1278.60	34.87	0%	15%	60%	25%	0%	0%
Other	4	1278.25	26.32	0%	0%	75%	25%	0%	0%

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
High School									
Total	905	1263.67	74.60	10%	19%	60%	11%	3%	0%
Ethnic Background									
White	346	1260.34	73.80	12%	18%	61%	9%	4%	0%
Black	95	1269.21	60.14	7%	20%	62%	11%	0%	0%
Hispanic	376	1264.43	81.26	11%	19%	55%	15%	4%	0%
American Indian	65	1265.55	65.24	8%	17%	72%	3%	3%	0%
Asian	12	1264.00	36.86	8%	8%	83%	0%	0%	0%
Hawaiian Pacific Islander	1	1240.00	0.00	0%	100%	0%	0%	0%	0%
Multiracial	7	1304.57	31.50	0%	0%	71%	29%	0%	0%
Other	3	1245.33	103.23	33%	0%	67%	0%	0%	0%
Gender									
Male	541	1263.73	75.75	11%	18%	60%	12%	3%	0%
Female	364	1263.57	72.94	10%	20%	60%	10%	3%	0%
Need									
Autism	146	1259.71	54.17	10%	24%	60%	7%	1%	0%
DD	0	0.00	0.00	0%	0%	0%	0%	0%	0%
ED	15	1322.47	65.59	0%	13%	53%	33%	0%	0%
EDP	14	1287.36	25.58	0%	7%	86%	7%	0%	0%
HI	5	1291.40	34.98	0%	0%	80%	20%	0%	0%
MD	21	1286.14	38.29	0%	19%	71%	10%	0%	0%
MDSSI	45	1148.29	117.68	49%	20%	31%	0%	33%	0%
MIMR	309	1298.03	39.16	0%	6%	78%	16%	0%	0%
MOMR	174	1247.21	47.67	10%	37%	50%	3%	1%	0%
OHI	14	1293.86	44.54	0%	21%	50%	29%	0%	0%
OI	77	1211.38	96.35	27%	30%	40%	3%	10%	1%
SLD	50	1324.96	46.20	0%	2%	58%	40%	0%	0%
SLI	3	1265.00	26.21	0%	33%	67%	0%	0%	0%
SMR	29	1143.48	95.80	66%	21%	14%	0%	14%	0%
VI	2	1328.00	24.04	0%	0%	50%	50%	0%	0%
Other	1	1345.00	0.00	0%	0%	0%	100%	0%	0%
SES									
Free/Reduced Lunch	513	1272.41	73.78	8%	17%	61%	14%	3%	0%
No Lunch Assistance	389	1252.28	74.11	13%	21%	59%	8%	4%	0%
Other	3	1245.33	103.23	33%	0%	67%	0%	0%	0%
Migrant									
Non-Migrant	898	1263.66	74.69	10%	19%	60%	11%	3%	0%
Migrant	4	1278.00	33.10	0%	25%	75%	0%	0%	0%
Other	3	1245.33	103.23	33%	0%	67%	0%	0%	0%
ELL									
Non-ELL	872	1262.90	74.72	11%	19%	59%	11%	3%	0%
ELL	30	1287.67	66.13	3%	7%	73%	17%	3%	0%
Other	3	1245.33	103.23	33%	0%	67%	0%	0%	0%

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Table 8.1.1.3
2011 AIMS A State Test Results
Reading Grades 3-8 and High School

	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 3									
Total	892	1257.66	71.23	13%	19%	48%	19%	3%	0%
Ethnic Background									
White	343	1256.55	75.07	12%	20%	47%	21%	4%	0%
Black	60	1266.98	59.67	10%	18%	50%	22%	2%	0%
Hispanic	399	1256.04	69.45	15%	19%	49%	17%	3%	0%
American Indian	51	1273.45	68.57	12%	16%	43%	29%	2%	0%
Asian	24	1242.83	89.47	17%	21%	46%	17%	8%	0%
Hawaiian Pacific Islander	2	1290.00	35.36	0%	0%	50%	50%	0%	0%
Multiracial	11	1250.45	37.62	18%	27%	45%	9%	0%	9%
Other	2	1274.50	33.23	0%	0%	100%	0%	0%	0%
Gender									
Male	575	1261.04	66.38	12%	21%	47%	21%	3%	0%
Female	317	1251.53	79.01	16%	16%	51%	17%	5%	1%
Need									
Autism	271	1255.31	69.75	13%	26%	46%	15%	3%	0%
DD	7	1298.43	28.49	0%	0%	71%	29%	0%	0%
ED	6	1323.00	38.53	0%	0%	33%	67%	0%	0%
EDP	3	1265.67	29.87	0%	33%	67%	0%	0%	0%
HI	5	1269.40	39.47	20%	0%	80%	0%	0%	0%
MD	20	1255.55	63.72	15%	15%	60%	10%	0%	0%
MDSSI	43	1151.93	109.92	63%	14%	21%	2%	23%	0%
MIMR	274	1288.33	37.22	1%	11%	57%	31%	0%	1%
MOMR	118	1246.31	45.75	14%	34%	47%	5%	0%	0%
OHI	22	1291.55	37.18	5%	0%	50%	45%	0%	0%
OI	65	1215.65	93.25	34%	20%	38%	8%	12%	0%
SLD	29	1297.62	27.17	0%	0%	59%	41%	0%	0%
SLI	4	1275.25	42.60	0%	25%	25%	50%	0%	0%
SMR	18	1164.17	90.81	56%	28%	17%	0%	17%	0%
VI	5	1191.40	112.81	40%	40%	20%	0%	20%	0%
Other	2	1342.50	41.72	0%	0%	0%	100%	0%	0%
SES									
Free/Reduced Lunch	589	1261.15	69.18	12%	18%	49%	21%	3%	0%
No Lunch Assistance	301	1250.71	74.90	16%	21%	47%	16%	4%	0%
Other	2	1274.50	33.23	0%	0%	100%	0%	0%	0%
Migrant									
Non-Migrant	884	1257.48	71.44	14%	19%	48%	19%	3%	0%
Migrant	6	1278.00	44.12	0%	17%	50%	33%	0%	0%
Other	2	1274.50	33.23	0%	0%	100%	0%	0%	0%
ELL									
Non-ELL	835	1256.35	70.71	14%	20%	47%	19%	3%	0%
ELL	55	1276.93	77.90	7%	13%	56%	24%	4%	0%
Other	2	1274.50	33.23	0%	0%	100%	0%	0%	0%

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 4									
Total	915	1265.11	83.28	10%	19%	59%	13%	4%	0%
Ethnic Background									
White	352	1270.87	72.22	7%	21%	58%	14%	2%	0%
Black	77	1262.00	88.52	10%	16%	62%	12%	5%	0%
Hispanic	397	1260.65	91.47	12%	19%	56%	13%	6%	1%
American Indian	55	1267.91	74.13	5%	15%	73%	7%	5%	0%
Asian	23	1274.30	72.27	13%	4%	74%	9%	0%	0%
Hawaiian Pacific Islander	0	0.00	0.00	0%	0%	0%	0%	0%	0%
Multiracial	11	1230.18	122.79	18%	18%	55%	9%	18%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%
Gender									
Male	584	1272.93	78.66	7%	19%	58%	15%	3%	1%
Female	331	1251.30	89.31	13%	18%	60%	9%	7%	0%
Need									
Autism	245	1270.35	78.65	7%	20%	58%	15%	2%	0%
DD	1	1355.00	0.00	0%	0%	0%	100%	0%	0%
ED	11	1307.82	38.90	0%	9%	64%	27%	0%	0%
EDP	4	1280.25	22.37	0%	25%	75%	0%	0%	0%
HI	5	1278.60	64.81	20%	0%	80%	0%	0%	0%
MD	20	1236.40	109.75	15%	20%	55%	10%	10%	0%
MDSSI	57	1153.44	107.61	49%	32%	19%	0%	25%	2%
MIMR	295	1301.11	47.82	1%	7%	72%	20%	0%	0%
MOMR	112	1248.63	48.34	6%	37%	55%	2%	1%	1%
OHI	20	1304.15	56.10	0%	15%	70%	15%	0%	0%
OI	83	1232.37	92.78	17%	27%	54%	2%	8%	0%
SLD	31	1309.29	40.18	0%	6%	58%	35%	0%	0%
SLI	7	1298.14	11.64	0%	0%	100%	0%	0%	0%
SMR	21	1125.14	112.98	52%	38%	10%	0%	38%	0%
VI	3	1087.33	151.27	67%	0%	33%	0%	67%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%
SES									
Free/Reduced Lunch	583	1272.87	83.53	8%	16%	61%	16%	4%	1%
No Lunch Assistance	332	1251.48	81.17	12%	23%	56%	8%	5%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%
Migrant									
Non-Migrant	912	1265.07	83.39	10%	19%	59%	13%	4%	0%
Migrant	3	1277.00	35.03	0%	33%	67%	0%	0%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%
ELL									
Non-ELL	880	1264.84	83.52	10%	19%	59%	13%	4%	0%
ELL	35	1271.77	77.63	6%	14%	69%	11%	3%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 5									
Total	902	1268.01	86.83	8%	23%	52%	17%	4%	0%
Ethnic Background									
White	355	1264.98	87.74	7%	26%	50%	17%	5%	0%
Black	70	1279.37	97.47	7%	20%	51%	21%	7%	0%
Hispanic	381	1271.57	86.85	8%	20%	53%	18%	4%	0%
American Indian	52	1262.81	75.11	10%	21%	62%	8%	2%	0%
Asian	27	1237.33	71.91	11%	37%	48%	4%	4%	0%
Hawaiian Pacific Islander	1	1264.00	0.00	0%	0%	100%	0%	0%	0%
Multiracial	12	1294.58	63.00	0%	25%	58%	17%	0%	0%
Other	4	1194.75	43.91	50%	50%	0%	0%	0%	0%
Gender									
Male	564	1265.96	87.45	9%	23%	51%	17%	5%	0%
Female	338	1271.43	85.80	7%	23%	53%	17%	4%	0%
Need									
Autism	206	1262.84	69.17	4%	35%	48%	13%	1%	0%
DD	0	0.00	0.00	0%	0%	0%	0%	0%	0%
ED	15	1314.33	64.36	0%	13%	53%	33%	0%	0%
EDP	7	1282.14	29.50	0%	14%	86%	0%	0%	0%
HI	3	1247.33	45.62	0%	33%	67%	0%	0%	0%
MD	20	1276.55	121.30	10%	15%	55%	20%	5%	0%
MDSSI	54	1145.04	112.92	46%	35%	19%	0%	33%	0%
MIMR	310	1309.62	49.68	0%	7%	66%	26%	0%	0%
MOMR	116	1260.46	53.70	3%	37%	55%	5%	1%	1%
OHI	17	1313.18	70.23	6%	0%	65%	29%	0%	0%
OI	84	1212.33	103.11	21%	38%	33%	7%	10%	0%
SLD	32	1329.16	45.13	0%	0%	50%	50%	0%	0%
SLI	5	1350.40	88.69	0%	0%	60%	40%	0%	0%
SMR	27	1129.00	98.78	48%	48%	4%	0%	33%	0%
VI	6	1280.33	49.52	0%	33%	50%	17%	0%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%
SES									
Free/Reduced Lunch	579	1280.25	81.07	6%	21%	53%	20%	3%	0%
No Lunch Assistance	319	1246.71	92.74	12%	27%	50%	11%	7%	0%
Other	4	1194.75	43.91	50%	50%	0%	0%	0%	0%
Migrant									
Non-Migrant	895	1268.36	86.97	8%	23%	52%	17%	4%	0%
Migrant	3	1262.33	37.07	0%	33%	67%	0%	0%	0%
Other	4	1194.75	43.91	50%	50%	0%	0%	0%	0%
ELL									
Non-ELL	864	1267.08	87.90	8%	24%	51%	17%	5%	0%
ELL	34	1300.35	42.86	0%	9%	71%	21%	0%	0%
Other	4	1194.75	43.91	50%	50%	0%	0%	0%	0%

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 6									
Total	939	1267.48	91.78	10%	25%	45%	20%	4%	0%
Ethnic Background									
White	388	1267.70	97.82	10%	24%	46%	20%	4%	0%
Black	66	1270.64	81.25	9%	24%	48%	18%	2%	0%
Hispanic	385	1269.55	88.27	8%	27%	45%	20%	4%	0%
American Indian	62	1260.45	86.79	13%	21%	48%	18%	5%	0%
Asian	26	1240.88	97.74	23%	23%	42%	12%	8%	0%
Hawaiian Pacific Islander	2	1312.50	105.36	0%	50%	0%	50%	0%	0%
Multiracial	10	1261.80	65.47	10%	40%	30%	20%	0%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%
Gender									
Male	576	1272.78	91.33	9%	23%	47%	21%	4%	0%
Female	363	1259.06	91.97	12%	28%	43%	17%	5%	0%
Need									
Autism	213	1270.97	78.91	5%	35%	45%	15%	3%	0%
DD	0	0.00	0.00	0%	0%	0%	0%	0%	0%
ED	8	1320.38	46.80	0%	0%	63%	38%	0%	0%
EDP	8	1332.38	51.29	0%	0%	63%	38%	0%	0%
HI	2	1296.00	43.84	0%	0%	100%	0%	0%	0%
MD	16	1256.81	47.88	0%	50%	38%	13%	0%	0%
MDSSI	68	1138.40	110.00	53%	32%	13%	1%	24%	0%
MIMR	319	1314.11	51.39	0%	9%	58%	32%	0%	0%
MOMR	135	1253.33	52.30	2%	47%	47%	4%	1%	0%
OHI	17	1281.00	116.62	12%	12%	35%	41%	12%	0%
OI	73	1215.30	101.94	26%	36%	30%	8%	8%	0%
SLD	40	1333.50	43.79	0%	0%	55%	45%	0%	0%
SLI	2	1317.50	57.28	0%	0%	50%	50%	0%	0%
SMR	31	1099.77	87.86	71%	29%	0%	0%	26%	0%
VI	7	1306.86	79.76	0%	14%	71%	14%	0%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%
SES									
Free/Reduced Lunch	553	1282.71	77.96	6%	22%	49%	23%	2%	0%
No Lunch Assistance	386	1245.66	104.86	16%	29%	40%	15%	7%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%
Migrant									
Non-Migrant	936	1267.49	91.89	10%	25%	46%	20%	4%	0%
Migrant	3	1263.00	55.65	0%	67%	33%	0%	0%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%
ELL									
Non-ELL	907	1266.30	92.12	10%	26%	45%	19%	4%	0%
ELL	32	1300.97	75.29	3%	13%	50%	34%	0%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%

Note: FFBS=Falls Far Below the Standard; AS=Approaches the Standard; MS=Meets the Standard; ES=Exceeds the Standard. These results are not final results and are presented here for purposes of addressing reliability and validity. They should not be used for accountability purposes. (Table continued.)

	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 7									
Total	891	1284.15	83.38	8%	18%	51%	23%	3%	0%
Ethnic Background									
White	339	1283.86	83.83	9%	17%	50%	24%	2%	0%
Black	53	1298.47	86.17	6%	13%	45%	36%	4%	0%
Hispanic	392	1283.04	82.85	8%	17%	55%	20%	3%	0%
American Indian	73	1292.68	75.52	5%	25%	40%	30%	1%	0%
Asian	18	1263.83	91.88	11%	22%	50%	17%	2%	0%
Hawaiian Pacific Islander	2	1220.00	73.54	50%	0%	50%	0%	0%	0%
Multiracial	9	1269.22	128.94	11%	22%	56%	11%	11%	0%
Other	5	1240.00	38.09	0%	60%	40%	0%	0%	0%
Gender									
Male	548	1287.09	82.00	7%	17%	52%	24%	3%	0%
Female	343	1279.45	85.45	10%	20%	49%	21%	2%	0%
Need									
Autism	193	1275.51	79.72	8%	23%	52%	17%	2%	0%
DD	0	0.00	0.00	0%	0%	0%	0%	0%	0%
ED	9	1357.89	31.37	0%	0%	11%	89%	0%	0%
EDP	5	1266.20	30.95	0%	20%	80%	0%	0%	0%
HI	1	1210.00	0.00	0%	100%	0%	0%	0%	0%
MD	12	1266.92	93.38	8%	17%	58%	17%	8%	0%
MDSSI	42	1174.12	112.16	40%	33%	21%	5%	19%	2%
MIMR	314	1325.37	48.61	0%	4%	59%	36%	0%	0%
MOMR	139	1259.22	50.66	6%	36%	55%	3%	1%	0%
OHI	21	1328.62	59.57	5%	0%	62%	33%	0%	0%
OI	97	1239.08	106.19	20%	28%	35%	18%	7%	0%
SLD	36	1339.42	40.56	0%	3%	53%	44%	0%	0%
SLI	2	1391.00	39.60	0%	0%	0%	100%	0%	0%
SMR	17	1143.18	86.08	65%	29%	6%	0%	12%	0%
VI	2	1339.00	0.00	0%	0%	100%	0%	0%	0%
Other	1	1323.00	0.00	0%	0%	100%	0%	0%	0%
SES									
Free/Reduced Lunch	541	1293.22	75.21	6%	17%	53%	24%	1%	0%
No Lunch Assistance	345	1270.57	93.54	12%	19%	48%	21%	4%	0%
Other	5	1240.00	38.09	0%	60%	40%	0%	0%	0%
Migrant									
Non-Migrant	879	1285.33	82.34	8%	18%	51%	23%	2%	0%
Migrant	7	1167.43	143.29	43%	14%	43%	0%	29%	0%
Other	5	1240.00	38.09	0%	60%	40%	0%	0%	0%
ELL									
Non-ELL	851	1283.56	84.75	9%	18%	50%	23%	3%	0%
ELL	35	1304.89	39.12	0%	9%	69%	23%	0%	0%
Other	5	1240.00	38.09	0%	60%	40%	0%	0%	0%

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 8									
Total	834	1273.68	80.65	9%	16%	56%	19%	4%	0%
Ethnic Background									
White	363	1279.34	82.43	9%	13%	55%	23%	4%	0%
Black	63	1277.71	72.44	10%	16%	54%	21%	2%	0%
Hispanic	329	1264.39	84.12	10%	19%	56%	15%	5%	0%
American Indian	52	1287.69	64.84	4%	12%	63%	21%	2%	0%
Asian	18	1268.33	40.67	11%	11%	78%	0%	0%	0%
Hawaiian Pacific Islander	1	1385.00	0.00	0%	0%	0%	100%	0%	0%
Multiracial	4	1267.75	30.25	0%	50%	50%	0%	0%	0%
Other	4	1281.25	27.11	0%	0%	100%	0%	0%	0%
Gender									
Male	522	1274.89	79.71	9%	16%	56%	19%	4%	0%
Female	312	1271.66	82.28	10%	16%	57%	18%	5%	0%
Need									
Autism	161	1273.28	79.72	10%	19%	55%	17%	3%	0%
DD	0	0.00	0.00	0%	0%	0%	0%	0%	0%
ED	12	1314.42	49.74	0%	8%	50%	42%	0%	0%
EDP	2	1331.50	34.65	0%	0%	50%	50%	0%	0%
HI	3	1304.33	45.54	0%	0%	67%	33%	0%	0%
MD	22	1279.95	40.25	5%	18%	68%	9%	0%	0%
MDSSI	56	1174.43	113.44	39%	23%	38%	0%	25%	0%
MIMR	257	1313.86	43.76	0%	5%	60%	35%	0%	0%
MOMR	151	1255.27	53.28	7%	25%	66%	2%	2%	0%
OHI	23	1318.96	48.90	0%	0%	74%	26%	0%	0%
OI	93	1237.44	92.24	17%	27%	48%	8%	9%	0%
SLD	24	1348.58	55.40	0%	0%	42%	58%	0%	0%
SLI	2	1303.00	36.77	0%	0%	100%	0%	0%	0%
SMR	24	1171.33	89.36	54%	25%	21%	0%	17%	0%
VI	3	1316.33	60.30	0%	0%	67%	33%	0%	0%
Other	1	1318.00	0.00	0%	0%	100%	0%	0%	0%
SES									
Free/Reduced Lunch	476	1284.94	73.25	6%	14%	58%	22%	2%	0%
No Lunch Assistance	354	1258.46	87.85	14%	18%	53%	15%	6%	0%
Other	4	1281.25	27.11	0%	0%	100%	0%	0%	0%
Migrant									
Non-Migrant	824	1273.61	81.04	9%	16%	56%	19%	4%	0%
Migrant	6	1277.83	43.60	0%	33%	50%	17%	0%	0%
Other	4	1281.25	27.11	0%	0%	100%	0%	0%	0%
ELL									
Non-ELL	810	1273.13	81.59	10%	16%	56%	19%	4%	0%
ELL	20	1294.60	33.26	0%	5%	75%	20%	0%	0%
Other	4	1281.25	27.11	0%	0%	100%	0%	0%	0%

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
High School									
Total	1151	1285.67	88.51	7%	17%	56%	20%	4%	0%
Ethnic Background									
White	467	1281.68	90.57	9%	17%	55%	20%	4%	0%
Black	109	1297.50	79.98	6%	14%	56%	25%	3%	0%
Hispanic	447	1286.58	92.37	7%	18%	55%	20%	5%	0%
American Indian	96	1288.10	72.60	3%	18%	64%	16%	2%	3%
Asian	18	1279.94	50.29	0%	17%	67%	17%	0%	0%
Hawaiian Pacific Islander	2	1288.50	61.52	0%	50%	50%	0%	0%	0%
Multiracial	9	1290.22	116.94	11%	0%	67%	22%	11%	0%
Other	3	1282.33	64.93	0%	33%	67%	0%	0%	0%
Gender									
Male	692	1284.96	90.78	8%	17%	56%	19%	4%	0%
Female	459	1286.75	85.05	6%	18%	56%	21%	4%	0%
Need									
Autism	199	1269.40	81.90	9%	26%	52%	14%	4%	0%
DD	0	0.00	0.00	0%	0%	0%	0%	0%	0%
ED	22	1352.91	67.49	0%	0%	59%	41%	0%	0%
EDP	20	1315.20	45.51	0%	10%	70%	20%	0%	0%
HI	8	1298.50	80.89	13%	0%	50%	38%	0%	0%
MD	25	1305.76	42.67	0%	8%	72%	20%	0%	0%
MDSSI	57	1161.44	120.14	44%	25%	30%	2%	32%	4%
MIMR	364	1331.66	52.19	0%	4%	65%	31%	0%	0%
MOMR	232	1265.99	46.06	2%	29%	65%	4%	0%	0%
OHI	16	1337.06	50.19	0%	6%	50%	44%	0%	0%
OI	106	1233.22	115.74	20%	25%	42%	13%	15%	2%
SLD	55	1362.93	63.07	0%	0%	42%	58%	0%	0%
SLI	5	1301.60	29.28	0%	0%	80%	20%	0%	0%
SMR	38	1168.74	96.65	37%	47%	16%	0%	18%	0%
VI	3	1361.33	122.27	0%	0%	67%	33%	0%	0%
Other	1	1386.00	0.00	0%	0%	0%	100%	0%	0%
SES									
Free/Reduced Lunch	610	1296.50	87.82	5%	14%	58%	22%	4%	0%
No Lunch Assistance	538	1273.42	87.91	9%	20%	53%	17%	5%	1%
Other	3	1282.33	64.93	0%	33%	67%	0%	0%	0%
Migrant									
Non-Migrant	1143	1285.74	88.75	7%	17%	56%	20%	4%	0%
Migrant	5	1272.40	30.92	0%	20%	80%	0%	0%	0%
Other	3	1282.33	64.93	0%	33%	67%	0%	0%	0%
ELL									
Non-ELL	1117	1284.88	88.91	7%	17%	56%	20%	4%	0%
ELL	31	1314.48	70.92	3%	3%	61%	32%	3%	0%
Other	3	1282.33	64.93	0%	33%	67%	0%	0%	0%

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Table 8.1.1.4
2011 AIMS A State Test Results
Science Grades 4, 8, and 10

	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 4									
Total	915	1269.32	84.86	9%	18%	58%	15%	4%	0%
Ethnic Background									
White	352	1276.70	76.44	7%	19%	58%	17%	2%	0%
Black	77	1269.97	88.81	9%	17%	61%	13%	3%	0%
Hispanic	397	1263.39	91.27	12%	17%	57%	14%	7%	1%
American Indian	55	1274.58	72.40	5%	20%	60%	15%	4%	0%
Asian	23	1264.43	81.20	13%	17%	57%	13%	4%	0%
Hawaiian Pacific Islander	0	0.00	0.00	0%	0%	0%	0%	0%	0%
Multiracial	11	1227.00	122.22	18%	18%	55%	9%	18%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%
Gender									
Male	584	1276.90	79.03	7%	18%	58%	17%	3%	1%
Female	331	1255.95	92.89	13%	18%	57%	11%	7%	0%
Need									
Autism	245	1272.46	74.21	6%	23%	58%	13%	2%	0%
DD	1	1384.00	0.00	0%	0%	0%	100%	0%	0%
ED	11	1324.91	45.13	0%	9%	45%	45%	0%	0%
EDP	4	1295.75	33.32	0%	25%	75%	0%	0%	0%
HI	5	1286.60	45.39	0%	40%	40%	20%	0%	0%
MD	20	1239.35	95.61	15%	25%	55%	5%	10%	0%
MDSSI	57	1152.25	107.68	53%	28%	19%	0%	25%	2%
MIMR	295	1306.57	48.38	1%	6%	68%	25%	0%	0%
MOMR	112	1252.19	48.60	4%	33%	61%	2%	2%	1%
OHI	20	1318.65	70.17	0%	10%	60%	30%	0%	0%
OI	83	1235.86	98.12	17%	24%	52%	7%	12%	0%
SLD	31	1328.52	59.98	0%	3%	65%	32%	0%	0%
SLI	7	1315.86	8.40	0%	0%	100%	0%	0%	0%
SMR	21	1111.86	103.56	67%	29%	5%	0%	29%	0%
VI	3	1087.33	151.27	67%	0%	33%	0%	67%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%
SES									
Free/Reduced Lunch	583	1277.46	82.58	8%	14%	59%	19%	4%	1%
No Lunch Assistance	332	1255.03	87.02	11%	24%	55%	9%	5%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%
Migrant									
Non-Migrant	912	1269.28	84.99	9%	18%	57%	15%	4%	0%
Migrant	3	1282.67	21.50	0%	0%	100%	0%	0%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%
ELL									
Non-ELL	880	1269.09	85.12	10%	18%	57%	15%	4%	0%
ELL	35	1275.11	78.98	6%	11%	71%	11%	6%	0%
Other	0	0.00	0.00	0%	0%	0%	0%	0%	0%

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 8									
Total	835	1269.56	81.52	8%	17%	54%	20%	4%	0%
Ethnic Background									
White	364	1275.32	84.29	8%	16%	50%	26%	4%	0%
Black	63	1273.44	73.39	10%	13%	60%	17%	2%	0%
Hispanic	329	1260.78	84.32	10%	19%	56%	15%	5%	0%
American Indian	52	1280.58	63.58	4%	17%	60%	19%	2%	0%
Asian	18	1259.33	28.66	0%	33%	67%	0%	0%	0%
Hawaiian Pacific Islander	1	1383.00	0.00	0%	0%	0%	100%	0%	0%
Multiracial	4	1279.50	72.62	0%	25%	50%	25%	0%	0%
Other	4	1272.00	22.70	0%	25%	75%	0%	0%	0%
Gender									
Male	523	1271.70	81.47	8%	17%	53%	21%	4%	0%
Female	312	1265.98	81.60	9%	18%	55%	18%	5%	0%
Need									
Autism	162	1265.72	78.02	8%	19%	58%	15%	3%	0%
DD	0	0.00	0.00	0%	0%	0%	0%	0%	0%
ED	12	1315.17	35.73	0%	8%	42%	50%	0%	0%
EDP	2	1327.50	43.13	0%	0%	50%	50%	0%	0%
HI	3	1312.33	48.79	0%	0%	67%	33%	0%	0%
MD	22	1272.64	24.74	0%	18%	82%	0%	0%	0%
MDSSI	56	1170.63	113.90	38%	29%	34%	0%	23%	0%
MIMR	257	1311.26	51.49	0%	5%	61%	35%	0%	0%
MOMR	151	1250.74	52.00	6%	32%	59%	3%	3%	0%
OHI	23	1323.35	54.45	0%	9%	30%	61%	0%	0%
OI	93	1236.25	89.16	17%	26%	47%	10%	9%	0%
SLD	24	1335.79	58.34	0%	0%	46%	54%	0%	0%
SLI	2	1305.50	38.89	0%	0%	50%	50%	0%	0%
SMR	24	1165.29	96.47	46%	38%	13%	4%	21%	0%
VI	3	1284.67	50.64	0%	0%	67%	33%	0%	0%
Other	1	1358.00	0.00	0%	0%	0%	100%	0%	0%
SES									
Free/Reduced Lunch	477	1279.82	72.48	5%	16%	56%	22%	3%	0%
No Lunch Assistance	354	1255.71	90.98	13%	19%	51%	17%	6%	0%
Other	4	1272.00	22.70	0%	25%	75%	0%	0%	0%
Migrant									
Non-Migrant	825	1269.62	81.93	8%	17%	54%	20%	4%	0%
Migrant	6	1259.83	42.62	17%	17%	67%	0%	0%	0%
Other	4	1272.00	22.70	0%	25%	75%	0%	0%	0%
ELL									
Non-ELL	811	1269.12	82.53	9%	18%	53%	20%	4%	0%
ELL	20	1287.15	29.56	0%	5%	80%	15%	0%	0%
Other	4	1272.00	22.70	0%	25%	75%	0%	0%	0%

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 10									
Total	906	1263.08	69.92	7%	20%	57%	15%	4%	0%
Ethnic Background									
White	348	1261.50	72.57	9%	19%	56%	16%	4%	0%
Black	94	1272.38	38.54	2%	23%	61%	14%	0%	0%
Hispanic	376	1261.50	73.88	8%	20%	55%	17%	5%	0%
American Indian	65	1264.98	76.87	9%	11%	71%	9%	5%	0%
Asian	12	1261.00	25.14	0%	33%	67%	0%	0%	0%
Hawaiian Pacific Islander	1	1235.00	0.00	0%	100%	0%	0%	0%	0%
Multiracial	7	1295.29	22.61	0%	0%	71%	29%	0%	0%
Other	3	1252.67	50.65	0%	33%	67%	0%	0%	0%
Gender									
Male	541	1263.96	71.79	7%	20%	57%	16%	4%	0%
Female	365	1261.76	67.13	8%	19%	59%	14%	4%	0%
Need									
Autism	146	1256.23	51.05	5%	32%	55%	8%	1%	0%
DD	0	0.00	0.00	0%	0%	0%	0%	0%	0%
ED	15	1324.27	75.47	0%	0%	67%	33%	0%	0%
EDP	14	1282.79	21.18	0%	7%	93%	0%	0%	0%
HI	5	1293.80	34.11	0%	0%	60%	40%	0%	0%
MD	21	1277.62	26.99	0%	19%	67%	14%	0%	0%
MDSSI	45	1150.31	112.60	49%	29%	22%	0%	33%	0%
MIMR	309	1294.69	34.64	0%	4%	72%	25%	0%	0%
MOMR	174	1250.48	39.99	5%	36%	57%	2%	1%	0%
OHI	14	1292.93	30.00	0%	7%	50%	43%	0%	0%
OI	78	1218.04	94.83	22%	32%	38%	8%	13%	1%
SLD	50	1317.56	54.09	0%	2%	46%	52%	0%	0%
SLI	3	1285.00	24.27	0%	0%	100%	0%	0%	0%
SMR	29	1160.66	98.71	41%	48%	10%	0%	21%	0%
VI	2	1309.00	15.56	0%	0%	50%	50%	0%	0%
Other	1	1291.00	0.00	0%	0%	100%	0%	0%	0%
SES									
Free/Reduced Lunch	512	1269.92	67.13	5%	18%	58%	18%	3%	0%
No Lunch Assistance	391	1254.19	72.71	10%	22%	56%	12%	5%	0%
Other	3	1252.67	50.65	0%	33%	67%	0%	0%	0%
Migrant									
Non-Migrant	899	1263.16	70.13	7%	20%	57%	16%	4%	0%
Migrant	4	1252.50	28.76	0%	25%	75%	0%	0%	0%
Other	3	1252.67	50.65	0%	33%	67%	0%	0%	0%
ELL									
Non-ELL	873	1262.63	70.37	8%	20%	57%	16%	4%	0%
ELL	30	1277.00	57.12	3%	10%	73%	13%	3%	0%
Other	3	1252.67	50.65	0%	33%	67%	0%	0%	0%

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Table 8.1.1.5
2011 AIMS A Frequency Distribution Mathematics Grade 3

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	4	0.5%	0.5%	60	1262	12	1.4%	42.4%
1	1098	3	0.3%	0.8%	61	1262	9	1.0%	43.4%
2	1131	3	0.3%	1.2%	62	1263	10	1.2%	44.6%
3	1149	0	0.0%	1.2%	63	1264	4	0.5%	45.1%
4	1161	6	0.7%	1.9%	64	1265	7	0.8%	45.9%
5	1170	1	0.1%	2.0%	65	1266	8	0.9%	46.8%
6	1176	0	0.0%	2.0%	66	1267	10	1.2%	48.0%
7	1182	1	0.1%	2.1%	67	1268	6	0.7%	48.7%
8	1187	4	0.5%	2.6%	68	1269	9	1.0%	49.7%
9	1191	2	0.2%	2.8%	69	1270	10	1.2%	50.9%
10	1195	2	0.2%	3.0%	70	1270	9	1.0%	51.9%
11	1198	1	0.1%	3.1%	71	1271	9	1.0%	53.0%
12	1201	7	0.8%	3.9%	72	1272	11	1.3%	54.2%
13	1204	0	0.0%	3.9%	73	1273	14	1.6%	55.9%
14	1206	2	0.2%	4.2%	74	1274	8	0.9%	56.8%
15	1209	2	0.2%	4.4%	75	1275	12	1.4%	58.2%
16	1211	4	0.5%	4.9%	76	1276	13	1.5%	59.7%
17	1213	2	0.2%	5.1%	77	1277	7	0.8%	60.5%
18	1215	2	0.2%	5.3%	78	1278	16	1.9%	62.4%
19	1217	4	0.5%	5.8%	79	1279	13	1.5%	63.9%
20	1218	8	0.9%	6.7%	80	1280	11	1.3%	65.2%
21	1220	5	0.6%	7.3%	81	1281	4	0.5%	65.6%
22	1222	7	0.8%	8.1%	82	1282	10	1.2%	66.8%
23	1223	5	0.6%	8.7%	83	1283	11	1.3%	68.1%
24	1225	8	0.9%	9.6%	84	1284	16	1.9%	69.9%
25	1226	2	0.2%	9.9%	85	1285	5	0.6%	70.5%
26	1227	4	0.5%	10.3%	86	1286	17	2.0%	72.5%
27	1229	3	0.3%	10.7%	87	1288	8	0.9%	73.4%
28	1230	9	1.0%	11.7%	88	1289	14	1.6%	75.0%
29	1231	4	0.5%	12.2%	89	1290	8	0.9%	76.0%
30	1232	7	0.8%	13.0%	90	1291	19	2.2%	78.2%
31	1234	4	0.5%	13.5%	91	1292	10	1.2%	79.3%
32	1235	10	1.2%	14.6%	92	1294	15	1.7%	81.1%
33	1236	4	0.5%	15.1%	93	1295	3	0.3%	81.4%
34	1237	7	0.8%	15.9%	94	1296	13	1.5%	82.9%
35	1238	5	0.6%	16.5%	95	1298	6	0.7%	83.6%
36	1239	8	0.9%	17.4%	96	1299	8	0.9%	84.6%
37	1240	4	0.5%	17.9%	97	1301	3	0.3%	84.9%
38	1241	4	0.5%	18.4%	98	1303	14	1.6%	86.5%
39	1242	7	0.8%	19.2%	99	1304	8	0.9%	87.5%
40	1243	11	1.3%	20.4%	100	1306	10	1.2%	88.6%
41	1244	10	1.2%	21.6%	101	1308	3	0.3%	89.0%
42	1245	7	0.8%	22.4%	102	1310	13	1.5%	90.5%
43	1246	6	0.7%	23.1%	103	1312	5	0.6%	91.1%
44	1247	9	1.0%	24.2%	104	1314	14	1.6%	92.7%
45	1248	7	0.8%	25.0%	105	1316	4	0.5%	93.1%
46	1249	11	1.3%	26.2%	106	1319	11	1.3%	94.4%
47	1250	4	0.5%	26.7%	107	1321	3	0.3%	94.8%
48	1251	11	1.3%	28.0%	108	1324	9	1.0%	95.8%
49	1252	7	0.8%	28.8%	109	1327	3	0.3%	96.2%
50	1253	10	1.2%	30.0%	110	1330	6	0.7%	96.9%
51	1254	8	0.9%	30.9%	111	1334	1	0.1%	97.0%
52	1255	11	1.3%	32.2%	112	1338	12	1.4%	98.4%
53	1255	8	0.9%	33.1%	113	1343	1	0.1%	98.5%
54	1256	8	0.9%	34.0%	114	1348	2	0.2%	98.7%
55	1257	15	1.7%	35.8%	115	1355	0	0.0%	98.7%
56	1258	12	1.4%	37.2%	116	1362	5	0.6%	99.3%
57	1259	9	1.0%	38.2%	117	1372	1	0.1%	99.4%
58	1260	17	2.0%	40.2%	118	1386	3	0.3%	99.8%
59	1261	7	0.8%	41.0%	119	1410	0	0.0%	99.8%
					120	1500	2	0.2%	100.0%

Table 8.1.1.6
2011 AIMS A Frequency Distribution Mathematics Grade 4

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	9	1.02%	1.0%	60	1265	6	0.68%	41.4%
1	1103	1	0.11%	1.1%	61	1266	3	0.34%	41.7%
2	1134	3	0.34%	1.5%	62	1267	7	0.80%	42.5%
3	1151	0	0.00%	1.5%	63	1268	6	0.68%	43.2%
4	1162	0	0.00%	1.5%	64	1269	7	0.80%	44.0%
5	1170	2	0.23%	1.7%	65	1270	5	0.57%	44.5%
6	1177	2	0.23%	1.9%	66	1271	13	1.48%	46.0%
7	1182	1	0.11%	2.0%	67	1272	11	1.25%	47.3%
8	1187	5	0.57%	2.6%	68	1273	16	1.82%	49.1%
9	1191	1	0.11%	2.7%	69	1274	5	0.57%	49.7%
10	1195	4	0.45%	3.2%	70	1275	10	1.14%	50.8%
11	1198	0	0.00%	3.2%	71	1277	6	0.68%	51.5%
12	1201	4	0.45%	3.6%	72	1278	19	2.16%	53.6%
13	1203	3	0.34%	4.0%	73	1279	12	1.36%	55.0%
14	1206	1	0.11%	4.1%	74	1280	10	1.14%	56.1%
15	1208	0	0.00%	4.1%	75	1281	11	1.25%	57.4%
16	1211	7	0.80%	4.9%	76	1282	11	1.25%	58.6%
17	1213	4	0.45%	5.3%	77	1283	6	0.68%	59.3%
18	1215	3	0.34%	5.7%	78	1284	7	0.80%	60.1%
19	1216	3	0.34%	6.0%	79	1285	11	1.25%	61.4%
20	1218	11	1.25%	7.3%	80	1287	16	1.82%	63.2%
21	1220	1	0.11%	7.4%	81	1288	7	0.80%	64.0%
22	1222	7	0.80%	8.2%	82	1289	11	1.25%	65.2%
23	1223	3	0.34%	8.5%	83	1290	8	0.91%	66.1%
24	1225	8	0.91%	9.4%	84	1292	13	1.48%	67.6%
25	1226	5	0.57%	10.0%	85	1293	15	1.70%	69.3%
26	1228	6	0.68%	10.7%	86	1294	6	0.68%	70.0%
27	1229	1	0.11%	10.8%	87	1296	6	0.68%	70.7%
28	1230	10	1.14%	11.9%	88	1297	14	1.59%	72.3%
29	1232	3	0.34%	12.3%	89	1299	10	1.14%	73.4%
30	1233	5	0.57%	12.8%	90	1300	12	1.36%	74.8%
31	1234	4	0.45%	13.3%	91	1302	10	1.14%	75.9%
32	1236	16	1.82%	15.1%	92	1303	18	2.05%	78.0%
33	1237	6	0.68%	15.8%	93	1305	9	1.02%	79.0%
34	1238	12	1.36%	17.2%	94	1306	12	1.36%	80.3%
35	1239	2	0.23%	17.4%	95	1308	17	1.93%	82.3%
36	1240	16	1.82%	19.2%	96	1310	6	0.68%	83.0%
37	1242	7	0.80%	20.0%	97	1312	7	0.80%	83.8%
38	1243	7	0.80%	20.8%	98	1314	10	1.14%	84.9%
39	1244	5	0.57%	21.4%	99	1316	3	0.34%	85.2%
40	1245	14	1.59%	23.0%	100	1318	12	1.36%	86.6%
41	1246	7	0.80%	23.8%	101	1320	8	0.91%	87.5%
42	1247	8	0.91%	24.7%	102	1323	14	1.59%	89.1%
43	1248	6	0.68%	25.3%	103	1325	7	0.80%	89.9%
44	1249	9	1.02%	26.4%	104	1328	8	0.91%	90.8%
45	1250	5	0.57%	26.9%	105	1330	9	1.02%	91.8%
46	1251	7	0.80%	27.7%	106	1333	12	1.36%	93.2%
47	1252	14	1.59%	29.3%	107	1336	3	0.34%	93.5%
48	1253	10	1.14%	30.5%	108	1340	9	1.02%	94.5%
49	1254	7	0.80%	31.3%	109	1343	7	0.80%	95.3%
50	1255	11	1.25%	32.5%	110	1347	11	1.25%	96.6%
51	1256	5	0.57%	33.1%	111	1351	6	0.68%	97.3%
52	1257	9	1.02%	34.1%	112	1356	5	0.57%	97.8%
53	1258	6	0.68%	34.8%	113	1361	1	0.11%	98.0%
54	1259	12	1.36%	36.1%	114	1367	9	1.02%	99.0%
55	1260	7	0.80%	36.9%	115	1374	3	0.34%	99.3%
56	1261	10	1.14%	38.1%	116	1382	2	0.23%	99.5%
57	1262	6	0.68%	38.8%	117	1393	0	0.00%	99.5%
58	1263	12	1.36%	40.1%	118	1407	2	0.23%	99.8%
59	1264	5	0.57%	40.7%	119	1432	0	0.00%	99.8%
					120	1500	2	0.23%	100.0%

Table 8.1.1.7
2011 AIMS A Frequency Distribution Mathematics Grade 5

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	4	0.46%	0.5%	60	1262	10	1.15%	38.1%
1	1088	2	0.23%	0.7%	61	1263	10	1.15%	39.2%
2	1123	1	0.12%	0.8%	62	1264	7	0.81%	40.0%
3	1142	0	0.00%	0.8%	63	1265	13	1.50%	41.5%
4	1154	3	0.35%	1.2%	64	1266	17	1.96%	43.5%
5	1163	1	0.12%	1.3%	65	1267	10	1.15%	44.6%
6	1171	0	0.00%	1.3%	66	1268	19	2.19%	46.8%
7	1177	0	0.00%	1.3%	67	1269	13	1.50%	48.3%
8	1182	2	0.23%	1.5%	68	1270	13	1.50%	49.8%
9	1186	0	0.00%	1.5%	69	1271	11	1.27%	51.1%
10	1190	4	0.46%	2.0%	70	1272	15	1.73%	52.8%
11	1194	1	0.12%	2.1%	71	1273	6	0.69%	53.5%
12	1197	9	1.04%	3.1%	72	1274	10	1.15%	54.7%
13	1200	4	0.46%	3.6%	73	1275	9	1.04%	55.7%
14	1202	0	0.00%	3.6%	74	1276	10	1.15%	56.9%
15	1205	1	0.12%	3.7%	75	1277	14	1.61%	58.5%
16	1207	11	1.27%	5.0%	76	1278	13	1.50%	60.0%
17	1209	2	0.23%	5.2%	77	1279	15	1.73%	61.7%
18	1211	0	0.00%	5.2%	78	1280	16	1.85%	63.6%
19	1213	2	0.23%	5.4%	79	1281	10	1.15%	64.7%
20	1215	11	1.27%	6.7%	80	1282	20	2.31%	67.0%
21	1217	0	0.00%	6.7%	81	1283	10	1.15%	68.2%
22	1219	3	0.35%	7.0%	82	1284	23	2.65%	70.8%
23	1220	2	0.23%	7.3%	83	1285	16	1.85%	72.7%
24	1222	5	0.58%	7.8%	84	1286	13	1.50%	74.2%
25	1223	0	0.00%	7.8%	85	1287	6	0.69%	74.9%
26	1225	8	0.92%	8.8%	86	1288	15	1.73%	76.6%
27	1226	4	0.46%	9.2%	87	1290	11	1.27%	77.9%
28	1228	7	0.81%	10.0%	88	1291	18	2.08%	79.9%
29	1229	4	0.46%	10.5%	89	1292	12	1.38%	81.3%
30	1230	7	0.81%	11.3%	90	1293	18	2.08%	83.4%
31	1232	7	0.81%	12.1%	91	1294	11	1.27%	84.7%
32	1233	10	1.15%	13.3%	92	1296	14	1.61%	86.3%
33	1234	4	0.46%	13.7%	93	1297	4	0.46%	86.7%
34	1235	6	0.69%	14.4%	94	1298	12	1.38%	88.1%
35	1237	5	0.58%	15.0%	95	1300	7	0.81%	88.9%
36	1238	5	0.58%	15.6%	96	1301	12	1.38%	90.3%
37	1239	6	0.69%	16.3%	97	1303	9	1.04%	91.3%
38	1240	9	1.04%	17.3%	98	1304	15	1.73%	93.1%
39	1241	6	0.69%	18.0%	99	1306	3	0.35%	93.4%
40	1242	9	1.04%	19.0%	100	1308	9	1.04%	94.5%
41	1243	9	1.04%	20.1%	101	1309	3	0.35%	94.8%
42	1244	5	0.58%	20.6%	102	1311	13	1.50%	96.3%
43	1245	4	0.46%	21.1%	103	1313	1	0.12%	96.4%
44	1246	11	1.27%	22.4%	104	1315	8	0.92%	97.3%
45	1247	14	1.61%	24.0%	105	1317	0	0.00%	97.3%
46	1249	9	1.04%	25.0%	106	1320	6	0.69%	98.0%
47	1250	4	0.46%	25.5%	107	1322	0	0.00%	98.0%
48	1251	4	0.46%	26.0%	108	1325	3	0.35%	98.4%
49	1252	5	0.58%	26.5%	109	1328	1	0.12%	98.5%
50	1253	4	0.46%	27.0%	110	1331	3	0.35%	98.8%
51	1254	5	0.58%	27.6%	111	1334	0	0.00%	98.8%
52	1255	9	1.04%	28.6%	112	1338	5	0.58%	99.4%
53	1255	15	1.73%	30.3%	113	1343	0	0.00%	99.4%
54	1256	8	0.92%	31.3%	114	1348	3	0.35%	99.8%
55	1257	10	1.15%	32.4%	115	1354	0	0.00%	99.8%
56	1258	8	0.92%	33.3%	116	1362	1	0.12%	99.9%
57	1259	7	0.81%	34.1%	117	1372	0	0.00%	99.9%
58	1260	6	0.69%	34.8%	118	1386	1	0.12%	100.0%
59	1261	18	2.08%	36.9%	119	1410	0	0.00%	100.0%
					120	1500	0	0.00%	100.0%

Table 8.1.1.8
2011 AIMS A Frequency Distribution Mathematics Grade 6

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	9	1.00%	1.0%	60	1253	8	0.88%	33.6%
1	1000	1	0.11%	1.1%	61	1254	12	1.33%	35.0%
2	1025	3	0.33%	1.4%	62	1256	10	1.11%	36.1%
3	1053	0	0.00%	1.4%	63	1257	8	0.88%	36.9%
4	1073	4	0.44%	1.9%	64	1258	7	0.77%	37.7%
5	1088	3	0.33%	2.2%	65	1260	14	1.55%	39.3%
6	1100	1	0.11%	2.3%	66	1261	7	0.77%	40.0%
7	1110	1	0.11%	2.4%	67	1263	10	1.11%	41.2%
8	1118	7	0.77%	3.2%	68	1264	16	1.77%	42.9%
9	1126	0	0.00%	3.2%	69	1266	15	1.66%	44.6%
10	1133	0	0.00%	3.2%	70	1267	14	1.55%	46.1%
11	1139	0	0.00%	3.2%	71	1269	10	1.11%	47.2%
12	1144	6	0.66%	3.9%	72	1270	12	1.33%	48.6%
13	1149	1	0.11%	4.0%	73	1272	11	1.22%	49.8%
14	1154	7	0.77%	4.8%	74	1273	14	1.55%	51.3%
15	1158	1	0.11%	4.9%	75	1275	11	1.22%	52.5%
16	1162	8	0.88%	5.8%	76	1276	20	2.21%	54.8%
17	1166	0	0.00%	5.8%	77	1278	10	1.11%	55.9%
18	1170	2	0.22%	6.0%	78	1279	10	1.11%	57.0%
19	1173	0	0.00%	6.0%	79	1281	10	1.11%	58.1%
20	1176	9	1.00%	7.0%	80	1282	11	1.22%	59.3%
21	1179	1	0.11%	7.1%	81	1284	18	1.99%	61.3%
22	1182	3	0.33%	7.4%	82	1286	16	1.77%	63.1%
23	1185	3	0.33%	7.7%	83	1287	20	2.21%	65.3%
24	1188	6	0.66%	8.4%	84	1289	17	1.88%	67.1%
25	1190	3	0.33%	8.7%	85	1290	11	1.22%	68.4%
26	1193	4	0.44%	9.2%	86	1292	13	1.44%	69.8%
27	1195	0	0.00%	9.2%	87	1294	15	1.66%	71.5%
28	1198	7	0.77%	10.0%	88	1296	22	2.43%	73.9%
29	1200	1	0.11%	10.1%	89	1297	15	1.66%	75.6%
30	1202	2	0.22%	10.3%	90	1299	18	1.99%	77.5%
31	1204	4	0.44%	10.7%	91	1301	11	1.22%	78.8%
32	1206	10	1.11%	11.8%	92	1303	24	2.65%	81.4%
33	1208	8	0.88%	12.7%	93	1305	7	0.77%	82.2%
34	1210	7	0.77%	13.5%	94	1307	19	2.10%	84.3%
35	1212	3	0.33%	13.8%	95	1309	10	1.11%	85.4%
36	1214	7	0.77%	14.6%	96	1311	18	1.99%	87.4%
37	1216	3	0.33%	14.9%	97	1314	1	0.11%	87.5%
38	1218	10	1.11%	16.0%	98	1316	21	2.32%	89.8%
39	1220	14	1.55%	17.6%	99	1318	4	0.44%	90.3%
40	1221	11	1.22%	18.8%	100	1321	12	1.33%	91.6%
41	1223	4	0.44%	19.2%	101	1323	5	0.55%	92.1%
42	1225	10	1.11%	20.4%	102	1326	9	1.00%	93.1%
43	1226	3	0.33%	20.7%	103	1329	6	0.66%	93.8%
44	1228	7	0.77%	21.5%	104	1332	11	1.22%	95.0%
45	1230	7	0.77%	22.2%	105	1335	3	0.33%	95.4%
46	1231	7	0.77%	23.0%	106	1339	14	1.55%	96.9%
47	1233	6	0.66%	23.7%	107	1342	0	0.00%	96.9%
48	1235	6	0.66%	24.3%	108	1346	6	0.66%	97.6%
49	1236	2	0.22%	24.6%	109	1350	1	0.11%	97.7%
50	1238	10	1.11%	25.7%	110	1355	6	0.66%	98.3%
51	1239	5	0.55%	26.2%	111	1360	0	0.00%	98.3%
52	1241	11	1.22%	27.4%	112	1366	6	0.66%	99.0%
53	1242	5	0.55%	28.0%	113	1372	1	0.11%	99.1%
54	1244	7	0.77%	28.8%	114	1380	2	0.22%	99.3%
55	1245	7	0.77%	29.5%	115	1389	0	0.00%	99.3%
56	1247	9	1.00%	30.5%	116	1400	2	0.22%	99.6%
57	1248	11	1.22%	31.7%	117	1414	0	0.00%	99.6%
58	1250	6	0.66%	32.4%	118	1435	4	0.44%	100.0%
59	1251	3	0.33%	32.7%	119	1472	0	0.00%	100.0%
					120	1500	0	0.00%	100.0%

Table 8.1.1.9
2011 AIMS A Frequency Distribution Mathematics Grade 7

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	1	0.12%	0.1%	60	1266	12	1.38%	39.2%
1	1009	0	0.00%	0.1%	61	1268	13	1.50%	40.7%
2	1059	1	0.12%	0.2%	62	1269	12	1.38%	42.1%
3	1086	2	0.23%	0.5%	63	1270	9	1.04%	43.1%
4	1104	2	0.23%	0.7%	64	1271	8	0.92%	44.1%
5	1119	1	0.12%	0.8%	65	1273	9	1.04%	45.1%
6	1130	4	0.46%	1.3%	66	1274	9	1.04%	46.1%
7	1139	0	0.00%	1.3%	67	1275	8	0.92%	47.1%
8	1147	4	0.46%	1.7%	68	1276	8	0.92%	48.0%
9	1154	1	0.12%	1.8%	69	1278	7	0.81%	48.8%
10	1160	0	0.00%	1.8%	70	1279	10	1.15%	49.9%
11	1166	1	0.12%	2.0%	71	1280	7	0.81%	50.7%
12	1171	5	0.58%	2.5%	72	1281	12	1.38%	52.1%
13	1175	0	0.00%	2.5%	73	1283	11	1.27%	53.4%
14	1180	4	0.46%	3.0%	74	1284	15	1.73%	55.1%
15	1184	0	0.00%	3.0%	75	1285	7	0.81%	55.9%
16	1187	5	0.58%	3.6%	76	1287	5	0.58%	56.5%
17	1191	2	0.23%	3.8%	77	1288	8	0.92%	57.4%
18	1194	4	0.46%	4.3%	78	1289	20	2.31%	59.7%
19	1197	2	0.23%	4.5%	79	1291	10	1.15%	60.9%
20	1200	4	0.46%	5.0%	80	1292	12	1.38%	62.3%
21	1203	4	0.46%	5.4%	81	1294	6	0.69%	63.0%
22	1205	1	0.12%	5.5%	82	1295	21	2.42%	65.4%
23	1208	5	0.58%	6.1%	83	1296	7	0.81%	66.2%
24	1210	5	0.58%	6.7%	84	1298	22	2.54%	68.7%
25	1212	1	0.12%	6.8%	85	1299	6	0.69%	69.4%
26	1215	4	0.46%	7.3%	86	1301	13	1.50%	70.9%
27	1217	3	0.35%	7.6%	87	1302	9	1.04%	72.0%
28	1219	6	0.69%	8.3%	88	1304	22	2.54%	74.5%
29	1221	7	0.81%	9.1%	89	1306	4	0.46%	75.0%
30	1223	7	0.81%	9.9%	90	1307	15	1.73%	76.7%
31	1225	2	0.23%	10.1%	91	1309	6	0.69%	77.4%
32	1226	10	1.15%	11.3%	92	1311	20	2.31%	79.7%
33	1228	4	0.46%	11.8%	93	1313	4	0.46%	80.2%
34	1230	9	1.04%	12.8%	94	1314	14	1.61%	81.8%
35	1232	6	0.69%	13.5%	95	1316	5	0.58%	82.4%
36	1233	8	0.92%	14.4%	96	1318	19	2.19%	84.5%
37	1235	11	1.27%	15.7%	97	1320	2	0.23%	84.8%
38	1236	11	1.27%	17.0%	98	1323	15	1.73%	86.5%
39	1238	10	1.15%	18.1%	99	1325	4	0.46%	87.0%
40	1239	7	0.81%	18.9%	100	1327	13	1.50%	88.5%
41	1241	4	0.46%	19.4%	101	1330	4	0.46%	88.9%
42	1242	7	0.81%	20.2%	102	1332	10	1.15%	90.1%
43	1244	7	0.81%	21.0%	103	1335	1	0.12%	90.2%
44	1245	6	0.69%	21.7%	104	1338	18	2.08%	92.3%
45	1247	6	0.69%	22.4%	105	1341	2	0.23%	92.5%
46	1248	12	1.38%	23.8%	106	1344	13	1.50%	94.0%
47	1249	4	0.46%	24.2%	107	1347	2	0.23%	94.2%
48	1251	13	1.50%	25.7%	108	1351	10	1.15%	95.4%
49	1252	8	0.92%	26.6%	109	1355	0	0.00%	95.4%
50	1254	15	1.73%	28.4%	110	1360	11	1.27%	96.7%
51	1255	10	1.15%	29.5%	111	1364	0	0.00%	96.7%
52	1256	11	1.27%	30.8%	112	1370	15	1.73%	98.4%
53	1257	7	0.81%	31.6%	113	1376	0	0.00%	98.4%
54	1259	4	0.46%	32.1%	114	1384	4	0.46%	98.8%
55	1260	6	0.69%	32.8%	115	1392	1	0.12%	99.0%
56	1261	13	1.50%	34.3%	116	1403	5	0.58%	99.5%
57	1263	10	1.15%	35.4%	117	1417	0	0.00%	99.5%
58	1264	10	1.15%	36.6%	118	1438	2	0.23%	99.8%
59	1265	11	1.27%	37.8%	119	1473	0	0.00%	99.8%
					120	1500	2	0.23%	100.0%

Table 8.1.1.10
2011 AIMS A Frequency Distribution Mathematics Grade 8

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	8	0.99%	1.0%	60	1265	14	1.74%	44.0%
1	1031	2	0.25%	1.2%	61	1266	10	1.24%	45.2%
2	1075	1	0.12%	1.4%	62	1268	9	1.12%	46.3%
3	1099	0	0.00%	1.4%	63	1269	4	0.50%	46.8%
4	1115	3	0.37%	1.7%	64	1270	14	1.74%	48.6%
5	1128	1	0.12%	1.9%	65	1271	8	0.99%	49.6%
6	1138	3	0.37%	2.2%	66	1272	13	1.61%	51.2%
7	1147	0	0.00%	2.2%	67	1274	9	1.12%	52.3%
8	1154	7	0.87%	3.1%	68	1275	13	1.61%	53.9%
9	1160	0	0.00%	3.1%	69	1276	7	0.87%	54.8%
10	1166	3	0.37%	3.5%	70	1278	12	1.49%	56.3%
11	1171	1	0.12%	3.6%	71	1279	11	1.37%	57.6%
12	1175	6	0.75%	4.3%	72	1280	9	1.12%	58.8%
13	1179	3	0.37%	4.7%	73	1281	7	0.87%	59.6%
14	1183	7	0.87%	5.6%	74	1283	12	1.49%	61.1%
15	1187	0	0.00%	5.6%	75	1284	7	0.87%	62.0%
16	1190	7	0.87%	6.5%	76	1285	16	1.99%	64.0%
17	1193	0	0.00%	6.5%	77	1287	9	1.12%	65.1%
18	1196	5	0.62%	7.1%	78	1288	3	0.37%	65.5%
19	1199	1	0.12%	7.2%	79	1289	6	0.75%	66.2%
20	1202	10	1.24%	8.4%	80	1291	9	1.12%	67.3%
21	1204	1	0.12%	8.6%	81	1292	6	0.75%	68.1%
22	1207	2	0.25%	8.8%	82	1294	7	0.87%	68.9%
23	1209	1	0.12%	8.9%	83	1295	8	0.99%	69.9%
24	1211	5	0.62%	9.6%	84	1297	10	1.24%	71.2%
25	1213	6	0.75%	10.3%	85	1298	10	1.24%	72.4%
26	1215	6	0.75%	11.1%	86	1300	15	1.86%	74.3%
27	1217	1	0.12%	11.2%	87	1301	7	0.87%	75.2%
28	1219	5	0.62%	11.8%	88	1303	22	2.73%	77.9%
29	1221	3	0.37%	12.2%	89	1304	7	0.87%	78.8%
30	1223	3	0.37%	12.5%	90	1306	12	1.49%	80.2%
31	1225	0	0.00%	12.5%	91	1308	3	0.37%	80.6%
32	1226	11	1.37%	13.9%	92	1310	14	1.74%	82.4%
33	1228	4	0.50%	14.4%	93	1312	6	0.75%	83.1%
34	1230	7	0.87%	15.3%	94	1313	15	1.86%	85.0%
35	1231	4	0.50%	15.8%	95	1315	6	0.75%	85.7%
36	1233	8	0.99%	16.8%	96	1317	14	1.74%	87.5%
37	1234	3	0.37%	17.1%	97	1320	9	1.12%	88.6%
38	1236	11	1.37%	18.5%	98	1322	11	1.37%	89.9%
39	1237	6	0.75%	19.3%	99	1324	2	0.25%	90.2%
40	1239	7	0.87%	20.1%	100	1326	7	0.87%	91.1%
41	1240	4	0.50%	20.6%	101	1329	5	0.62%	91.7%
42	1242	8	0.99%	21.6%	102	1332	10	1.24%	92.9%
43	1243	3	0.37%	22.0%	103	1334	4	0.50%	93.4%
44	1245	8	0.99%	23.0%	104	1337	6	0.75%	94.2%
45	1246	10	1.24%	24.2%	105	1340	2	0.25%	94.4%
46	1247	13	1.61%	25.8%	106	1344	5	0.62%	95.0%
47	1249	9	1.12%	27.0%	107	1347	4	0.50%	95.5%
48	1250	12	1.49%	28.4%	108	1351	9	1.12%	96.6%
49	1251	10	1.24%	29.7%	109	1356	6	0.75%	97.4%
50	1252	8	0.99%	30.7%	110	1360	3	0.37%	97.8%
51	1254	11	1.37%	32.0%	111	1365	2	0.25%	98.0%
52	1255	17	2.11%	34.2%	112	1371	4	0.50%	98.5%
53	1256	7	0.87%	35.0%	113	1377	0	0.00%	98.5%
54	1258	7	0.87%	35.9%	114	1385	7	0.87%	99.4%
55	1259	8	0.99%	36.9%	115	1393	0	0.00%	99.4%
56	1260	4	0.50%	37.4%	116	1404	4	0.50%	99.9%
57	1261	15	1.86%	39.3%	117	1418	0	0.00%	99.9%
58	1263	14	1.74%	41.0%	118	1437	0	0.00%	99.9%
59	1264	10	1.24%	42.2%	119	1471	0	0.00%	99.9%
					120	1500	1	0.12%	100.0%

Table 8.1.1.11
2011 AIMS A Frequency Distribution Mathematics High School

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	8	0.72%	0.7%	60	1266	12	1.08%	43.2%
1	1010	2	0.18%	0.9%	61	1268	7	0.63%	43.9%
2	1058	2	0.18%	1.1%	62	1269	12	1.08%	45.0%
3	1085	1	0.09%	1.2%	63	1270	11	0.99%	45.9%
4	1103	7	0.63%	1.8%	64	1272	16	1.44%	47.4%
5	1117	2	0.18%	2.0%	65	1273	11	0.99%	48.4%
6	1129	3	0.27%	2.3%	66	1274	19	1.71%	50.1%
7	1138	2	0.18%	2.4%	67	1276	17	1.53%	51.6%
8	1146	14	1.26%	3.7%	68	1277	19	1.71%	53.3%
9	1153	0	0.00%	3.7%	69	1278	14	1.26%	54.6%
10	1159	2	0.18%	3.9%	70	1280	21	1.89%	56.5%
11	1164	1	0.09%	4.0%	71	1281	9	0.81%	57.3%
12	1169	11	0.99%	5.0%	72	1282	19	1.71%	59.0%
13	1174	3	0.27%	5.2%	73	1284	10	0.90%	59.9%
14	1178	2	0.18%	5.4%	74	1285	17	1.53%	61.4%
15	1182	2	0.18%	5.6%	75	1287	14	1.26%	62.7%
16	1186	12	1.08%	6.7%	76	1288	19	1.71%	64.4%
17	1189	0	0.00%	6.7%	77	1290	8	0.72%	65.1%
18	1192	4	0.36%	7.0%	78	1291	15	1.35%	66.5%
19	1195	2	0.18%	7.2%	79	1293	10	0.90%	67.4%
20	1198	7	0.63%	7.8%	80	1294	15	1.35%	68.7%
21	1201	6	0.54%	8.4%	81	1296	16	1.44%	70.2%
22	1204	6	0.54%	8.9%	82	1297	18	1.62%	71.8%
23	1206	0	0.00%	8.9%	83	1299	7	0.63%	72.4%
24	1209	10	0.90%	9.8%	84	1300	19	1.71%	74.1%
25	1211	2	0.18%	10.0%	85	1302	10	0.90%	75.0%
26	1213	3	0.27%	10.3%	86	1304	19	1.71%	76.8%
27	1215	3	0.27%	10.5%	87	1306	6	0.54%	77.3%
28	1217	15	1.35%	11.9%	88	1307	16	1.44%	78.7%
29	1219	7	0.63%	12.5%	89	1309	6	0.54%	79.3%
30	1221	14	1.26%	13.8%	90	1311	18	1.62%	80.9%
31	1223	6	0.54%	14.3%	91	1313	8	0.72%	81.6%
32	1225	14	1.26%	15.6%	92	1315	14	1.26%	82.9%
33	1227	7	0.63%	16.2%	93	1317	8	0.72%	83.6%
34	1228	5	0.45%	16.7%	94	1319	18	1.62%	85.2%
35	1230	10	0.90%	17.6%	95	1321	3	0.27%	85.5%
36	1232	15	1.35%	18.9%	96	1323	16	1.44%	86.9%
37	1234	12	1.08%	20.0%	97	1326	7	0.63%	87.6%
38	1235	6	0.54%	20.5%	98	1328	15	1.35%	88.9%
39	1237	4	0.36%	20.9%	99	1330	2	0.18%	89.1%
40	1238	9	0.81%	21.7%	100	1333	17	1.53%	90.6%
41	1240	7	0.63%	22.3%	101	1336	2	0.18%	90.8%
42	1241	8	0.72%	23.1%	102	1339	11	0.99%	91.8%
43	1243	11	0.99%	24.1%	103	1342	5	0.45%	92.3%
44	1244	5	0.45%	24.5%	104	1345	22	1.98%	94.2%
45	1246	13	1.17%	25.7%	105	1348	2	0.18%	94.4%
46	1247	12	1.08%	26.8%	106	1352	13	1.17%	95.6%
47	1249	14	1.26%	28.0%	107	1356	3	0.27%	95.9%
48	1250	15	1.35%	29.4%	108	1360	10	0.90%	96.8%
49	1251	15	1.35%	30.7%	109	1364	0	0.00%	96.8%
50	1253	9	0.81%	31.5%	110	1369	6	0.54%	97.3%
51	1254	7	0.63%	32.2%	111	1375	1	0.09%	97.4%
52	1256	10	0.90%	33.1%	112	1381	11	0.99%	98.4%
53	1257	6	0.54%	33.6%	113	1388	0	0.00%	98.4%
54	1258	15	1.35%	35.0%	114	1396	8	0.72%	99.1%
55	1260	14	1.26%	36.2%	115	1405	0	0.00%	99.1%
56	1261	16	1.44%	37.7%	116	1417	4	0.36%	99.5%
57	1262	15	1.35%	39.0%	117	1432	0	0.00%	99.5%
58	1264	20	1.80%	40.8%	118	1454	3	0.27%	99.7%
59	1265	15	1.35%	42.2%	119	1491	0	0.00%	99.7%
					120	1500	3	0.27%	100.0%

Table 8.1.1.12
2011 AIMS A Frequency Distribution Reading Grade 3

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	3	0.35%	0.3%	60	1256	12	1.39%	36.0%
1	1041	5	0.58%	0.9%	61	1257	4	0.46%	36.5%
2	1082	3	0.35%	1.3%	62	1258	11	1.27%	37.7%
3	1104	0	0.00%	1.3%	63	1259	7	0.81%	38.5%
4	1119	6	0.69%	2.0%	64	1260	10	1.16%	39.7%
5	1131	1	0.12%	2.1%	65	1261	11	1.27%	41.0%
6	1140	1	0.12%	2.2%	66	1262	14	1.62%	42.6%
7	1148	0	0.00%	2.2%	67	1264	9	1.04%	43.6%
8	1154	5	0.58%	2.8%	68	1265	15	1.74%	45.4%
9	1160	2	0.23%	3.0%	69	1266	7	0.81%	46.2%
10	1165	3	0.35%	3.4%	70	1267	11	1.27%	47.5%
11	1169	0	0.00%	3.4%	71	1268	7	0.81%	48.3%
12	1174	10	1.16%	4.5%	72	1269	9	1.04%	49.3%
13	1177	1	0.12%	4.6%	73	1270	11	1.27%	50.6%
14	1181	3	0.35%	5.0%	74	1272	8	0.93%	51.5%
15	1184	2	0.23%	5.2%	75	1273	9	1.04%	52.5%
16	1187	7	0.81%	6.0%	76	1274	11	1.27%	53.8%
17	1190	1	0.12%	6.1%	77	1275	9	1.04%	54.9%
18	1193	3	0.35%	6.5%	78	1276	17	1.97%	56.8%
19	1195	2	0.23%	6.7%	79	1277	8	0.93%	57.8%
20	1198	5	0.58%	7.3%	80	1279	17	1.97%	59.7%
21	1200	3	0.35%	7.6%	81	1280	3	0.35%	60.1%
22	1202	5	0.58%	8.2%	82	1281	13	1.50%	61.6%
23	1204	3	0.35%	8.6%	83	1282	6	0.69%	62.3%
24	1206	6	0.69%	9.3%	84	1284	16	1.85%	64.1%
25	1208	4	0.46%	9.7%	85	1285	9	1.04%	65.2%
26	1210	6	0.69%	10.4%	86	1286	12	1.39%	66.6%
27	1212	1	0.12%	10.5%	87	1288	18	2.08%	68.6%
28	1214	11	1.27%	11.8%	88	1289	12	1.39%	70.0%
29	1215	2	0.23%	12.0%	89	1291	4	0.46%	70.5%
30	1217	7	0.81%	12.8%	90	1292	16	1.85%	72.3%
31	1219	5	0.58%	13.4%	91	1293	5	0.58%	72.9%
32	1220	7	0.81%	14.2%	92	1295	8	0.93%	73.8%
33	1222	8	0.93%	15.2%	93	1297	10	1.16%	75.0%
34	1223	5	0.58%	15.7%	94	1298	17	1.97%	77.0%
35	1225	3	0.35%	16.1%	95	1300	9	1.04%	78.0%
36	1226	6	0.69%	16.8%	96	1301	18	2.08%	80.1%
37	1228	5	0.58%	17.4%	97	1303	7	0.81%	80.9%
38	1229	13	1.50%	18.9%	98	1305	16	1.85%	82.8%
39	1231	2	0.23%	19.1%	99	1307	5	0.58%	83.3%
40	1232	13	1.50%	20.6%	100	1309	17	1.97%	85.3%
41	1233	3	0.35%	20.9%	101	1311	3	0.35%	85.6%
42	1234	3	0.35%	21.3%	102	1313	15	1.74%	87.4%
43	1236	8	0.93%	22.2%	103	1315	8	0.93%	88.3%
44	1237	10	1.16%	23.4%	104	1318	14	1.62%	89.9%
45	1238	2	0.23%	23.6%	105	1320	3	0.35%	90.3%
46	1240	5	0.58%	24.2%	106	1323	9	1.04%	91.3%
47	1241	3	0.35%	24.5%	107	1326	4	0.46%	91.8%
48	1242	7	0.81%	25.3%	108	1329	12	1.39%	93.2%
49	1243	4	0.46%	25.8%	109	1332	3	0.35%	93.5%
50	1244	5	0.58%	26.4%	110	1336	18	2.08%	95.6%
51	1246	5	0.58%	27.0%	111	1340	2	0.23%	95.8%
52	1247	11	1.27%	28.2%	112	1345	8	0.93%	96.8%
53	1248	8	0.93%	29.2%	113	1350	2	0.23%	97.0%
54	1249	10	1.16%	30.3%	114	1356	8	0.93%	97.9%
55	1250	7	0.81%	31.1%	115	1363	0	0.00%	97.9%
56	1251	6	0.69%	31.8%	116	1372	9	1.04%	99.0%
57	1252	6	0.69%	32.5%	117	1383	1	0.12%	99.1%
58	1254	12	1.39%	33.9%	118	1400	3	0.35%	99.4%
59	1255	6	0.69%	34.6%	119	1430	0	0.00%	99.4%
					120	1500	5	0.58%	100.0%

Table 8.1.1.13
2011 AIMS A Frequency Distribution Reading Grade 4

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	10	1.14%	1.1%	60	1262	12	1.37%	32.9%
1	1014	1	0.11%	1.3%	61	1263	9	1.02%	33.9%
2	1062	3	0.34%	1.6%	62	1264	7	0.80%	34.7%
3	1088	0	0.00%	1.6%	63	1266	13	1.48%	36.2%
4	1105	7	0.80%	2.4%	64	1267	8	0.91%	37.1%
5	1118	0	0.00%	2.4%	65	1268	8	0.91%	38.0%
6	1129	1	0.11%	2.5%	66	1270	14	1.59%	39.6%
7	1138	0	0.00%	2.5%	67	1271	14	1.59%	41.2%
8	1145	5	0.57%	3.1%	68	1272	12	1.37%	42.5%
9	1152	0	0.00%	3.1%	69	1274	12	1.37%	43.9%
10	1158	0	0.00%	3.1%	70	1275	12	1.37%	45.3%
11	1163	1	0.11%	3.2%	71	1276	10	1.14%	46.4%
12	1167	7	0.80%	4.0%	72	1278	9	1.02%	47.4%
13	1172	3	0.34%	4.3%	73	1279	14	1.59%	49.0%
14	1176	1	0.11%	4.4%	74	1280	10	1.14%	50.2%
15	1179	0	0.00%	4.4%	75	1282	7	0.80%	51.0%
16	1183	8	0.91%	5.3%	76	1283	15	1.71%	52.7%
17	1186	0	0.00%	5.3%	77	1284	10	1.14%	53.8%
18	1189	2	0.23%	5.6%	78	1286	9	1.02%	54.8%
19	1192	0	0.00%	5.6%	79	1287	9	1.02%	55.9%
20	1195	14	1.59%	7.2%	80	1289	11	1.25%	57.1%
21	1197	0	0.00%	7.2%	81	1290	9	1.02%	58.1%
22	1200	4	0.46%	7.6%	82	1292	12	1.37%	59.5%
23	1202	2	0.23%	7.8%	83	1293	9	1.02%	60.5%
24	1205	7	0.80%	8.6%	84	1295	13	1.48%	62.0%
25	1207	1	0.11%	8.8%	85	1296	10	1.14%	63.1%
26	1209	4	0.46%	9.2%	86	1298	19	2.16%	65.3%
27	1211	1	0.11%	9.3%	87	1299	12	1.37%	66.7%
28	1213	9	1.02%	10.4%	88	1301	21	2.39%	69.1%
29	1215	5	0.57%	10.9%	89	1303	7	0.80%	69.9%
30	1217	7	0.80%	11.7%	90	1304	16	1.82%	71.7%
31	1219	5	0.57%	12.3%	91	1306	4	0.46%	72.1%
32	1221	4	0.46%	12.7%	92	1308	18	2.05%	74.2%
33	1223	5	0.57%	13.3%	93	1310	11	1.25%	75.4%
34	1224	5	0.57%	13.9%	94	1311	13	1.48%	76.9%
35	1226	1	0.11%	14.0%	95	1313	6	0.68%	77.6%
36	1228	5	0.57%	14.6%	96	1315	15	1.71%	79.3%
37	1229	5	0.57%	15.1%	97	1317	4	0.46%	79.7%
38	1231	5	0.57%	15.7%	98	1319	15	1.71%	81.5%
39	1232	2	0.23%	15.9%	99	1322	4	0.46%	81.9%
40	1234	11	1.25%	17.2%	100	1324	11	1.25%	83.2%
41	1236	5	0.57%	17.7%	101	1326	4	0.46%	83.6%
42	1237	6	0.68%	18.4%	102	1329	22	2.50%	86.1%
43	1239	6	0.68%	19.1%	103	1331	4	0.46%	86.6%
44	1240	5	0.57%	19.7%	104	1334	19	2.16%	88.7%
45	1241	7	0.80%	20.5%	105	1337	2	0.23%	89.0%
46	1243	10	1.14%	21.6%	106	1340	18	2.05%	91.0%
47	1244	8	0.91%	22.5%	107	1343	9	1.02%	92.0%
48	1246	11	1.25%	23.8%	108	1347	13	1.48%	93.5%
49	1247	2	0.23%	24.0%	109	1351	2	0.23%	93.7%
50	1248	8	0.91%	24.9%	110	1355	11	1.25%	95.0%
51	1250	2	0.23%	25.1%	111	1360	1	0.11%	95.1%
52	1251	7	0.80%	25.9%	112	1365	19	2.16%	97.3%
53	1253	9	1.02%	27.0%	113	1371	1	0.11%	97.4%
54	1254	5	0.57%	27.5%	114	1378	7	0.80%	98.2%
55	1255	4	0.46%	28.0%	115	1386	0	0.00%	98.2%
56	1257	7	0.80%	28.8%	116	1396	5	0.57%	98.7%
57	1258	11	1.25%	30.0%	117	1409	0	0.00%	98.7%
58	1259	4	0.46%	30.5%	118	1428	3	0.34%	99.1%
59	1260	9	1.02%	31.5%	119	1462	0	0.00%	99.1%
					120	1500	8	0.91%	100.0%

Table 8.1.1.14
2011 AIMS A Frequency Distribution Reading Grade 5

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	3	0.35%	0.3%	60	1247	9	1.04%	26.9%
1	1000	0	0.00%	0.3%	61	1249	12	1.39%	28.2%
2	1000	3	0.35%	0.7%	62	1250	10	1.16%	29.4%
3	1025	0	0.00%	0.7%	63	1252	7	0.81%	30.2%
4	1047	1	0.12%	0.8%	64	1253	6	0.69%	30.9%
5	1064	1	0.12%	0.9%	65	1255	6	0.69%	31.6%
6	1077	0	0.00%	0.9%	66	1256	13	1.50%	33.1%
7	1089	1	0.12%	1.0%	67	1258	12	1.39%	34.5%
8	1099	7	0.81%	1.9%	68	1259	7	0.81%	35.3%
9	1107	1	0.12%	2.0%	69	1261	10	1.16%	36.5%
10	1115	1	0.12%	2.1%	70	1262	11	1.27%	37.7%
11	1122	0	0.00%	2.1%	71	1264	12	1.39%	39.1%
12	1128	2	0.23%	2.3%	72	1266	15	1.74%	40.9%
13	1134	0	0.00%	2.3%	73	1267	6	0.69%	41.6%
14	1139	2	0.23%	2.5%	74	1269	10	1.16%	42.7%
15	1144	0	0.00%	2.5%	75	1270	5	0.58%	43.3%
16	1149	5	0.58%	3.1%	76	1272	11	1.27%	44.6%
17	1153	0	0.00%	3.1%	77	1274	9	1.04%	45.6%
18	1157	5	0.58%	3.7%	78	1275	11	1.27%	46.9%
19	1161	1	0.12%	3.8%	79	1277	7	0.81%	47.7%
20	1165	2	0.23%	4.1%	80	1279	12	1.39%	49.1%
21	1168	2	0.23%	4.3%	81	1280	5	0.58%	49.7%
22	1171	2	0.23%	4.5%	82	1282	8	0.93%	50.6%
23	1174	2	0.23%	4.7%	83	1284	14	1.62%	52.2%
24	1177	5	0.58%	5.3%	84	1286	11	1.27%	53.5%
25	1180	0	0.00%	5.3%	85	1288	8	0.93%	54.4%
26	1183	5	0.58%	5.9%	86	1290	7	0.81%	55.2%
27	1186	1	0.12%	6.0%	87	1292	12	1.39%	56.6%
28	1188	11	1.27%	7.3%	88	1293	14	1.62%	58.2%
29	1191	3	0.35%	7.6%	89	1296	10	1.16%	59.4%
30	1193	3	0.35%	8.0%	90	1298	13	1.50%	60.9%
31	1196	1	0.12%	8.1%	91	1300	12	1.39%	62.3%
32	1198	8	0.93%	9.0%	92	1302	20	2.31%	64.6%
33	1200	2	0.23%	9.3%	93	1304	14	1.62%	66.2%
34	1202	6	0.69%	10.0%	94	1306	20	2.31%	68.5%
35	1204	1	0.12%	10.1%	95	1309	12	1.39%	69.9%
36	1206	8	0.93%	11.0%	96	1311	19	2.20%	72.1%
37	1208	4	0.46%	11.5%	97	1314	13	1.50%	73.6%
38	1210	1	0.12%	11.6%	98	1316	13	1.50%	75.1%
39	1212	6	0.69%	12.3%	99	1319	8	0.93%	76.0%
40	1214	3	0.35%	12.6%	100	1322	21	2.43%	78.5%
41	1216	1	0.12%	12.7%	101	1325	9	1.04%	79.5%
42	1218	2	0.23%	13.0%	102	1328	25	2.89%	82.4%
43	1219	8	0.93%	13.9%	103	1332	4	0.46%	82.9%
44	1221	8	0.93%	14.8%	104	1335	13	1.50%	84.4%
45	1223	5	0.58%	15.4%	105	1339	8	0.93%	85.3%
46	1225	7	0.81%	16.2%	106	1343	15	1.74%	87.0%
47	1226	4	0.46%	16.7%	107	1347	10	1.16%	88.2%
48	1228	5	0.58%	17.2%	108	1352	22	2.55%	90.7%
49	1230	4	0.46%	17.7%	109	1357	1	0.12%	90.9%
50	1231	9	1.04%	18.8%	110	1362	14	1.62%	92.5%
51	1233	4	0.46%	19.2%	111	1368	4	0.46%	92.9%
52	1234	12	1.39%	20.6%	112	1375	16	1.85%	94.8%
53	1236	4	0.46%	21.1%	113	1383	1	0.12%	94.9%
54	1238	12	1.39%	22.5%	114	1392	14	1.62%	96.5%
55	1239	10	1.16%	23.6%	115	1402	3	0.35%	96.9%
56	1241	2	0.23%	23.8%	116	1415	14	1.62%	98.5%
57	1242	5	0.58%	24.4%	117	1432	0	0.00%	98.5%
58	1244	7	0.81%	25.2%	118	1456	7	0.81%	99.3%
59	1245	5	0.58%	25.8%	119	1497	0	0.00%	99.3%
					120	1500	6	0.69%	100.0%

Table 8.1.1.15
2011 AIMS A Frequency Distribution Reading Grade 6

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	4	0.44%	0.4%	60	1248	11	1.22%	31.7%
1	1000	1	0.11%	0.6%	61	1249	4	0.44%	32.1%
2	1000	3	0.33%	0.9%	62	1251	5	0.56%	32.7%
3	1019	1	0.11%	1.0%	63	1253	5	0.56%	33.2%
4	1042	6	0.67%	1.7%	64	1254	8	0.89%	34.1%
5	1060	0	0.00%	1.7%	65	1256	6	0.67%	34.8%
6	1074	2	0.22%	1.9%	66	1258	11	1.22%	36.0%
7	1086	0	0.00%	1.9%	67	1260	4	0.44%	36.4%
8	1096	6	0.67%	2.6%	68	1261	16	1.78%	38.2%
9	1105	2	0.22%	2.8%	69	1263	7	0.78%	39.0%
10	1113	3	0.33%	3.1%	70	1265	12	1.33%	40.3%
11	1120	0	0.00%	3.1%	71	1266	12	1.33%	41.7%
12	1126	7	0.78%	3.9%	72	1268	7	0.78%	42.4%
13	1132	0	0.00%	3.9%	73	1270	12	1.33%	43.8%
14	1137	2	0.22%	4.1%	74	1272	10	1.11%	44.9%
15	1142	1	0.11%	4.2%	75	1273	10	1.11%	46.0%
16	1147	9	1.00%	5.2%	76	1275	7	0.78%	46.8%
17	1151	0	0.00%	5.2%	77	1277	8	0.89%	47.7%
18	1155	1	0.11%	5.3%	78	1279	14	1.56%	49.2%
19	1159	0	0.00%	5.3%	79	1281	7	0.78%	50.0%
20	1163	5	0.56%	5.9%	80	1283	12	1.33%	51.3%
21	1166	0	0.00%	5.9%	81	1285	6	0.67%	52.0%
22	1169	4	0.44%	6.3%	82	1287	12	1.33%	53.3%
23	1172	2	0.22%	6.6%	83	1289	8	0.89%	54.2%
24	1175	4	0.44%	7.0%	84	1291	14	1.56%	55.8%
25	1178	1	0.11%	7.1%	85	1293	5	0.56%	56.3%
26	1181	1	0.11%	7.2%	86	1295	11	1.22%	57.6%
27	1184	2	0.22%	7.4%	87	1297	11	1.22%	58.8%
28	1186	8	0.89%	8.3%	88	1299	19	2.11%	60.9%
29	1189	0	0.00%	8.3%	89	1301	7	0.78%	61.7%
30	1191	5	0.56%	8.9%	90	1304	20	2.22%	63.9%
31	1194	1	0.11%	9.0%	91	1306	5	0.56%	64.4%
32	1196	9	1.00%	10.0%	92	1308	15	1.67%	66.1%
33	1198	2	0.22%	10.2%	93	1311	9	1.00%	67.1%
34	1200	7	0.78%	11.0%	94	1313	20	2.22%	69.3%
35	1203	1	0.11%	11.1%	95	1316	6	0.67%	70.0%
36	1205	5	0.56%	11.7%	96	1319	16	1.78%	71.8%
37	1207	3	0.33%	12.0%	97	1322	7	0.78%	72.6%
38	1209	3	0.33%	12.3%	98	1324	20	2.22%	74.8%
39	1211	3	0.33%	12.7%	99	1327	12	1.33%	76.1%
40	1213	5	0.56%	13.2%	100	1331	18	2.00%	78.1%
41	1215	6	0.67%	13.9%	101	1334	13	1.44%	79.6%
42	1217	6	0.67%	14.6%	102	1337	20	2.22%	81.8%
43	1218	7	0.78%	15.3%	103	1341	6	0.67%	82.4%
44	1220	10	1.11%	16.4%	104	1345	17	1.89%	84.3%
45	1222	4	0.44%	16.9%	105	1349	8	0.89%	85.2%
46	1224	13	1.44%	18.3%	106	1353	18	2.00%	87.2%
47	1226	8	0.89%	19.2%	107	1358	7	0.78%	88.0%
48	1227	9	1.00%	20.2%	108	1363	22	2.44%	90.4%
49	1229	8	0.89%	21.1%	109	1368	5	0.56%	91.0%
50	1231	8	0.89%	22.0%	110	1374	20	2.22%	93.2%
51	1233	9	1.00%	23.0%	111	1380	2	0.22%	93.4%
52	1234	9	1.00%	24.0%	112	1387	26	2.89%	96.3%
53	1236	13	1.44%	25.4%	113	1396	3	0.33%	96.7%
54	1238	9	1.00%	26.4%	114	1405	7	0.78%	97.4%
55	1239	2	0.22%	26.7%	115	1416	1	0.11%	97.6%
56	1241	8	0.89%	27.6%	116	1430	14	1.56%	99.1%
57	1243	9	1.00%	28.6%	117	1448	0	0.00%	99.1%
58	1244	9	1.00%	29.6%	118	1473	4	0.44%	99.6%
59	1246	8	0.89%	30.4%	119	1500	0	0.00%	99.6%
					120	1500	4	0.44%	100.0%

Table 8.1.1.16
2011 AIMS A Frequency Distribution Reading Grade 7

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	3	0.35%	0.3%	60	1250	7	0.81%	25.1%
1	1000	1	0.12%	0.5%	61	1252	6	0.69%	25.8%
2	1003	0	0.00%	0.5%	62	1253	8	0.92%	26.7%
3	1035	1	0.12%	0.6%	63	1255	7	0.81%	27.5%
4	1057	3	0.35%	0.9%	64	1257	11	1.27%	28.8%
5	1074	0	0.00%	0.9%	65	1258	4	0.46%	29.2%
6	1087	2	0.23%	1.2%	66	1260	15	1.73%	31.0%
7	1098	1	0.12%	1.3%	67	1262	9	1.04%	32.0%
8	1107	3	0.35%	1.6%	68	1263	6	0.69%	32.7%
9	1115	2	0.23%	1.8%	69	1265	4	0.46%	33.1%
10	1122	0	0.00%	1.8%	70	1267	6	0.69%	33.8%
11	1129	2	0.23%	2.1%	71	1268	3	0.35%	34.2%
12	1134	2	0.23%	2.3%	72	1270	8	0.92%	35.1%
13	1140	1	0.12%	2.4%	73	1272	8	0.92%	36.0%
14	1145	1	0.12%	2.5%	74	1273	8	0.92%	36.9%
15	1149	2	0.23%	2.8%	75	1275	6	0.69%	37.6%
16	1153	4	0.46%	3.2%	76	1277	12	1.38%	39.0%
17	1157	3	0.35%	3.6%	77	1279	10	1.15%	40.2%
18	1161	5	0.58%	4.1%	78	1280	8	0.92%	41.1%
19	1165	0	0.00%	4.1%	79	1282	8	0.92%	42.0%
20	1168	6	0.69%	4.8%	80	1284	6	0.69%	42.7%
21	1171	1	0.12%	4.9%	81	1286	11	1.27%	44.0%
22	1174	0	0.00%	4.9%	82	1288	10	1.15%	45.1%
23	1177	1	0.12%	5.1%	83	1290	5	0.58%	45.7%
24	1180	6	0.69%	5.8%	84	1291	12	1.38%	47.1%
25	1183	6	0.69%	6.4%	85	1293	7	0.81%	47.9%
26	1185	2	0.23%	6.7%	86	1295	14	1.61%	49.5%
27	1188	1	0.12%	6.8%	87	1297	6	0.69%	50.2%
28	1190	5	0.58%	7.4%	88	1300	17	1.96%	52.1%
29	1193	3	0.35%	7.7%	89	1302	9	1.04%	53.2%
30	1195	3	0.35%	8.1%	90	1304	15	1.73%	54.9%
31	1197	2	0.23%	8.3%	91	1306	9	1.04%	55.9%
32	1200	5	0.58%	8.9%	92	1308	25	2.88%	58.8%
33	1202	0	0.00%	8.9%	93	1311	8	0.92%	59.7%
34	1204	4	0.46%	9.3%	94	1313	15	1.73%	61.4%
35	1206	3	0.35%	9.7%	95	1315	13	1.50%	62.9%
36	1208	4	0.46%	10.1%	96	1318	15	1.73%	64.7%
37	1210	5	0.58%	10.7%	97	1321	7	0.81%	65.5%
38	1212	5	0.58%	11.3%	98	1323	27	3.11%	68.6%
39	1214	3	0.35%	11.6%	99	1326	5	0.58%	69.2%
40	1216	12	1.38%	13.0%	100	1329	25	2.88%	72.0%
41	1218	4	0.46%	13.5%	101	1332	9	1.04%	73.1%
42	1220	2	0.23%	13.7%	102	1335	20	2.30%	75.4%
43	1221	3	0.35%	14.0%	103	1339	10	1.15%	76.5%
44	1223	6	0.69%	14.7%	104	1342	26	2.99%	79.5%
45	1225	4	0.46%	15.2%	105	1346	12	1.38%	80.9%
46	1227	6	0.69%	15.9%	106	1350	20	2.30%	83.2%
47	1228	4	0.46%	16.3%	107	1354	9	1.04%	84.2%
48	1230	7	0.81%	17.1%	108	1359	21	2.42%	86.7%
49	1232	6	0.69%	17.8%	109	1363	6	0.69%	87.3%
50	1234	6	0.69%	18.5%	110	1369	30	3.45%	90.8%
51	1235	2	0.23%	18.8%	111	1375	1	0.12%	90.9%
52	1237	6	0.69%	19.4%	112	1381	26	2.99%	93.9%
53	1239	7	0.81%	20.3%	113	1388	5	0.58%	94.5%
54	1240	11	1.27%	21.5%	114	1397	15	1.73%	96.2%
55	1242	6	0.69%	22.2%	115	1407	3	0.35%	96.5%
56	1244	3	0.35%	22.6%	116	1419	17	1.96%	98.5%
57	1245	5	0.58%	23.1%	117	1435	1	0.12%	98.6%
58	1247	5	0.58%	23.7%	118	1458	6	0.69%	99.3%
59	1248	5	0.58%	24.3%	119	1498	0	0.00%	99.3%
					120	1500	6	0.69%	100.0%

Table 8.1.1.17
2011 AIMS A Frequency Distribution Reading Grade 8

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	2	0.25%	0.2%	60	1256	3	0.37%	25.6%
1	1026	0	0.00%	0.2%	61	1257	9	1.12%	26.7%
2	1070	3	0.37%	0.6%	62	1258	10	1.25%	28.0%
3	1094	1	0.12%	0.7%	63	1260	6	0.75%	28.7%
4	1110	1	0.12%	0.9%	64	1261	9	1.12%	29.8%
5	1122	2	0.25%	1.1%	65	1262	10	1.25%	31.1%
6	1132	0	0.00%	1.1%	66	1263	8	1.00%	32.1%
7	1140	1	0.12%	1.2%	67	1265	12	1.50%	33.6%
8	1147	3	0.37%	1.6%	68	1266	14	1.75%	35.3%
9	1153	0	0.00%	1.6%	69	1267	12	1.50%	36.8%
10	1158	1	0.12%	1.7%	70	1268	12	1.50%	38.3%
11	1163	0	0.00%	1.7%	71	1270	9	1.12%	39.5%
12	1167	7	0.87%	2.6%	72	1271	8	1.00%	40.4%
13	1171	0	0.00%	2.6%	73	1272	9	1.12%	41.6%
14	1174	2	0.25%	2.9%	74	1274	12	1.50%	43.1%
15	1178	2	0.25%	3.1%	75	1275	8	1.00%	44.1%
16	1181	7	0.87%	4.0%	76	1276	13	1.62%	45.7%
17	1184	1	0.12%	4.1%	77	1277	7	0.87%	46.6%
18	1187	3	0.37%	4.5%	78	1279	20	2.50%	49.1%
19	1190	4	0.50%	5.0%	79	1280	9	1.12%	50.2%
20	1192	4	0.50%	5.5%	80	1282	7	0.87%	51.1%
21	1195	0	0.00%	5.5%	81	1283	4	0.50%	51.6%
22	1197	3	0.37%	5.9%	82	1284	7	0.87%	52.4%
23	1199	0	0.00%	5.9%	83	1286	5	0.62%	53.1%
24	1201	7	0.87%	6.7%	84	1287	7	0.87%	53.9%
25	1204	2	0.25%	7.0%	85	1289	8	1.00%	54.9%
26	1206	2	0.25%	7.2%	86	1290	15	1.87%	56.8%
27	1208	1	0.12%	7.4%	87	1292	7	0.87%	57.7%
28	1209	4	0.50%	7.9%	88	1293	8	1.00%	58.7%
29	1211	3	0.37%	8.2%	89	1295	13	1.62%	60.3%
30	1213	1	0.12%	8.4%	90	1297	8	1.00%	61.3%
31	1215	1	0.12%	8.5%	91	1298	1	0.12%	61.4%
32	1217	9	1.12%	9.6%	92	1300	15	1.87%	63.3%
33	1218	1	0.12%	9.7%	93	1302	5	0.62%	63.9%
34	1220	5	0.62%	10.4%	94	1304	14	1.75%	65.7%
35	1222	1	0.12%	10.5%	95	1305	4	0.50%	66.2%
36	1223	4	0.50%	11.0%	96	1307	18	2.25%	68.4%
37	1225	3	0.37%	11.4%	97	1309	2	0.25%	68.7%
38	1226	4	0.50%	11.9%	98	1311	10	1.25%	69.9%
39	1228	3	0.37%	12.2%	99	1314	6	0.75%	70.7%
40	1229	2	0.25%	12.5%	100	1316	21	2.62%	73.3%
41	1231	3	0.37%	12.9%	101	1318	3	0.37%	73.7%
42	1232	6	0.75%	13.6%	102	1321	25	3.12%	76.8%
43	1234	2	0.25%	13.9%	103	1323	8	1.00%	77.8%
44	1235	7	0.87%	14.7%	104	1326	16	2.00%	79.8%
45	1236	3	0.37%	15.1%	105	1329	5	0.62%	80.4%
46	1238	4	0.50%	15.6%	106	1332	18	2.25%	82.6%
47	1239	6	0.75%	16.4%	107	1335	6	0.75%	83.4%
48	1241	8	1.00%	17.4%	108	1338	26	3.25%	86.6%
49	1242	10	1.25%	18.6%	109	1342	4	0.50%	87.1%
50	1243	3	0.37%	19.0%	110	1346	16	2.00%	89.1%
51	1244	6	0.75%	19.7%	111	1351	5	0.62%	89.8%
52	1246	7	0.87%	20.6%	112	1356	23	2.87%	92.6%
53	1247	5	0.62%	21.2%	113	1361	1	0.12%	92.8%
54	1248	4	0.50%	21.7%	114	1368	17	2.12%	94.9%
55	1250	4	0.50%	22.2%	115	1376	1	0.12%	95.0%
56	1251	8	1.00%	23.2%	116	1385	23	2.87%	97.9%
57	1252	4	0.50%	23.7%	117	1398	0	0.00%	97.9%
58	1253	8	1.00%	24.7%	118	1416	8	1.00%	98.9%
59	1255	4	0.50%	25.2%	119	1447	0	0.00%	98.9%
					120	1500	9	1.12%	100.0%

Table 8.1.1.18
2011 AIMS A Frequency Distribution Reading High School

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	2	0.18%	0.2%	60	1256	9	0.81%	26.0%
1	1048	0	0.00%	0.2%	61	1257	9	0.81%	26.9%
2	1089	2	0.18%	0.4%	62	1258	8	0.72%	27.6%
3	1110	1	0.09%	0.5%	63	1260	4	0.36%	27.9%
4	1125	3	0.27%	0.7%	64	1261	7	0.63%	28.6%
5	1135	0	0.00%	0.7%	65	1262	6	0.54%	29.1%
6	1144	1	0.09%	0.8%	66	1263	7	0.63%	29.7%
7	1151	0	0.00%	0.8%	67	1264	8	0.72%	30.5%
8	1157	10	0.90%	1.7%	68	1266	8	0.72%	31.2%
9	1162	0	0.00%	1.7%	69	1267	7	0.63%	31.8%
10	1167	1	0.09%	1.8%	70	1268	8	0.72%	32.5%
11	1171	1	0.09%	1.9%	71	1269	7	0.63%	33.2%
12	1175	10	0.90%	2.8%	72	1271	13	1.18%	34.4%
13	1178	0	0.00%	2.8%	73	1272	8	0.72%	35.1%
14	1182	2	0.18%	3.0%	74	1273	14	1.27%	36.3%
15	1185	0	0.00%	3.0%	75	1274	6	0.54%	36.9%
16	1187	14	1.27%	4.2%	76	1276	11	0.99%	37.9%
17	1190	1	0.09%	4.3%	77	1277	6	0.54%	38.4%
18	1193	2	0.18%	4.5%	78	1278	10	0.90%	39.3%
19	1195	0	0.00%	4.5%	79	1280	7	0.63%	40.0%
20	1197	2	0.18%	4.7%	80	1281	9	0.81%	40.8%
21	1200	0	0.00%	4.7%	81	1282	9	0.81%	41.6%
22	1202	4	0.36%	5.1%	82	1284	12	1.08%	42.7%
23	1204	0	0.00%	5.1%	83	1285	14	1.27%	43.9%
24	1206	16	1.45%	6.5%	84	1287	10	0.90%	44.8%
25	1208	1	0.09%	6.6%	85	1288	6	0.54%	45.4%
26	1209	6	0.54%	7.1%	86	1290	8	0.72%	46.1%
27	1211	2	0.18%	7.3%	87	1291	8	0.72%	46.8%
28	1213	11	0.99%	8.3%	88	1293	11	0.99%	47.8%
29	1215	1	0.09%	8.4%	89	1294	11	0.99%	48.8%
30	1216	6	0.54%	9.0%	90	1296	15	1.36%	50.2%
31	1218	3	0.27%	9.2%	91	1298	11	0.99%	51.2%
32	1219	8	0.72%	9.9%	92	1299	14	1.27%	52.4%
33	1221	1	0.09%	10.0%	93	1301	9	0.81%	53.3%
34	1223	8	0.72%	10.8%	94	1303	14	1.27%	54.5%
35	1224	2	0.18%	10.9%	95	1305	13	1.18%	55.7%
36	1225	5	0.45%	11.4%	96	1307	25	2.26%	58.0%
37	1227	6	0.54%	11.9%	97	1309	13	1.18%	59.1%
38	1228	4	0.36%	12.3%	98	1311	19	1.72%	60.8%
39	1230	2	0.18%	12.5%	99	1313	12	1.08%	61.9%
40	1231	5	0.45%	12.9%	100	1315	18	1.63%	63.6%
41	1232	1	0.09%	13.0%	101	1318	13	1.18%	64.7%
42	1234	9	0.81%	13.8%	102	1320	26	2.35%	67.1%
43	1235	4	0.36%	14.2%	103	1323	17	1.54%	68.6%
44	1236	4	0.36%	14.6%	104	1326	35	3.16%	71.8%
45	1238	6	0.54%	15.1%	105	1329	10	0.90%	72.7%
46	1239	4	0.36%	15.5%	106	1332	23	2.08%	74.8%
47	1240	6	0.54%	16.0%	107	1335	8	0.72%	75.5%
48	1241	6	0.54%	16.5%	108	1338	28	2.53%	78.0%
49	1243	9	0.81%	17.4%	109	1342	14	1.27%	79.3%
50	1244	3	0.27%	17.6%	110	1346	28	2.53%	81.8%
51	1245	6	0.54%	18.2%	111	1351	6	0.54%	82.4%
52	1246	11	0.99%	19.2%	112	1356	37	3.35%	85.7%
53	1247	7	0.63%	19.8%	113	1362	7	0.63%	86.3%
54	1249	13	1.18%	21.0%	114	1369	44	3.98%	90.3%
55	1250	6	0.54%	21.5%	115	1376	3	0.27%	90.6%
56	1251	17	1.54%	23.1%	116	1386	40	3.62%	94.2%
57	1252	7	0.63%	23.7%	117	1398	8	0.72%	94.9%
58	1254	9	0.81%	24.5%	118	1416	26	2.35%	97.3%
59	1255	8	0.72%	25.2%	119	1446	0	0.00%	97.3%
					120	1500	30	2.71%	100.0%

Table 8.1.1.19
2011 AIMS A Frequency Distribution Science Grade 4

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	7	0.80%	0.8%	60	1254	7	0.80%	27.7%
1	1030	3	0.34%	1.1%	61	1255	6	0.68%	28.4%
2	1075	1	0.11%	1.3%	62	1256	15	1.71%	30.1%
3	1099	0	0.00%	1.3%	63	1257	9	1.03%	31.1%
4	1116	6	0.68%	1.9%	64	1259	8	0.91%	32.0%
5	1127	5	0.57%	2.5%	65	1260	3	0.34%	32.3%
6	1137	0	0.00%	2.5%	66	1261	7	0.80%	33.1%
7	1145	3	0.34%	2.8%	67	1262	10	1.14%	34.3%
8	1151	1	0.11%	3.0%	68	1263	1	0.11%	34.4%
9	1157	0	0.00%	3.0%	69	1265	3	0.34%	34.7%
10	1162	1	0.11%	3.1%	70	1266	6	0.68%	35.4%
11	1166	0	0.00%	3.1%	71	1267	7	0.80%	36.2%
12	1170	5	0.57%	3.6%	72	1268	10	1.14%	37.4%
13	1174	1	0.11%	3.8%	73	1270	15	1.71%	39.1%
14	1178	4	0.46%	4.2%	74	1271	7	0.80%	39.9%
15	1181	0	0.00%	4.2%	75	1272	5	0.57%	40.4%
16	1184	3	0.34%	4.6%	76	1273	11	1.25%	41.7%
17	1187	4	0.46%	5.0%	77	1275	8	0.91%	42.6%
18	1189	2	0.23%	5.2%	78	1276	13	1.48%	44.1%
19	1192	1	0.11%	5.4%	79	1277	5	0.57%	44.6%
20	1194	4	0.46%	5.8%	80	1279	6	0.68%	45.3%
21	1197	1	0.11%	5.9%	81	1280	5	0.57%	45.9%
22	1199	0	0.00%	5.9%	82	1281	9	1.03%	46.9%
23	1201	0	0.00%	5.9%	83	1283	10	1.14%	48.1%
24	1203	7	0.80%	6.7%	84	1284	17	1.94%	50.0%
25	1205	3	0.34%	7.1%	85	1286	7	0.80%	50.8%
26	1207	3	0.34%	7.4%	86	1287	8	0.91%	51.7%
27	1209	1	0.11%	7.5%	87	1289	9	1.03%	52.7%
28	1210	4	0.46%	8.0%	88	1290	13	1.48%	54.2%
29	1212	3	0.34%	8.3%	89	1292	7	0.80%	55.0%
30	1214	5	0.57%	8.9%	90	1294	12	1.37%	56.4%
31	1215	1	0.11%	9.0%	91	1295	8	0.91%	57.3%
32	1217	8	0.91%	9.9%	92	1297	28	3.19%	60.5%
33	1219	1	0.11%	10.0%	93	1299	7	0.80%	61.3%
34	1220	5	0.57%	10.6%	94	1301	16	1.82%	63.1%
35	1222	2	0.23%	10.8%	95	1302	11	1.25%	64.4%
36	1223	6	0.68%	11.5%	96	1304	18	2.05%	66.4%
37	1225	3	0.34%	11.8%	97	1306	8	0.91%	67.3%
38	1226	2	0.23%	12.1%	98	1308	27	3.08%	70.4%
39	1227	3	0.34%	12.4%	99	1311	4	0.46%	70.8%
40	1229	7	0.80%	13.2%	100	1313	22	2.51%	73.3%
41	1230	6	0.68%	13.9%	101	1315	8	0.91%	74.3%
42	1231	4	0.46%	14.4%	102	1318	21	2.39%	76.7%
43	1233	4	0.46%	14.8%	103	1320	12	1.37%	78.0%
44	1234	7	0.80%	15.6%	104	1323	19	2.16%	80.2%
45	1235	3	0.34%	15.9%	105	1326	14	1.59%	81.8%
46	1237	6	0.68%	16.6%	106	1329	23	2.62%	84.4%
47	1238	5	0.57%	17.2%	107	1332	6	0.68%	85.1%
48	1239	4	0.46%	17.7%	108	1336	25	2.85%	87.9%
49	1240	6	0.68%	18.3%	109	1339	2	0.23%	88.2%
50	1242	13	1.48%	19.8%	110	1344	23	2.62%	90.8%
51	1243	2	0.23%	20.0%	111	1348	4	0.46%	91.2%
52	1244	9	1.03%	21.1%	112	1353	18	2.05%	93.3%
53	1245	6	0.68%	21.8%	113	1359	7	0.80%	94.1%
54	1247	3	0.34%	22.1%	114	1366	16	1.82%	95.9%
55	1248	7	0.80%	22.9%	115	1374	0	0.00%	95.9%
56	1249	9	1.03%	23.9%	116	1384	17	1.94%	97.8%
57	1250	9	1.03%	24.9%	117	1397	0	0.00%	97.8%
58	1251	11	1.25%	26.2%	118	1415	9	1.03%	98.9%
59	1253	6	0.68%	26.9%	119	1448	0	0.00%	98.9%
					120	1500	10	1.14%	100.0%

Table 8.1.1.20
2011 AIMS A Frequency Distribution Science Grade 8

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	3	0.37%	0.4%	60	1254	8	1.00%	28.0%
1	1041	1	0.12%	0.5%	61	1255	10	1.25%	29.2%
2	1079	2	0.25%	0.7%	62	1256	9	1.12%	30.3%
3	1101	1	0.12%	0.9%	63	1257	10	1.25%	31.6%
4	1116	3	0.37%	1.2%	64	1258	6	0.75%	32.3%
5	1127	1	0.12%	1.4%	65	1259	5	0.62%	33.0%
6	1136	1	0.12%	1.5%	66	1260	9	1.12%	34.1%
7	1144	1	0.12%	1.6%	67	1261	7	0.87%	35.0%
8	1151	5	0.62%	2.2%	68	1262	6	0.75%	35.7%
9	1157	2	0.25%	2.5%	69	1263	4	0.50%	36.2%
10	1162	1	0.12%	2.6%	70	1264	11	1.37%	37.6%
11	1167	0	0.00%	2.6%	71	1265	10	1.25%	38.8%
12	1171	5	0.62%	3.2%	72	1266	8	1.00%	39.8%
13	1175	2	0.25%	3.5%	73	1267	6	0.75%	40.6%
14	1179	2	0.25%	3.7%	74	1268	10	1.25%	41.8%
15	1183	1	0.12%	3.9%	75	1269	5	0.62%	42.4%
16	1186	3	0.37%	4.2%	76	1270	4	0.50%	42.9%
17	1189	0	0.00%	4.2%	77	1272	5	0.62%	43.6%
18	1192	1	0.12%	4.4%	78	1273	11	1.37%	44.9%
19	1194	0	0.00%	4.4%	79	1274	5	0.62%	45.6%
20	1197	7	0.87%	5.2%	80	1275	15	1.87%	47.4%
21	1199	3	0.37%	5.6%	81	1276	4	0.50%	47.9%
22	1201	4	0.50%	6.1%	82	1277	12	1.50%	49.4%
23	1204	0	0.00%	6.1%	83	1278	14	1.75%	51.2%
24	1206	2	0.25%	6.4%	84	1279	10	1.25%	52.4%
25	1208	1	0.12%	6.5%	85	1281	5	0.62%	53.1%
26	1210	4	0.50%	7.0%	86	1282	9	1.12%	54.2%
27	1212	5	0.62%	7.6%	87	1283	3	0.37%	54.6%
28	1213	3	0.37%	8.0%	88	1284	14	1.75%	56.3%
29	1215	2	0.25%	8.2%	89	1285	4	0.50%	56.8%
30	1217	1	0.12%	8.4%	90	1287	15	1.87%	58.7%
31	1218	1	0.12%	8.5%	91	1288	4	0.50%	59.2%
32	1220	5	0.62%	9.1%	92	1289	12	1.50%	60.7%
33	1221	2	0.25%	9.4%	93	1291	6	0.75%	61.4%
34	1223	5	0.62%	10.0%	94	1292	17	2.12%	63.5%
35	1224	5	0.62%	10.6%	95	1294	6	0.75%	64.3%
36	1226	2	0.25%	10.9%	96	1295	16	2.00%	66.3%
37	1227	2	0.25%	11.1%	97	1297	3	0.37%	66.7%
38	1229	2	0.25%	11.4%	98	1298	22	2.75%	69.4%
39	1230	1	0.12%	11.5%	99	1300	0	0.00%	69.4%
40	1231	2	0.25%	11.7%	100	1302	12	1.50%	70.9%
41	1233	3	0.37%	12.1%	101	1304	8	1.00%	71.9%
42	1234	2	0.25%	12.4%	102	1305	17	2.12%	74.0%
43	1235	2	0.25%	12.6%	103	1307	3	0.37%	74.4%
44	1236	4	0.50%	13.1%	104	1310	14	1.75%	76.2%
45	1237	4	0.50%	13.6%	105	1312	4	0.50%	76.7%
46	1239	4	0.50%	14.1%	106	1314	20	2.50%	79.2%
47	1240	4	0.50%	14.6%	107	1317	2	0.25%	79.4%
48	1241	8	1.00%	15.6%	108	1319	26	3.25%	82.6%
49	1242	6	0.75%	16.4%	109	1322	4	0.50%	83.1%
50	1243	8	1.00%	17.4%	110	1326	18	2.25%	85.4%
51	1244	6	0.75%	18.1%	111	1329	0	0.00%	85.4%
52	1245	7	0.87%	19.0%	112	1333	22	2.75%	88.1%
53	1246	7	0.87%	19.9%	113	1338	1	0.12%	88.3%
54	1248	15	1.87%	21.7%	114	1343	27	3.37%	91.6%
55	1249	7	0.87%	22.6%	115	1350	1	0.12%	91.8%
56	1250	9	1.12%	23.7%	116	1358	25	3.12%	94.9%
57	1251	8	1.00%	24.7%	117	1368	2	0.25%	95.1%
58	1252	14	1.75%	26.5%	118	1383	21	2.62%	97.8%
59	1253	4	0.50%	27.0%	119	1409	0	0.00%	97.8%
					120	1500	18	2.25%	100.0%

Table 8.1.1.21
2011 AIMS A Frequency Distribution Science Grade 10

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	2	0.23%	0.2%	60	1254	6	0.69%	29.1%
1	1085	0	0.00%	0.2%	61	1255	9	1.03%	30.2%
2	1116	3	0.34%	0.6%	62	1256	7	0.80%	31.0%
3	1134	0	0.00%	0.6%	63	1257	4	0.46%	31.4%
4	1146	8	0.92%	1.5%	64	1258	13	1.49%	32.9%
5	1154	0	0.00%	1.5%	65	1259	9	1.03%	33.9%
6	1162	0	0.00%	1.5%	66	1260	5	0.57%	34.5%
7	1167	0	0.00%	1.5%	67	1261	6	0.69%	35.2%
8	1172	4	0.46%	1.9%	68	1262	12	1.38%	36.6%
9	1177	0	0.00%	1.9%	69	1262	5	0.57%	37.2%
10	1181	5	0.57%	2.5%	70	1263	7	0.80%	38.0%
11	1184	0	0.00%	2.5%	71	1264	6	0.69%	38.6%
12	1188	7	0.80%	3.3%	72	1265	10	1.15%	39.8%
13	1191	0	0.00%	3.3%	73	1266	12	1.38%	41.2%
14	1193	3	0.34%	3.7%	74	1267	9	1.03%	42.2%
15	1196	0	0.00%	3.7%	75	1268	7	0.80%	43.0%
16	1198	6	0.69%	4.4%	76	1269	11	1.26%	44.3%
17	1200	0	0.00%	4.4%	77	1270	8	0.92%	45.2%
18	1203	3	0.34%	4.7%	78	1271	9	1.03%	46.2%
19	1205	2	0.23%	4.9%	79	1272	8	0.92%	47.1%
20	1206	4	0.46%	5.4%	80	1273	9	1.03%	48.2%
21	1208	3	0.34%	5.7%	81	1274	8	0.92%	49.1%
22	1210	2	0.23%	6.0%	82	1275	8	0.92%	50.0%
23	1212	0	0.00%	6.0%	83	1276	7	0.80%	50.8%
24	1213	14	1.61%	7.6%	84	1277	9	1.03%	51.8%
25	1215	3	0.34%	7.9%	85	1279	8	0.92%	52.8%
26	1216	3	0.34%	8.3%	86	1280	16	1.83%	54.6%
27	1218	4	0.46%	8.7%	87	1281	5	0.57%	55.2%
28	1219	5	0.57%	9.3%	88	1282	14	1.61%	56.8%
29	1221	5	0.57%	9.9%	89	1283	12	1.38%	58.1%
30	1222	2	0.23%	10.1%	90	1284	23	2.64%	60.8%
31	1223	1	0.11%	10.2%	91	1286	8	0.92%	61.7%
32	1225	12	1.38%	11.6%	92	1287	17	1.95%	63.6%
33	1226	3	0.34%	11.9%	93	1288	10	1.15%	64.8%
34	1227	6	0.69%	12.6%	94	1289	21	2.41%	67.2%
35	1228	2	0.23%	12.8%	95	1291	12	1.38%	68.6%
36	1230	2	0.23%	13.1%	96	1292	16	1.83%	70.4%
37	1231	2	0.23%	13.3%	97	1294	6	0.69%	71.1%
38	1232	6	0.69%	14.0%	98	1295	15	1.72%	72.8%
39	1233	3	0.34%	14.3%	99	1297	12	1.38%	74.2%
40	1234	2	0.23%	14.6%	100	1298	19	2.18%	76.4%
41	1235	7	0.80%	15.4%	101	1300	11	1.26%	77.6%
42	1236	8	0.92%	16.3%	102	1302	18	2.06%	79.7%
43	1237	3	0.34%	16.6%	103	1303	9	1.03%	80.7%
44	1238	8	0.92%	17.5%	104	1305	21	2.41%	83.1%
45	1239	4	0.46%	18.0%	105	1307	7	0.80%	83.9%
46	1240	9	1.03%	19.0%	106	1310	16	1.83%	85.8%
47	1241	1	0.11%	19.2%	107	1312	10	1.15%	86.9%
48	1242	10	1.15%	20.3%	108	1314	12	1.38%	88.3%
49	1243	7	0.80%	21.1%	109	1317	7	0.80%	89.1%
50	1244	4	0.46%	21.6%	110	1320	19	2.18%	91.3%
51	1245	4	0.46%	22.0%	111	1323	2	0.23%	91.5%
52	1246	6	0.69%	22.7%	112	1327	24	2.75%	94.3%
53	1247	6	0.69%	23.4%	113	1331	2	0.23%	94.5%
54	1248	4	0.46%	23.9%	114	1336	13	1.49%	96.0%
55	1249	4	0.46%	24.3%	115	1341	3	0.34%	96.3%
56	1250	7	0.80%	25.1%	116	1348	18	2.06%	98.4%
57	1251	10	1.15%	26.3%	117	1357	0	0.00%	98.4%
58	1252	12	1.38%	27.6%	118	1370	5	0.57%	99.0%
59	1253	7	0.80%	28.4%	119	1393	0	0.00%	99.0%
					120	1500	9	1.03%	100.0%

Part 9: Validity Evidence

Part 9 of the Technical Report provides evidence supporting the reliability and validity of the 2011 AIMS A 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 2011 AIMS A assessments was estimated by internal consistency for all tests. It should be noted that due to the large number of non-responders in the sample and the low number of test items in the rater and performance tasks subtests the accuracy of the reliability coefficient may be problematic.

9.1.1 Measures of Internal Consistency

For tests consisting of constructed response and/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 .

Reliability estimates for the tests administered as part of the 2011 AIMS A assessments are presented in Table 9.1.1. Note that a high degree of internal consistency is evident for all tests.

Table 9.1.1
2011 AIMS A Internal Consistency

Grade	Mathematics				Reading				Science			
	N	Alpha			N	Alpha			N	Alpha		
		MC	PT	RI		MC	PT	RI		MC	PT	RI
03	894	.82	.91	.86	894	.83	.92	.86				
04	920	.85	.93	.78	920	.83	.93	.86	919	.88	.90	.86
05	903	.78	.89	.84	903	.85	.93	.86				
06	940	.78	.93	.84	940	.86	.93	.88				
07	892	.79	.91	.86	892	.85	.93	.87				
08	836	.78	.92	.84	836	.86	.93	.88	836	.89	.93	.91
HS	1156	.79	.92	.89	1156	.89	.96	.89	907	.85	.94	.89

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 2011 AIMS A tests were designed and developed to provide fair and accurate ability scores that support appropriate, meaningful, and useful educational decisions. Evidence of this is also provided in Part 2 (Involvement of Arizona Educators), Part 3 (Test Design), Part 4 (Test Development), Part 5 (Test Administration), Part 6 (Data for Operational Analysis), Part 7 (Calibration, Scaling, and Scoring), Part 9 (Validity Evidence), 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 A, 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 Parts 2 through 10. Following is a brief review.

Part 2 of the Technical Report describes the involvement of Arizona educators, and ADE 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 A. The knowledge, expertise, and professional judgment offered by Arizona educators ultimately ensured that the content of AIMS A 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 address the issue of test form development. Parts 3 and 4 provide a general discussion of test form creation and editing process, the process of selecting operational test items, the content distribution and blueprints. The test design process and the participation of Arizona educators in the process of test creation, including item content and bias review, provide a solid rationale for having confidence in the content and design of AIMS A as a tool from which to derive valid inferences about Arizona special student performance.

Part 5 of the Technical Report describes the process, procedures, and policies that guided the administration of the AIMS A, including accommodations, security, and the written procedures provided to test administrators and school personnel.

Part 6 of the Technical Report describes classical data analysis of the spring 2011 AIMS A.

Part 7 of the Technical Report describes 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 9 of the Technical Report describes Cronbach's alpha as a measure for internal consistency for Reading, Mathematics, and Science.

Part 10 of the Technical Report describes the cut score classifications as determined by the standard setting.

Additional evidence to support the validity of the 2011 AIMS A assessments is provided by the following:

- Correlations between scores on the 2011 AIMS A tests for each grade level as construct validity were presented.
- Further evidence in support of the AIMS assessment has been documented in previous AIMS A technical reports.

9.2.1 Correlations among AIMS A Assessments

Correlations were examined between scale scores on 2011 AIMS A 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. Spearman rank correlation was used to measure the degree of association between the domains because, unlike the Pearson correlation which assumes normal distribution of both variables, the Spearman correlation test does not claim any assumptions about the distributions. The lack of assumptions is especially important with this population due to a large number of non-responsive students.

All correlations are presented in Tables 9.2.1.1 through 9.2.1.7. The patterns of correlation presented in the tables are consistent with expectations given the constructs measured.

Table 9.2.1.1
2011 AIMS A Correlation between Assessments
Grade 3

Test	Math	Reading
Math	1	.885
Reading	.885	1

N=864

Table 9.2.1.2
2011 AIMS A Correlation among Assessments
Grade 4

Test	Math	Reading	Science
Math	1	.859	.837
Reading	.859	1	.871
Science	.837	.871	1

N=870

Table 9.2.1.3
2011 AIMS A Correlation between Assessments
Grade 5

Test	Math	Reading
Math	1	.844
Reading	.844	1

N=862

Table 9.2.1.4
2011 AIMS A Correlation between Assessments
Grade 6

Test	Math	Reading
Math	1	.873
Reading	.873	1

N=896

Table 9.2.1.5
2011 AIMS A Correlation between Assessments
Grade 7

Test	Math	Reading
Math	1	.844
Reading	.844	1

N=866

Table 9.2.1.6
2011 AIMS A Correlation among Assessments
Grade 8

Test	Math	Reading	Science
Math	1	.861	.831
Reading	.861	1	.889
Science	.831	.889	1

N=798

Table 9.2.1.7
2011 AIMS A Correlation among Assessments
High School

Test	Math	Reading	Science
Math	1	.864	.848
Reading	.864	1	.896
Science	.848	.896	1

N=867

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 2011 AIMS A 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.

10.1 Standard Setting Technical Documentation

Standard setting for the AIMS A Mathematics, Reading, and Science tests was conducted in early May 2009 using the Bookmark Standard Setting Procedure. All technical documentation regarding the standard setting is available in the 2009 AIMS A Technical Report.

Final scale score ranges for each of the four performance level categories for the AIMS A tests are presented in Table 10.1.1.

Table 10.1.1
2011 AIMS A
Final Scale Score Ranges by Performance Level

Test		FFBS	AS	MS	ES
Mathematics	3	1000-1221	1222-1249	1250-1294	1295-1500
	4	1000-1221	1222-1249	1250-1301	1302-1500
	5	1000-1222	1223-1249	1250-1302	1303-1500
	6	1000-1186	1187-1249	1250-1313	1314-1500
	7	1000-1181	1182-1249	1250-1315	1316-1500
	8	1000-1200	1201-1249	1250-1300	1301-1500
	HS	1000-1198	1199-1249	1250-1328	1329-1500
Reading	3	1000-1210	1211-1249	1250-1301	1302-1500
	4	1000-1186	1187-1249	1250-1331	1332-1500
	5	1000-1162	1163-1249	1250-1330	1331-1500
	6	1000-1164	1165-1249	1250-1336	1337-1500
	7	1000-1181	1182-1249	1250-1339	1340-1500
	8	1000-1195	1196-1249	1250-1330	1331-1500
	HS	1000-1186	1187-1249	1250-1344	1345-1500
Science	4	1000-1187	1188-1249	1250-1330	1331-1500
	8	1000-1196	1197-1249	1250-1314	1315-1500
	10	1000-1196	1197-1249	1250-1308	1309-1500

Note: FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard.

Table 10.1.2
2011 AIMS A
Standard Error of Measurement at Cut Scores

Test		AS		MS		ES	
		Cut Score	SEM	Cut Score	SEM	Cut Score	SEM
Mathematics	3	1222	11	1250	8	1295	10
	4	1222	11	1250	9	1302	11
	5	1223	11	1251	9	1303	11
	6	1188	18	1250	13	1314	16
	7	1184	20	1251	12	1316	15
	8	1202	16	1250	12	1301	13
	HS	1201	17	1250	13	1330	17
Reading	3	1212	13	1250	10	1303	13
	4	1189	18	1250	12	1334	18
	5	1165	22	1250	14	1332	21
	6	1166	22	1251	15	1337	22
	7	1183	19	1250	15	1342	22
	8	1197	15	1250	11	1332	18
	HS	1187	17	1250	11	1346	21
Science	4	1189	16	1250	11	1332	18
	8	1197	14	1250	9	1317	15
	10	1198	13	1250	8	1310	13

Note: AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard.

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APPENDIX A AIMS A Eligibility Criteria

The following images are of the online forms used to determine the eligibility criterion for students taking the Alternate Assessment (AIMS A).

Print Form

Arizona Department of Education
Alternate Assessment Eligibility Determination
08/10/2010

The Arizona Department of Education offers criterion reference tests in compliance with the US Department of Education federal regulations and guidance. Please see the Eligibility Decision Flow Chart for AIMS to guide you through which assessment would best suit your student with special needs. A student must have an Individualized Education Program (IEP) in order to be considered for participation in an alternate assessment.

AIMS A (Alternate)

- Assesses grades 3–8 and high school
- Includes mathematics, reading, and science (grades 4, 8, and 10)
- Assesses qualifying students in all areas
- Addresses Arizona Alternate Academic Content Standards
- Based on *Alternate Academic Achievement Standards*

AIMS

- Assesses grades 3–8 and high school
- Includes mathematics, reading, writing (grades 5, 6, 7, and HS), and science (grades 4, 8, and 10)
- Addresses *grade-level Arizona Academic Content Standards*
- Based on *grade-level Academic Achievement Standards*

STUDENT NAME: _____ STUDENT ID: _____
 SAIS ID: _____ DATE OF BIRTH: _____ GRADE LEVEL: _____
 SCHOOL: _____ CASE MANAGER: _____

AIMS A

The student has an IEP with goals based on *Alternate Academic Content Standards*.

The student is exposed to high quality instruction focusing on *Alternate Academic Content Standards*.

Part I: AIMS A Eligibility Requirements

In order to be considered for AIMS A, students must meet all three of the following criteria in all content areas that are tested: Mathematics, Reading, and Science (Science is only for grades 4, 8, and 10).

1. Evidence of a Significant Cognitive Disability

Empirical evidence (formal testing results, multidisciplinary evaluation team results, etc.) of a significant cognitive disability prevents the acquisition of the grade-level Arizona Academic Content Standards. Please note that students with learning disabilities who have overall intellectual and/or adaptive behavior abilities within the average range are not students with most significant cognitive disabilities. The student functions like a student with MR across all areas: commensurate abilities in mathematics, reading, and writing, adaptive behavior scores, and measures of intellectual abilities.

Check disability category:

- MIMR MOMR SMR
 MD with MR component MDSSI with MR component TBI with MR component
 Autism with MR component Other _____

Example 1: An eighth-grade student functioning at second-grade level in reading and writing and at fourth-grade level in mathematics does not qualify under criteria 1.

Example 2: A tenth-grade student functioning at the second-grade level in mathematics, reading, and writing, does qualify under criteria 1.

The student meets the *Evidence of a SCD* criterion for AIMS A eligibility.

- Yes No

2. Curricular Outcomes

The student has access to high-quality instruction based on *Alternate Academic Standards* (in all content areas tested) and the student's IEP goals and objectives focus on enrolled grade-level *Alternate Academic Standards*.

The student meets the *Curricular Outcomes* criterion for AIMS A eligibility.

- Yes No

3. Intensity of Instruction

is extremely difficult for the student to acquire, maintain, generalize, and apply academic skills across environments, even with high-quality extensive/intensive, pervasive, frequent, and individualized instruction in multiple settings in all content areas tested.

The student meets the *Intensity of Instruction* criterion for AIMS A eligibility.

- Yes No

The student is eligible for AIMS A.

- Yes (All responses above are marked Yes.)
 No (Any response above is marked No and student must participate in AIMS.)

Parent Notification

Parents must be notified that the student's AIMS assessment will be based on Alternate Academic Achievement Standards.

Measure of Academic Achievement

The child's academic achievement will be measured by the most appropriate assessment as determined by the IEP team and the noted documentation and data. The student will participate in testing with the following assessment(s).

AIMS A Mathematics, Reading, and Science
(Science is only for grades 4, 8, and 10.)

OR

AIMS Mathematics, Reading, Science, & Writing
(Science is only for grades 4, 8, and 10 and Writing is only for grades 5, 6, 7 and HS.)

Potential Consequences

Are there any effects of state or local policies that would preclude completion requirements for a regular high school diploma for the child participating in either test?

Yes

Explain: _____

No

Documentation Requirements for Informing Parents

If a parent or legal guardian participated in the IEP meeting during which the Alternate Assessment Eligibility Determination form was completed, then the parent attendance indicated on the IEP cover page will suffice.

Parent participated at IEP meeting.

If the parent or legal guardian did not participate in the IEP meeting, then contact the parent to discuss the points above.

Parent contacted through letter dated _____.

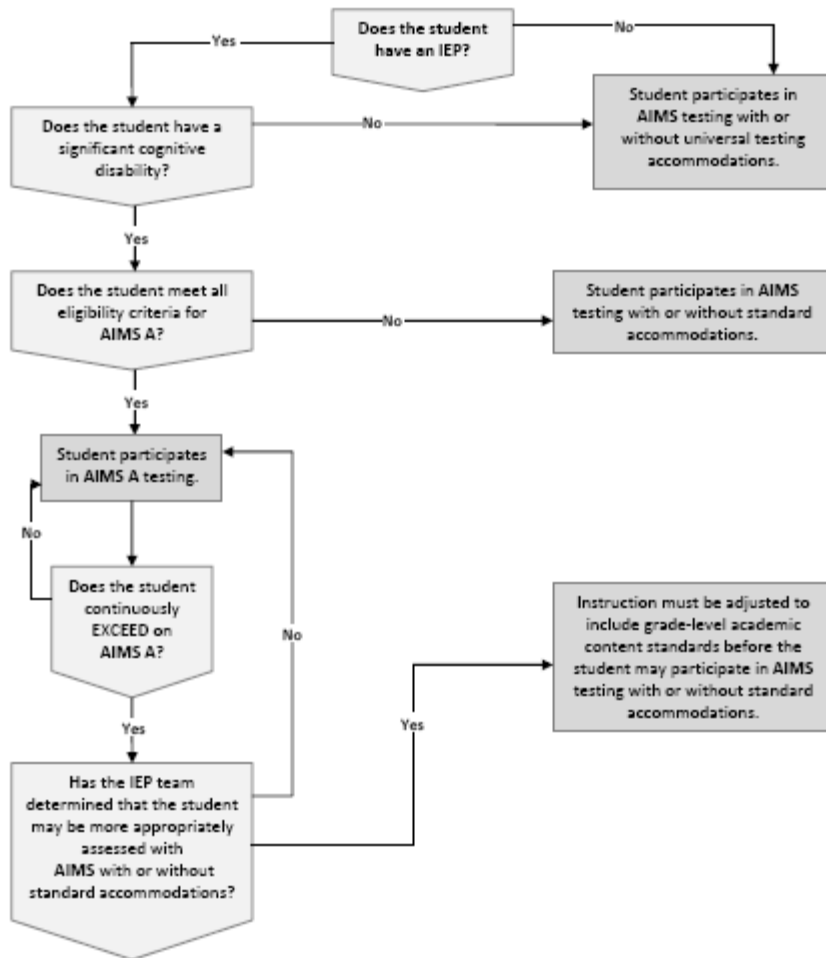
Parent contacted via phone by _____ on _____.

Date of Alternate Assessment eligibility determination: _____

IEP team members present at Alternate Assessment eligibility determination decision:

Eligibility Decision Flow Chart for AIMS

IEP teams must consider participation in general education assessments (AIMS 3-8 and HS), with or without standard accommodations, for students before considering participation in an alternate assessment- AIMS A (alternate achievement standards). Eligibility is determined based on the needs and abilities of each individual student. Please see the AA Eligibility Determination form for further information.



APPENDIX B

Item Writer Selection Criteria

APP AIMS A 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.

** 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 of 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 A committees.

In order to replace past participants who have moved, changed positions, or no longer possess the time to serve, the Arizona Department of Education Assessment Division searches in the Committee Database to find individuals that have a desire to participate to serve as a member of the item writing, or content and bias review committee. Participants can at any time submit a committee member application form to the Assessment Division. The ADE is constantly recruiting Arizona educators to serve on the various AIMS A committees as well as encouraging retention of its veteran contributors and recognizing them as excellent Ambassadors of the Assessment.

APPENDIX C

Item Writing Committee

Item Writing Guidelines

1. Use closed stems whenever possible.
2. There should only be one correct answer.
3. Keep wording clear and simple. No Trick Questions!
4. Only use three responses (distracters)
5. Distracters must be parallel in structure.

Do's and Don'ts of Item Writing	
Don't Do	Do – <i>All distracters are infinitive format</i>
Why did the wolf go to grandma's house? a. To find the goodies in Red's basket. b. To blow the house down. c. He needed food. <i>(This distracter does not use infinitive format and is not parallel)</i>	Why did the wolf go to grandma's house? a. To find the goodies in Red's basket. b. To blow the house down. c. To eat the woodsman.
	Do – <i>Each distracter is different.</i>
	Why did the wolf go to grandma's house? a. He liked older women. b. To blow down the pig's house. c. Red invited him.

6. One question should not cue another.

Why couldn't the Big Bad Wolf blow down the third pig's house? <i>(If students get this correct they will get the second correct because this question provides the answer for the second.)</i> a. It was made of straw. b. It was made of sticks. c. It was made of bricks.
Which house could <u>NOT</u> be blown down by the Big Bad Wolf? <i>(Using "not" should be avoided because kids tend to read over it, but sometimes it can't be avoided.)</i> a. The first pig's b. The second pig's c. The third pig's

AIMS A Item Writing and Review

July 11, 12, 13, & 14
Sheraton

Welcome and Introductions

- Introductions
- Overview of committee work
- Resources and materials
- Item Writing Do's and Don'ts
- Points and Ideas to consider

Adapting Academic Tasks

- Simplify Tasks
 - Add Information
 - Target Much Easier Concepts
 - Have Less to Do
- Make More Active
- Make Tangible
- Make Materials Larger/Add Color
- Make it Fun/Game-like when Possible

June Downing, Access Center Webinar, September 2005

Analyzing a Lesson to Identify Meaningful Learning Opportunities

- Can any meaningful vocabulary be targeted?
- What general knowledge would be important to teach?
- Can comparisons be made? (past/present, size, shape, amount, appearance)
- What math skills can be targeted?

June Downing, Access Center Webinar, September 2005

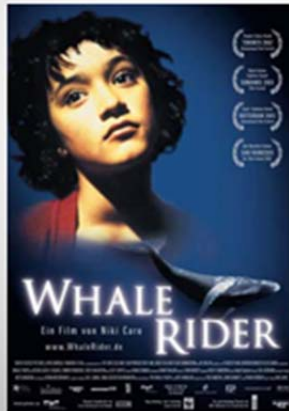
English Literature

- Build Vocabulary
- Identify Big Ideas
- Determine color of ink to write with
- Same/Different concepts
- Count particular items on pages
- Add page numbers
- Sign name

June Downing, Access Center Webinar, September 2005

A 7th Grade Example

- Whale Rider by Witi Ihimaera



BIG IDEAS

Family



Ocean



Whales



Vocabulary



- Family—girl, boy, grandmother, grandfather, brother, old
- Ocean—water, fish, wet, dry, salt, shells, blue, white
- Whales—big, small, swim, eat, ride, on, gray, fish

June Downing, Access Center Webinar, September 2005

Comparisons

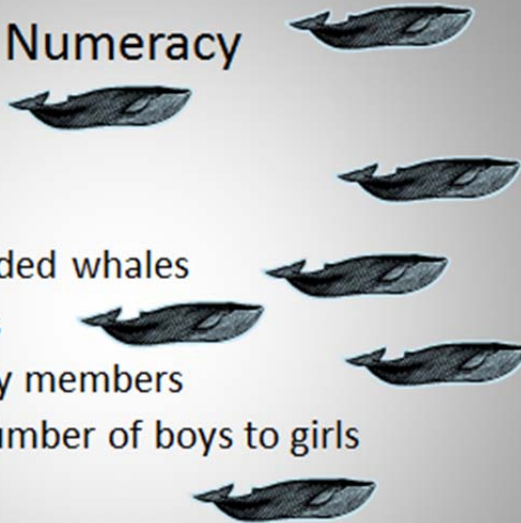
- Girl vs Whales
- Big vs Little
- Swim vs walk
- Wet vs dry
- Old vs young



June Downing, Access Center Webinar, September 2005

Numeracy

- Count stranded whales
- Count shells
- Count family members
- Compare number of boys to girls



June Downing, Access Center Webinar, September 2005

Check for Comprehension

- The girl rode on the



surfboard



whale

- The girl loved her



grandfather



boyfriend



car

Geometry

- Recognize Shapes (match)
- Count Like Shapes
- Recognize/Sort Big/Little
- Find Objects of Certain Shape
- Sort by Color

June Downing, Access Center Webinar, September 2005

Algebra



- Identify Numbers ($2x + 3y = 14$)
- Match Numbers
- Use a Calculator
- Create Problems with Objects (count)
- Identify Largest of Two Numbers

June Downing, Access Center Webinar, September 2005



Science

- Health—Decide good vs. bad things to eat, drink, do; sort by food groups
- Weather—Determine what to wear in different weather (concepts of hot/cold/rainy)
- Astronomy—Count stars/planets, match by size/color, vocabulary associated with constellations

June Downing, Access Center Webinar, September 2005



More Science

- Earth Science—Care for plants, read color words (green/brown), vocabulary, read instructions (pictorial/written)
- Biology—Identify body parts and functions, count body parts, sort pictures (concepts of same/different)
- Electricity—Use of switches to turn on appliances, read words “on/off”, identify items needing electricity

June Downing, Access Center Webinar, September 2005

APPENDIX D

2011 AIMS A Monitoring Review

The Individuals with Disabilities Education Act (IDEA) and Title I of the No Child Left Behind Act (NCLB) require the inclusion of all students with disabilities in the State assessment system. Title I further requires that the assessment results for all students be used for system accountability to ensure that the best education possible is provided to all students (Improving the Academic Achievement of the Disadvantaged, 2007).

The Arizona Department of Education (ADE) Assessment and Exceptional Student Services sections monitor the administration of Arizona's Instrument to Measure Standards Alternate (AIMS A) during the spring testing window. Assessment monitoring is conducted to ensure test validity and reliability and also for continuity in subsequent assessment years. The Individuals with Disabilities Education Act (IDEA) (300.149) requires, and state law (ARS 15-755) authorizes, monitoring and evaluation activities to determine the effectiveness of programs for meeting the educational needs of children with disabilities. These practices help to ensure that programs are carried out and educational results for children with disabilities improve.

Monitoring was conducted by external consultants as the performance tests were administered in person throughout the testing window from February 15, 2011 to March 31, 2011. The onsite testing monitors evaluated the environment in which the student was being assessed, as well as the administration of the performance tasks and rater items of the assessment.

The monitors evaluated information about the assessment administration, standardized activities, and data collection procedures. Teachers were selected for monitoring based on the students for whom they administered the AIMS A. Schools were randomly selected to be representative of the total population that took AIMS A in 2010. The sampling was done based on special education need, ethnicity, gender, and region. A total of 60 students were selected. A committee of ADE specialists in special education and familiar with the AIMS A assessments reviewed each recording and made the following suggestions for the 2011 administration.

- To clarify what constitutes prompting, modeling, and cueing.
- To review the Rater Items and determine whether or not to keep these types of items in the assessment or remove and use only multiple choice and performance task items.

From the committee's suggestions, the following will be instituted for the AIMS A 2011 administration.

- Each district is required to send a representative to AIMS A regional training and agree to train all staff in their district on the proper administration. Included in the training is a video providing examples of prompting, modeling, and cueing, based on recommendations from the National Alternate Assessment Center and guidelines on the proper testing environment.
- The Performance Task and Rater Item Directions will be clarified to include those definitions on prompting, modeling, and cueing provided by the National Alternate Assessment Center.
- The Rater Item Data Sheets will be amended to include more information on the assessed items.

APPENDIX E

Example Item Specification Card

Item Card
 Arizona's Instrument to Measure Standards - Alternate
 (AIMS-A)
 Reading

Item Number:	Grade Level: 4
Item Writer:	Depth of Knowledge Level (DOK): L2 S4
Strand: 2 (Comprehending Literary Text)	
Concept: 1 (Elements of Literature)	
PO: 2 (Identify a solution to a problem in a story)	

Three giraffes wanted to live together. The house was too small. What should they do?

Graphic Suggestion: There should be a graphic showing 3 giraffes and a house

- A go to the movies
- B build a bigger house
- C paint the house

Correct Answer:

B

Vocabulary levels:

K-3