Arizona

Arizona's Instrument to Measure Standards Alternate

AIMS A

2014

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 2014 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 2014 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, 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 (IDEA 1412 (a) (16)).

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 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 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.

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, Section 1412 (a) (16), 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 and performance tasks 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 responds 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 on performance tasks;
- 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 online web-accessed test coordinator regional training modules 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 High School. AIMS A consists of two item types for each of the content areas: Multiple-Choice items (presented to the student online) and Performance Tasks. The Multiple-Choice items include a stem and three possible answer choices. For Multiple-Choice items a score of 0 is assigned for an incorrect response and a score of 4 is assigned for a correct response. The values for these score assignments were established to allow for equal weighting of the Multiple-Choice items to the Performance Task items which are scored via a 0-4 point rubric. The Performance Tasks are standardized, constructed response items which are scored on standardized data sheets based on that 0-4 rubric. The AIMS A assessment system's design, administration, content, and scoring were developed based on the input of, and in participation with, Arizona educators. 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 2014 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 external committees, internal teams, consisting of various Arizona Department of Education specialists and administrators, were called upon to conduct reviews to support quality assurance. The test development committee and internal team meetings included:

- Multiple-Choice Item Review, conducted in June, 2013, in which the internal team reviewed each item administered in 2013. The members made notes on the items including clarity of content, overall appearance, size of font and graphics, punctuation, and grammar.
- Blueprint Review and Gap Analysis, conducted June 2013, 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 team reviewed the 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 2014 administration;
- Item Writing, conducted in July 2013, in which educators wrote Multiple-Choice items, and Performance Tasks aligned to the alternate content standards for possible use in the spring of 2014 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 2014 AIMS A.
- Content and Bias Review, conducted in July 2013, in which educators reviewed Multiple-Choice items, and Performance Tasks, from all content areas for content, bias, and sensitivity. Items that passed these reviews were eligible for inclusion on the 2014 AIMS A assessment;
- External Consultant Final Document Review, conducted in November 2013, 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. The external consultants attended a face to face meeting with the Alternate Assessment unit to review all Multiple-Choice and performance items in a display similar to what the students would see when presented the items. As a team notes were made to reflect changes that needed to be implanted (i.e., spelling errors or items not fitting on the page correctly);
- ADE Internal Team, December 2013, 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 by the Arizona State Board of Education in May 2006 for Mathematics and Reading in Grades 3–8 and HS and Grades 4, 8, and High School for Science. These standards are organized by strand, concept, and performance objective. Performance Objectives are specific tasks and skills that students are expected to know and be able to do. 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 Grades 3 – 8, & High School

Reading Grade 3	Reading Grade 4 – 8 and HS
Strand 1: Reading Process	**Strand 1: Reading Process**
Concept 1: Print Concepts	**Concept 4: Vocabulary**
Concept 3: Phonics	**Concept 5: Fluency**
Concept 4: Vocabulary	**Concept 6: Comprehension Strategies**
Concept 5: Fluency	**Strand 2: Comprehending Literary Text**
Concept 6: Comprehension Strategies	**Concept 1: Elements of Literature**
Strand 2: Comprehending Literary Text	**Strand 3: Comprehending Informational Text**
Concept 1: Elements of Literature	**Concept 1: Expository Text**
Strand 3: Comprehending Informational Text	**Concept 2: Functional Text**
Concept 1: Expository Text	
Concept 2: Functional Text	

Figure 3.1.2
Arizona Alternate Mathematics Strands and Concepts Grades 3 – 8, & High School

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

Mathematics Grade 8	Mathematics High School
Strand 1: Number Sense and Operations	**Strand 1: Number Sense and Operations**
Concept 1: Number Sense	**Concept 1: Number Sense**
Concept 2: Numerical Operations	**Concept 2: Numerical Operations**
Concept 3: Estimation	**Concept 3: Estimation**
Strand 2: Data Analysis, Probability, and Discrete Mathematics	**Strand 2: Data Analysis, Probability, and Discrete Mathematics**
Concept 1: Data Analysis (Statistics)	**Concept 1: Data Analysis (Statistics)**
Concept 2: Probability	**Concept 2: Probability**
Concept 4: Vertex-Edge Graphs	**Strand 3: Patterns, Algebra, and Functions**
Strand 3: Patterns, Algebra, and Functions	**Concept 1: Patterns**
Concept 1: Patterns	**Concept 2: Functions and Relationships**
Concept 3: Algebraic Representations	**Concept 3: Algebraic Representations**
Strand 4: Geometry and Measurement	**Strand 4: Geometry and Measurement**
Concept 1: Geometric Properties	**Concept 1: Geometric Properties**
Concept 3: Coordinate Geometry	**Concept 2: Transformation of Shapes**
Concept 4: Measurement	**Concept 3: Coordinate Geometry**
Strand 5: Structure and Logic	**Concept 4: Measurement**
Concept 2: Logic and Reasoning	**Strand 5: Structure and Logic**
	Concept 1: Algorithms and Algorithmic Thinking
	Concept 2: Logic and Reasoning

Figure 3.1.3
Arizona Alternate Science Strands and Concepts – Grades 4, 8, & High School

Science Grade 4	Science Grade 8
Strand 1: Inquiry Process	**Strand 1: Inquiry Process**
Concept 1: Observations, Questions, and Hypotheses	**Concept 1: Observations, Questions, and Hypotheses**
Concept 2: Scientific Testing (Investigating and Modeling)	**Concept 2: Scientific Testing (Investigating and Modeling)**
Concept 3: Analysis and Conclusions	**Concept 3: Analysis and Conclusions**
Concept 4: Communication	**Concept 4: Communication**
Strand 2: History and Nature of Science	**Strand 2: History and Nature of Science**
Concept 1: History of Science as a Human Endeavor	**Concept 1: History of Science as a Human Endeavor**
Strand 3: Science in Personal and Social Perspectives	**Strand 3: Science in Personal and Social Perspectives**
Concept 1: Changes in Environments	**Concept 1: Changes in Environments**
Concept 2: Science and Technology in Society	**Concept 2: Science and Technology in Society**
Strand 4: Life Science	**Strand 4: Life Science**
Concept 1: Characteristics of Organisms	**Concept 2: Reproduction and Heredity**
Concept 3: Organisms and Environments	**Concept 4: Diversity, Adaptation, and Behavior**
Concept 4: Diversity, Adaptation, and Behavior	**Strand 5: Physical Science**
Strand 5: Physical Science	**Concept 1: Properties and Changes of Properties in Matter**
Concept 3: Energy and Magnetism	**Concept 2: Motion and Forces**
Strand 6: Earth and Space Science	
Concept 2: Earth's Processes and Systems	
Concept 3: Changes in the Earth and Sky	

Science High School

Strand 1: Inquiry Process

    Concept 1: Observations, Questions, and Hypotheses

    Concept 2: Scientific Testing (Investigating and Modeling)

    Concept 3: Analysis, Conclusions, and Refinements

    Concept 4: Communication

Strand 2: History and Nature of Science

    Concept 1: History of Science as a Human Endeavor

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.

Table 3.2.1
AIMS A Blueprint for Reading

Reading	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%

Reading	GRADE 7		GRADE 8		High School	
	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

Math	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	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%
Strands 4 & 5	5	17%	7	20%	4	23%	8	27%
TOTAL	24	100%	25	100%	22	100%	29	100%

Math	GRADE 7		GRADE 8		High School	
	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%
Strands 4 & 5	7	17%	7	27%	10	33%
TOTAL	27	100%	23	100%	29	100%

Table 3.2.3
AIMS A Blueprint for Science

Strand	GRADE 4		GRADE 8		HIGH SCHOOL	
	POs	Percent of Test	POs	Percent of Test	POs	Percent of Test
Strand 1	10	30%	16	47%	12	27%
Strands 2 & 3	4	13%	5	27%	5	13%
Strands 4, 5, & 6	12	57%	6	27%	20	60%
TOTAL	24	100%	25	100%	22	100%

3.3 Description of AIMS A 2014 Tests

The test blueprints were used with the processes described in Part 4 to develop all AIMS A tests administered in 2014. 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 Reading tests consisted of 15 multiple-choice items and 15 performance tasks developed by Arizona teachers. All items were scored on a basis of 4 raw score points per item. The raw scores ranged from 0-120 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 Mathematics tests consisted of 15 multiple-choice items and 15 performance tasks developed by Arizona teachers. All items were scored on a basis of 4 raw score points per item. The raw scores ranged from 0-120 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 Science consisted of 15 multiple-choice items and 15 performance tasks developed by Arizona teachers. All items were scored on a basis of 4 raw score points per item. The raw scores ranged from 0-120 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
2014 AIMS A Test Structure Reading

Test items and item types address all strands. While all strands are assessed on the 2014 AIMS A assessments not all strands are assessed by both item types.

		Number of Items	Multiple-Choice	Performance Tasks
Grade 3				
Strand 1 - Reading Process		17	10	7
Strand 2 - Comprehending Literary Text		4	4	0
Strand 3 - Comprehending Informational Text		9	1	8
	Total	30	15	15
Grade 4				
Strand 1 - Reading Process		12	8	4
Strand 2 - Comprehending Literary Text		7	0	7
Strand 3 - Comprehending Informational Text		11	7	4
	Total	30	15	15
Grade 5				
Strand 1 - Reading Process		11	4	7
Strand 2 - Comprehending Literary Text		6	5	1
Strand 3 - Comprehending Informational Text		13	6	7
	Total	30	15	15
Grade 6				
Strand 1 - Reading Process		12	8	4
Strand 2 - Comprehending Literary Text		8	4	4
Strand 3 - Comprehending Informational Text		10	3	7
	Total	30	15	15
Grade 7				
Strand 1 - Reading Process		15	9	6
Strand 2 - Comprehending Literary Text		7	4	3
Strand 3 - Comprehending Informational Text		8	2	6
	Total	30	15	15
Grade 8				
Strand 1 - Reading Process		13	5	8
Strand 2 - Comprehending Literary Text		4	3	1
Strand 3 - Comprehending Informational Text		13	7	6
	Total	30	15	15
High School				
Strand 1 - Reading Process		15	8	7
Strand 2 - Comprehending Literary Text		8	7	1
Strand 3 - Comprehending Informational Text		7	0	7
	Total	30	15	15

Table 3.3.2
2014 AIMS A Test Structure Mathematics

	Number of Items	Multiple-Choice	Performance Tasks
Grade 3			
Strand 1- Number Sense and Operations	20	6	14
Strand 2- Data Analysis, Probability, and Discrete Mathematics	2	2	0
Strand 3- Patterns, Algebra, and Functions	3	2	1
Strands 4 & 5- Geometry, Measurement, Structure & Logic	5	5	0
Total	30	15	15
Grade 4			
Strand 1- Number Sense and Operations	16	4	12
Strand 2- Data Analysis, Probability, and Discrete Mathematics	4	4	0
Strand 3- Patterns, Algebra, and Functions	4	3	1
Strands 4 & 5- Geometry, Measurement, Structure & Logic	6	4	2
Total	30	15	15
Grade 5			
Strand 1- Number Sense and Operations	15	7	8
Strand 2- Data Analysis, Probability, and Discrete Mathematics	4	2	2
Strand 3- Patterns, Algebra, and Functions	4	4	0
Strands 4 & 5- Geometry, Measurement, Structure & Logic	7	2	5
Total	30	15	15
Grade 6			
Strand 1- Number Sense and Operations	10	3	7
Strand 2- Data Analysis, Probability, and Discrete Mathematics	9	2	7
Strand 3- Patterns, Algebra, and Functions	3	2	1
Strands 4 & 5- Geometry, Measurement, Structure & Logic	8	8	0
Total	30	15	15
Grade 7			
Strand 1- Number Sense and Operations	8	7	1
Strand 2- Data Analysis, Probability, and Discrete Mathematics	10	4	6
Strand 3- Patterns, Algebra, and Functions	7	2	5
Strands 4 & 5- Geometry, Measurement, Structure & Logic	5	2	3
Total	30	15	15
Grade 8			
Strand 1- Number Sense and Operations	4	1	3
Strand 2- Data Analysis, Probability, and Discrete Mathematics	8	4	4
Strand 3- Patterns, Algebra, and Functions	10	5	5
Strands 4 & 5- Geometry, Measurement, Structure & Logic	8	5	3
Total	30	15	15
High School			
Strand 1- Number Sense and Operations	5	2	3
Strand 2- Data Analysis, Probability, and Discrete Mathematics	6	3	3
Strand 3- Patterns, Algebra, and Functions	9	3	6
Strands 4 & 5- Geometry, Measurement, Structure & Logic	10	7	3
Total	30	15	15

Table 3.3.3
2014 AIMS A Test Structure Science

		Number of Items	Multiple-Choice	Performance Tasks
Grade 4				
Strand 1- Inquiry Process		9	4	5
Strands 2 & 3- History, Nature, Personal and Social		4	3	1
Strands 4, 5 & 6 - Science Content		17	8	9
	Total	30	15	15
Grade 8				
Strand 1- Inquiry Process		14	6	8
Strands 2 & 3-History, Nature, Personal and Social		8	5	3
Strands 4, 5 & 6 - Science Content		8	4	4
	Total	30	15	15
High School				
Strand 1- Inquiry Process		8	1	7
Strands 2 & 3- History, Nature, Personal and Social		4	2	2
Strands 4, 5 & 6- Science Content		18	12	6
	Total	30	15	15

Table 3.3.4   Raw Score and Scale Score Ranges of AIMS A 2014 Assessments

AIMS A 2014
Scale Scores and Performance Levels

Gr. Performance Level	Reading	Mathematics	Science
	Scale Score 2014	Scale Score 2014	Scale Score 2014
3rd Falls Far Below	1000-1210	1000-1221	
Approaches	1211-1249	1222-1249	
Meets	1250-1301	1250-1294	
Exceeds	1302-1500	1295-1500	
4th Falls Far Below	1000-1186	1000-1221	1000-1187
Approaches	1187-1249	1222-1249	1188-1249
Meets	1250-1331	1250-1301	1250-1330
Exceeds	1332-1500	1302-1500	1331-1500
5th Falls Far Below	1000-1162	1000-1222	
Approaches	1163-1249	1223-1249	
Meets	1250-1330	1250-1302	
Exceeds	1331-1500	1303-1500	
6th Falls Far Below	1000-1164	1000-1186	
Approaches	1165-1249	1187-1249	
Meets	1250-1336	1250-1313	
Exceeds	1337-1500	1314-1500	
7th Falls Far Below	1000-1181	1000-1181	
Approaches	1182-1249	1182-1249	
Meets	1250-1339	1250-1315	
Exceeds	1340-1500	1316-1500	
8th Falls Far Below	1000-1195	1000-1200	1000-1196
Approaches	1196-1249	1201-1249	1197-1249
Meets	1250-1330	1250-1300	1250-1314
Exceeds	1331-1500	1301-1500	1315-1500
HS Falls Far Below	1000-1186	1000-1198	1000-1196
Approaches	1187-1249	1199-1248	1197-1249
Meets	1250-1344	1249-1327	1250-1308
Exceeds	1345-1500	1328-1500	1309-1500

5/14/2014

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 2014 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 1999 *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 2014 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 in 2010 to allow for field-testing items.

4.1.2 Item Writing and Editing

The development of the 2014 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 matched 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 also 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. New Multiple-Choice 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 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 and were modified to match Arizona's AIMS A Format Style Guide.

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 A 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, and 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 2014 test administration began with an internal review of the item statistics for the items used in the 2013 administration to identify, for replacement, items that were performing less than optimally. A maximum of 30 operational items were chosen to be administered for 2014. Each grade and content area was administered the same number of items. Each test form contained 15 Multiple-Choice items and 15 Performance Tasks, plus 5 field-test items of each type.

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 had 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.

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 presents the adaptations (accommodations) provided to students during the 2014 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.

Multiple-Choice Items and Performance Tasks 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.

Any instructional adaptations or strategies can be used to support students with SCDs as long as the students indicate the response choices. Table 5.1.1 presents the number of adaptations provided to students on the 2014 AIMS A assessments; however, this is not an exhaustive list of adaptations that could be utilized.

Table 5.1.1
2014 AIMS A Adaptations Provided

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	136	154	161	189	223	242	256	9	18
Alphabet line	590	501	479	403	421	421	266	11	19
Graph paper	121	137	145	170	130	162	126	3	9
Highlight or mark key phrases, words, or letters	508	493	495	464	461	492	377	9	20
Line drawings	284	248	249	235	194	224	173	9	12
Magnifier	66	63	61	79	67	73	45	1	5
Manipulatives	888	866	848	775	711	775	587	25	34
None	18	26	27	25	31	39	79	14	14
Number line	732	710	694	653	627	665	456	15	26
Other	224	234	206	172	164	191	152	7	11
Picture/Object system	475	405	405	360	320	356	301	17	19
Read passages or any test item/describe graphics	913	909	901	832	827	879	701	32	39
Sign language	181	132	135	139	126	118	84	4	9
Switch	115	107	105	89	102	115	70	8	7
Symbolic/Picture system	454	355	385	315	322	342	280	12	18
Use of objects	617	522	511	463	408	496	361	14	14
Total Used	6322	5862	5807	5363	5134	5590	4314	190	274

Note: Students may and do use multiple adaptations on the three assessments, Mathematics, Reading and Science. Students may be counted as many as three times in any one cell and in multiple cells within a column.

5.2 Test Security

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

Figure 5.2.1   2014 AIMS A Test Security Agreement

<div align="center">

Arizona's Instrument to Measure Standards
AIMS A Test Security / Testing Ethics Agreement 2014

</div>

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 2014 must also:

- participate in training activities prior to administering the AIMS A;
- review *AIMS A Test Administration Directions* for 2014 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 2014 AIMS A test will also sign a Test Security Agreement.

Signed By: _____

Printed Name: _____

Title: _____

School: _____

5.3 Test Administration

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 2014 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 2014 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.

Online training modules were presented to AIMS A test coordinators across the state. All Public Educational Agencies with AIMS A eligible students are required have an AIMS A test coordinator complete the mandatory online training before access to the AIMS A application system would be granted to the agency. The Special Education Director has the responsibility of training all TA's prior to allowing access to the AIMS A application system. The annual training PowerPoints are maintained for easy reference on ADE's Assessment website.

Part 6: Data for Operational Analysis

Part 6 of the Technical Report describes the data that were used for calibrating and scaling of the 2014 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 2014 assessments were administered between February 15 and March 31. Due to the close date falling on a weekend, the actual test window was through April 1, 2014. All results presented, except for calibration, included all students who sat for the test. For calibration, operational analysis of Reading, Mathematics, and Science tests excluded only a small number of students who did not respond to any item. This cleaning process, designed to ensure valid calibration results, is described below.

The ADE Information Technology (IT) department, which hosts the online test and publishes the results, provided data including student responses to Multiple-Choice items (A, B, C or NR, meaning No Response), and the performance scores for each item (0, 1, 2, 3, 4). Multiple-Choice items where the student did not respond (NR) were coded within the raw score portion of the datafile as -2. These were then recoded as Omits for descriptive statistics and 0's for calibration and score calculation.

The only cleaning process employed was to remove the few students per grade who did not respond to any items (Omits for all Multiple-Choice items and 0's on all Performance Tasks). These students, with extreme scores, are eliminated within the WINSTEPS Item Response Theory (IRT) estimation in standard practice, Arizona, however, explicitly eliminates them prior to calibration.

Details on calibration are included in Part 7: Calibration, Equating, and Scaling.

6.2 Descriptive Statistics by Test

The descriptive statistics presented within this section include all students regardless of responding status. Table 6.2.1 presents descriptive statistics by test (content area and grade level) which are computed with the population data in Reading, Mathematics, and Science. The table identifies the test, grade, number of students (N), the maximum obtainable raw score (Max RS), the mean raw score (Mean RS), the standard deviation of the raw score (SD RS), and Cronbach's alpha as a measure of internal consistency by item type, Multiple-Choice (MC), and Performance Task (PT). It should be noted that the accuracy of the reliability coefficient for the Multiple-Choice portion of the test in some grade is relatively low. This may be due to the large number of non-responders in the data set, however in most grades and across all PT sections, reliability is in acceptable ranges (greater than .80).

Table 6.2.1
2014 AIMS A Classical Test Analysis Statistics

Test	N	MC Max RS	MC Mean RS	MC SD RS	MC Reliability (alpha)	PT Max RS	PT Mean RS	PT SD RS	PT Reliability (alpha)
Mathematics									
03	1,016	60	35.42	14.04	0.77	60	32.17	15.81	0.94
04	1,051	60	39.22	14.96	0.83	60	34.59	14.65	0.94
05	1,019	60	33.75	14.23	0.75	60	38.38	15.82	0.94
06	961	60	34.91	14.61	0.78	60	34.20	14.63	0.94
07	966	60	31.45	13.72	0.79	60	34.70	14.80	0.95
08	1,029	60	30.44	13.13	0.75	60	34.19	15.50	0.94
HS	1,034	60	31.30	13.30	0.74	60	29.12	15.49	0.94
Reading									
03	1,016	60	32.35	13.75	0.76	60	39.57	16.57	0.94
04	1,051	60	34.56	14.34	0.78	60	41.31	16.11	0.95
05	1,019	60	36.64	15.72	0.84	60	41.13	15.96	0.96
06	961	60	38.79	16.52	0.84	60	41.88	16.22	0.96
07	966	60	37.76	15.42	0.85	60	42.86	16.18	0.96
08	1,029	60	40.16	15.60	0.86	60	43.07	17.04	0.96
HS	1,034	60	40.42	16.02	0.88	60	41.44	18.67	0.97
Science									
04	1,051	60	39.10	15.97	0.86	60	40.73	16.16	0.95
08	1,029	60	39.04	16.55	0.85	60	39.61	15.48	0.96
HS	918	60	38.57	15.92	0.86	60	39.85	17.31	0.97

Tables 6.2.2, 6.2.3, and 6.2.4 present the standard Lertap analysis statistics of the raw scores for 2014 AIMS A assessment for each grade and content area tested.

Table 6.2.2
2014 AIMS A Mathematics Raw Score Test Analysis

	Grade						
	3	**4**	**5**	**6**	**7**	**8**	**HS**
Number Tested	1,016	1051	1,019	961	966	1,029	1,034
Minimum	0	0	0	0	0	0	0
Median	73.0	78.0	76.0	74.0	67.0	67.0	62.0
Mean	67.6	73.8	72.1	69.1	66.2	64.6	60.4
Maximum	120	120	120	118	118	119	120
Std. Deviation	27.5	27.3	27.3	26.2	25.4	25.8	26.0
Variance	756.6	745.0	745.2	684.7	644.3	663.4	674.5
Range	120	120	120	118	118	119	120
Interquartile Range	38	38	37	36	32	37	36
Skewness	-0.614	-0.632	-0.732	-0.706	-0.451	-0.354	-0.371
Kurtosis	-0.186	-0.110	0.069	0.010	-0.020	-0.343	-0.317
Min. Possible	0	0	0	0	0	0	0
Max. Possible	120	120	120	120	120	120	120
# No Response	14	21	17	21	14	22	22
% No Response	1.4%	2.0%	1.7%	2.2%	1.4%	2.1%	2.1%

Table 6.2.3
2014 AIMS A Reading Raw Score Test Analysis

	Grade						
	3	**4**	**5**	**6**	**7**	**8**	**HS**
Number Tested	1,016	1,051	1,019	961	966	1,029	1,034
Minimum	0	0	0	0	0	0	0
Median	77.0	80.0	82.0	90.0	86.0	92.0	91.0
Mean	71.9	75.9	77.8	80.7	80.6	83.2	81.9
Maximum	116	120	120	120	120	120	120
Std. Deviation	27.8	27.5	28.7	30.3	28.7	29.9	32.1
Variance	770.4	756.4	823.1	915.2	826.5	891.1	1,031.2
Range	116	120	120	120	120	120	120
Interquartile Range	36	39	40	44	39	43	46
Skewness	-0.804	-0.716	-0.803	-0.897	-0.929	-0.925	-0.936
Kurtosis	0.159	-0.062	0.112	-0.020	0.352	0.095	0.002
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	17	21	20	16	18	21	25
% No Response	1.7%	2.0%	2.0%	1.7%	1.9%	2.0%	2.4%

Table 6.2.4
2014 AIMS A Science Raw Score Test Analysis

	Grade						
	3	**4**	**5**	**6**	**7**	**8**	**10**
Number Tested		1,051				1,029	918
Minimum		0				0	0
Median		87.0				85.0	89.0
Mean		79.8				78.7	78.4
Maximum		120				120	120
Std. Deviation		29.7				29.1	30.7
Variance		880.4				848.0	941.0
Range		120				120	120
Interquartile Range		42				44	43
Skewness		-0.797				-0.762	-0.945
Kurtosis		-0.163				-0.149	0.079
Min. Possible		0.00				0.00	0.00
Max. Possible		120.00				120.00	120.00
# No Response		20				21	23
% No Response		1.9%				2.0%	2.5%

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 students 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
2014 AIMS A Classical Item Analysis
Mathematics Grade 3

Multiple-Choice

Item	Item ID	N	p-value	%	r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	% Omit
					Correct		Distractor 1		Distractor 2		
1	61093022	1,016	0.65	65	0.45	0.58	8	-0.25	22	-0.23	4
2	61093033	1,016	0.64	64	0.44	0.57	11	-0.21	20	-0.21	5
3	61093034	1,016	0.64	64	0.47	0.61	10	-0.25	21	-0.22	5
4	61093025	1,016	0.78	78	0.47	0.66	9	-0.30	9	-0.14	4
5	61143001	1,016	0.31	31	0.10	0.13	24	-0.05	39	0.07	5
6	61093010	1,016	0.55	55	0.40	0.50	17	-0.16	24	-0.21	4
7	61133004	1,016	0.42	42	0.18	0.22	38	0.04	15	-0.17	5
8	61093016	1,016	0.70	70	0.57	0.75	8	-0.27	17	-0.29	5
9	61103015	1,016	0.31	31	0.14	0.18	23	-0.04	41	0.03	5
10	61103002	1,016	0.56	56	0.39	0.49	17	-0.19	23	-0.16	5
11	61093008	1,016	0.50	50	0.32	0.40	25	-0.13	20	-0.12	5
12	61113001	1,016	0.68	68	0.52	0.68	12	-0.27	16	-0.25	5
13	61113002	1,016	0.69	69	0.49	0.64	10	-0.25	16	-0.22	5
14	61113005	1,016	0.63	63	0.39	0.50	16	-0.15	16	-0.20	5
15	61093032	1,016	0.80	80	0.56	0.80	6	-0.29	9	-0.26	5

Performance Tasks

Item	Item ID	N	%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
			Score 0		Score 1		Score 2		Score 3		Score 4	
16	61103101	1,016	17	-0.60	18	-0.21	17	0.04	19	0.13	29	0.53
17	61103102	1,016	26	-0.63	27	-0.12	18	0.17	11	0.22	18	0.51
18	61103103	1,016	23	-0.65	25	-0.16	18	0.13	11	0.22	22	0.53
19	61103104	1,016	27	-0.56	32	-0.08	16	0.18	11	0.27	14	0.38
20	61103105	1,016	28	-0.60	35	0.00	17	0.24	9	0.27	10	0.34
21	61113101	1,016	10	-0.58	13	-0.34	8	-0.10	13	0.00	57	0.63
22	61113102	1,016	17	-0.64	20	-0.22	18	0.08	19	0.21	27	0.48
23	61113103	1,016	13	-0.63	14	-0.32	11	-0.06	17	0.06	44	0.64
24	61113104	1,016	15	-0.64	20	-0.27	17	0.03	17	0.18	31	0.55
25	61113105	1,016	15	-0.64	20	-0.26	17	0.06	21	0.24	28	0.47
26	61133101	1,016	14	-0.63	20	-0.23	20	0.09	22	0.24	24	0.41
27	61133102	1,016	15	-0.65	17	-0.25	17	0.01	21	0.20	30	0.52
28	61133103	1,016	17	-0.65	26	-0.19	16	0.13	15	0.19	25	0.49
29	61133104	1,016	16	-0.60	22	-0.24	20	0.11	17	0.24	24	0.43
30	61133105	1,016	14	-0.63	20	-0.26	15	0.02	15	0.16	36	0.54

Table 6.3.2
2014 AIMS A Classical Item Analysis
Mathematics Grade 4

Multiple-Choice

					Correct		Distractor 1		Distractor 2		
Item	**Item ID**	N	p-value	**%**	r_{pb}	r_{bi}	**%**	r_{pb}	**%**	r_{pb}	**% Omit**
1	61094029	1,051	0.72	72	0.52	0.69	13	-0.31	12	-0.32	3
2	61104020	1,051	0.57	57	0.40	0.50	16	-0.22	24	-0.25	3
3	61094025	1,051	0.80	80	0.52	0.74	10	-0.31	7	-0.30	3
4	61094019	1,051	0.53	53	0.47	0.59	28	-0.37	16	-0.16	3
5	61094042	1,051	0.59	59	0.40	0.51	16	-0.24	22	-0.23	3
6	61094035	1,051	0.73	73	0.42	0.57	14	-0.23	11	-0.33	2
7	61094022	1,051	0.69	69	0.31	0.41	22	-0.16	6	-0.25	3
8	61094040	1,051	0.64	64	0.54	0.70	18	-0.27	16	-0.37	3
9	61104017	1,051	0.49	49	0.26	0.33	33	-0.09	15	-0.23	3
10	61094012	1,051	0.70	70	0.53	0.69	12	-0.32	15	-0.31	3
11	61094007	1,051	0.66	66	0.49	0.63	11	-0.28	20	-0.31	3
12	61094003	1,051	0.82	82	0.55	0.80	8	-0.33	7	-0.33	3
13	61094018	1,051	0.48	48	0.27	0.34	16	-0.21	34	-0.12	3
14	61094043	1,051	0.66	66	0.53	0.68	16	-0.29	15	-0.32	3
15	61104012	1,051	0.72	72	0.44	0.59	13	-0.27	12	-0.27	3

Performance Tasks

			Score 0		Score 1		Score 2		Score 3		Score 4	
Item	**Item ID**	N	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}
16	61104101	1,051	8	-0.57	12	-0.35	9	-0.11	15	-0.01	56	0.61
17	61104102	1,051	22	-0.55	32	-0.14	20	0.19	14	0.29	11	0.38
18	61104103	1,051	30	-0.61	29	-0.07	15	0.20	10	0.25	16	0.46
19	61104104	1,051	26	-0.60	29	-0.13	17	0.19	11	0.26	16	0.45
20	61104105	1,051	27	-0.58	33	-0.07	18	0.23	10	0.27	12	0.36
21	61114101	1,051	11	-0.63	16	-0.29	14	-0.03	21	0.20	38	0.48
22	61114102	1,051	13	-0.61	19	-0.30	14	0.03	16	0.11	40	0.55
23	61114103	1,051	12	-0.60	18	-0.30	13	-0.01	13	0.08	44	0.58
24	61114104	1,051	8	-0.59	10	-0.35	10	-0.08	23	0.13	49	0.46
25	61114105	1,051	7	-0.55	9	-0.37	7	-0.13	10	-0.03	67	0.62
26	61134101	1,051	10	-0.61	16	-0.27	22	0.01	24	0.23	28	0.42
27	61134102	1,051	12	-0.61	20	-0.29	23	0.06	22	0.30	24	0.39
28	61134103	1,051	12	-0.61	22	-0.27	21	0.12	20	0.25	25	0.38
29	61134104	1,051	11	-0.59	19	-0.32	17	-0.01	20	0.21	33	0.48
30	61134105	1,051	15	-0.58	25	-0.22	17	0.14	18	0.25	24	0.37

Table 6.3.3
2014 AIMS A Classical Item Analysis
Mathematics Grade 5

Multiple-Choice

				Correct			Distractor 1		Distractor 2		
Item	**Item ID**	**N**	**p-value**	**%**	**r_{pb}**	**r_{bi}**	**%**	**r_{pb}**	**%**	**r_{pb}**	**% Omit**
1	61095010	1,019	0.65	65	0.47	0.61	16	-0.19	16	-0.36	3
2	61095044	1,019	0.76	76	0.40	0.55	13	-0.29	8	-0.17	3
3	61095017	1,019	0.74	74	0.44	0.60	12	-0.28	11	-0.23	3
4	61095024	1,019	0.72	72	0.58	0.77	12	-0.32	13	-0.36	3
5	61095043	1,019	0.52	52	0.42	0.52	18	-0.28	27	-0.18	3
6	61095042	1,019	0.46	46	0.38	0.47	26	-0.15	25	-0.24	3
7	61095032	1,019	0.71	71	0.44	0.59	10	-0.32	15	-0.20	4
8	61095041	1,019	0.42	42	0.34	0.43	29	-0.21	26	-0.14	3
9	61105003	1,019	0.46	46	0.36	0.45	24	-0.19	27	-0.19	3
10	61095045	1,019	0.40	40	0.27	0.34	15	-0.26	42	-0.06	3
11	61105019	1,019	0.50	50	0.33	0.42	22	-0.23	25	-0.12	4
12	61095046	1,019	0.60	60	0.43	0.54	17	-0.29	20	-0.21	3
13	61135003	1,019	0.52	52	0.30	0.37	23	-0.12	22	-0.22	3
14	61135005	1,019	0.53	53	0.36	0.46	18	-0.20	26	-0.20	3
15	61115005	1,019	0.45	45	0.24	0.30	19	-0.27	33	0.00	3

Performance Tasks

			Score 0		Score 1		Score 2		Score 3		Score 4	
Item	**Item ID**	**N**	**%**	**r_{pb}**	**%**	**r_{pb}**	**%**	**r_{pb}**	**%**	**r_{pb}**	**%**	**r_{pb}**
16	61105101	1,019	9	-0.66	10	-0.30	11	-0.10	16	0.07	53	0.58
17	61105102	1,019	9	-0.66	9	-0.34	10	-0.14	12	-0.01	60	0.68
18	61105103	1,019	30	-0.53	32	0.00	16	0.17	11	0.25	10	0.34
19	61105104	1,019	9	-0.64	11	-0.30	13	-0.12	18	0.09	50	0.56
20	61105105	1,019	10	-0.61	15	-0.28	14	-0.03	22	0.18	38	0.45
21	61115101	1,019	11	-0.64	20	-0.28	21	0.08	21	0.26	28	0.39
22	61115102	1,019	8	-0.65	12	-0.33	12	-0.13	20	0.08	47	0.60
23	61115103	1,019	14	-0.69	19	-0.22	18	0.05	22	0.26	27	0.44
24	61115104	1,019	9	-0.67	9	-0.35	9	-0.13	12	0.00	61	0.67
25	61115105	1,019	12	-0.60	18	-0.27	17	0.01	22	0.22	31	0.45
26	61135101	1,019	12	-0.66	19	-0.26	21	0.05	21	0.24	28	0.45
27	61135102	1,019	10	-0.67	13	-0.34	16	-0.08	16	0.10	45	0.62
28	61135103	1,019	11	-0.69	14	-0.32	16	-0.06	18	0.15	41	0.59
29	61135104	1,019	12	-0.69	17	-0.28	18	0.05	17	0.16	36	0.53
30	61135105	1,019	12	-0.64	21	-0.29	18	0.05	20	0.26	30	0.45

Table 6.3.4
2014 AIMS A Classical Item Analysis
Mathematics Grade 6

Multiple-Choice

					Correct		Distractor 1		Distractor 2		
Item	**Item ID**	**N**	**p-value**	**%**	r_{pb}	r_{bi}	**%**	r_{pb}	**%**	r_{pb}	**% Omit**
1	61126004	961	0.55	55	0.35	0.45	19	-0.18	21	-0.17	4
2	61096039	961	0.49	49	0.43	0.53	22	-0.19	25	-0.22	4
3	61096007	961	0.72	72	0.43	0.57	14	-0.18	11	-0.30	3
4	61106011	961	0.42	42	0.20	0.25	30	-0.04	24	-0.11	4
5	61096027	961	0.71	71	0.45	0.60	8	-0.21	17	-0.26	4
6	61096038	961	0.59	59	0.44	0.56	21	-0.20	16	-0.25	4
7	61096008	961	0.57	57	0.38	0.48	22	-0.15	18	-0.24	4
8	61116001	961	0.56	56	0.44	0.56	18	-0.26	22	-0.19	4
9	61096040	961	0.78	78	0.46	0.64	9	-0.22	9	-0.25	4
10	61106022	961	0.56	56	0.40	0.50	19	-0.18	20	-0.22	4
11	61136002	961	0.47	47	0.37	0.47	28	-0.16	20	-0.18	5
12	61106001	961	0.51	51	0.30	0.37	22	-0.11	23	-0.16	4
13	61096009	961	0.67	67	0.51	0.67	11	-0.22	18	-0.31	4
14	61106019	961	0.58	58	0.38	0.48	24	-0.17	14	-0.22	4
15	61116005	961	0.54	54	0.42	0.52	13	-0.14	29	-0.27	4

Performance Tasks

			Score 0		Score 1		Score 2		Score 3		Score 4	
Item	**Item ID**	**N**	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}
16	61146102	961	10	-0.63	12	-0.31	18	-0.05	27	0.24	33	0.43
17	61106101	961	8	-0.60	9	-0.35	9	-0.07	21	0.07	53	0.50
18	61106102	961	12	-0.63	12	-0.29	8	-0.13	12	0.02	56	0.66
19	61106103	961	21	-0.60	28	-0.09	22	0.18	16	0.29	12	0.31
20	61106104	961	23	-0.60	29	-0.09	20	0.15	13	0.25	16	0.41
21	61116101	961	13	-0.61	22	-0.24	23	0.15	21	0.30	22	0.29
22	61116102	961	13	-0.63	18	-0.27	21	0.08	24	0.29	25	0.35
23	61116103	961	15	-0.59	26	-0.16	27	0.20	17	0.29	15	0.25
24	61116104	961	11	-0.66	16	-0.32	17	0.04	20	0.16	36	0.51
25	61116105	961	17	-0.64	26	-0.16	21	0.18	18	0.26	19	0.35
26	61136101	961	13	-0.67	16	-0.28	18	0.01	21	0.23	32	0.49
27	61136102	961	13	-0.66	21	-0.23	21	0.11	23	0.30	22	0.34
28	61136103	961	12	-0.67	20	-0.28	19	0.05	18	0.23	31	0.49
29	61136104	961	13	-0.68	19	-0.27	18	0.06	20	0.24	31	0.46
30	61136105	961	14	-0.66	25	-0.20	24	0.16	17	0.24	20	0.40

Table 6.3.5
2014 AIMS A Classical Item Analysis
Mathematics Grade 7

Multiple-Choice

Item	Item ID	N	p-value	%	r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	% Omit
					Correct		Distractor 1		Distractor 2		
1	61107011	966	0.56	56	0.37	0.46	20	-0.20	19	-0.20	4
2	61097015	966	0.51	51	0.35	0.44	17	-0.17	29	-0.22	3
3	61097034	966	0.56	56	0.39	0.49	25	-0.23	16	-0.20	4
4	61097042	966	0.52	52	0.35	0.44	23	-0.16	21	-0.21	4
5	61097035	966	0.49	49	0.43	0.54	16	-0.17	31	-0.27	4
6	61117001	966	0.59	59	0.36	0.45	26	-0.18	11	-0.22	4
7	61097037	966	0.66	66	0.39	0.50	13	-0.18	17	-0.25	4
8	61137003	966	0.35	35	0.11	0.15	34	0.04	27	-0.11	4
9	61137001	966	0.46	46	0.33	0.41	23	-0.17	27	-0.14	4
10	61097039	966	0.44	44	0.26	0.32	29	-0.09	24	-0.16	4
11	61097040	966	0.56	56	0.34	0.43	22	-0.14	19	-0.22	4
12	61127002	966	0.42	42	0.21	0.27	26	-0.01	28	-0.17	4
13	61127005	966	0.52	52	0.38	0.48	19	-0.15	25	-0.24	4
14	61117004	966	0.59	59	0.40	0.51	19	-0.22	18	-0.22	4
15	61097010	966	0.65	65	0.44	0.56	16	-0.24	15	-0.24	4

Performance Tasks

Item	Item ID	N	%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
			Score 0		Score 1		Score 2		Score 3		Score 4	
16	61107101	966	25	-0.61	36	-0.01	18	0.20	11	0.30	10	0.32
17	61107102	966	21	-0.65	28	-0.13	18	0.13	14	0.29	18	0.43
18	61107103	966	19	-0.66	27	-0.17	20	0.14	18	0.31	17	0.42
19	61107104	966	23	-0.64	31	-0.10	17	0.21	14	0.26	15	0.41
20	61107105	966	18	-0.66	23	-0.20	16	0.06	15	0.20	29	0.54
21	61117101	966	9	-0.56	11	-0.34	13	-0.08	20	0.08	47	0.53
22	61117102	966	9	-0.58	13	-0.36	16	-0.05	24	0.14	37	0.51
23	61117103	966	9	-0.62	17	-0.34	18	-0.02	19	0.11	38	0.55
24	61117104	966	9	-0.61	11	-0.30	12	-0.07	17	0.03	51	0.57
25	61117105	966	10	-0.63	15	-0.34	19	-0.02	24	0.17	33	0.51
26	61137101	966	10	-0.61	10	-0.32	14	-0.09	17	0.10	49	0.54
27	61137102	966	9	-0.57	13	-0.31	21	-0.02	31	0.31	25	0.31
28	61137103	966	11	-0.62	18	-0.30	24	0.09	26	0.29	21	0.35
29	61137104	966	12	-0.62	17	-0.27	20	0.03	22	0.25	29	0.41
30	61137105	966	14	-0.58	20	-0.22	23	0.10	19	0.22	24	0.38

Table 6.3.6
2014 AIMS A Classical Item Analysis
Mathematics Grade 8

Multiple-Choice

					Correct		Distractor 1		Distractor 2		
Item	**Item ID**	**N**	**p-value**	**%**	**r_{pb}**	**r_{bi}**	**%**	**r_{pb}**	**%**	**r_{pb}**	**% Omit**
1	61098017	1,029	0.59	59	0.39	0.49	21	-0.26	16	-0.18	4
2	61098019	1,029	0.72	72	0.46	0.61	12	-0.27	12	-0.25	4
3	61098035	1,029	0.52	52	0.38	0.47	21	-0.18	23	-0.23	4
4	61098037	1,029	0.61	61	0.39	0.50	17	-0.23	19	-0.23	4
5	61098038	1,029	0.56	56	0.32	0.40	12	-0.26	28	-0.13	4
6	61098039	1,029	0.46	46	0.30	0.38	20	-0.19	31	-0.13	4
7	61108015	1,029	0.47	47	0.30	0.38	14	-0.18	35	-0.16	4
8	61098027	1,029	0.66	66	0.46	0.59	11	-0.27	20	-0.27	3
9	61118005	1,029	0.36	36	0.16	0.20	27	-0.05	33	-0.09	4
10	61138005	1,029	0.29	29	0.13	0.17	41	0.01	27	-0.09	4
11	61098040	1,029	0.60	60	0.40	0.51	16	-0.22	20	-0.23	4
12	61098007	1,029	0.48	48	0.36	0.45	23	-0.19	24	-0.18	4
13	61098034	1,029	0.49	49	0.34	0.42	17	-0.15	30	-0.21	4
14	61128002	1,029	0.41	41	0.30	0.37	26	-0.12	28	-0.17	4
15	61138003	1,029	0.38	38	0.15	0.19	33	0.04	24	-0.19	4

Performance Tasks

			Score 0		Score 1		Score 2		Score 3		Score 4	
Item	**Item ID**	**N**	**%**	**r_{pb}**	**%**	**r_{pb}**	**%**	**r_{pb}**	**%**	**r_{pb}**	**%**	**r_{pb}**
16	61108101	1,029	21	-0.57	32	-0.15	15	0.15	13	0.26	19	0.41
17	61108102	1,029	20	-0.61	28	-0.23	15	0.13	15	0.26	22	0.50
18	61108103	1,029	22	-0.61	29	-0.19	16	0.15	16	0.34	16	0.42
19	61108104	1,029	21	-0.65	29	-0.18	18	0.18	16	0.33	16	0.43
20	61108105	1,029	21	-0.68	26	-0.21	15	0.13	13	0.27	25	0.52
21	61118101	1,029	9	-0.51	13	-0.37	15	-0.12	19	0.11	44	0.55
22	61118102	1,029	10	-0.54	15	-0.39	13	-0.11	19	0.11	43	0.59
23	61118103	1,029	11	-0.55	19	-0.34	19	0.04	22	0.28	29	0.39
24	61118104	1,029	8	-0.52	12	-0.42	12	-0.10	17	0.10	51	0.55
25	61118105	1,029	11	-0.57	13	-0.33	15	-0.07	16	0.13	45	0.54
26	61138101	1,029	13	-0.55	22	-0.28	26	0.11	21	0.28	19	0.36
27	61138102	1,029	11	-0.58	20	-0.34	21	0.02	21	0.24	27	0.47
28	61138103	1,029	12	-0.62	16	-0.36	16	-0.03	19	0.14	38	0.59
29	61138104	1,029	12	-0.57	17	-0.39	16	-0.03	22	0.20	34	0.54
30	61138105	1,029	13	-0.57	22	-0.31	23	0.11	22	0.31	19	0.37

Table 6.3.7
2014 AIMS A Classical Item Analysis
Mathematics High School

Multiple-Choice

Item	Item ID	N	p-value	Correct %	r_{pb}	r_{bi}	Distractor 1 %	r_{pb}	Distractor 2 %	r_{pb}	% Omit
1	61130001	1,034	0.45	45	0.33	0.41	35	-0.07	15	-0.22	5
2	61110005	1,034	0.30	30	0.07	0.10	32	-0.02	33	0.04	5
3	61090003	1,034	0.61	61	0.41	0.53	11	-0.19	23	-0.20	5
4	61100008	1,034	0.68	68	0.46	0.60	19	-0.24	8	-0.20	5
5	61120004	1,034	0.47	47	0.31	0.39	18	-0.15	29	-0.09	6
6	61090006	1,034	0.53	53	0.46	0.58	15	-0.15	27	-0.27	5
7	61130002	1,034	0.43	43	0.24	0.30	23	-0.09	28	-0.06	6
8	61090008	1,034	0.68	68	0.48	0.62	13	-0.23	14	-0.24	5
9	61100015	1,034	0.73	73	0.42	0.56	10	-0.21	13	-0.20	5
10	61130003	1,034	0.39	39	0.15	0.20	37	0.07	19	-0.15	5
11	61090013	1,034	0.42	42	0.24	0.30	19	-0.10	33	-0.05	6
12	61090015	1,034	0.52	52	0.37	0.46	22	-0.11	21	-0.21	5
13	61090016	1,034	0.55	55	0.37	0.46	16	-0.14	24	-0.18	5
14	61130004	1,034	0.61	61	0.40	0.51	23	-0.19	11	-0.18	5
15	61100016	1,034	0.46	46	0.26	0.33	27	-0.06	21	-0.11	5

Performance Tasks

Item	Item ID	N	Score 0 %	r_{pb}	Score 1 %	r_{pb}	Score 2 %	r_{pb}	Score 3 %	r_{pb}	Score 4 %	r_{pb}
16	61100101	1,034	25	-0.61	34	-0.09	18	0.20	12	0.32	12	0.40
17	61100102	1,034	30	-0.62	34	-0.04	19	0.30	10	0.36	7	0.30
18	61100103	1,034	29	-0.63	34	-0.06	17	0.28	12	0.35	7	0.39
19	61100104	1,034	33	-0.63	35	-0.02	16	0.31	10	0.35	7	0.37
20	61100105	1,034	32	-0.64	31	-0.02	17	0.26	12	0.36	9	0.35
21	61110101	1,034	14	-0.57	16	-0.29	17	-0.02	19	0.18	34	0.51
22	61110102	1,034	15	-0.60	16	-0.23	20	-0.01	22	0.30	28	0.40
23	61110103	1,034	21	-0.66	24	-0.16	16	0.11	17	0.31	22	0.42
24	61110104	1,034	16	-0.65	17	-0.25	16	0.00	20	0.22	31	0.53
25	61110105	1,034	19	-0.67	22	-0.23	15	0.09	18	0.29	26	0.49
26	61130101	1,034	12	-0.59	14	-0.31	16	-0.06	19	0.14	39	0.56
27	61130102	1,034	16	-0.62	22	-0.23	18	0.09	20	0.27	24	0.43
28	61130103	1,034	18	-0.63	20	-0.25	18	0.09	20	0.27	25	0.46
29	61130104	1,034	16	-0.64	19	-0.28	13	0.02	15	0.17	37	0.58
30	61130105	1,034	19	-0.66	23	-0.21	17	0.12	16	0.27	25	0.47

Table 6.3.8
2014 AIMS A Classical Item Analysis
Reading Grade 3

Multiple-Choice

					Correct		Distractor 1		Distractor 2		
Item	**Item ID**	N	p-value	**%**	r_{pb}	r_{bi}	**%**	r_{pb}	**%**	r_{pb}	**% Omit**
1	62093030	1,016	0.77	77	0.49	0.68	6	-0.16	13	-0.32	5
2	62093052	1,016	0.33	33	0.27	0.36	32	-0.14	30	-0.03	5
3	62093031	1,016	0.42	42	0.34	0.43	23	-0.19	30	-0.11	5
4	62093050	1,016	0.63	63	0.45	0.57	12	-0.16	20	-0.28	5
5	62103005	1,016	0.57	57	0.37	0.46	9	-0.19	29	-0.18	5
6	62103006	1,016	0.59	59	0.42	0.53	9	-0.18	27	-0.23	5
7	62103007	1,016	0.70	70	0.45	0.59	10	-0.19	15	-0.24	5
8	62093006	1,016	0.60	60	0.43	0.55	14	-0.23	21	-0.21	4
9	62113001	1,016	0.38	38	0.23	0.29	27	-0.16	30	0.00	5
10	62133004	1,016	0.52	52	0.32	0.40	22	-0.11	21	-0.17	5
11	62133005	1,016	0.50	50	0.36	0.45	23	-0.13	23	-0.19	5
12	62133003	1,016	0.64	64	0.46	0.59	10	-0.22	20	-0.22	5
13	62123001	1,016	0.39	39	0.20	0.26	33	-0.01	23	-0.11	5
14	62103009	1,016	0.48	48	0.38	0.48	28	-0.15	19	-0.19	5
15	62103010	1,016	0.63	63	0.42	0.54	12	-0.18	19	-0.20	6

Performance Tasks

			Score 0		Score 1		Score 2		Score 3		Score 4	
Item	**Item ID**	N	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}
16	62103101	1,016	18	-0.64	18	-0.17	14	0.03	14	0.14	36	0.52
17	62103102	1,016	11	-0.66	12	-0.30	12	-0.10	17	0.10	48	0.59
18	62103103	1,016	10	-0.68	10	-0.29	8	-0.10	17	0.00	54	0.64
19	62103104	1,016	10	-0.66	9	-0.31	9	-0.10	18	0.04	54	0.60
20	62103105	1,016	13	-0.65	16	-0.26	16	0.03	25	0.27	30	0.42
21	62113101	1,016	10	-0.64	14	-0.32	11	-0.07	19	0.14	45	0.54
22	62113102	1,016	15	-0.62	24	-0.18	18	0.08	16	0.20	28	0.43
23	62113103	1,016	12	-0.67	14	-0.30	10	-0.02	21	0.12	44	0.55
24	62113104	1,016	10	-0.69	8	-0.30	6	-0.14	10	-0.07	65	0.73
25	62113105	1,016	11	-0.69	9	-0.29	5	-0.11	10	-0.06	65	0.71
26	62133101	1,016	13	-0.68	15	-0.28	14	0.01	21	0.19	36	0.52
27	62133102	1,016	12	-0.66	17	-0.29	15	0.02	23	0.21	33	0.49
28	62133103	1,016	13	-0.66	20	-0.27	16	0.04	20	0.21	31	0.51
29	62133104	1,016	14	-0.66	16	-0.24	13	0.01	20	0.16	37	0.52
30	62133105	1,016	13	-0.63	20	-0.28	18	0.04	17	0.23	33	0.48

Table 6.3.9
2014 AIMS A Classical Item Analysis
Reading Grade 4

Multiple-Choice

					Correct		Distractor 1		Distractor 2		
Item	**Item ID**	**N**	**p-value**	**%**	**r_{pb}**	**r_{bi}**	**%**	**r_{pb}**	**%**	**r_{pb}**	**% Omit**
1	62134002	1,051	0.41	41	0.20	0.25	28	-0.13	28	-0.09	3
2	62094035	1,051	0.67	67	0.55	0.71	17	-0.37	13	-0.29	3
3	62094032	1,051	0.67	67	0.44	0.58	19	-0.32	12	-0.25	2
4	62104001	1,051	0.65	65	0.53	0.69	20	-0.37	13	-0.27	3
5	62094028	1,051	0.63	63	0.47	0.60	16	-0.23	19	-0.34	3
6	62104002	1,051	0.66	66	0.43	0.55	15	-0.18	17	-0.35	3
7	62134003	1,051	0.67	67	0.36	0.47	14	-0.14	17	-0.31	2
8	62144002	1,051	0.60	60	0.41	0.52	16	-0.19	21	-0.31	3
9	62104007	1,051	0.60	60	0.40	0.50	14	-0.22	23	-0.26	3
10	62124003	1,051	0.59	59	0.41	0.52	16	-0.23	22	-0.26	3
11	62104009	1,051	0.54	54	0.33	0.41	18	-0.15	25	-0.23	3
12	62104010	1,051	0.45	45	0.37	0.47	24	-0.22	28	-0.19	3
13	62134005	1,051	0.38	38	0.26	0.33	32	-0.09	27	-0.18	3
14	62114003	1,051	0.69	69	0.49	0.65	14	-0.34	14	-0.27	3
15	62134001	1,051	0.44	44	0.14	0.18	24	-0.04	29	-0.11	3

Performance Tasks

			Score 0		Score 1		Score 2		Score 3		Score 4	
Item	**Item ID**	**N**	**%**	**r_{pb}**	**%**	**r_{pb}**	**%**	**r_{pb}**	**%**	**r_{pb}**	**%**	**r_{pb}**
16	62144101	1,051	12	-0.64	19	-0.26	19	0.10	24	0.26	25	0.37
17	62144103	1,051	12	-0.62	19	-0.29	16	0.01	22	0.22	31	0.47
18	62104101	1,051	8	-0.63	10	-0.37	9	-0.10	19	0.05	54	0.57
19	62104102	1,051	10	-0.63	16	-0.33	17	-0.01	28	0.27	29	0.43
20	62104103	1,051	9	-0.61	11	-0.36	11	-0.12	17	0.08	52	0.59
21	62104104	1,051	8	-0.65	9	-0.37	7	-0.13	16	0.03	60	0.62
22	62104105	1,051	8	-0.62	9	-0.38	9	-0.16	18	0.06	56	0.61
23	62114101	1,051	8	-0.63	10	-0.40	8	-0.14	15	0.01	59	0.66
24	62114102	1,051	14	-0.65	15	-0.29	17	0.04	20	0.21	35	0.49
25	62114103	1,051	11	-0.64	16	-0.36	12	-0.02	21	0.16	40	0.55
26	62114104	1,051	10	-0.66	13	-0.31	17	0.01	21	0.17	39	0.48
27	62114105	1,051	11	-0.66	15	-0.28	16	0.02	21	0.18	37	0.46
28	62134102	1,051	10	-0.67	15	-0.34	14	-0.02	21	0.13	40	0.57
29	62134103	1,051	9	-0.66	10	-0.38	9	-0.10	14	0.04	57	0.65
30	62134104	1,051	9	-0.66	12	-0.38	10	-0.09	20	0.08	49	0.62

Table 6.3.10
2014 AIMS A Classical Item Analysis
Reading Grade 5

Multiple-Choice

					Correct		Distractor 1		Distractor 2		
Item	**Item ID**	**N**	**p-value**	**%**	**r_{pb}**	**r_{bi}**	**%**	**r_{pb}**	**%**	**r_{pb}**	**% Omit**
1	62095001	1,019	0.74	74	0.52	0.70	11	-0.30	12	-0.31	3
2	62135001	1,019	0.64	64	0.53	0.68	13	-0.26	19	-0.35	3
3	62105001	1,019	0.65	65	0.49	0.63	19	-0.22	13	-0.37	3
4	62095006	1,019	0.61	61	0.53	0.67	15	-0.21	21	-0.38	3
5	62095007	1,019	0.60	60	0.29	0.37	20	-0.16	16	-0.16	3
6	62135005	1,019	0.46	46	0.37	0.46	20	-0.10	30	-0.26	4
7	62095002	1,019	0.62	62	0.49	0.63	21	-0.28	13	-0.30	3
8	62095011	1,019	0.64	64	0.43	0.55	16	-0.23	17	-0.25	3
9	62095012	1,019	0.61	61	0.52	0.67	17	-0.29	19	-0.31	3
10	62125002	1,019	0.43	43	0.34	0.43	24	-0.21	30	-0.13	4
11	62125004	1,019	0.69	69	0.58	0.76	11	-0.30	16	-0.36	3
12	62105011	1,019	0.54	54	0.39	0.48	25	-0.15	18	-0.28	3
13	62115004	1,019	0.66	66	0.44	0.57	13	-0.26	18	-0.25	3
14	62115002	1,019	0.79	79	0.57	0.80	9	-0.29	10	-0.37	3
15	62105008	1,019	0.49	49	0.39	0.49	26	-0.19	22	-0.22	3

Performance Tasks

			Score 0		Score 1		Score 2		Score 3		Score 4	
Item	**Item ID**	**N**	**%**	**r_{pb}**	**%**	**r_{pb}**	**%**	**r_{pb}**	**%**	**r_{pb}**	**%**	**r_{pb}**
16	62105101	1,019	8	-0.65	11	-0.34	12	-0.13	22	0.08	46	0.59
17	62105102	1,019	8	-0.65	12	-0.35	14	-0.06	28	0.23	37	0.44
18	62105103	1,019	8	-0.65	11	-0.31	16	-0.08	28	0.22	37	0.43
19	62105104	1,019	8	-0.67	8	-0.35	9	-0.15	15	0.01	60	0.64
20	62105105	1,019	10	-0.65	14	-0.28	19	-0.04	29	0.25	29	0.43
21	62115101	1,019	8	-0.67	13	-0.35	15	-0.06	17	0.10	46	0.58
22	62115102	1,019	10	-0.68	14	-0.30	15	-0.03	23	0.21	39	0.47
23	62115103	1,019	9	-0.66	13	-0.30	14	-0.10	18	0.11	46	0.57
24	62115104	1,019	10	-0.65	17	-0.25	17	0.00	21	0.16	35	0.47
25	62115105	1,019	9	-0.69	11	-0.33	9	-0.10	15	-0.01	56	0.66
26	62135101	1,019	9	-0.66	12	-0.31	16	-0.10	18	0.11	44	0.58
27	62135102	1,019	8	-0.66	9	-0.36	11	-0.15	17	0.02	56	0.64
28	62135103	1,019	10	-0.65	16	-0.28	20	-0.02	23	0.22	31	0.45
29	62135104	1,019	11	-0.69	17	-0.32	16	0.03	20	0.17	37	0.52
30	62135105	1,019	12	-0.69	16	-0.28	17	-0.01	20	0.18	35	0.54

Table 6.3.11
2014 AIMS A Classical Item Analysis
Reading Grade 6

Multiple-Choice

					Correct		Distractor 1		Distractor 2		
Item	Item ID	N	p-value	%	r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	% Omit
1	62136005	961	0.65	65	0.56	0.72	11	-0.32	21	-0.30	4
2	62096009	961	0.72	72	0.60	0.81	11	-0.31	12	-0.33	4
3	62136001	961	0.60	60	0.47	0.60	16	-0.19	19	-0.28	4
4	62106003	961	0.69	69	0.52	0.68	11	-0.34	16	-0.23	4
5	62136004	961	0.63	63	0.45	0.58	15	-0.22	18	-0.23	4
6	62106001	961	0.71	71	0.58	0.77	15	-0.37	9	-0.25	4
7	62116001	961	0.66	66	0.52	0.67	19	-0.36	11	-0.18	4
8	62106010	961	0.76	76	0.60	0.82	7	-0.29	13	-0.37	4
9	62116002	961	0.52	52	0.39	0.49	21	-0.07	23	-0.30	4
10	62096007	961	0.74	74	0.58	0.78	10	-0.30	12	-0.30	4
11	62096002	961	0.73	73	0.59	0.79	11	-0.32	12	-0.31	4
12	62096003	961	0.65	65	0.53	0.68	18	-0.30	12	-0.24	4
13	62096011	961	0.66	66	0.53	0.68	14	-0.24	16	-0.29	5
14	62106004	961	0.57	57	0.50	0.63	16	-0.28	21	-0.21	5
15	62106007	961	0.41	41	0.19	0.24	32	0.05	22	-0.18	5

Performance Tasks

			Score 0		Score 1		Score 2		Score 3		Score 4	
Item	Item ID	N	%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
16	62106101	961	10	-0.63	11	-0.28	13	-0.06	29	0.25	37	0.39
17	62106102	961	9	-0.64	9	-0.35	12	-0.14	18	0.08	53	0.59
18	62106103	961	9	-0.62	13	-0.32	12	-0.06	29	0.20	37	0.44
19	62106104	961	10	-0.65	10	-0.35	11	-0.14	12	0.00	57	0.69
20	62106105	961	8	-0.64	10	-0.34	11	-0.15	22	0.13	50	0.54
21	62116101	961	8	-0.67	10	-0.35	10	-0.17	16	0.02	57	0.66
22	62116102	961	8	-0.66	10	-0.38	10	-0.15	15	0.02	56	0.67
23	62116103	961	9	-0.66	11	-0.37	13	-0.15	15	0.09	52	0.64
24	62116104	961	8	-0.66	10	-0.38	7	-0.15	13	-0.01	61	0.69
25	62116105	961	8	-0.67	10	-0.40	9	-0.16	13	-0.02	60	0.73
26	62136101	961	10	-0.66	15	-0.30	18	-0.05	23	0.24	33	0.47
27	62136102	961	11	-0.61	18	-0.27	21	0.00	22	0.26	28	0.40
28	62136103	961	11	-0.64	16	-0.32	16	-0.03	19	0.15	39	0.54
29	62136104	961	11	-0.65	18	-0.30	18	0.01	17	0.17	37	0.51
30	62136105	961	11	-0.66	18	-0.27	20	0.05	20	0.18	31	0.48

Table 6.3.12
2014 AIMS A Classical Item Analysis
Reading Grade 7

Multiple-Choice

					Correct		Distractor 1		Distractor 2		
Item	**Item ID**	**N**	**p-value**	**%**	r_{pb}	r_{bi}	**%**	r_{pb}	**%**	r_{pb}	**% Omit**
1	62137001	966	0.68	68	0.50	0.66	12	-0.18	16	-0.33	4
2	62127003	966	0.45	45	0.27	0.34	23	-0.07	28	-0.17	4
3	62097003	966	0.63	63	0.51	0.65	17	-0.28	16	-0.24	4
4	62137003	966	0.45	45	0.28	0.36	12	-0.18	39	-0.10	4
5	62107010	966	0.48	48	0.38	0.48	13	-0.19	34	-0.18	4
6	62117001	966	0.75	75	0.60	0.82	11	-0.33	10	-0.31	4
7	62137004	966	0.54	54	0.52	0.65	19	-0.30	23	-0.22	4
8	62097010	966	0.69	69	0.57	0.75	10	-0.25	17	-0.35	4
9	62107002	966	0.82	82	0.51	0.75	7	-0.24	7	-0.28	4
10	62147006	966	0.46	46	0.46	0.58	18	-0.24	32	-0.20	4
11	62097002	966	0.77	77	0.58	0.80	8	-0.30	11	-0.31	4
12	62097001	966	0.70	70	0.57	0.75	13	-0.30	13	-0.31	4
13	62097015	966	0.79	79	0.53	0.75	7	-0.22	10	-0.32	4
14	62107004	966	0.68	68	0.43	0.56	13	-0.17	15	-0.27	4
15	62117004	966	0.55	55	0.27	0.34	17	-0.18	24	-0.07	4

Performance Tasks

			Score 0		Score 1		Score 2		Score 3		Score 4	
Item	**Item ID**	**N**	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}
16	62107101	966	11	-0.62	11	-0.24	15	-0.10	29	0.23	33	0.43
17	62107102	966	8	-0.64	11	-0.34	13	-0.13	22	0.15	46	0.54
18	62107103	966	8	-0.66	12	-0.32	11	-0.10	15	0.00	54	0.64
19	62107104	966	7	-0.67	8	-0.35	8	-0.17	12	-0.06	65	0.69
20	62107105	966	9	-0.72	8	-0.31	8	-0.16	15	-0.01	60	0.68
21	62117101	966	8	-0.67	9	-0.35	9	-0.19	12	-0.02	62	0.70
22	62117102	966	9	-0.66	9	-0.31	9	-0.11	23	0.08	49	0.55
23	62117103	966	9	-0.69	9	-0.30	12	-0.10	19	0.05	51	0.59
24	62117104	966	9	-0.70	9	-0.35	9	-0.14	15	0.00	59	0.68
25	62117105	966	9	-0.70	11	-0.31	12	-0.08	20	0.07	48	0.59
26	62137101	966	10	-0.65	14	-0.28	21	0.03	22	0.18	33	0.44
27	62137102	966	9	-0.66	12	-0.32	19	-0.06	22	0.16	39	0.50
28	62137103	966	11	-0.65	16	-0.29	18	0.02	22	0.18	34	0.48
29	62137104	966	9	-0.70	12	-0.29	14	-0.09	18	0.08	46	0.60
30	62137105	966	11	-0.67	14	-0.26	16	-0.02	20	0.16	38	0.52

Table 6.3.13
2014 AIMS A Classical Item Analysis
Reading Grade 8

Multiple-Choice

					Correct		Distractor 1		Distractor 2		
Item	**Item ID**	**N**	**p-value**	**%**	r_{pb}	r_{bi}	**%**	r_{pb}	**%**	r_{pb}	**% Omit**
1	**62098002**	1,029	0.79	79	0.51	0.72	9	-0.29	9	-0.24	4
2	**62098007**	1,029	0.87	87	0.53	0.84	6	-0.34	4	-0.18	3
3	**62148006**	1,029	0.52	52	0.40	0.50	16	-0.18	28	-0.20	4
4	**62138002**	1,029	0.63	63	0.49	0.63	14	-0.35	19	-0.17	4
5	**62098008**	1,029	0.85	85	0.60	0.92	5	-0.31	6	-0.31	4
6	**62138001**	1,029	0.45	45	0.32	0.41	19	-0.21	32	-0.08	4
7	**62098006**	1,029	0.61	61	0.50	0.64	18	-0.31	16	-0.20	4
8	**62138004**	1,029	0.53	53	0.42	0.53	18	-0.21	25	-0.20	4
9	**62108015**	1,029	0.70	70	0.54	0.71	11	-0.34	15	-0.25	3
10	**62138003**	1,029	0.64	64	0.43	0.55	15	-0.21	18	-0.22	4
11	**62098003**	1,029	0.58	58	0.43	0.54	18	-0.24	21	-0.20	4
12	**62128004**	1,029	0.79	79	0.63	0.89	8	-0.33	9	-0.34	4
13	**62108011**	1,029	0.61	61	0.41	0.53	17	-0.21	18	-0.20	4
14	**62118005**	1,029	0.79	79	0.63	0.89	8	-0.31	10	-0.36	4
15	**62108013**	1,029	0.68	68	0.59	0.76	13	-0.29	15	-0.31	4

Performance Tasks

			Score 0		Score 1		Score 2		Score 3		Score 4	
Item	**Item ID**	**N**	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}
16	**62108101**	1,029	10	-0.63	11	-0.40	8	-0.14	16	0.03	56	0.68
17	**62108102**	1,029	10	-0.65	11	-0.37	9	-0.13	21	0.12	48	0.60
18	**62108103**	1,029	10	-0.62	13	-0.38	12	-0.07	19	0.11	47	0.59
19	**62108104**	1,029	10	-0.62	14	-0.33	14	-0.03	24	0.23	38	0.44
20	**62108105**	1,029	10	-0.62	13	-0.35	13	-0.05	29	0.24	35	0.44
21	**62118101**	1,029	8	-0.61	11	-0.45	8	-0.15	14	-0.01	59	0.71
22	**62118102**	1,029	8	-0.64	9	-0.42	7	-0.19	13	-0.05	64	0.74
23	**62118103**	1,029	9	-0.62	10	-0.38	11	-0.14	15	0.00	55	0.67
24	**62118104**	1,029	8	-0.65	10	-0.40	8	-0.16	12	-0.05	62	0.74
25	**62118105**	1,029	9	-0.64	11	-0.39	9	-0.09	18	0.07	53	0.61
26	**62138101**	1,029	8	-0.61	12	-0.40	11	-0.05	17	0.01	51	0.62
27	**62138102**	1,029	9	-0.60	15	-0.37	17	-0.05	23	0.20	36	0.51
28	**62138103**	1,029	13	-0.65	17	-0.30	12	-0.02	15	0.15	42	0.58
29	**62138104**	1,029	10	-0.68	13	-0.39	7	-0.05	19	0.05	50	0.66
30	**62138105**	1,029	10	-0.66	12	-0.41	9	-0.12	15	0.05	55	0.69

Table 6.3.14
2014 AIMS A Classical Item Analysis
Reading High School

Multiple-Choice

					Correct		Distractor 1		Distractor 2		
Item	**Item ID**	N	p-value	%	r_{pb}	r_{bi}	%	r_{pb}	%	r_{pb}	**% Omit**
1	62090013	1,034	0.88	88	0.52	0.84	4	-0.23	3	-0.19	4
2	62130004	1,034	0.53	53	0.40	0.50	24	-0.08	18	-0.25	5
3	62100001	1,034	0.67	67	0.51	0.66	10	-0.21	18	-0.24	5
4	62130003	1,034	0.54	54	0.38	0.48	20	-0.15	21	-0.13	6
5	62130001	1,034	0.50	50	0.28	0.35	26	0.00	19	-0.17	5
6	62110001	1,034	0.75	75	0.52	0.71	9	-0.29	11	-0.17	5
7	62140006	1,034	0.68	68	0.53	0.69	14	-0.17	12	-0.29	5
8	62090007	1,034	0.76	76	0.57	0.79	8	-0.28	11	-0.23	5
9	62090008	1,034	0.72	72	0.61	0.81	10	-0.31	14	-0.28	5
10	62100010	1,034	0.67	67	0.54	0.70	12	-0.26	16	-0.23	5
11	62090012	1,034	0.71	71	0.51	0.68	15	-0.21	9	-0.25	5
12	62090011	1,034	0.80	80	0.61	0.87	8	-0.29	8	-0.26	5
13	62100005	1,034	0.57	57	0.45	0.56	11	-0.14	26	-0.23	5
14	62100003	1,034	0.67	67	0.64	0.84	12	-0.31	15	-0.29	5
15	62100004	1,034	0.66	66	0.53	0.69	14	-0.17	15	-0.30	5

Performance Tasks

			Score 0		Score 1		Score 2		Score 3		Score 4	
Item	**Item ID**	N	%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}	%	r_{pb}
16	62140105	1,034	13	-0.70	12	-0.30	12	-0.11	16	0.10	47	0.66
17	62100101	1,034	11	-0.68	9	-0.35	6	-0.15	15	-0.07	60	0.75
18	62100102	1,034	11	-0.69	11	-0.32	10	-0.12	18	0.07	49	0.67
19	62100103	1,034	11	-0.70	9	-0.35	9	-0.15	14	0.00	58	0.72
20	62100104	1,034	11	-0.69	10	-0.35	9	-0.14	16	0.02	54	0.71
21	62100105	1,034	11	-0.69	8	-0.32	8	-0.14	14	-0.04	59	0.71
22	62110102	1,034	12	-0.71	13	-0.35	10	-0.10	11	0.05	54	0.73
23	62110103	1,034	12	-0.71	14	-0.34	11	-0.06	14	0.14	49	0.64
24	62110104	1,034	14	-0.70	15	-0.24	15	-0.01	21	0.20	35	0.53
25	62110105	1,034	16	-0.68	17	-0.25	17	0.04	20	0.24	31	0.50
26	62130101	1,034	13	-0.72	12	-0.28	13	-0.05	18	0.12	45	0.61
27	62130102	1,034	12	-0.72	12	-0.34	11	-0.06	16	0.09	48	0.67
28	62130103	1,034	14	-0.73	15	-0.30	11	-0.04	15	0.11	45	0.67
29	62130104	1,034	13	-0.68	12	-0.32	11	-0.07	16	0.09	48	0.64
30	62130105	1,034	12	-0.68	13	-0.34	11	-0.08	14	0.07	50	0.67

Table 6.3.15
2014 AIMS A Classical Item Analysis
Science Grade 4

Multiple-Choice

Item	Item ID	N	p-value	Correct %	r_{pb}	r_{bi}	Distractor 1 %	r_{pb}	Distractor 2 %	r_{pb}	% Omit
1	64094022	1,051	0.80	80	0.49	0.70	9	-0.28	9	-0.31	3
2	64094016	1,051	0.63	63	0.58	0.75	22	-0.46	12	-0.22	2
3	64134003	1,051	0.65	65	0.50	0.64	12	-0.22	20	-0.36	3
4	64094019	1,051	0.68	68	0.52	0.68	18	-0.38	11	-0.22	3
5	64124003	1,051	0.64	64	0.37	0.48	19	-0.18	13	-0.27	3
6	64114001	1,051	0.53	53	0.41	0.52	23	-0.28	21	-0.18	3
7	64114002	1,051	0.75	75	0.54	0.73	9	-0.27	13	-0.37	3
8	64124002	1,051	0.65	65	0.45	0.57	12	-0.19	19	-0.32	3
9	64104008	1,051	0.64	64	0.59	0.75	17	-0.39	16	-0.29	3
10	64094013	1,051	0.69	69	0.46	0.60	12	-0.23	17	-0.32	3
11	64094003	1,051	0.75	75	0.58	0.79	12	-0.30	11	-0.40	3
12	64094025	1,051	0.75	75	0.52	0.71	11	-0.30	11	-0.33	3
13	64134004	1,051	0.33	33	0.28	0.36	32	-0.23	31	-0.01	3
14	64124005	1,051	0.60	60	0.45	0.58	19	-0.33	18	-0.20	3
15	64104001	1,051	0.68	68	0.61	0.79	13	-0.35	17	-0.37	3

Performance Tasks

Item	Item ID	N	Score 0 %	r_{pb}	Score 1 %	r_{pb}	Score 2 %	r_{pb}	Score 3 %	r_{pb}	Score 4 %	r_{pb}
16	64104101	1,051	11	-0.62	20	-0.25	18	0.01	20	0.21	31	0.44
17	64104102	1,051	9	-0.62	13	-0.42	12	-0.12	21	0.14	46	0.60
18	64104103	1,051	9	-0.64	13	-0.37	16	-0.06	24	0.21	39	0.48
19	64104104	1,051	10	-0.65	16	-0.34	18	0.03	19	0.21	38	0.45
20	64104105	1,051	8	-0.66	10	-0.39	8	-0.11	11	0.02	61	0.67
21	64114101	1,051	9	-0.67	11	-0.37	10	-0.10	17	0.09	53	0.60
22	64114102	1,051	9	-0.64	13	-0.36	13	-0.07	20	0.13	45	0.56
23	64114103	1,051	9	-0.64	12	-0.39	13	-0.10	20	0.16	46	0.56
24	64114104	1,051	8	-0.63	8	-0.38	8	-0.13	14	-0.02	62	0.66
25	64114105	1,051	8	-0.65	10	-0.33	14	-0.14	18	0.10	50	0.58
26	64134101	1,051	8	-0.63	12	-0.39	13	-0.07	19	0.11	49	0.56
27	64134102	1,051	10	-0.67	14	-0.35	13	-0.07	15	0.10	49	0.61
28	64134103	1,051	12	-0.65	20	-0.30	20	0.07	21	0.26	27	0.43
29	64134104	1,051	12	-0.66	23	-0.26	18	0.07	19	0.24	28	0.45
30	64134105	1,051	14	-0.67	21	-0.23	19	0.11	20	0.26	26	0.41

Table 6.3.16
2014 AIMS A Classical Item Analysis
Science Grade 8

Multiple-Choice

					Correct		Distractor 1		Distractor 2		
Item	**Item ID**	**N**	**p-value**	**%**	r_{pb}	r_{bi}	**%**	r_{pb}	**%**	r_{pb}	**% Omit**
1	64128001	1,029	0.77	77	0.56	0.78	10	-0.27	10	-0.35	4
2	64098015	1,029	0.77	77	0.56	0.77	14	-0.36	6	-0.25	4
3	64098017	1,029	0.59	59	0.52	0.66	14	-0.25	24	-0.31	4
4	64098019	1,029	0.66	66	0.49	0.64	11	-0.25	20	-0.28	4
5	64138005	1,029	0.64	64	0.36	0.46	17	-0.12	15	-0.25	4
6	64118005	1,029	0.61	61	0.51	0.65	19	-0.21	16	-0.34	4
7	64098009	1,029	0.61	61	0.60	0.76	16	-0.27	19	-0.37	4
8	64098028	1,029	0.58	58	0.52	0.65	14	-0.30	24	-0.25	4
9	64108001	1,029	0.60	60	0.43	0.54	20	-0.15	16	-0.31	3
10	64148001	1,029	0.63	63	0.55	0.70	16	-0.26	17	-0.33	4
11	64128003	1,029	0.48	48	0.39	0.48	19	-0.24	29	-0.13	4
12	64098027	1,029	0.76	76	0.56	0.77	9	-0.28	11	-0.33	4
13	64118001	1,029	0.69	69	0.59	0.77	14	-0.35	14	-0.30	3
14	64128005	1,029	0.76	76	0.52	0.71	11	-0.26	10	-0.31	3
15	64118004	1,029	0.61	61	0.48	0.61	21	-0.19	15	-0.33	4

Performance Tasks

			Score 0		Score 1		Score 2		Score 3		Score 4	
Item	**Item ID**	**N**	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}
16	64108101	1,029	10	-0.59	17	-0.33	21	0.08	28	0.26	25	0.36
17	64108102	1,029	8	-0.56	15	-0.39	16	-0.06	26	0.21	35	0.47
18	64108103	1,029	9	-0.64	12	-0.36	14	-0.08	21	0.12	44	0.56
19	64108104	1,029	10	-0.63	11	-0.36	14	-0.06	17	0.08	49	0.59
20	64108105	1,029	10	-0.62	11	-0.37	8	-0.14	16	0.08	56	0.62
21	64118101	1,029	8	-0.61	10	-0.39	7	-0.16	12	-0.04	64	0.70
22	64118102	1,029	9	-0.64	12	-0.39	9	-0.08	14	0.03	57	0.65
23	64118103	1,029	12	-0.58	20	-0.31	24	0.10	23	0.28	22	0.36
24	64118104	1,029	8	-0.59	11	-0.42	9	-0.14	17	0.07	54	0.61
25	64118105	1,029	9	-0.65	11	-0.37	10	-0.08	11	0.04	58	0.64
26	64138101	1,029	11	-0.58	18	-0.31	24	0.03	25	0.31	22	0.36
27	64138102	1,029	14	-0.55	25	-0.26	27	0.23	19	0.27	15	0.28
28	64138103	1,029	11	-0.61	16	-0.29	15	-0.02	21	0.18	37	0.48
29	64138104	1,029	11	-0.66	16	-0.33	16	-0.03	21	0.19	36	0.53
30	64138105	1,029	11	-0.61	22	-0.32	18	0.06	23	0.25	26	0.44

Table 6.3.17
2014 AIMS A Classical Item Analysis
Science High School

Multiple-Choice

					Correct		Distractor 1		Distractor 2		
Item	**Item ID**	**N**	**p-value**	**%**	r_{pb}	r_{bi}	**%**	r_{pb}	**%**	r_{pb}	**% Omit**
1	64090006	918	0.82	82	0.58	0.86	5.66	-0.26	7.63	-0.29	5
2	64130005	918	0.69	69	0.49	0.64	10.68	-0.14	15.14	-0.29	5
3	64120002	918	0.56	56	0.44	0.55	22.00	-0.25	16.67	-0.12	5
4	64090015	918	0.68	68	0.56	0.73	11.55	-0.23	15.69	-0.28	5
5	64090017	918	0.62	62	0.54	0.69	17.10	-0.23	16.01	-0.26	5
6	64120005	918	0.50	50	0.37	0.46	24.51	-0.13	20.92	-0.16	5
7	64090020	918	0.75	75	0.56	0.77	9.37	-0.26	10.46	-0.28	5
8	64090023	918	0.73	73	0.64	0.86	11.00	-0.33	10.89	-0.28	5
9	64090027	918	0.69	69	0.48	0.63	14.05	-0.24	12.09	-0.19	5
10	64100008	918	0.65	65	0.51	0.66	11.22	-0.35	18.52	-0.14	5
11	64130001	918	0.49	49	0.31	0.39	18.95	-0.13	26.80	-0.09	5
12	64100001	918	0.43	43	0.24	0.30	27.23	-0.20	24.73	0.07	5
13	64130002	918	0.68	68	0.45	0.58	11.44	-0.16	15.58	-0.22	5
14	64110002	918	0.65	65	0.62	0.80	12.96	-0.35	16.56	-0.25	5
15	64110005	918	0.70	70	0.49	0.65	9.15	-0.13	15.58	-0.30	5

Performance Tasks

			Score 0		Score 1		Score 2		Score 3		Score 4	
Item	**Item ID**	**N**	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}	**%**	r_{pb}
16	64100101	918	10	-0.68	7	-0.30	8	-0.19	14	-0.04	61	0.71
17	64100102	918	12	-0.69	13	-0.31	13	-0.06	19	0.15	43	0.58
18	64100103	918	11	-0.70	9	-0.35	6	-0.11	15	0.01	58	0.70
19	64100104	918	11	-0.69	11	-0.34	8	-0.14	17	0.08	54	0.66
20	64100105	918	11	-0.68	11	-0.35	9	-0.11	15	0.09	53	0.65
21	64110101	918	12	-0.65	13	-0.29	19	0.09	26	0.23	30	0.38
22	64110102	918	13	-0.66	14	-0.28	14	-0.02	20	0.16	39	0.53
23	64110103	918	13	-0.67	16	-0.27	18	0.06	23	0.27	30	0.42
24	64110104	918	12	-0.68	14	-0.30	9	-0.08	17	0.10	47	0.63
25	64110105	918	11	-0.70	12	-0.32	9	-0.10	14	0.06	54	0.67
26	64130101	918	14	-0.71	14	-0.31	9	-0.04	16	0.14	47	0.64
27	64130102	918	15	-0.65	19	-0.20	22	0.15	24	0.30	20	0.31
28	64130103	918	12	-0.71	12	-0.33	7	-0.08	15	0.07	54	0.68
29	64130104	918	17	-0.65	18	-0.24	19	0.09	19	0.25	27	0.45
30	64130105	918	15	-0.71	19	-0.26	16	0.09	18	0.24	31	0.49

Part 7: Calibration, Equating, and Scaling

Part 7 of the Technical Report describes the scaling procedures and results for the 2014 AIMS A assessments. All grade levels and content areas were scaled with calibration samples that typically consisted of the entire student population with a very few students excluded from the analysis because they did not respond to any question. These exclusionary rules were explained in Section 6.1, Data. 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 independently conducted by two ADE staff members.

7.1.1 Calibration Models

The AIMS A Mathematics, Reading, and Science criterion-referenced assessments are comprised of multiple-choice items and performance task items. All items contributing to the AIMS A scores were calibrated using the Rasch (or Rasch family) models 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 dichotomous 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 difficulty parameter for item i.

Similarly, for polytomous items (performance tasks where multiple score points are available), the Rasch family's Masters' partial credit model was used. Under Masters' model, which was designed to calibrate items with multiple, ordered response categories, the probability that student j scores x on item i which has a maximum possible point value of m ($k=m+1$ possible response categories) can be expressed as

$$P_{ix}(\theta_j) = \frac{\exp \sum_{l=0}^{x}(\theta_j - D_{il})}{\sum_{k=0}^{m_i}[\exp \sum_{l=0}^{k}(\theta_j - D_{il})]}.$$

Here, $x = 0, 1, \ldots, m_i$ and D_{il} is a step difficulty for score l and is defined as

$$\sum_{i=0}^{0}(\theta_j - D_{il}) \equiv 0,$$

and can be decomposed as

$$D_{il} = b_i + h_{il},$$

where b_i is the overall difficulty for item i and h_{il} is the threshold for score point l (Embretson & Reise, 2000).

7.1.2 Calibration Software

Parameter estimation for items on the tests using the Rasch model was implemented using Winsteps 3.73.0 (Linacre, 2011). Winsteps uses joint maximum likelihood estimation (JMLE) as described by Wright and Masters (1982).

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 (SE) of estimates for the Rasch difficulty measures indicated that the parameters were well estimated. Model to item data fit was monitored using weighted and unweighted mean-square 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 and unweighted mean square is referred to as outfit. The infit statistic is sensitive to unexpected responses at or near the item's calibrated level, whereas outfit statistic is sensitive to unexpected responses away from the item's calibrated level. Typically, values less than 0.6 and greater than 1.4 for infit indicate misfit, and values greater than 1.4 for outfit indicate misfit (Wright & Linacre, 1994). Of the 300 operational items used across the all grades and content areas, forty-seven items were flagged as having misfit as indicated by infit and 183 items were flagged as having misfit as indicated by outfit. All items that were flagged for infit were also flagged for outfit. 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 infit and outfit along with low point biserial (PT.BIS) statistics and *p*-values are included in Table 7.2.1.1.

Table 7.2.1.1
Weighted and Unweighted Flagged Items All Grades and Content

Items	Subject	Grade	ITEM	INFIT	OUTFIT	PTBISE	*P*-VALUE
1	Math	Grade 3	1		2.89		
2	Math	Grade 3	4	1.41	2.12		
3	Math	Grade 3	5	1.75	3.70	0.02	
4	Math	Grade 3	6		1.64		
5	Math	Grade 3	7	1.65	5.85	0.11	
6	Math	Grade 3	9	1.66	3.03	0.07	
7	Math	Grade 3	10		1.66		
8	Math	Grade 3	11		9.90		
9	Math	Grade 4	2		2.41		
10	Math	Grade 4	3		1.63		
11	Math	Grade 4	4		1.48		
12	Math	Grade 4	5		1.93		
13	Math	Grade 4	6		1.89		
14	Math	Grade 4	7		3.14		
15	Math	Grade 4	8		3.36		
16	Math	Grade 4	9	1.51	2.72	0.26	
17	Math	Grade 4	13	1.56	2.89	0.25	
18	Math	Grade 4	15		1.53		
19	Math	Grade 5	1		1.71		
20	Math	Grade 5	2		1.57		
21	Math	Grade 5	5		3.08		
22	Math	Grade 5	6		2.98		
23	Math	Grade 5	7		1.84		
24	Math	Grade 5	8		1.94		
25	Math	Grade 5	9		2.56		
26	Math	Grade 5	10		1.83	0.25	
27	Math	Grade 5	11		3.02		
28	Math	Grade 5	12		2.20		
29	Math	Grade 5	13		3.40	0.29	
30	Math	Grade 5	14		2.80		
31	Math	Grade 5	15	1.56	2.59	0.16	
32	Math	Grade 6	1		2.72	0.28	
33	Math	Grade 6	2		1.78		
34	Math	Grade 6	3		3.45		
35	Math	Grade 6	4	1.48	1.96	0.13	
36	Math	Grade 6	7		1.81		
37	Math	Grade 6	8		1.49		
38	Math	Grade 6	10		1.75		
39	Math	Grade 6	11		1.62		
40	Math	Grade 6	12		1.73	0.27	
41	Math	Grade 6	13		3.87		
42	Math	Grade 6	14		1.49		
43	Math	Grade 6	15		1.76		
44	Math	Grade 7	1		1.63		
45	Math	Grade 7	2		1.91	0.27	
46	Math	Grade 7	4		1.58		
47	Math	Grade 7	5		1.67		
48	Math	Grade 7	8	1.61	9.90	0.01	
49	Math	Grade 7	9		1.47	0.27	
50	Math	Grade 7	10		2.03	0.22	
51	Math	Grade 7	12	1.46	2.23	0.12	
52	Math	Grade 7	13		2.14	0.29	
53	Math	Grade 7	15		1.53		
54	Math	Grade 8	3		4.84		
55	Math	Grade 8	5		1.75		
56	Math	Grade 8	6		1.69	0.24	
57	Math	Grade 8	7		2.06	0.27	
58	Math	Grade 8	8		3.05		
59	Math	Grade 8	9	1.56	2.25	0.09	
60	Math	Grade 8	10	1.49	2.95	0.08	0.29
61	Math	Grade 8	11		1.44		
62	Math	Grade 8	13		1.72		
63	Math	Grade 8	14		1.49		
64	Math	Grade 8	15	1.49	2.18	0.13	
65	Math	HS	1		1.52	0.29	

	Subject	Grade	ITEM	INFIT	OUTFIT	PTBISE	*P*-VALUE
66	Math	HS	2	1.66	9.90	-0.03	
67	Math	HS	4		1.82		
68	Math	HS	5		1.66	0.28	
69	Math	HS	7	1.42	2.46	0.17	
70	Math	HS	10	1.48	2.42	0.12	
71	Math	HS	11	1.41	1.76	0.17	
72	Math	HS	14		2.42		
73	Math	HS	15		1.85	0.22	
74	Math	HS	18		0.59		
75	Read	Grade 3	2		9.90	0.23	
76	Read	Grade 3	3		2.47		
77	Read	Grade 3	5		1.74		
78	Read	Grade 3	6		1.67		
79	Read	Grade 3	7		1.52		
80	Read	Grade 3	8		5.32		
81	Read	Grade 3	9		9.90	0.23	
82	Read	Grade 3	10		1.53	0.29	
83	Read	Grade 3	11		1.49		
84	Read	Grade 3	12		4.30		
85	Read	Grade 3	13		4.41	0.23	
86	Read	Grade 3	14		9.90		
87	Read	Grade 3	15		1.49		
88	Read	Grade 4	1	1.59	2.84	0.17	
89	Read	Grade 4	3		1.53		
90	Read	Grade 4	6		1.61		
91	Read	Grade 4	7		4.30		
92	Read	Grade 4	8		1.93		
93	Read	Grade 4	9		3.70		
94	Read	Grade 4	10		1.71		
95	Read	Grade 4	11		3.34	0.29	
96	Read	Grade 4	12		1.85		
97	Read	Grade 4	13	1.42	3.24	0.22	
98	Read	Grade 4	15	1.62	9.90	0.12	
99	Read	Grade 5	3		7.22		
100	Read	Grade 5	4		9.37		
101	Read	Grade 5	5	1.56	2.67	0.24	
102	Read	Grade 5	6		3.83		
103	Read	Grade 5	7		1.64		
104	Read	Grade 5	8		8.89		
105	Read	Grade 5	9		1.69		
106	Read	Grade 5	10	1.45	2.98	0.29	
107	Read	Grade 5	12		2.34		
108	Read	Grade 5	13		2.07		
109	Read	Grade 5	15		2.56		
110	Read	Grade 6	1		8.55		
111	Read	Grade 6	3		1.73		
112	Read	Grade 6	4		1.85		
113	Read	Grade 6	5		2.24		
114	Read	Grade 6	7		1.90		
115	Read	Grade 6	8		1.49		
116	Read	Grade 6	9	1.45	3.64		
117	Read	Grade 6	13		9.53		
118	Read	Grade 6	14		1.69		
119	Read	Grade 6	15	1.90	4.21	0.13	
120	Read	Grade 7	2	1.60	2.70	0.21	
121	Read	Grade 7	3		1.44		
122	Read	Grade 7	4	1.58	5.05	0.22	
123	Read	Grade 7	5		3.92		
124	Read	Grade 7	10		3.27		
125	Read	Grade 7	14	1.41	2.34		
126	Read	Grade 7	15	1.66	4.34	0.21	
127	Read	Grade 8	3	1.63	2.66		
128	Read	Grade 8	5		0.58		
129	Read	Grade 8	6	1.62	3.01		
130	Read	Grade 8	7		1.53		
131	Read	Grade 8	8	1.59	2.43		
132	Read	Grade 8	9		1.76		
133	Read	Grade 8	10	1.53	2.50		
134	Read	Grade 8	11	1.61	3.02		

	Subject	Grade	ITEM	INFIT	OUTFIT	PTBISE	*P*-VALUE
135	Read	Grade 8	13	1.43	2.73		
136	Read	Grade 8	22		0.59		
137	Read	Grade 8	29		0.59		
138	Read	HS	1				0.91
139	Read	HS	2	1.63	2.88		
140	Read	HS	3		1.58		
141	Read	HS	4	1.65	2.46		
142	Read	HS	5	2.03	4.78	0.21	
143	Read	HS	6		1.75		
144	Read	HS	7		1.98		
145	Read	HS	8		1.82		
146	Read	HS	10		1.65		
147	Read	HS	11		1.74		
148	Read	HS	13	1.49	3.80		
149	Read	HS	15		3.66		
150	Read	HS	16		0.53		
151	Read	HS	17		0.57		
152	Read	HS	19		0.56		
153	Read	HS	20		0.58		
154	Read	HS	27		0.57		
155	Science	Grade 4	1		2.93		
156	Science	Grade 4	3		1.54		
157	Science	Grade 4	4		1.55		
158	Science	Grade 4	5	1.54	4.21		
159	Science	Grade 4	6	1.49	2.25		
160	Science	Grade 4	8		2.21		
161	Science	Grade 4	9		1.73		
162	Science	Grade 4	10		1.46		
163	Science	Grade 4	13	1.58	6.07	0.24	
164	Science	Grade 4	14		2.58		
165	Science	Grade 4	17		0.57		
166	Science	Grade 8	3		1.57		
167	Science	Grade 8	4		1.74		
168	Science	Grade 8	5	1.57	2.94		
169	Science	Grade 8	7		4.01		
170	Science	Grade 8	8		1.70		
171	Science	Grade 8	9	1.41	2.59		
172	Science	Grade 8	11	1.52	2.45		
173	Science	Grade 8	15		1.58		
174	Science	HS	2		2.02		
175	Science	HS	3		1.81		
176	Science	HS	4		1.54		
177	Science	HS	6	1.54	1.89	0.29	
178	Science	HS	9		1.64		
179	Science	HS	10		5.46		
180	Science	HS	11	1.61	3.32	0.23	
181	Science	HS	12	1.67	4.31	0.19	
182	Science	HS	13		1.74		
183	Science	HS	14		3.27		
184	Science	HS	15		2.09		

Table 7.2.1.2
2014 AIMS A IRT Item Statistics Mathematics Grade 3

Item	Rasch Measure	SE	INFIT	OUTFIT	PT. BIS	*p*-value
1	0.0273	0.0207	1.15	**2.89**	0.43	0.67
2	0.0304	0.0207	1.20	1.24	0.42	0.66
3	0.0443	0.0205	1.11	1.23	0.46	0.66
4	-0.3250	0.0265	**1.41**	**2.12**	0.40	0.80
5	0.5719	0.0205	**1.75**	**3.70**	**0.02**	0.32
6	0.1968	0.0196	1.19	**1.64**	0.39	0.56
7	0.3910	0.0195	**1.65**	5.85	**0.11**	0.43
8	-0.0103	0.0211	0.93	0.85	0.53	0.72
9	0.5702	0.0205	**1.66**	**3.03**	**0.07**	0.32
10	0.1445	0.0198	1.33	**1.66**	0.34	0.57
11	0.2660	0.0194	1.32	**9.90**	0.31	0.52
12	-0.0808	0.0219	1.17	1.18	0.47	0.70
13	-0.0420	0.0214	1.07	1.27	0.47	0.71
14	0.1637	0.0197	1.18	1.35	0.39	0.65
15	-0.3449	0.0270	1.18	0.91	0.49	0.82
16	0.0255	0.0256	0.79	0.76	0.63	0.58
17	0.3955	0.0259	0.70	0.68	0.69	0.43
18	0.2813	0.0255	0.76	0.75	0.66	0.48
19	0.5016	0.0265	0.84	0.84	0.54	0.39
20	0.6044	0.0272	0.81	0.79	0.52	0.36
21	-0.4946	0.0296	0.87	0.76	0.70	0.76
22	0.0562	0.0255	0.79	0.77	0.61	0.56
23	-0.2637	0.0271	0.75	0.69	0.75	0.68
24	-0.0238	0.0257	0.73	0.70	0.67	0.59
25	0.1182	0.0254	0.76	0.75	0.63	0.58
26	0.0425	0.0255	0.72	0.72	0.60	0.57
27	-0.0450	0.0258	0.72	0.71	0.66	0.60
28	0.1519	0.0254	0.81	0.79	0.60	0.53
29	0.1041	0.0254	0.78	0.77	0.58	0.55
30	-0.0785	0.0259	0.85	0.84	0.62	0.62

Table 7.2.1.3
2014 AIMS A IRT Item Statistics Mathematics Grade 4

Item	Rasch Measure	SE	INFIT	OUTFIT	PT. BIS	*p*-value
1	-0.0599	0.0215	1.04	1.07	0.51	0.73
2	0.1541	0.0198	1.33	**2.41**	0.37	0.58
3	-0.2326	0.0242	1.02	**1.63**	0.52	0.81
4	0.2513	0.0195	1.17	**1.48**	0.43	0.54
5	0.1622	0.0197	1.26	**1.93**	0.40	0.60
6	-0.1090	0.0221	1.23	**1.89**	0.43	0.74
7	-0.0184	0.0210	1.36	**3.14**	0.32	0.70
8	0.0163	0.0207	1.09	**3.36**	0.53	0.64
9	0.3180	0.0195	**1.51**	**2.72**	**0.26**	0.50
10	-0.0300	0.0211	1.00	0.89	0.54	0.71
11	0.0517	0.0204	1.14	1.03	0.47	0.66
12	-0.3610	0.0271	1.14	0.73	0.52	0.83
13	0.3408	0.0195	**1.56**	**2.89**	**0.25**	0.48
14	0.0366	0.0205	1.14	1.07	0.47	0.67
15	-0.0711	0.0216	1.30	**1.53**	0.38	0.73
16	-0.4968	0.0294	0.88	0.78	0.69	0.76
17	0.4526	0.0263	0.67	0.67	0.61	0.41
18	0.5868	0.0271	0.79	0.75	0.66	0.39
19	0.5269	0.0267	0.78	0.76	0.64	0.41
20	0.7141	0.0281	0.86	0.85	0.57	0.38
21	-0.1705	0.0265	0.83	0.79	0.62	0.66
22	0.0224	0.0257	0.90	0.86	0.62	0.63
23	-0.1684	0.0265	0.93	0.88	0.63	0.65
24	-0.3560	0.0279	0.79	0.75	0.60	0.75
25	-0.7081	0.0325	1.02	0.84	0.65	0.81
26	-0.0553	0.0259	0.73	0.78	0.60	0.61
27	0.0655	0.0256	0.72	0.77	0.61	0.57
28	0.0740	0.0256	0.83	0.83	0.55	0.57
29	-0.0830	0.0260	0.80	0.79	0.62	0.62
30	0.1798	0.0256	0.94	0.96	0.53	0.53

Table 7.2.1.4
2014 AIMS A IRT Item Statistics Mathematics Grade 5

Item	Rasch Measure	SE	INFIT	OUTFIT	PT. BIS	*p*-value
1	-0.0580	0.0204	1.12	**1.71**	0.44	0.66
2	-0.3393	0.0248	1.38	**1.57**	0.42	0.77
3	-0.2328	0.0227	1.22	1.26	0.42	0.76
4	-0.2093	0.0223	0.99	0.97	0.56	0.74
5	0.0815	0.0195	1.26	**3.08**	0.37	0.53
6	0.2430	0.0192	1.27	**2.98**	0.31	0.47
7	-0.2571	0.0231	1.37	**1.84**	0.43	0.73
8	0.3233	0.0194	1.29	**1.94**	0.31	0.43
9	0.2379	0.0192	1.27	**2.56**	0.33	0.47
10	0.3263	0.0194	1.40	**1.83**	**0.25**	0.41
11	0.1925	0.0192	1.26	**3.02**	0.32	0.51
12	0.0196	0.0198	1.19	**2.20**	0.40	0.62
13	0.1486	0.0192	1.34	**3.40**	**0.29**	0.53
14	0.1323	0.0193	1.33	**2.80**	0.31	0.54
15	0.2548	0.0192	**1.56**	**2.59**	**0.16**	0.46
16	-0.5743	0.0294	0.83	0.73	0.69	0.75
17	-0.6547	0.0305	0.86	0.76	0.70	0.78
18	0.5199	0.0272	0.79	0.76	0.55	0.35
19	-0.5345	0.0289	0.83	0.79	0.62	0.74
20	-0.3336	0.0269	0.82	0.80	0.57	0.67
21	-0.0414	0.0254	0.75	0.73	0.57	0.60
22	-0.5113	0.0286	0.73	0.70	0.70	0.73
23	0.0593	0.0253	0.77	0.75	0.62	0.58
24	-0.7130	0.0314	0.89	0.77	0.69	0.79
25	-0.1748	0.0259	0.73	0.72	0.63	0.61
26	-0.1209	0.0257	0.72	0.72	0.61	0.59
27	-0.4045	0.0275	0.71	0.66	0.73	0.69
28	-0.3329	0.0269	0.69	0.65	0.73	0.67
29	-0.2126	0.0261	0.73	0.70	0.68	0.63
30	-0.1355	0.0257	0.72	0.70	0.64	0.60

Table 7.2.1.5
2014 AIMS A IRT Item Statistics Mathematics Grade 6

Item	Rasch Measure	SE	INFIT	OUTFIT	PT. BIS	*p*-value
1	0.1899	0.0196	1.29	**2.72**	**0.28**	0.57
2	0.1997	0.0196	1.18	**1.78**	0.37	0.51
3	-0.0875	0.0222	1.16	**3.45**	0.39	0.74
4	0.3845	0.0195	**1.48**	**1.96**	**0.13**	0.43
5	-0.0584	0.0218	1.13	1.19	0.41	0.73
6	0.1059	0.0201	1.16	1.27	0.39	0.61
7	0.1729	0.0197	1.26	**1.81**	0.30	0.58
8	0.1822	0.0196	1.08	**1.49**	0.42	0.57
9	-0.2039	0.0243	1.03	1.15	0.44	0.80
10	0.1791	0.0197	1.15	**1.75**	0.37	0.58
11	0.3048	0.0194	1.20	**1.62**	0.32	0.49
12	0.2567	0.0194	1.29	**1.73**	**0.27**	0.52
13	0.0144	0.0209	1.01	**3.87**	0.48	0.68
14	0.0997	0.0201	1.27	**1.49**	0.33	0.60
15	0.2113	0.0195	1.14	**1.76**	0.37	0.55
16	-0.2458	0.0281	0.70	0.69	0.64	0.67
17	-0.4515	0.0302	0.80	0.74	0.60	0.77
18	-0.4195	0.0298	0.97	0.88	0.71	0.74
19	0.3933	0.0270	0.76	0.75	0.55	0.43
20	0.3937	0.0270	0.79	0.77	0.61	0.43
21	0.0648	0.0266	0.86	0.86	0.46	0.56
22	0.0104	0.0268	0.81	0.79	0.54	0.59
23	0.3271	0.0268	0.89	0.89	0.40	0.49
24	-0.1835	0.0277	0.80	0.78	0.64	0.65
25	0.2124	0.0266	0.87	0.86	0.49	0.50
26	-0.1185	0.0273	0.79	0.77	0.65	0.62
27	0.0491	0.0267	0.81	0.79	0.51	0.56
28	-0.0530	0.0270	0.81	0.79	0.62	0.60
29	-0.0713	0.0271	0.80	0.77	0.64	0.61
30	0.1693	0.0266	0.76	0.76	0.56	0.52

Table 7.2.1.6
2014 AIMS A IRT Item Statistics Mathematics Grade 7

Item	Rasch Measure	SE	INFIT	OUTFIT	PT. BIS	*p*-value
1	0.2218	0.0193	1.11	**1.63**	0.36	0.58
2	0.2996	0.0191	1.24	**1.91**	**0.27**	0.52
3	0.1739	0.0195	1.11	1.26	0.40	0.57
4	0.2625	0.0192	1.20	**1.58**	0.31	0.53
5	0.3258	0.0191	1.07	**1.67**	0.39	0.51
6	0.2179	0.0193	1.14	1.23	0.33	0.61
7	0.0855	0.0202	1.09	1.26	0.38	0.67
8	0.5283	0.0199	**1.61**	**9.90**	**0.01**	0.36
9	0.3755	0.0191	1.24	**1.47**	**0.27**	0.47
10	0.4019	0.0192	1.31	**2.03**	**0.22**	0.45
11	0.2458	0.0192	1.19	1.37	0.30	0.57
12	0.4331	0.0193	**1.46**	**2.23**	**0.12**	0.43
13	0.2865	0.0191	1.20	**2.14**	**0.29**	0.53
14	0.1827	0.0195	1.03	0.97	0.43	0.61
15	0.0369	0.0208	1.11	**1.53**	0.42	0.67
16	0.6254	0.0278	0.75	0.73	0.55	0.37
17	0.3929	0.0265	0.77	0.75	0.65	0.47
18	0.3249	0.0263	0.70	0.69	0.66	0.48
19	0.4596	0.0267	0.76	0.74	0.63	0.43
20	0.1728	0.0262	0.85	0.83	0.67	0.55
21	-0.3631	0.0295	0.92	0.87	0.56	0.73
22	-0.2497	0.0283	0.80	0.77	0.59	0.69
23	-0.1114	0.0272	0.72	0.70	0.64	0.67
24	-0.3966	0.0299	0.94	0.86	0.59	0.74
25	-0.0513	0.0269	0.69	0.67	0.64	0.66
26	-0.3613	0.0295	0.94	0.91	0.57	0.73
27	-0.0891	0.0271	0.73	0.74	0.47	0.64
28	0.0606	0.0264	0.72	0.71	0.51	0.59
29	-0.0148	0.0267	0.82	0.81	0.53	0.61
30	0.1278	0.0262	0.88	0.88	0.45	0.56

Table 7.2.1.7
2014 AIMS A IRT Item Statistics Mathematics Grade 8

Item	Rasch Measure	SE	INFIT	OUTFIT	PT. BIS	*p*-value
1	0.1390	0.0191	1.12	1.22	0.40	0.60
2	-0.1220	0.0217	1.07	0.96	0.47	0.74
3	0.1604	0.0190	1.25	**4.84**	0.35	0.53
4	0.1134	0.0192	1.18	1.27	0.35	0.62
5	0.1779	0.0189	1.26	**1.75**	0.30	0.57
6	0.3299	0.0187	1.35	**1.69**	**0.24**	0.47
7	0.3102	0.0187	1.29	**2.06**	**0.27**	0.48
8	-0.0069	0.0202	1.09	**3.05**	0.46	0.67
9	0.4662	0.0193	**1.56**	**2.25**	**0.09**	0.37
10	0.5877	0.0203	**1.49**	**2.95**	**0.08**	**0.29**
11	0.1493	0.0190	1.16	**1.44**	0.36	0.62
12	0.2893	0.0187	1.12	1.28	0.39	0.49
13	0.2055	0.0188	1.25	**1.72**	0.33	0.50
14	0.3935	0.0189	1.23	**1.49**	0.30	0.42
15	0.4368	0.0191	**1.49**	**2.18**	**0.13**	0.39
16	0.3731	0.0255	0.84	0.83	0.58	0.45
17	0.2550	0.0251	0.77	0.74	0.68	0.48
18	0.4022	0.0256	0.79	0.76	0.63	0.45
19	0.3417	0.0254	0.71	0.69	0.66	0.45
20	0.3108	0.0253	0.80	0.77	0.71	0.50
21	-0.1888	0.0261	0.79	0.76	0.60	0.70
22	-0.2904	0.0269	0.78	0.74	0.67	0.69
23	-0.0604	0.0255	0.78	0.78	0.55	0.61
24	-0.4409	0.0285	0.84	0.76	0.63	0.74
25	-0.2918	0.0269	0.87	0.82	0.62	0.69
26	0.1168	0.0250	0.71	0.71	0.53	0.54
27	-0.0243	0.0253	0.71	0.70	0.61	0.59
28	-0.1824	0.0261	0.75	0.72	0.69	0.65
29	-0.1399	0.0258	0.73	0.71	0.67	0.64
30	0.1118	0.0250	0.69	0.68	0.57	0.54

Table 7.2.1.8
2014 AIMS A IRT Item Statistics Mathematics High School

Item	Rasch Measure	SE	INFIT	OUTFIT	PT. BIS	*p*-value
1	0.3110	0.0187	1.23	**1.52**	**0.29**	0.46
2	0.5358	0.0200	**1.66**	**9.90**	**-0.03**	0.31
3	0.0499	0.0195	1.15	1.27	0.38	0.63
4	-0.0158	0.0201	1.00	**1.82**	0.45	0.70
5	0.2747	0.0187	1.26	**1.66**	**0.28**	0.49
6	0.1209	0.0190	1.09	1.14	0.44	0.55
7	0.3362	0.0187	**1.42**	**2.46**	**0.17**	0.45
8	-0.0376	0.0204	0.93	0.83	0.51	0.70
9	-0.1346	0.0217	1.15	1.22	0.35	0.76
10	0.3944	0.0190	**1.48**	**2.42**	**0.12**	0.41
11	0.3489	0.0188	**1.41**	**1.76**	**0.17**	0.44
12	0.2090	0.0187	1.24	1.34	0.30	0.54
13	0.1640	0.0188	1.18	1.31	0.34	0.57
14	0.0694	0.0194	1.17	**2.42**	0.34	0.64
15	0.2956	0.0187	1.35	**1.85**	**0.22**	0.48
16	0.4468	0.0259	0.66	0.64	0.65	0.39
17	0.6337	0.0273	0.64	0.63	0.63	0.34
18	0.6144	0.0271	0.62	**0.59**	0.67	0.34
19	0.6954	0.0279	0.64	0.60	0.68	0.32
20	0.5369	0.0265	0.74	0.72	0.61	0.35
21	-0.1225	0.0257	0.81	0.80	0.60	0.63
22	-0.0444	0.0254	0.80	0.80	0.55	0.60
23	0.2825	0.0252	0.90	0.90	0.57	0.51
24	-0.0034	0.0252	0.76	0.74	0.68	0.60
25	0.1363	0.0250	0.80	0.78	0.65	0.55
26	-0.2311	0.0264	0.76	0.72	0.66	0.67
27	0.0668	0.0251	0.78	0.78	0.58	0.55
28	0.0643	0.0251	0.77	0.76	0.62	0.55
29	-0.0864	0.0255	0.86	0.83	0.66	0.61
30	0.1263	0.0250	0.82	0.81	0.61	0.53

Table 7.2.1.9
2014 AIMS A IRT Item Statistics Reading Grade 3

Item	Rasch Measure	SE	INFIT	OUTFIT	PT. BIS	*p*-value
1	-0.2659	0.0240	1.08	0.82	0.49	0.79
2	0.4666	0.0202	1.31	**9.90**	**0.23**	0.34
3	0.3238	0.0193	1.19	**2.47**	0.33	0.43
4	-0.0199	0.0204	1.20	1.23	0.41	0.65
5	0.0232	0.0200	1.37	**1.74**	0.32	0.59
6	0.0682	0.0197	1.19	**1.67**	0.39	0.61
7	-0.1237	0.0216	1.11	**1.52**	0.45	0.72
8	0.0436	0.0199	1.22	**5.32**	0.38	0.62
9	0.3814	0.0196	1.35	**9.90**	**0.23**	0.39
10	0.1698	0.0193	1.34	**1.53**	**0.29**	0.54
11	0.2083	0.0192	1.24	**1.49**	0.35	0.51
12	-0.0217	0.0204	1.17	**4.30**	0.42	0.66
13	0.3722	0.0195	1.34	**4.41**	**0.23**	0.40
14	0.2569	0.0192	1.24	**9.90**	0.33	0.49
15	-0.0184	0.0204	1.21	**1.49**	0.40	0.65
16	-0.1976	0.0258	0.88	0.84	0.67	0.60
17	-0.4101	0.0278	0.74	0.68	0.69	0.72
18	-0.5253	0.0293	0.78	0.70	0.70	0.76
19	-0.4648	0.0284	0.73	0.65	0.67	0.76
20	0.0464	0.0248	0.77	0.78	0.59	0.62
21	-0.3647	0.0273	0.79	0.78	0.63	0.71
22	0.0324	0.0248	0.81	0.81	0.54	0.56
23	-0.3397	0.0270	0.77	0.72	0.65	0.70
24	-0.6644	0.0315	0.90	0.73	0.71	0.80
25	-0.6692	0.0316	0.95	0.75	0.70	0.80
26	-0.2054	0.0258	0.69	0.67	0.68	0.65
27	-0.1657	0.0256	0.65	0.63	0.67	0.63
28	-0.0949	0.0252	0.66	0.64	0.67	0.61
29	-0.1874	0.0257	0.75	0.72	0.65	0.64
30	-0.0936	0.0252	0.70	0.68	0.65	0.61

Table 7.2.1.10
2014 AIMS A IRT Item Statistics Reading Grade 4

Item	Rasch Measure	SE	INFIT	OUTFIT	PT. BIS	*p*-value
1	0.5227	0.0193	**1.59**	**2.84**	**0.17**	0.42
2	0.0773	0.0208	1.07	1.15	0.52	0.68
3	0.1281	0.0203	1.17	**1.53**	0.43	0.67
4	0.1555	0.0200	1.01	0.94	0.52	0.65
5	0.1099	0.0204	1.21	1.23	0.46	0.64
6	0.1377	0.0202	1.17	**1.61**	0.43	0.66
7	0.1130	0.0204	1.33	**4.30**	0.35	0.68
8	0.2228	0.0196	1.20	**1.93**	0.41	0.61
9	0.2311	0.0195	1.21	**3.70**	0.40	0.61
10	0.2426	0.0194	1.25	**1.71**	0.38	0.60
11	0.3243	0.0191	1.36	**3.34**	**0.29**	0.55
12	0.4647	0.0191	1.28	**1.85**	0.32	0.45
13	0.5724	0.0195	**1.42**	**3.24**	**0.22**	0.38
14	0.0722	0.0208	1.10	1.03	0.48	0.70
15	0.4814	0.0191	**1.62**	**9.90**	**0.12**	0.44
16	0.1388	0.0247	0.69	0.69	0.60	0.59
17	0.0742	0.0249	0.68	0.65	0.66	0.61
18	-0.3709	0.0291	0.80	0.71	0.67	0.76
19	0.0453	0.0251	0.65	0.64	0.63	0.63
20	-0.2894	0.0280	0.78	0.71	0.69	0.74
21	-0.4556	0.0304	0.83	0.69	0.70	0.79
22	-0.3384	0.0287	0.75	0.69	0.69	0.77
23	-0.4333	0.0300	0.80	0.67	0.74	0.78
24	0.0703	0.0250	0.73	0.73	0.67	0.62
25	-0.0692	0.0258	0.69	0.69	0.72	0.67
26	-0.0940	0.0260	0.72	0.74	0.65	0.67
27	0.0206	0.0252	0.76	0.76	0.60	0.66
28	-0.0907	0.0260	0.66	0.62	0.73	0.67
29	-0.3599	0.0289	0.81	0.69	0.72	0.76
30	-0.2591	0.0277	0.69	0.62	0.75	0.73

Table 7.2.1.11
2014 AIMS A IRT Item Statistics Reading Grade 5

Item	Rasch Measure	SE	INFIT	OUTFIT	PT. BIS	*p*-value
1	-0.0792	0.0224	1.08	**4.65**	0.48	0.76
2	0.0799	0.0207	1.15	1.02	0.47	0.66
3	0.0486	0.0210	1.11	**7.22**	0.49	0.66
4	0.1290	0.0204	1.15	**9.37**	0.46	0.62
5	0.1454	0.0203	**1.56**	**2.67**	**0.24**	0.62
6	0.3854	0.0200	1.38	**3.83**	0.31	0.47
7	0.1122	0.0205	1.18	**1.64**	0.44	0.64
8	0.0926	0.0206	1.26	**8.89**	0.40	0.65
9	0.1372	0.0203	1.15	**1.69**	0.45	0.62
10	0.4353	0.0202	**1.45**	**2.98**	**0.29**	0.44
11	-0.0111	0.0216	1.03	0.96	0.53	0.71
12	0.2017	0.0201	1.32	**2.34**	0.37	0.55
13	0.0072	0.0214	1.27	**2.07**	0.42	0.67
14	-0.2207	0.0249	0.95	0.64	0.57	0.81
15	0.3359	0.0199	1.39	**2.56**	0.31	0.50
16	-0.3791	0.0294	0.75	0.70	0.70	0.73
17	-0.2686	0.0283	0.74	0.78	0.61	0.70
18	-0.2767	0.0284	0.77	0.79	0.57	0.70
19	-0.5296	0.0313	0.81	0.72	0.68	0.79
20	-0.0737	0.0269	0.66	0.66	0.64	0.65
21	-0.3215	0.0288	0.76	0.69	0.70	0.71
22	-0.2120	0.0278	0.81	0.81	0.62	0.68
23	-0.3083	0.0287	0.79	0.73	0.68	0.71
24	-0.0757	0.0269	0.84	0.89	0.57	0.65
25	-0.5005	0.0309	0.85	0.74	0.72	0.76
26	-0.2871	0.0285	0.75	0.71	0.70	0.70
27	-0.5315	0.0313	0.80	0.70	0.72	0.77
28	-0.0863	0.0270	0.71	0.72	0.63	0.64
29	-0.1237	0.0272	0.76	0.72	0.67	0.65
30	-0.0848	0.0270	0.71	0.68	0.71	0.64

Table 7.2.1.12
2014 AIMS A IRT Item Statistics Reading Grade 6

Item	Rasch Measure	SE	INFIT	OUTFIT	PT. BIS	*p*-value
1	0.0912	0.0224	1.22	**8.55**	0.49	0.66
2	-0.0818	0.0242	1.04	1.01	0.57	0.74
3	0.1679	0.0220	1.33	**1.73**	0.44	0.62
4	-0.0330	0.0236	1.27	**1.85**	0.48	0.71
5	0.1231	0.0222	1.37	**2.24**	0.42	0.64
6	-0.0514	0.0238	1.12	1.05	0.54	0.73
7	0.0201	0.0230	1.30	**1.90**	0.48	0.67
8	-0.1751	0.0255	1.13	**1.49**	0.56	0.78
9	0.3178	0.0214	**1.45**	**3.64**	0.35	0.53
10	-0.1667	0.0254	1.22	1.17	0.54	0.76
11	-0.0742	0.0241	1.09	1.23	0.55	0.74
12	0.0750	0.0226	1.24	1.36	0.48	0.67
13	0.0709	0.0226	1.22	**9.53**	0.48	0.67
14	0.2232	0.0217	1.22	**1.69**	0.47	0.59
15	0.5122	0.0216	**1.90**	4.21	**0.13**	0.42
16	-0.1811	0.0287	0.84	0.93	0.55	0.70
17	-0.4634	0.0316	0.80	0.74	0.68	0.76
18	-0.2309	0.0291	0.79	0.83	0.58	0.70
19	-0.4183	0.0310	0.75	0.65	0.77	0.76
20	-0.2694	0.0295	0.75	0.72	0.63	0.75
21	-0.5134	0.0323	0.76	0.66	0.74	0.78
22	-0.4887	0.0319	0.74	0.62	0.76	0.77
23	-0.3850	0.0307	0.72	0.65	0.76	0.74
24	-0.5163	0.0323	0.77	0.63	0.75	0.79
25	-0.5570	0.0329	0.74	0.60	0.80	0.79
26	-0.0849	0.0281	0.68	0.66	0.68	0.65
27	0.0225	0.0275	0.79	0.83	0.56	0.61
28	-0.1287	0.0283	0.76	0.72	0.66	0.66
29	-0.0715	0.0280	0.76	0.74	0.65	0.64
30	0.0119	0.0276	0.74	0.74	0.63	0.62

Table 7.2.1.13
2014 AIMS A IRT Item Statistics Reading Grade 7

Item	Rasch Measure	SE	INFIT	OUTFIT	PT. BIS	*p*-value
1	0.0496	0.0222	1.12	1.40	0.49	0.70
2	0.4341	0.0209	**1.60**	**2.70**	**0.21**	0.47
3	0.1457	0.0214	1.20	**1.44**	0.44	0.65
4	0.4376	0.0209	**1.58**	**5.05**	**0.22**	0.46
5	0.3821	0.0208	1.36	**3.92**	0.31	0.50
6	-0.1621	0.0251	1.04	0.90	0.58	0.77
7	0.2887	0.0208	1.15	1.21	0.46	0.56
8	0.0338	0.0224	1.11	1.39	0.49	0.71
9	-0.2752	0.0275	1.09	1.04	0.48	0.84
10	0.4254	0.0208	1.26	**3.27**	0.39	0.47
11	-0.1473	0.0249	1.09	0.82	0.50	0.79
12	0.0052	0.0227	1.13	1.17	0.48	0.72
13	-0.3134	0.0284	1.35	1.23	0.48	0.82
14	0.0124	0.0226	**1.41**	**2.34**	0.35	0.70
15	0.2783	0.0209	**1.66**	**4.34**	**0.21**	0.56
16	-0.1211	0.0279	0.76	0.78	0.57	0.68
17	-0.3171	0.0298	0.73	0.72	0.67	0.73
18	-0.3753	0.0305	0.80	0.74	0.69	0.76
19	-0.6674	0.0352	0.92	0.73	0.69	0.82
20	-0.3956	0.0308	0.72	0.61	0.71	0.80
21	-0.5425	0.0329	0.80	0.66	0.74	0.80
22	-0.2477	0.0290	0.75	0.70	0.62	0.76
23	-0.3592	0.0303	0.75	0.69	0.67	0.76
24	-0.4989	0.0322	0.80	0.67	0.72	0.79
25	-0.3136	0.0297	0.70	0.66	0.71	0.74
26	-0.0598	0.0275	0.75	0.77	0.57	0.66
27	-0.1805	0.0284	0.67	0.67	0.65	0.70
28	-0.0373	0.0273	0.74	0.75	0.61	0.65
29	-0.2531	0.0291	0.69	0.65	0.72	0.72
30	-0.1002	0.0277	0.76	0.75	0.64	0.67

Table 7.2.1.14
2014 AIMS A IRT Item Statistics Reading Grade 8

Item	Rasch Measure	SE	INFIT	OUTFIT	PT. BIS	*p*-value
1	-0.1029	0.0255	1.30	1.04	0.46	0.80
2	-0.4565	0.0339	1.25	0.96	0.53	0.89
3	0.4453	0.0211	**1.63**	**2.66**	0.31	0.53
4	0.2352	0.0218	1.25	1.37	0.49	0.65
5	-0.3552	0.0308	1.11	**0.58**	0.55	0.87
6	0.5866	0.0213	**1.62**	**3.01**	0.30	0.46
7	0.2493	0.0217	1.26	**1.53**	0.49	0.63
8	0.4274	0.0211	**1.59**	**2.43**	0.33	0.54
9	0.1021	0.0228	1.29	**1.76**	0.47	0.71
10	0.2333	0.0218	**1.53**	**2.50**	0.37	0.65
11	0.3410	0.0213	**1.61**	**3.02**	0.33	0.59
12	-0.1160	0.0257	0.97	0.74	0.59	0.81
13	0.3116	0.0214	**1.43**	**2.73**	0.39	0.63
14	-0.1134	0.0256	1.01	0.75	0.57	0.81
15	0.1512	0.0224	1.21	1.09	0.52	0.69
16	-0.2816	0.0296	0.77	0.66	0.73	0.76
17	-0.0561	0.0274	0.67	0.60	0.71	0.73
18	-0.1148	0.0279	0.74	0.75	0.68	0.72
19	-0.0239	0.0272	0.84	1.01	0.58	0.68
20	0.0210	0.0269	0.72	0.77	0.62	0.68
21	-0.3521	0.0305	0.73	0.60	0.76	0.78
22	-0.4452	0.0318	0.79	**0.59**	0.75	0.80
23	-0.3254	0.0301	0.76	0.67	0.73	0.76
24	-0.4608	0.0321	0.81	0.62	0.78	0.79
25	-0.2531	0.0293	0.75	0.69	0.70	0.75
26	-0.2168	0.0289	0.70	0.67	0.72	0.74
27	0.0250	0.0268	0.65	0.66	0.67	0.66
28	0.0501	0.0267	0.72	0.68	0.73	0.65
29	-0.1806	0.0285	0.67	**0.59**	0.77	0.73
30	-0.2437	0.0292	0.71	0.60	0.77	0.75

Table 7.2.1.15
2014 AIMS A IRT Item Statistics Reading High School

Item	Rasch Measure	SE	INFIT	OUTFIT	PT. BIS	*p*-value
1	-0.4284	0.0345	1.26	1.31	0.41	**0.91**
2	0.4471	0.0214	**1.63**	**2.88**	0.33	0.55
3	0.1810	0.0226	1.38	**1.58**	0.43	0.70
4	0.4306	0.0214	**1.65**	**2.46**	0.32	0.56
5	0.5148	0.0214	**2.03**	**4.78**	**0.21**	0.52
6	-0.0048	0.0246	1.34	**1.75**	0.43	0.78
7	0.1555	0.0228	1.40	**1.98**	0.43	0.70
8	-0.0717	0.0256	1.33	**1.82**	0.49	0.79
9	0.0766	0.0236	1.15	1.00	0.53	0.74
10	0.1810	0.0226	1.34	**1.65**	0.45	0.69
11	0.0872	0.0234	1.38	**1.74**	0.43	0.74
12	-0.2024	0.0281	1.19	0.91	0.55	0.83
13	0.3659	0.0216	**1.49**	**3.80**	0.39	0.60
14	0.1740	0.0226	1.02	0.83	0.60	0.70
15	0.1863	0.0225	1.33	**3.66**	0.45	0.69
16	-0.0545	0.0277	0.61	**0.53**	0.79	0.71
17	-0.3343	0.0310	0.72	**0.57**	0.77	0.79
18	-0.1261	0.0284	0.64	0.60	0.76	0.73
19	-0.2066	0.0293	0.65	**0.56**	0.77	0.77
20	-0.2439	0.0297	0.69	**0.58**	0.78	0.75
21	-0.3106	0.0306	0.74	0.63	0.74	0.78
22	-0.1318	0.0285	0.68	0.60	0.79	0.73
23	-0.0938	0.0281	0.70	0.69	0.76	0.71
24	0.2349	0.0260	0.71	0.73	0.68	0.64
25	0.2429	0.0260	0.71	0.77	0.67	0.60
26	-0.0241	0.0275	0.66	0.65	0.74	0.70
27	-0.0715	0.0279	0.64	**0.57**	0.77	0.71
28	0.0353	0.0270	0.65	0.62	0.77	0.68
29	-0.0592	0.0278	0.70	0.66	0.74	0.71
30	-0.0840	0.0280	0.70	0.64	0.75	0.72

Table 7.2.1.16
2014 AIMS A IRT Item Statistics Science Grade 4

Item	Rasch Measure	SE	INFIT	OUTFIT	PT. BIS	*p*-value
1	-0.1068	0.0253	1.16	**2.93**	0.50	0.81
2	0.2144	0.0214	1.12	1.30	0.55	0.64
3	0.2071	0.0214	1.28	**1.54**	0.47	0.66
4	0.1623	0.0218	1.21	**1.55**	0.50	0.69
5	0.2272	0.0213	**1.54**	**4.21**	0.35	0.65
6	0.4154	0.0206	**1.49**	**2.25**	0.37	0.54
7	0.0146	0.0234	1.19	1.22	0.51	0.76
8	0.2089	0.0214	1.36	**2.21**	0.43	0.66
9	0.2275	0.0213	1.09	**1.73**	0.55	0.65
10	0.1918	0.0215	1.31	**1.46**	0.44	0.69
11	-0.0411	0.0242	1.18	0.97	0.57	0.75
12	0.0013	0.0235	1.18	1.38	0.51	0.76
13	0.7973	0.0219	**1.58**	**6.07**	**0.24**	0.34
14	0.3053	0.0209	1.35	**2.58**	0.42	0.61
15	0.1623	0.0218	1.06	1.03	0.57	0.69
16	0.1507	0.0264	0.78	0.82	0.63	0.61
17	-0.1764	0.0284	0.62	**0.57**	0.79	0.71
18	-0.0899	0.0277	0.72	0.75	0.68	0.69
19	-0.0007	0.0271	0.79	0.81	0.64	0.66
20	-0.4071	0.0310	0.87	0.73	0.74	0.78
21	-0.2929	0.0296	0.78	0.71	0.73	0.75
22	-0.1603	0.0283	0.71	0.67	0.74	0.70
23	-0.0899	0.0277	0.70	0.68	0.71	0.71
24	-0.4773	0.0319	0.86	0.69	0.73	0.79
25	-0.2431	0.0290	0.75	0.71	0.71	0.74
26	-0.2255	0.0289	0.77	0.71	0.69	0.73
27	-0.1603	0.0283	0.75	0.70	0.75	0.71
28	0.2027	0.0263	0.78	0.80	0.62	0.59
29	0.2261	0.0262	0.77	0.76	0.64	0.58
30	0.2706	0.0261	0.85	0.87	0.60	0.56

Table 7.2.1.17
2014 AIMS A IRT Item Statistics Science Grade 8

Item	Rasch Measure	SE	INFIT	OUTFIT	PT. BIS	*p*-value
1	0.0884	0.0241	1.08	1.15	0.51	0.79
2	0.0464	0.0248	1.19	1.03	0.52	0.78
3	0.4132	0.0210	1.24	**1.57**	0.46	0.61
4	0.3325	0.0214	1.26	**1.74**	0.45	0.67
5	0.3580	0.0213	**1.57**	**2.94**	0.30	0.66
6	0.4115	0.0210	1.28	1.37	0.44	0.63
7	0.5058	0.0207	1.01	**4.01**	0.56	0.63
8	0.4724	0.0208	1.24	**1.70**	0.46	0.59
9	0.4395	0.0209	**1.41**	**2.59**	0.38	0.61
10	0.3724	0.0212	1.16	1.38	0.50	0.65
11	0.6426	0.0206	**1.52**	**2.45**	0.34	0.49
12	0.0646	0.0245	1.14	1.01	0.54	0.78
13	0.2669	0.0219	1.05	1.15	0.55	0.70
14	0.0784	0.0243	1.25	1.31	0.48	0.77
15	0.4256	0.0209	1.30	**1.58**	0.44	0.62
16	0.2634	0.0269	0.81	0.81	0.53	0.61
17	0.0678	0.0279	0.76	0.73	0.60	0.68
18	-0.0529	0.0289	0.75	0.70	0.70	0.71
19	-0.0826	0.0291	0.86	0.79	0.68	0.72
20	-0.2411	0.0308	1.02	0.91	0.66	0.76
21	-0.3876	0.0329	0.93	0.74	0.74	0.80
22	-0.2183	0.0306	0.88	0.75	0.73	0.76
23	0.4897	0.0265	0.80	0.79	0.54	0.57
24	-0.2352	0.0308	0.83	0.70	0.71	0.76
25	-0.1948	0.0303	0.92	0.80	0.71	0.76
26	0.3375	0.0267	0.73	0.78	0.57	0.59
27	0.5856	0.0266	0.89	0.93	0.45	0.50
28	0.1369	0.0275	0.90	0.91	0.59	0.65
29	0.1444	0.0275	0.77	0.72	0.66	0.65
30	0.3246	0.0268	0.78	0.76	0.59	0.59

Table 7.2.1.18
2014 AIMS A IRT Item Statistics Science High School

Item	Rasch Measure	SE	INFIT	OUTFIT	PT. BIS	*p*-value
1	-0.3573	0.0320	1.32	0.96	0.50	0.85
2	0.0476	0.0237	1.31	**2.02**	0.42	0.72
3	0.2846	0.0218	1.40	**1.81**	0.37	0.59
4	0.0323	0.0239	1.22	**1.54**	0.50	0.70
5	0.1791	0.0224	1.19	1.33	0.48	0.64
6	0.3999	0.0214	**1.54**	**1.89**	**0.29**	0.52
7	-0.0933	0.0257	1.14	1.15	0.50	0.78
8	-0.0371	0.0248	0.99	0.75	0.58	0.76
9	0.0499	0.0237	1.28	**1.64**	0.44	0.72
10	0.1889	0.0224	1.24	**5.46**	0.43	0.68
11	0.4090	0.0214	**1.61**	**3.32**	**0.23**	0.51
12	0.5148	0.0214	**1.67**	**4.31**	**0.19**	0.44
13	0.0787	0.0234	1.37	**1.74**	0.39	0.70
14	0.0372	0.0238	1.12	**3.27**	0.57	0.68
15	0.0249	0.0240	1.39	**2.09**	0.38	0.73
16	-0.5036	0.0339	0.81	0.68	0.72	0.80
17	-0.1485	0.0291	0.67	0.62	0.73	0.70
18	-0.4082	0.0323	0.82	0.69	0.75	0.77
19	-0.3482	0.0315	0.73	0.63	0.76	0.76
20	-0.3103	0.0310	0.74	0.68	0.75	0.75
21	0.0038	0.0279	0.73	0.78	0.58	0.64
22	-0.0313	0.0281	0.73	0.70	0.66	0.67
23	0.0962	0.0274	0.75	0.78	0.60	0.62
24	-0.1254	0.0289	0.76	0.71	0.70	0.71
25	-0.2611	0.0303	0.75	0.66	0.74	0.74
26	-0.1299	0.0289	0.77	0.71	0.75	0.69
27	0.2364	0.0269	0.74	0.74	0.54	0.55
28	-0.3073	0.0309	0.78	0.68	0.76	0.75
29	0.1819	0.0270	0.76	0.74	0.61	0.58
30	0.1192	0.0273	0.72	0.69	0.66	0.60

7.3   Equating

The 2014 AIMS A Mathematics, Reading, and Science assessments were equated and placed on their respective operational AIMS A scale using a common-item, non-equivalent groups design. A set of anchor items was selected from the 2013 operational assessments prior to running Winsteps calibration. The anchor items were selected with two principles in mind. First, the subset of anchor items should represent the content covered by the final AIMS A assessment. Second, the subset of anchor items should be representative of the distribution of item difficulties for the full assessment. Table 7.4.1 presents the number of anchor items for each grade and subject area. Tables 7.4.2 through 7.4.4 show the content representation for the 2014 anchor items compared to the 2014 operational form for Mathematics, Reading, and Science. Table 7.4.5 presents descriptive statistics for the 2014 anchor item difficulties and the 2014 operational form.

Table 7.3.1
Spring 2014 AIMS A Anchor Items

Content	Grade	Operational Total	Anchor
Mathematics	3	30	10
	4	30	10
	5	30	10
	6	30	10
	7	30	10
	8	30	10
	HS	30	10
Reading	3	30	10
	4	30	10
	5	30	10
	6	30	10
	7	30	10
	8	30	10
	HS	30	10
Science	4	30	10
	8	30	10
	HS	30	10

Table 7.3.2
Content Representation of 2014 Anchor Sets, Mathematics

Grade	Strand	# Items	# Anchors	% Anchors
3	1	20	6	20%
	2	2	1	3%
	3	3	1	3%
	4 & 5	5	2	7%
4	1	16	5	17%
	2	4	1	3%
	3	4	2	7%
	4 & 5	6	2	7%
5	1	15	4	13%
	2	4	1	3%
	3	4	3	10%
	4 & 5	7	2	7%
6	1	10	3	10%
	2	9	3	10%
	3	3	1	3%
	4 & 5	8	3	10%
7	1	8	3	10%
	2	10	4	13%
	3	7	2	7%
	4 & 5	5	1	3%
8	1	3	1	3%
	2	8	2	7%
	3	11	4	13%
	4 & 5	8	3	10%
HS	1	6	2	7%
	2	5	2	7%
	3	9	3	10%
	4 & 5	10	3	10%

Table 7.3.3
Content Representation of 2014 Anchor Sets, Reading

Grade	Strand	# Items	# Anchors	% Anchors
3	1	17	6	20%
	2	4	1	3%
	3	9	3	10%
4	1	12	4	13%
	2	7	2	7%
	3	11	4	13%
5	1	11	4	13%
	2	6	1	3%
	3	13	5	17%
6	1	12	4	13%
	2	8	3	10%
	3	10	3	10%
7	1	15	5	17%
	2	7	2	7%
	3	8	3	10%
8	1	13	4	13%
	2	4	1	3%
	3	13	5	17%
HS	1	15	5	17%
	2	8	3	10%
	3	7	2	7%

Table 7.3.4
Content Representation of 2014 Anchor Sets, Science

Grade	Strand	# Items	# Anchors	% Anchors
4	1	9	3	10%
	2 & 3	4	1	3%
	4, 5, & 6	17	6	20%
8	1	14	5	17%
	2 & 3	8	3	10%
	4 & 5	8	2	7%
HS	1	8	3	10%
	2 & 3	4	1	3%
	4, 5, & 6	18	6	20%

Table 7.3.5
Rasch Difficulty Representation of 2014 Anchor Sets

Grade	Statistic	Mathematics		Reading		Science	
	Level	Test	Anchor	Test	Anchor	Test	Anchor
3	M_b	0.099	-0.015	-0.081	-0.096		
	SD_b	0.267	0.182	0.295	0.260		
	MIN_b	-0.495	-0.345	-0.669	-0.664		
	MAX_b	0.604	0.197	0.467	0.257		
4	M_b	0.034	0.103	0.059	0.038	0.050	0.041
	SD_b	0.307	0.344	0.308	0.245	0.261	0.199
	MIN_b	-0.708	-0.361	-0.456	-0.433	-0.477	-0.243
	MAX_b	0.714	0.714	0.572	0.465	0.797	0.415
5	M_b	-0.110	-0.061	-0.075	0.006		
	SD_b	0.315	0.288	0.254	0.219		
	MIN_b	-0.713	-0.655	-0.532	-0.530		
	MAX_b	0.520	0.323	0.435	0.336		
6	M_b	0.068	0.045	-0.109	-0.190		
	SD_b	0.220	0.296	0.258	0.161		
	MIN_b	-0.452	-0.452	-0.557	-0.516		
	MAX_b	0.394	0.394	0.512	0.020		
7	M_b	0.153	0.109	-0.096	-0.227		
	SD_b	0.262	0.187	0.297	0.229		
	MIN_b	-0.397	-0.250	-0.667	-0.667		
	MAX_b	0.625	0.393	0.438	0.146		
8	M_b	0.131	0.140	-0.031	-0.147	0.195	0.135
	SD_b	0.253	0.189	0.285	0.263	0.271	0.259
	MIN_b	-0.441	-0.189	-0.461	-0.461	-0.388	-0.241
	MAX_b	0.588	0.402	0.587	0.312	0.643	0.506
HS	M_b	0.201	0.172	0.029	-0.057	-0.006	-0.055
	SD_b	0.244	0.188	0.234	0.208	0.249	0.189
	MIN_b	-0.231	-0.044	-0.428	-0.428	-0.504	-0.357
	MAX_b	0.695	0.537	0.515	0.235	0.515	0.189

Note: M_b = Mean Rasch difficulty, SD_b = Standard Deviation of the Rasch difficulty, MIN_b = Minimum Rasch difficulty, MAX_b = Maximum Rasch difficulty.

A fixed-parameter equating process was used within Winsteps to link the 2014 AIMS A assessments to their operational scale. This was implemented by constraining the 2014 item parameter estimate of the anchor items to be equal to the final estimates obtained in the 2013 AIMS A calibration analysis. The displacement statistic, which estimates the difference between the fixed difficulty parameter and the new estimate of that parameter, if it had not been constrained, was evaluated for each anchor item. Within the Rasch literature, a displacement statistic greater than 0.50 or less than -.50 is considered significant and cause for an anchor to be removed from the anchor set. Arizona uses the more conservative criterion of .30 and -.30 to remove items from usage within the anchor set for the current calibration.

During calibration, when one or more anchors are flagged for displacement the one item with the highest absolute value is removed from the anchor set and the calibration of all items is rerun. This process is repeated until all anchor items have a displacement value between -.30 and .30. If more than one anchor

item was removed from the same content strand, a replacement from the rest of the operational items used on the test is sought. For 2014 AIMS A calibration, no anchor items displayed a displacement statistic greater than .30 or less than -.30.

7.4   Scaling and Standard Error of Measurement

A raw score to scale score table was determined for each of the Spring 2014 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.

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 (Microsoft Corporation, 2010) 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:

$$M1 = Desired\ SD/Logit\ SD$$

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

7.4.1   Scaling Software

Excel (Microsoft Corporation, 2010) was used to compute final scale scores and associated standardized errors.

Table 7.4.1
AIMS A Transformation Constants for Mathematics Established 2009

Grade	M1	M2
3	71.42857142857140	1252
4	78.12500000000000	1255
5	75.75757575757580	1256
6	119.04761904761900	1246
7	108.69565217391300	1252
8	104.16666666666700	1252
High School	113.63636363636400	1252

Table 7.4.2
AIMS A Transformation Constants for Reading Established 2009

Grade	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
High School	100.00000000000000	1251

Table 7.4.3
AIMS A Transformation Constants for Science Established 2009

Grade	M1	M2
4	100.00000000000000	1240
8	83.33333333333330	1235
High School	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, fatigue, or learning. 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 SEM for all AIMS A tests.

Table 7.4.2
2014 AIMS A Raw Score to Scale Score Mathematics Grade 3

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	320	61	1262	8
1	1025	72	62	1263	8
2	1075	51	63	1264	8
3	1104	41	64	1265	8
4	1124	35	65	1266	8
5	1139	31	66	1267	8
6	1151	27	67	1268	8
7	1160	25	68	1269	8
8	1168	23	69	1270	8
9	1175	21	70	1271	8
10	1180	19	71	1272	8
11	1185	18	72	1273	9
12	1189	17	73	1274	9
13	1193	16	74	1275	9
14	1197	15	75	1276	9
15	1200	15	76	1277	9
16	1202	14	77	1278	9
17	1205	13	78	1279	9
18	1208	13	79	1280	9
19	1210	13	80	1281	9
20	1212	12	81	1282	9
21	1214	12	82	1283	9
22	1216	12	83	1285	9
23	1218	11	84	1286	9
24	1219	11	85	1287	9
25	1221	11	86	1288	9
26	1223	11	87	1289	10
27	1224	10	88	1291	10
28	1226	10	89	1292	10
29	1227	10	90	1293	10
30	1229	10	91	1295	10
31	1230	10	92	1296	10
32	1231	10	93	1298	10
33	1233	10	94	1299	10
34	1234	9	95	1301	11
35	1235	9	96	1302	11
36	1236	9	97	1304	11
37	1237	9	98	1306	11
38	1239	9	99	1307	12
39	1240	9	100	1309	12
40	1241	9	101	1311	12
41	1242	9	102	1313	12
42	1243	9	103	1316	13
43	1244	9	104	1318	13
44	1245	9	105	1321	14
45	1246	9	106	1323	14
46	1247	9	107	1326	15
47	1248	9	108	1329	15
48	1249	8	109	1333	16
49	1250	8	110	1337	17
50	1251	8	111	1341	18
51	1252	8	112	1346	20
52	1253	8	113	1352	21
53	1254	8	114	1359	23
54	1255	8	115	1367	26
55	1256	8	116	1378	30
56	1257	8	117	1392	35
57	1258	8	118	1415	45
58	1259	8	119	1456	67
59	1260	8	120	1500	318
60	1261	8			

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; SEM = Standard Error of Measurement.

Table 7.4.3
2014 AIMS A Raw Score to Scale Score Mathematics Grade 4

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	350	61	1260	9
1	1000	79	62	1261	9
2	1049	56	63	1262	9
3	1082	45	64	1263	9
4	1104	39	65	1264	9
5	1121	34	66	1265	9
6	1135	31	67	1266	9
7	1145	28	68	1268	9
8	1154	25	69	1269	9
9	1162	24	70	1270	9
10	1169	22	71	1271	9
11	1174	20	72	1272	9
12	1179	19	73	1273	9
13	1184	18	74	1274	9
14	1188	17	75	1275	9
15	1192	16	76	1276	9
16	1195	16	77	1277	10
17	1198	15	78	1279	10
18	1201	15	79	1280	10
19	1203	14	80	1281	10
20	1206	14	81	1282	10
21	1208	13	82	1283	10
22	1210	13	83	1285	10
23	1212	13	84	1286	10
24	1214	12	85	1287	10
25	1216	12	86	1289	10
26	1218	12	87	1290	10
27	1220	11	88	1291	11
28	1221	11	89	1293	11
29	1223	11	90	1294	11
30	1224	11	91	1296	11
31	1226	11	92	1298	11
32	1227	11	93	1299	12
33	1229	10	94	1301	12
34	1230	10	95	1303	12
35	1231	10	96	1305	12
36	1233	10	97	1307	13
37	1234	10	98	1309	13
38	1235	10	99	1311	13
39	1237	10	100	1313	13
40	1238	10	101	1316	14
41	1239	10	102	1318	14
42	1240	10	103	1321	15
43	1241	9	104	1324	15
44	1242	9	105	1327	16
45	1243	9	106	1330	16
46	1245	9	107	1334	17
47	1246	9	108	1338	18
48	1247	9	109	1342	19
49	1248	9	110	1347	20
50	1249	9	111	1352	21
51	1250	9	112	1358	22
52	1251	9	113	1365	24
53	1252	9	114	1373	26
54	1253	9	115	1383	29
55	1254	9	116	1395	33
56	1255	9	117	1412	39
57	1256	9	118	1437	50
58	1257	9	119	1483	73
59	1258	9	120	1500	348
60	1259	9			

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; SEM = Standard Error of Measurement.

Table 7.4.4
2014 AIMS A Raw Score to Scale Score Mathematics Grade 5

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	339	61	1255	9
1	1000	76	62	1256	9
2	1040	54	63	1257	9
3	1071	44	64	1258	9
4	1092	38	65	1259	9
5	1109	33	66	1260	9
6	1122	30	67	1261	9
7	1133	27	68	1262	9
8	1142	25	69	1263	9
9	1150	23	70	1264	9
10	1157	22	71	1265	9
11	1163	21	72	1266	9
12	1168	20	73	1267	9
13	1173	19	74	1268	9
14	1177	18	75	1269	9
15	1181	17	76	1270	9
16	1185	16	77	1271	9
17	1188	16	78	1272	9
18	1191	15	79	1273	9
19	1194	15	80	1274	9
20	1197	14	81	1275	9
21	1199	14	82	1276	9
22	1202	13	83	1278	9
23	1204	13	84	1279	9
24	1206	13	85	1280	9
25	1208	12	86	1281	9
26	1210	12	87	1282	10
27	1212	12	88	1283	10
28	1214	12	89	1285	10
29	1215	11	90	1286	10
30	1217	11	91	1287	10
31	1219	11	92	1289	10
32	1220	11	93	1290	10
33	1222	11	94	1291	10
34	1223	11	95	1293	11
35	1225	10	96	1294	11
36	1226	10	97	1296	11
37	1228	10	98	1297	11
38	1229	10	99	1299	11
39	1230	10	100	1301	12
40	1231	10	101	1303	12
41	1233	10	102	1305	12
42	1234	10	103	1307	13
43	1235	10	104	1309	13
44	1236	9	105	1311	14
45	1238	9	106	1314	14
46	1239	9	107	1317	15
47	1240	9	108	1320	15
48	1241	9	109	1323	16
49	1242	9	110	1327	17
50	1243	9	111	1331	18
51	1244	9	112	1336	20
52	1245	9	113	1341	21
53	1246	9	114	1348	24
54	1248	9	115	1356	27
55	1249	9	116	1367	31
56	1250	9	117	1381	37
57	1251	9	118	1404	47
58	1252	9	119	1447	71
59	1253	9	120	1500	337
60	1254	9			

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; SEM = Standard Error of Measurement.

Table 7.4.5
2014 AIMS A Raw Score to Scale Score Mathematics Grade 7

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	533	61	1261	13
1	1000	119	62	1262	13
2	1000	84	63	1264	13
3	1000	69	64	1265	13
4	1013	59	65	1267	13
5	1039	52	66	1268	13
6	1060	47	67	1270	13
7	1077	43	68	1272	13
8	1092	40	69	1273	13
9	1104	37	70	1275	14
10	1115	34	71	1276	14
11	1124	32	72	1278	14
12	1133	31	73	1279	14
13	1140	29	74	1281	14
14	1147	27	75	1282	14
15	1153	26	76	1284	14
16	1158	25	77	1286	14
17	1163	24	78	1287	14
18	1168	23	79	1289	14
19	1172	22	80	1291	14
20	1176	22	81	1292	14
21	1180	21	82	1294	15
22	1184	20	83	1296	15
23	1187	20	84	1298	15
24	1190	19	85	1300	15
25	1193	19	86	1301	15
26	1196	18	87	1303	15
27	1199	18	88	1305	16
28	1201	18	89	1307	16
29	1204	17	90	1310	16
30	1206	17	91	1312	16
31	1209	17	92	1314	16
32	1211	16	93	1316	17
33	1213	16	94	1319	17
34	1215	16	95	1321	17
35	1217	16	96	1324	18
36	1220	15	97	1327	18
37	1221	15	98	1329	19
38	1223	15	99	1332	19
39	1225	15	100	1336	20
40	1227	15	101	1339	20
41	1229	15	102	1342	21
42	1231	15	103	1346	22
43	1233	14	104	1350	22
44	1234	14	105	1355	23
45	1236	14	106	1359	24
46	1238	14	107	1364	25
47	1239	14	108	1370	27
48	1241	14	109	1376	28
49	1243	14	110	1383	30
50	1244	14	111	1391	32
51	1246	14	112	1400	34
52	1247	14	113	1411	37
53	1249	14	114	1423	40
54	1250	14	115	1439	45
55	1252	13	116	1458	52
56	1253	13	117	1485	61
57	1255	13	118	1500	77
58	1256	13	119	1500	114
59	1258	13	120	1500	531
60	1259	13			

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; SEM = Standard Error of Measurement.

Table 7.4.6
2014 AIMS A Raw Score to Scale Score Mathematics Grade 7

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	486	61	1277	12
1	1000	109	62	1278	12
2	1000	77	63	1280	12
3	1015	63	64	1281	12
4	1046	54	65	1282	12
5	1069	48	66	1284	12
6	1088	43	67	1285	12
7	1104	39	68	1286	12
8	1117	36	69	1288	12
9	1128	34	70	1289	12
10	1138	32	71	1291	12
11	1147	30	72	1292	12
12	1155	28	73	1293	12
13	1162	27	74	1295	12
14	1168	26	75	1296	12
15	1174	25	76	1298	13
16	1179	24	77	1299	13
17	1184	23	78	1301	13
18	1189	22	79	1302	13
19	1193	21	80	1304	13
20	1197	20	81	1305	13
21	1201	20	82	1307	13
22	1204	19	83	1308	13
23	1207	19	84	1310	13
24	1210	18	85	1311	13
25	1213	18	86	1313	14
26	1216	17	87	1315	14
27	1219	17	88	1317	14
28	1221	16	89	1318	14
29	1224	16	90	1320	14
30	1226	16	91	1322	15
31	1228	16	92	1324	15
32	1231	15	93	1326	15
33	1233	15	94	1328	15
34	1235	15	95	1330	16
35	1237	15	96	1333	16
36	1239	14	97	1335	16
37	1241	14	98	1338	17
38	1242	14	99	1340	17
39	1244	14	100	1343	17
40	1246	14	101	1346	18
41	1248	14	102	1349	19
42	1249	13	103	1352	19
43	1251	13	104	1356	20
44	1252	13	105	1359	21
45	1254	13	106	1363	21
46	1256	13	107	1368	22
47	1257	13	108	1373	24
48	1259	13	109	1378	25
49	1260	13	110	1384	26
50	1262	13	111	1391	28
51	1263	13	112	1399	30
52	1264	12	113	1408	33
53	1266	12	114	1419	36
54	1267	12	115	1433	41
55	1269	12	116	1450	47
56	1270	12	117	1474	56
57	1271	12	118	1500	71
58	1273	12	119	1500	104
59	1274	12	120	1500	485
60	1276	12			

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; SEM = Standard Error of Measurement.

Table 7.4.7
2014 AIMS A Raw Score to Scale Score Mathematics Grade 8

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	466	61	1273	12
1	1000	105	62	1275	12
2	1000	74	63	1276	12
3	1025	60	64	1277	12
4	1056	52	65	1279	12
5	1078	46	66	1280	12
6	1097	41	67	1281	12
7	1112	38	68	1283	12
8	1124	35	69	1284	12
9	1135	32	70	1285	12
10	1144	30	71	1287	12
11	1153	28	72	1288	12
12	1160	27	73	1289	12
13	1166	25	74	1291	12
14	1172	24	75	1292	12
15	1177	23	76	1294	12
16	1182	22	77	1295	12
17	1187	21	78	1296	12
18	1191	20	79	1298	12
19	1195	20	80	1299	12
20	1198	19	81	1301	12
21	1201	18	82	1302	13
22	1205	18	83	1304	13
23	1208	17	84	1305	13
24	1210	17	85	1307	13
25	1213	17	86	1309	13
26	1216	16	87	1310	13
27	1218	16	88	1312	13
28	1220	15	89	1314	14
29	1223	15	90	1316	14
30	1225	15	91	1317	14
31	1227	15	92	1319	14
32	1229	14	93	1321	14
33	1231	14	94	1323	15
34	1233	14	95	1325	15
35	1235	14	96	1327	15
36	1237	14	97	1330	15
37	1238	13	98	1332	16
38	1240	13	99	1334	16
39	1242	13	100	1337	16
40	1243	13	101	1340	17
41	1245	13	102	1342	17
42	1247	13	103	1345	18
43	1248	13	104	1349	19
44	1250	13	105	1352	19
45	1251	13	106	1356	20
46	1253	12	107	1360	21
47	1254	12	108	1364	22
48	1256	12	109	1369	23
49	1257	12	110	1374	24
50	1258	12	111	1380	26
51	1260	12	112	1387	28
52	1261	12	113	1396	31
53	1263	12	114	1405	34
54	1264	12	115	1418	38
55	1265	12	116	1433	43
56	1267	12	117	1455	52
57	1268	12	118	1488	66
58	1269	12	119	1500	99
59	1271	12	120	1500	465
60	1272	12			

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; SEM = Standard Error of Measurement.

Table 7.4.8
2014 AIMS A Raw Score to Scale Score Mathematics High School

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	508	61	1278	13
1	1000	114	62	1280	13
2	1000	80	63	1281	13
3	1029	65	64	1283	13
4	1061	56	65	1284	13
5	1085	49	66	1285	13
6	1104	44	67	1287	13
7	1119	39	68	1288	13
8	1131	36	69	1290	13
9	1142	33	70	1291	13
10	1151	31	71	1293	13
11	1159	29	72	1294	13
12	1166	27	73	1296	13
13	1172	26	74	1298	13
14	1177	24	75	1299	13
15	1182	23	76	1301	14
16	1187	22	77	1302	14
17	1191	21	78	1304	14
18	1195	21	79	1306	14
19	1198	20	80	1307	14
20	1202	19	81	1309	14
21	1205	19	82	1311	14
22	1208	18	83	1313	14
23	1211	18	84	1314	14
24	1213	17	85	1316	15
25	1216	17	86	1318	15
26	1219	17	87	1320	15
27	1221	16	88	1322	15
28	1223	16	89	1324	15
29	1225	16	90	1326	16
30	1228	16	91	1328	16
31	1230	15	92	1331	16
32	1232	15	93	1333	16
33	1234	15	94	1335	17
34	1236	15	95	1338	17
35	1237	15	96	1341	17
36	1239	14	97	1343	18
37	1241	14	98	1346	18
38	1243	14	99	1349	19
39	1245	14	100	1352	19
40	1246	14	101	1356	20
41	1248	14	102	1359	20
42	1250	14	103	1363	21
43	1251	14	104	1367	22
44	1253	13	105	1371	22
45	1254	13	106	1376	23
46	1256	13	107	1381	24
47	1257	13	108	1386	26
48	1259	13	109	1392	27
49	1261	13	110	1399	28
50	1262	13	111	1407	30
51	1264	13	112	1415	32
52	1265	13	113	1425	35
53	1267	13	114	1437	38
54	1268	13	115	1451	43
55	1269	13	116	1469	49
56	1271	13	117	1494	58
57	1272	13	118	1500	73
58	1274	13	119	1500	108
59	1275	13	120	1500	507
60	1277	13			

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; SEM = Standard Error of Measurement.

Table 7.4.9
2014 AIMS A Raw Score to Scale Score Reading Grade 3

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	430	61	1248	11
1	1000	96	62	1250	11
2	1000	68	63	1251	11
3	1026	55	64	1252	11
4	1053	47	65	1253	11
5	1073	41	66	1254	11
6	1089	37	67	1256	11
7	1102	34	68	1257	11
8	1112	31	69	1258	11
9	1122	29	70	1259	11
10	1130	27	71	1261	11
11	1137	25	72	1262	11
12	1143	24	73	1263	11
13	1149	23	74	1264	11
14	1154	22	75	1266	11
15	1158	21	76	1267	11
16	1163	20	77	1268	11
17	1167	19	78	1270	11
18	1171	19	79	1271	11
19	1174	18	80	1272	11
20	1177	17	81	1273	11
21	1180	17	82	1275	11
22	1183	17	83	1276	11
23	1186	16	84	1278	12
24	1189	16	85	1279	12
25	1191	15	86	1280	12
26	1194	15	87	1282	12
27	1196	15	88	1283	12
28	1198	14	89	1285	12
29	1200	14	90	1286	12
30	1202	14	91	1288	12
31	1204	14	92	1289	13
32	1206	14	93	1291	13
33	1208	13	94	1293	13
34	1210	13	95	1295	13
35	1212	13	96	1296	13
36	1213	13	97	1298	13
37	1215	13	98	1300	14
38	1217	12	99	1302	14
39	1218	12	100	1304	14
40	1220	12	101	1306	15
41	1222	12	102	1309	15
42	1223	12	103	1311	15
43	1225	12	104	1314	16
44	1226	12	105	1316	16
45	1227	12	106	1319	17
46	1229	12	107	1322	18
47	1230	12	108	1326	18
48	1232	11	109	1329	19
49	1233	11	110	1334	20
50	1234	11	111	1338	22
51	1236	11	112	1343	23
52	1237	11	113	1350	25
53	1238	11	114	1357	28
54	1240	11	115	1366	32
55	1241	11	116	1378	37
56	1242	11	117	1395	44
57	1243	11	118	1422	58
58	1245	11	119	1475	89
59	1246	11	120	1500	429
60	1247	11			

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; SEM = Standard Error of Measurement.

Table 7.4.10
2014 AIMS A Raw Score to Scale Score Reading Grade 4

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	486	61	1255	12
1	1000	108	62	1256	12
2	1000	76	63	1258	12
3	1008	61	64	1259	12
4	1037	52	65	1261	12
5	1059	46	66	1262	12
6	1076	41	67	1263	12
7	1090	37	68	1265	12
8	1102	34	69	1266	12
9	1112	32	70	1267	12
10	1121	30	71	1269	12
11	1129	28	72	1270	12
12	1136	27	73	1272	12
13	1142	26	74	1273	12
14	1148	25	75	1274	12
15	1154	24	76	1276	12
16	1158	23	77	1277	12
17	1163	22	78	1279	13
18	1167	21	79	1280	13
19	1171	20	80	1282	13
20	1175	20	81	1283	13
21	1178	19	82	1285	13
22	1182	19	83	1286	13
23	1185	18	84	1288	13
24	1188	18	85	1289	13
25	1191	17	86	1291	13
26	1194	17	87	1292	13
27	1196	17	88	1294	13
28	1199	16	89	1296	14
29	1201	16	90	1297	14
30	1204	16	91	1299	14
31	1206	16	92	1301	14
32	1208	15	93	1303	14
33	1210	15	94	1305	15
34	1212	15	95	1307	15
35	1214	15	96	1309	15
36	1216	14	97	1311	15
37	1218	14	98	1313	16
38	1220	14	99	1315	16
39	1222	14	100	1318	16
40	1224	14	101	1320	17
41	1225	14	102	1323	17
42	1227	14	103	1326	18
43	1229	13	104	1329	18
44	1230	13	105	1332	19
45	1232	13	106	1335	19
46	1233	13	107	1339	20
47	1235	13	108	1342	21
48	1237	13	109	1347	22
49	1238	13	110	1352	23
50	1240	13	111	1357	25
51	1241	13	112	1363	27
52	1242	13	113	1370	29
53	1244	13	114	1379	32
54	1245	12	115	1390	37
55	1247	12	116	1404	42
56	1248	12	117	1424	52
57	1250	12	118	1456	68
58	1251	12	119	1500	103
59	1252	12	120	1500	485
60	1254	12			

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; SEM = Standard Error of Measurement.

Table 7.4.11
2014 AIMS A Raw Score to Scale Score Reading Grade 5

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	588	61	1243	15
1	1000	132	62	1245	15
2	1000	93	63	1246	15
3	1000	75	64	1248	15
4	1000	65	65	1250	15
5	1000	57	66	1251	15
6	1012	52	67	1253	15
7	1031	47	68	1255	15
8	1046	44	69	1256	15
9	1060	41	70	1258	15
10	1072	38	71	1260	15
11	1082	36	72	1261	15
12	1091	34	73	1263	15
13	1100	33	74	1265	15
14	1108	31	75	1266	15
15	1115	30	76	1268	15
16	1121	29	77	1270	15
17	1127	27	78	1272	15
18	1133	27	79	1273	15
19	1138	26	80	1275	15
20	1143	25	81	1277	16
21	1147	24	82	1279	16
22	1151	23	83	1281	16
23	1155	23	84	1283	16
24	1159	22	85	1285	16
25	1163	22	86	1287	16
26	1166	21	87	1289	16
27	1170	21	88	1291	16
28	1173	20	89	1293	17
29	1176	20	90	1295	17
30	1179	20	91	1297	17
31	1182	19	92	1299	17
32	1185	19	93	1302	18
33	1187	19	94	1304	18
34	1190	18	95	1306	18
35	1192	18	96	1309	18
36	1195	18	97	1312	19
37	1197	18	98	1314	19
38	1200	17	99	1317	20
39	1202	17	100	1320	20
40	1204	17	101	1323	21
41	1206	17	102	1327	21
42	1208	17	103	1330	22
43	1210	16	104	1334	23
44	1212	16	105	1338	23
45	1214	16	106	1342	24
46	1216	16	107	1347	25
47	1218	16	108	1352	27
48	1220	16	109	1358	28
49	1222	16	110	1364	30
50	1224	16	111	1371	32
51	1226	15	112	1379	34
52	1227	15	113	1389	37
53	1229	15	114	1401	41
54	1231	15	115	1415	47
55	1233	15	116	1434	54
56	1234	15	117	1461	66
57	1236	15	118	1500	85
58	1238	15	119	1500	126
59	1240	15	120	1500	587
60	1241	15			

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; SEM = Standard Error of Measurement.

Table 7.4.12
2014 AIMS A Raw Score to Scale Score Reading Grade 6

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	621	61	1245	16
1	1000	139	62	1247	16
2	1000	98	63	1249	16
3	1000	80	64	1251	16
4	1000	68	65	1252	16
5	1000	60	66	1254	16
6	1008	54	67	1256	16
7	1027	50	68	1258	16
8	1044	46	69	1259	16
9	1058	43	70	1261	16
10	1070	40	71	1263	16
11	1081	38	72	1265	16
12	1090	36	73	1266	16
13	1099	34	74	1268	16
14	1107	32	75	1270	16
15	1114	31	76	1272	16
16	1121	30	77	1274	16
17	1127	29	78	1276	16
18	1132	27	79	1277	16
19	1138	27	80	1279	16
20	1143	26	81	1281	16
21	1147	25	82	1283	17
22	1152	24	83	1285	17
23	1156	24	84	1287	17
24	1160	23	85	1289	17
25	1163	22	86	1291	17
26	1167	22	87	1294	17
27	1170	21	88	1296	18
28	1174	21	89	1298	18
29	1177	21	90	1300	18
30	1180	20	91	1303	18
31	1183	20	92	1305	18
32	1185	20	93	1308	19
33	1188	19	94	1310	19
34	1191	19	95	1313	19
35	1193	19	96	1316	20
36	1196	18	97	1318	20
37	1198	18	98	1321	20
38	1201	18	99	1324	21
39	1203	18	100	1328	21
40	1205	18	101	1331	22
41	1207	17	102	1334	22
42	1209	17	103	1338	23
43	1212	17	104	1342	24
44	1214	17	105	1346	25
45	1216	17	106	1351	26
46	1218	17	107	1356	27
47	1220	17	108	1361	28
48	1222	16	109	1367	29
49	1223	16	110	1374	31
50	1225	16	111	1381	33
51	1227	16	112	1390	36
52	1229	16	113	1400	39
53	1231	16	114	1412	43
54	1233	16	115	1426	48
55	1235	16	116	1446	56
56	1236	16	117	1473	68
57	1238	16	118	1500	87
58	1240	16	119	1500	131
59	1242	16	120	1500	619
60	1243	16			

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; SEM = Standard Error of Measurement.

Table 7.4.13
2014 AIMS A Raw Score to Scale Score Reading Grade 7

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	588	61	1248	15
1	1000	131	62	1249	15
2	1000	91	63	1251	15
3	1000	74	64	1253	15
4	1000	63	65	1255	15
5	1008	55	66	1257	15
6	1029	50	67	1258	15
7	1046	45	68	1260	15
8	1061	42	69	1262	15
9	1073	39	70	1264	15
10	1084	36	71	1266	15
11	1093	34	72	1267	15
12	1102	33	73	1269	15
13	1109	31	74	1271	16
14	1116	30	75	1273	16
15	1123	28	76	1275	16
16	1128	27	77	1277	16
17	1134	26	78	1278	16
18	1139	25	79	1280	16
19	1144	25	80	1282	16
20	1148	24	81	1284	16
21	1152	23	82	1286	16
22	1156	23	83	1288	16
23	1160	22	84	1290	16
24	1164	22	85	1292	16
25	1167	21	86	1294	16
26	1171	21	87	1296	17
27	1174	20	88	1298	17
28	1177	20	89	1301	17
29	1180	20	90	1303	17
30	1183	19	91	1305	17
31	1185	19	92	1307	17
32	1188	19	93	1310	18
33	1191	18	94	1312	18
34	1193	18	95	1314	18
35	1196	18	96	1317	18
36	1198	18	97	1320	19
37	1200	17	98	1322	19
38	1203	17	99	1325	19
39	1205	17	100	1328	20
40	1207	17	101	1331	20
41	1209	17	102	1334	21
42	1211	17	103	1338	21
43	1213	17	104	1341	22
44	1216	16	105	1345	23
45	1218	16	106	1349	24
46	1220	16	107	1354	25
47	1222	16	108	1359	26
48	1224	16	109	1364	27
49	1226	16	110	1370	28
50	1227	16	111	1376	30
51	1229	16	112	1384	33
52	1231	16	113	1392	35
53	1233	16	114	1403	39
54	1235	16	115	1416	44
55	1237	16	116	1433	51
56	1239	16	117	1457	62
57	1240	15	118	1496	82
58	1242	15	119	1500	124
59	1244	15	120	1500	587
60	1246	15			

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; SEM = Standard Error of Measurement.

Table 7.4.14
2014 AIMS A Raw Score to Scale Score Reading Grade 8

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	447	61	1251	12
1	1000	100	62	1252	12
2	1000	71	63	1254	12
3	1028	57	64	1255	12
4	1055	48	65	1256	12
5	1076	42	66	1258	12
6	1092	38	67	1259	12
7	1105	34	68	1260	12
8	1115	31	69	1262	12
9	1124	29	70	1263	12
10	1132	27	71	1264	12
11	1139	25	72	1266	12
12	1145	24	73	1267	12
13	1150	23	74	1269	12
14	1155	22	75	1270	12
15	1160	21	76	1271	12
16	1164	20	77	1273	12
17	1168	19	78	1274	12
18	1171	18	79	1276	12
19	1174	18	80	1277	12
20	1177	17	81	1278	12
21	1180	17	82	1280	12
22	1183	17	83	1281	12
23	1186	16	84	1283	12
24	1188	16	85	1284	12
25	1191	16	86	1286	12
26	1193	15	87	1287	13
27	1196	15	88	1289	13
28	1198	15	89	1291	13
29	1200	14	90	1292	13
30	1202	14	91	1294	13
31	1204	14	92	1296	13
32	1206	14	93	1297	13
33	1208	14	94	1299	14
34	1210	14	95	1301	14
35	1212	13	96	1303	14
36	1213	13	97	1305	14
37	1215	13	98	1307	14
38	1217	13	99	1309	15
39	1218	13	100	1311	15
40	1220	13	101	1314	15
41	1222	13	102	1316	16
42	1223	13	103	1319	16
43	1225	13	104	1322	17
44	1227	12	105	1324	17
45	1228	12	106	1327	18
46	1230	12	107	1331	19
47	1231	12	108	1334	19
48	1233	12	109	1338	20
49	1234	12	110	1343	21
50	1235	12	111	1348	23
51	1237	12	112	1353	25
52	1238	12	113	1360	27
53	1240	12	114	1367	29
54	1241	12	115	1377	33
55	1243	12	116	1390	39
56	1244	12	117	1408	47
57	1245	12	118	1437	61
58	1247	12	119	1494	94
59	1248	12	120	1500	446
60	1250	12			

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; SEM = Standard Error of Measurement.

Table 7.4.15
2014 AIMS A Raw Score to Scale Score Reading High School

Raw Score	Scale Score	*SEM*	Raw Score	Scale Score	*SEM*
0	1000	447	61	1260	11
1	1000	99	62	1261	11
2	1016	69	63	1263	11
3	1054	55	64	1264	11
4	1080	47	65	1265	11
5	1099	41	66	1266	11
6	1113	36	67	1268	11
7	1125	33	68	1269	11
8	1135	30	69	1270	11
9	1143	28	70	1271	11
10	1150	26	71	1273	11
11	1156	24	72	1274	11
12	1162	23	73	1275	11
13	1167	22	74	1277	11
14	1171	21	75	1278	11
15	1175	20	76	1279	11
16	1179	19	77	1281	12
17	1183	18	78	1282	12
18	1186	18	79	1283	12
19	1189	17	80	1285	12
20	1192	17	81	1286	12
21	1195	16	82	1287	12
22	1197	16	83	1289	12
23	1200	16	84	1290	12
24	1202	15	85	1292	12
25	1205	15	86	1293	12
26	1207	15	87	1295	12
27	1209	14	88	1296	12
28	1211	14	89	1298	13
29	1213	14	90	1299	13
30	1215	14	91	1301	13
31	1217	14	92	1303	13
32	1219	13	93	1304	13
33	1220	13	94	1306	13
34	1222	13	95	1308	14
35	1224	13	96	1310	14
36	1225	13	97	1312	14
37	1227	13	98	1314	14
38	1229	13	99	1316	15
39	1230	12	100	1318	15
40	1232	12	101	1321	15
41	1233	12	102	1323	16
42	1235	12	103	1326	16
43	1236	12	104	1328	17
44	1238	12	105	1331	17
45	1239	12	106	1334	18
46	1240	12	107	1338	19
47	1242	12	108	1341	19
48	1243	12	109	1345	20
49	1245	12	110	1350	22
50	1246	12	111	1355	23
51	1247	12	112	1360	25
52	1249	11	113	1367	27
53	1250	11	114	1375	30
54	1251	11	115	1385	33
55	1252	11	116	1398	39
56	1254	11	117	1415	47
57	1255	11	118	1444	61
58	1256	11	119	1499	93
59	1258	11	120	1500	446
60	1259	11			

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; SEM = Standard Error of Measurement.

Table 7.4.16
2014 AIMS A Raw Score to Scale Score Science Grade 4

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	447	61	1253	11
1	1000	100	62	1254	11
2	1000	71	63	1255	11
3	1015	58	64	1257	11
4	1043	50	65	1258	11
5	1065	44	66	1259	11
6	1082	40	67	1261	11
7	1097	36	68	1262	11
8	1109	33	69	1263	11
9	1119	31	70	1264	11
10	1128	29	71	1266	11
11	1136	27	72	1267	11
12	1143	26	73	1268	11
13	1149	24	74	1270	12
14	1155	23	75	1271	12
15	1160	22	76	1272	12
16	1165	21	77	1274	12
17	1169	20	78	1275	12
18	1173	20	79	1276	12
19	1177	19	80	1278	12
20	1180	18	81	1279	12
21	1183	18	82	1281	12
22	1186	17	83	1282	12
23	1189	17	84	1284	12
24	1192	16	85	1285	12
25	1195	16	86	1287	13
26	1197	16	87	1288	13
27	1200	15	88	1290	13
28	1202	15	89	1292	13
29	1204	15	90	1294	13
30	1206	14	91	1295	13
31	1208	14	92	1297	14
32	1210	14	93	1299	14
33	1212	14	94	1301	14
34	1214	14	95	1303	14
35	1216	13	96	1305	15
36	1218	13	97	1307	15
37	1219	13	98	1309	15
38	1221	13	99	1312	15
39	1223	13	100	1314	16
40	1224	13	101	1317	16
41	1226	12	102	1319	17
42	1227	12	103	1322	17
43	1229	12	104	1325	18
44	1230	12	105	1329	18
45	1232	12	106	1332	19
46	1233	12	107	1336	20
47	1235	12	108	1340	21
48	1236	12	109	1344	22
49	1237	12	110	1349	23
50	1239	12	111	1355	24
51	1240	12	112	1361	26
52	1241	12	113	1368	28
53	1243	11	114	1377	31
54	1244	11	115	1388	35
55	1245	11	116	1402	41
56	1247	11	117	1422	49
57	1248	11	118	1453	63
58	1249	11	119	1500	94
59	1250	11	120	1500	446
60	1252	11			

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; SEM = Standard Error of Measurement.

Table 7.4.17
2014 AIMS A Raw Score to Scale Score Science Grade 8

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	373	61	1258	9
1	1000	84	62	1259	9
2	1019	59	63	1260	9
3	1053	48	64	1262	9
4	1077	42	65	1263	9
5	1096	37	66	1264	9
6	1111	33	67	1265	9
7	1123	31	68	1266	9
8	1133	28	69	1267	10
9	1142	26	70	1268	10
10	1150	25	71	1269	10
11	1157	23	72	1270	10
12	1163	22	73	1271	10
13	1168	21	74	1272	10
14	1173	20	75	1274	10
15	1178	19	76	1275	10
16	1182	18	77	1276	10
17	1186	17	78	1277	10
18	1189	17	79	1278	10
19	1192	16	80	1279	10
20	1195	16	81	1280	10
21	1198	15	82	1282	10
22	1201	15	83	1283	10
23	1204	14	84	1284	10
24	1206	14	85	1285	10
25	1208	14	86	1287	10
26	1210	13	87	1288	11
27	1212	13	88	1289	11
28	1214	13	89	1291	11
29	1216	12	90	1292	11
30	1218	12	91	1294	11
31	1220	12	92	1295	11
32	1222	12	93	1297	11
33	1223	12	94	1298	12
34	1225	11	95	1300	12
35	1226	11	96	1302	12
36	1228	11	97	1304	12
37	1229	11	98	1305	13
38	1231	11	99	1307	13
39	1232	11	100	1309	13
40	1234	11	101	1312	14
41	1235	11	102	1314	14
42	1236	10	103	1316	14
43	1238	10	104	1319	15
44	1239	10	105	1322	16
45	1240	10	106	1325	16
46	1241	10	107	1328	17
47	1243	10	108	1332	18
48	1244	10	109	1336	19
49	1245	10	110	1340	20
50	1246	10	111	1345	21
51	1247	10	112	1351	23
52	1248	10	113	1358	25
53	1250	10	114	1366	27
54	1251	10	115	1376	31
55	1252	10	116	1389	35
56	1253	10	117	1407	42
57	1254	10	118	1434	54
58	1255	10	119	1484	79
59	1256	10	120	1500	372
60	1257	10			

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; SEM = Standard Error of Measurement.

Table 7.4.18
2014 AIMS A Raw Score to Scale Score Science High School

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	339	61	1250	9
1	1002	76	62	1251	9
2	1054	53	63	1252	9
3	1083	43	64	1253	9
4	1104	36	65	1253	9
5	1119	32	66	1254	9
6	1131	29	67	1255	9
7	1141	26	68	1256	9
8	1149	24	69	1257	9
9	1156	22	70	1258	9
10	1162	20	71	1259	9
11	1167	19	72	1260	9
12	1172	18	73	1261	9
13	1176	17	74	1262	9
14	1180	16	75	1263	9
15	1183	16	76	1264	9
16	1186	15	77	1265	9
17	1189	15	78	1266	9
18	1192	14	79	1267	9
19	1194	14	80	1268	9
20	1197	13	81	1269	9
21	1199	13	82	1271	9
22	1201	13	83	1272	9
23	1203	12	84	1273	9
24	1205	12	85	1274	9
25	1207	12	86	1275	9
26	1209	11	87	1276	9
27	1210	11	88	1277	10
28	1212	11	89	1279	10
29	1213	11	90	1280	10
30	1215	11	91	1281	10
31	1216	10	92	1283	10
32	1218	10	93	1284	10
33	1219	10	94	1285	10
34	1221	10	95	1287	11
35	1222	10	96	1288	11
36	1223	10	97	1290	11
37	1224	10	98	1291	11
38	1226	10	99	1293	11
39	1227	9	100	1295	12
40	1228	9	101	1297	12
41	1229	9	102	1298	12
42	1230	9	103	1301	13
43	1231	9	104	1303	13
44	1233	9	105	1305	13
45	1234	9	106	1307	14
46	1235	9	107	1310	15
47	1236	9	108	1313	15
48	1237	9	109	1316	16
49	1238	9	110	1320	17
50	1239	9	111	1324	18
51	1240	9	112	1328	19
52	1241	9	113	1334	21
53	1242	9	114	1340	23
54	1243	9	115	1348	26
55	1244	9	116	1359	30
56	1245	9	117	1373	37
57	1246	9	118	1396	47
58	1247	9	119	1440	71
59	1248	9	120	1500	338
60	1249	9			

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; SEM = Standard Error of Measurement.

Part 8:   Test Results

8.1   Data

Part 8 of this Technical Report contains information about the results of the 2014 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 within this section are based on population data contained within the final electronic data files. The results 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 results typically use more detailed school-level information, such as full academic year enrollment, 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 based on separate scales for each content area and grade (3 through 8 and High School, as applicable). Each scale runs from a lowest obtainable scale score (LOSS) of 1000 to a highest obtainable scale score (HOSS) of 1500.

Test results for each grade level and content area test are presented in Tables 8.1.1.2 through 8.1.1.4. For each grade and subject, these tables present the number (N) of students who took the exam in 2014, the mean scale score (M) and standard deviation (SD), the percentages of students in each performance level (Falls Far Below the Standard, FFBS; Approaches the Standard, AS; Meets the Standard, MS; and Exceeds the Standard, ES) as well as the percentage of students who either had no response (NR) to any item or had their score invalidated (INV). These descriptive statistics are presented for the state as a whole and disaggregated into various demographic groups.

The scale score frequency distributions for each grade and subject are presented in Tables 8.1.1.5 through 8.1.1.22. These tables show the raw score, scale score, number of students scoring each total score (frequency, FREQ), the percent (%) of students scoring each total score, and cumulative percentage (CUML %) which is the percentage of students who scored at or below each total score.

Table 8.1.1.1
2014 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	1017	1263.43	59.93	9%	15%	55%	22%	3%	0%
Ethnic Background									
White	333	1265.08	51.90	10%	14%	55%	21%	2%	0%
Black	85	1256.73	67.96	11%	18%	59%	13%	2%	0%
Hispanic	482	1264.15	61.33	8%	16%	53%	23%	3%	0%
American Indian	75	1263.33	63.94	9%	12%	55%	24%	4%	0%
Asian	20	1241.65	85.22	15%	5%	70%	10%	10%	0%
Hawaiian Pacific Islander	5	*	*	*	*	*	*	*	*
Multiracial	17	1279.35	38.27	6%	6%	53%	35%	0%	0%
Other	0	*	*	*	*	*	*	*	*
Gender									
Male	691	1265.03	58.66	9%	15%	54%	23%	2%	0%
Female	326	1260.02	62.49	9%	15%	57%	19%	4%	0%
Need									
Autism	317	1270.15	38.76	5%	16%	59%	20%	1%	0%
DD	82	1287.62	23.93	0%	7%	59%	34%	0%	0%
ED	5	*	*	*	*	*	*	*	*
EDP	3	*	*	*	*	*	*	*	*
HI	6	*	*	*	*	*	*	*	*
MD	17	1263.41	28.82	12%	24%	47%	18%	0%	0%
MDSSI	70	1188.59	100.32	49%	21%	27%	3%	20%	0%
MIID	234	1282.97	25.02	1%	7%	62%	30%	0%	0%
MOID	121	1281.32	48.12	8%	29%	54%	9%	1%	0%
OHI	21	1295.29	33.54	0%	5%	43%	52%	0%	0%
OI	75	1225.99	97.54	23%	19%	53%	5%	12%	0%
SID	24	1152.33	109.54	54%	29%	17%	0%	17%	0%
SLD	37	1303.32	28.93	0%	0%	49%	51%	0%	0%
SLI	17	1153.06	122.22	53%	24%	18%	6%	12%	0%
VI	5	*	*	*	*	*	*	*	*
Other	1	*	*	*	*	*	*	*	*
SES									
Free/Reduced Lunch	548	1266.30	53.77	8%	13%	57%	23%	2%	0%
No Lunch Assistance	469	1260.07	66.31	10%	17%	52%	21%	4%	0%
Other	0	*	*	*	*	*	*	*	*
Migrant									
Non-Migrant	1012	1263.32	60.02	9%	15%	55%	22%	3%	0%
Migrant	5	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
ELL									
Non-ELL	972	1262.36	60.61	9%	15%	55%	21%	3%	0%
ELL	45	1286.38	36.10	7%	7%	44%	42%	0%	0%
Other	0	*	*	*	*	*	*	*	*

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		Scale Score		**% at Performance Level**					
	N	*M*	*SD*	FFBS	AS	MS	ES	NR	INV
Grade 4									
Total	1052	1278.17	57.97	8%	12%	55%	25%	1%	0%
Ethnic Background									
White	348	1276.86	57.50	8%	12%	57%	23%	1%	0%
Black	93	1281.69	47.08	7%	12%	58%	24%	1%	0%
Hispanic	488	1277.49	61.36	8%	12%	52%	28%	1%	0%
American Indian	73	1291.01	46.76	1%	8%	63%	27%	0%	0%
Asian	26	1268.54	73.03	8%	15%	50%	27%	0%	0%
Hawaiian Pacific Islander	6	*	*	*	*	*	*	*	*
Multiracial	18	1271.11	42.03	11%	6%	72%	11%	0%	0%
Other	0	*	*	*	*	*	*	*	*
Gender									
Male	673	1283.95	53.90	6%	10%	54%	30%	1%	0%
Female	379	1267.92	63.37	10%	15%	58%	18%	2%	0%
Need									
Autism	303	1280.36	54.34	6%	14%	56%	24%	0%	0%
DD	25	1305.92	38.85	0%	8%	44%	48%	0%	0%
ED	10	*	*	*	*	*	*	*	*
EDP	6	*	*	*	*	*	*	*	*
HI	3	*	*	*	*	*	*	*	*
MD	23	1279.83	34.87	4%	9%	70%	17%	0%	0%
MDSSI	69	1219.23	73.10	33%	28%	36%	9%	10%	0%
MIID	329	1297.13	39.03	1%	5%	59%	46%	0%	0%
MOID	119	1259.03	37.36	8%	22%	66%	5%	1%	0%
OHI	26	1307.12	88.45	4%	4%	50%	42%	4%	0%
OI	60	1258.72	40.56	12%	22%	57%	10%	0%	0%
SID	27	1173.81	89.33	63%	11%	26%	0%	7%	0%
SLD	40	1322.95	49.22	0%	0%	43%	58%	0%	0%
SLI	3	*	*	*	*	*	*	*	*
VI	8	*	*	*	*	*	*	*	*
Other	1	*	*	*	*	*	*	*	*
SES									
Free/Reduced Lunch	535	1283.26	51.23	5%	11%	57%	27%	1%	0%
No Lunch Assistance	517	1272.91	63.84	10%	13%	54%	23%	1%	0%
Other	0	*	*	*	*	*	*	*	*
Migrant									
Non-Migrant	1049	1278.06	57.99	8%	12%	56%	25%	1%	0%
Migrant	3	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
ELL									
Non-ELL	1013	1277.40	58.58	8%	12%	55%	25%	1%	0%
ELL	39	1298.28	33.50	0%	3%	56%	41%	0%	0%
Other	0	*	*	*	*	*	*	*	*

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		Scale Score		% at Performance Level					
	N	*M*	*SD*	FFBS	AS	MS	ES	NR	INV
Grade 5									
Total	1020	1263.22	56.85	10%	14%	62%	14%	2%	0%
Ethnic Background									
White	334	1264.37	53.86	10%	12%	63%	15%	2%	0%
Black	66	1254.64	72.04	11%	15%	59%	15%	5%	0%
Hispanic	488	1263.28	56.40	11%	14%	61%	14%	1%	0%
American Indian	85	1260.76	67.94	9%	13%	68%	9%	4%	0%
Asian	25	1268.53	30.83	12%	12%	64%	12%	0%	0%
Hawaiian Pacific Islander	4	*	*	*	*	*	*	*	*
Multiracial	18	1277.17	27.53	0%	17%	67%	17%	0%	0%
Other	0	*	*	*	*	*	*	*	*
Gender									
Male	676	1263.16	59.60	11%	13%	60%	16%	2%	0%
Female	344	1263.34	51.11	9%	14%	67%	10%	2%	0%
Need									
Autism	299	1265.74	42.08	8%	18%	61%	13%	0%	0%
DD	0	*	*	*	*	*	*	*	*
ED	8	*	*	*	*	*	*	*	*
EDP	3	*	*	*	*	*	*	*	*
HI	3	*	*	*	*	*	*	*	*
MD	23	1270.09	23.59	0%	17%	78%	4%	0%	0%
MDSSI	64	1151.63	107.44	67%	11%	20%	2%	25%	0%
MIID	342	1282.09	27.51	2%	8%	72%	18%	0%	0%
MOID	129	1256.77	32.76	9%	19%	71%	2%	1%	0%
OHI	24	1306.54	60.66	0%	8%	58%	33%	0%	0%
OI	71	1248.83	60.97	16%	20%	58%	7%	3%	0%
SID	19	1196.37	76.95	53%	37%	11%	0%	5%	0%
SLD	33	1302.70	26.68	0%	0%	55%	46%	0%	0%
SLI	0	*	*	*	*	*	*	*	*
VI	3	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
SES									
Free/Reduced Lunch	551	1268.23	51.95	9%	12%	64%	16%	2%	0%
No Lunch Assistance	469	1257.34	61.65	12%	16%	60%	12%	3%	0%
Other	2	*	*	*	*	*	*	*	*
Migrant									
Non-Migrant	1017	1263.34	56.85	10%	14%	62%	14%	2%	0%
Migrant	3	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
ELL									
Non-ELL	984	1262.39	57.49	11%	14%	62%	14%	2%	0%
ELL	36	1286.03	26.91	0%	8%	75%	17%	0%	0%
Other	0	*	*	*	*	*	*	*	*

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		Scale Score		**% at Performance Level**					
	N	*M*	*SD*	**FFBS**	**AS**	**MS**	**ES**	**NR**	**INV**
Grade 6									
Total	962	1271.10	68.07	6%	19%	53%	21%	2%	0%
Ethnic Background									
White	349	1268.12	69.27	7%	22%	52%	19%	3%	0%
Black	76	1266.96	69.88	9%	16%	53%	22%	1%	0%
Hispanic	431	1273.63	63.21	5%	19%	54%	22%	2%	0%
American Indian	70	1280.56	67.63	4%	12%	56%	27%	4%	0%
Asian	18	1251.72	80.53	6%	33%	50%	11%	6%	0%
Hawaiian Pacific Islander	4	*	*	*	*	*	*	*	*
Multiracial	14	1272.50	115.05	14%	7%	57%	21%	0%	0%
Other	0	*	*	*	*	*	*	*	*
Gender									
Male	601	1274.57	64.96	6%	19%	53%	22%	2%	0%
Female	361	1265.31	72.69	8%	19%	54%	19%	3%	0%
Need									
Autism	288	1269.43	60.80	5%	24%	54%	18%	1%	0%
DD	0	*	*	*	*	*	*	*	*
ED	12	1309.83	35.23	0%	0%	58%	42%	0%	0%
EDP	1	*	*	*	*	*	*	*	*
HI	2	*	*	*	*	*	*	*	*
MD	22	1273.45	33.45	0%	36%	50%	14%	0%	0%
MDSSI	52	1166.38	114.45	46%	19%	33%	2%	19%	0%
MIID	320	1298.29	34.97	0%	9%	58%	33%	0%	0%
MOID	124	1259.73	42.55	2%	31%	61%	7%	1%	0%
OHI	19	1317.89	44.62	0%	0%	68%	32%	0%	0%
OI	65	1225.88	94.19	20%	31%	40%	9%	11%	0%
SID	22	1197.95	92.55	32%	36%	27%	5%	9%	0%
SLD	33	1321.55	46.77	0%	6%	39%	55%	0%	0%
SLI	2	*	*	*	*	*	*	*	*
VI	0	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
SES									
Free/Reduced Lunch	485	1276.99	64.51	5%	16%	56%	23%	2%	0%
No Lunch Assistance	477	1265.11	71.09	7%	22%	51%	19%	3%	0%
Other	0	*	*	*	*	*	*	*	*
Migrant									
Non-Migrant	958	1271.06	68.20	6%	19%	53%	21%	2%	0%
Migrant	4	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
ELL									
Non-ELL	941	1270.62	68.16	7%	19%	54%	21%	2%	0%
ELL	21	1292.57	61.65	0%	19%	52%	29%	0%	0%
Other	0	*	*	*	*	*	*	*	*

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		Scale Score		% at Performance Level					
	N	*M*	*SD*	FFBS	AS	MS	ES	NR	INV
Grade 7									
Total	967	1280.57	64.71	5%	11%	62%	22%	3%	0%
Ethnic Background									
White	366	1281.37	62.66	4%	11%	65%	21%	2%	0%
Black	80	1284.56	48.98	3%	13%	66%	19%	1%	0%
Hispanic	428	1279.35	67.31	6%	11%	60%	23%	3%	0%
American Indian	50	1291.66	57.75	6%	10%	56%	28%	2%	0%
Asian	19	1269.21	79.40	11%	11%	53%	26%	5%	0%
Hawaiian Pacific Islander	3	*	*	*	*	*	*	*	*
Multiracial	21	1254.95	92.53	10%	41%	67%	10%	10%	0%
Other	0	*	*	*	*	*	*	*	*
Gender									
Male	616	1287.69	56.72	3%	11%	61%	24%	2%	0%
Female	351	1268.07	75.22	8%	11%	63%	18%	5%	0%
Need									
Autism	253	1284.28	49.02	2%	13%	66%	19%	0%	0%
DD	0	*	*	*	*	*	*	*	*
ED	7	*	*	*	*	*	*	*	*
EDP	12	1286.00	25.93	0%	17%	75%	8%	0%	0%
HI	4	*	*	*	*	*	*	*	*
MD	26	1278.42	30.25	0%	15%	77%	8%	0%	0%
MDSSI	60	1201.77	103.66	32%	22%	43%	3%	17%	0%
MIID	316	1304.99	36.97	0%	3%	64%	33%	0%	0%
MOID	138	1264.36	52.56	4%	17%	70%	10%	2%	0%
OHI	29	1314.83	32.52	0%	3%	48%	48%	0%	0%
OI	68	1238.16	92.15	18%	22%	53%	7%	12%	0%
SID	18	1203.00	100.59	22%	39%	39%	0%	17%	0%
SLD	29	1339.38	47.10	0%	0%	38%	62%	0%	0%
SLI	4	*	*	*	*	*	*	*	*
VI	3	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
SES									
Free/Reduced Lunch	474	1285.88	58.87	4%	10%	61%	25%	2%	0%
No Lunch Assistance	493	275.46	69.54	6%	12%	63%	19%	3%	0%
Other	2	*	*	*	*	*	*	*	*
Migrant									
Non-Migrant	961	1280.43	64.86	5%	11%	62%	22%	3%	0%
Migrant	6	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
ELL									
Non-ELL	942	1280.05	65.28	5%	12%	62%	22%	3%	0%
ELL	25	1300.12	31.64	0%	0%	64%	36%	0%	0%
Other	2	*	*	*	*	*	*	*	*

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		Scale Score		% at Performance Level					
	N	*M*	*SD*	FFBS	AS	MS	ES	NR	INV
Grade 8									
Total	1030	1274.67	60.81	6%	15%	50%	29%	2%	0%
Ethnic Background									
White	396	1269.61	63.41	7%	16%	49%	28%	2%	0%
Black	76	1277.13	61.10	8%	12%	49%	32%	1%	0%
Hispanic	435	1277.83	61.33	4%	16%	52%	29%	2%	0%
American Indian	66	1284.08	40.02	3%	12%	52%	33%	0%	0%
Asian	39	1274.64	45.28	3%	21%	54%	23%	0%	0%
Hawaiian Pacific Islander	1	*	*	*	*	*	*	*	*
Multiracial	17	1280.35	40.18	0%	18%	47%	35%	0%	0%
Other	0	*	*	*	*	*	*	*	*
Gender									
Male	631	1276.80	63.43	6%	15%	48%	31%	2%	0%
Female	399	1271.30	56.34	5%	16%	53%	25%	2%	0%
Need									
Autism	230	1281.43	42.47	4%	15%	53%	28%	0%	0%
DD	0	*	*	*	*	*	*	*	*
ED	13	1288.08	33.50	0%	23%	34%	46%	0%	0%
EDP	8	*	*	*	*	*	*	*	*
HI	4	*	*	*	*	*	*	*	*
MD	25	1274.12	71.95	8%	8%	44%	40%	0%	0%
MDSSI	69	1202.70	87.02	28%	38%	33%	1%	9%	0%
MIID	355	1299.32	36.49	0%	5%	54%	41%	0%	0%
MOID	137	1262.68	41.97	3%	23%	65%	10%	1%	0%
OHI	15	1302.60	30.15	0%	0%	60%	40%	0%	0%
OI	91	1246.34	79.21	10%	28%	44%	19%	7%	0%
SID	40	1184.08	90.35	35%	48%	18%	0%	20%	0%
SLD	37	1315.30	31.48	0%	0%	30%	70%	0%	0%
SLI	3	*	*	*	*	*	*	*	*
VI	1	*	*	*	*	*	*	*	*
Other	2	*	*	*	*	*	*	*	*
SES									
Free/Reduced Lunch	486	1280.13	58.09	4%	13%	51%	33%	2%	0%
No Lunch Assistance	544	1269.79	62.79	7%	18%	49%	25%	2%	0%
Other	0	*	*	*	*	*	*	*	*
Migrant									
Non-Migrant	1026	1274.45	60.75	6%	15%	50%	29%	2%	0%
Migrant	4	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
ELL									
Non-ELL	1013	1274.56	60.52	6%	16%	50%	29%	2%	0%
ELL	17	1281.35	78.11	6%	0%	53%	41%	6%	0%
Other	0	*	*	*	*	*	*	*	*

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		Scale Score		% at Performance Level					
	N	*M*	*SD*	FFBS	AS	MS	ES	NR	INV
High School									
Total	1035	1270.67	71.00	7%	15%	67%	11%	4%	0%
Ethnic Background									
White	404	1273.50	63.82	6%	16%	68%	10%	2%	0%
Black	58	1281.24	59.65	7%	10%	66%	17%	3%	0%
Hispanic	440	1264.88	81.15	9%	15%	66%	10%	6%	0%
American Indian	89	1285.01	53.47	5%	10%	67%	18%	1%	0%
Asian	26	1258.23	76.32	12%	15%	69%	4%	0%	0%
Hawaiian Pacific Islander	5	*	*	*	*	*	*	*	*
Multiracial	13	1263.46	38.18	0%	39%	62%	0%	0%	0%
Other	0	*	*	*	*	*	*	*	*
Gender									
Male	641	1275.97	68.66	7%	14%	67%	13%	3%	0%
Female	394	1262.05	73.92	8%	18%	66%	8%	5%	0%
Need									
Autism	214	1273.66	63.23	6%	21%	63%	11%	1%	0%
DD	0	*	*	*	*	*	*	*	*
ED	10	*	*	*	*	*	*	*	*
EDP	12	1284.67	40.04	8%	8%	75%	8%	0%	0%
HI	1	*	*	*	*	*	*	*	*
MD	20	1268.10	37.67	5%	15%	75%	5%	0%	0%
MDSSI	49	1175.47	119.37	39%	22%	37%	2%	27%	0%
MIID	389	1299.21	36.43	0%	5%	78%	16%	0%	0%
MOID	155	1251.81	50.92	7%	27%	65%	1%	2%	0%
OHI	15	1318.07	54.39	0%	7%	67%	27%	0%	0%
OI	114	1218.17	101.06	23%	21%	55%	1%	13%	0%
SID	16	1198.81	80.68	19%	69%	13%	0%	19%	0%
SLD	32	1322.25	33.79	0%	3%	56%	41%	0%	0%
SLI	3	*	*	*	*	*	*	*	*
VI	5	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
SES									
Free/Reduced Lunch	529	1279.24	61.78	5%	13%	72%	11%	3%	0%
No Lunch Assistance	506	1261.71	78.57	10%	18%	61%	11%	5%	0%
Other	0	*	*	*	*	*	*	*	*
Migrant									
Non-Migrant	1032	1270.87	70.57	7%	15%	67%	11%	4%	0%
Migrant	3	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
ELL									
Non-ELL	1028	1270.35	71.10	7%	15%	67%	11%	4%	0%
ELL	7	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*

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Table 8.1.1.2
2014 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	1035	1270.67	71.00	7%	15%	67%	11%	4%	0%
Ethnic Background									
White	404	1273.50	63.82	6%	16%	68%	10%	2%	0%
Black	58	1281.24	59.65	7%	10%	66%	17%	3%	0%
Hispanic	440	1264.88	81.15	9%	15%	66%	10%	6%	0%
American Indian	89	1285.01	53.47	5%	10%	67%	18%	1%	0%
Asian	26	1258.23	76.32	12%	15%	69%	4%	0%	0%
Hawaiian Pacific Islander	5	*	*	*	*	*	*	*	*
Multiracial	13	1263.46	38.18	0%	39%	62%	0%	0%	0%
Other	0	*	*	*	*	*	*	*	*
Gender									
Male	641	1275.97	68.66	7%	14%	67%	13%	3%	0%
Female	394	1262.05	73.92	8%	18%	66%	8%	5%	0%
Need									
Autism	214	1273.66	63.23	6%	21%	63%	11%	1%	0%
DD	0	*	*	*	*	*	*	*	*
ED	10	*	*	*	*	*	*	*	*
EDP	12	1284.67	40.04	8%	8%	75%	8%	0%	0%
HI	1	*	*	*	*	*	*	*	*
MD	20	1268.10	37.67	5%	15%	75%	5%	0%	0%
MDSSI	49	1175.47	119.37	39%	22%	37%	2%	27%	0%
MIID	389	1299.21	36.43	0%	5%	78%	16%	0%	0%
MOID	155	1251.81	50.92	7%	27%	65%	1%	2%	0%
OHI	15	1318.07	54.39	0%	7%	67%	27%	0%	0%
OI	114	1218.17	101.06	23%	21%	55%	1%	13%	0%
SID	16	1198.81	80.68	19%	69%	13%	0%	19%	0%
SLD	32	1322.25	33.79	0%	3%	56%	41%	0%	0%
SLI	3	*	*	*	*	*	*	*	*
VI	5	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
SES									
Free/Reduced Lunch	529	1279.24	61.78	5%	13%	72%	11%	3%	0%
No Lunch Assistance	506	1261.71	78.57	10%	18%	61%	11%	5%	0%
Other	0	*	*	*	*	*	*	*	*
Migrant									
Non-Migrant	1032	1270.87	70.57	7%	15%	67%	11%	4%	0%
Migrant	3	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
ELL									
Non-ELL	1028	1270.35	71.10	7%	15%	67%	11%	4%	0%
ELL	7	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*

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		Scale Score		% at Performance Level					
	N	*M*	*SD*	FFBS	AS	MS	ES	NR	INV
Grade 4									
Total	1052	1279.02	65.46	5%	16%	64%	14%	1%	0%
Ethnic Background									
White	348	1278.98	67.25	6%	16%	62%	15%	1%	0%
Black	93	1277.78	49.73	4%	16%	70%	10%	1%	0%
Hispanic	488	1278.07	68.11	6%	17%	64%	14%	1%	0%
American Indian	73	1295.77	53.50	1%	12%	64%	22%	0%	0%
Asian	26	1265.08	70.26	8%	12%	69%	12%	0%	0%
Hawaiian Pacific Islander	6	*	*	*	*	*	*	*	*
Multiracial	18	1268.83	69.69	6%	22%	67%	6%	0%	0%
Other	0	*	*	*	*	*	*	*	*
Gender									
Male	673	1284.63	60.67	4%	16%	64%	16%	1%	0%
Female	379	1269.06	72.22	8%	17%	65%	10%	2%	0%
Need									
Autism	303	1274.54	57.49	4%	20%	65%	12%	0%	0%
DD	25	1306.56	35.23	0%	8%	68%	24%	0%	0%
ED	10	*	*	*	*	*	*	*	*
EDP	6	*	*	*	*	*	*	*	*
HI	3	*	*	*	*	*	*	*	*
MD	23	1276.96	46.53	4%	22%	65%	9%	0%	0%
MDSSI	69	1207.81	82.77	26%	42%	29%	3%	10%	0%
MIID	329	1304.56	45.01	0%	6%	75%	20%	0%	0%
MOID	119	1264.24	38.83	3%	29%	65%	4%	1%	0%
OHI	26	1321.77	108.58	4%	0%	65%	31%	4%	0%
OI	60	1251.76	74.89	9%	33%	48%	9%	3%	0%
SID	27	1152.70	91.08	56%	26%	19%	0%	7%	0%
SLD	40	1325.25	50.72	0%	5%	58%	38%	0%	0%
SLI	3	*	*	*	*	*	*	*	*
VI	8	*	*	*	*	*	*	*	*
Other	1	*	*	*	*	*	*	*	*
SES									
Free/Reduced Lunch	525	1283.98	59.80	4%	14%	67%	14%	1%	0%
No Lunch Assistance	517	1273.89	70.55	7%	18%	61%	14%	1%	0%
Other	0	*	*	*	*	*	*	*	*
Migrant									
Non-Migrant	1049	1278.98	65.54	5%	16%	64%	14%	1%	0%
Migrant	3	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
ELL									
Non-ELL	1013	1278.52	66.30	6%	17%	64%	14%	1%	0%
ELL	39	1291.97	36.02	0%	3%	87%	10%	0%	0%
Other	0	*	*	*	*	*	*	*	*

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		Scale Score		% at Performance Level					
	N	*M*	*SD*	FFBS	AS	MS	ES	NR	INV
Grade 5									
Total	1020	1279.01	85.08	6%	22%	51%	21%	2%	0%
Ethnic Background									
White	334	1278.59	82.36	6%	23%	52%	20%	2%	0%
Black	66	1269.64	92.47	6%	24%	50%	20%	5%	0%
Hispanic	488	1279.15	86.43	7%	22%	49%	23%	1%	0%
American Indian	85	1280.34	86.37	8%	18%	53%	21%	4%	0%
Asian	25	1286.16	79.88	4%	28%	48%	20%	0%	0%
Hawaiian Pacific Islander	4	*	*	*	*	*	*	*	*
Multiracial	18	1296.39	65.89	0%	17%	67%	17%	0%	0%
Other	0	*	*	*	*	*	*	*	*
Gender									
Male	676	1277.15	86.90	7%	22%	50%	21%	2%	0%
Female	344	1282.66	81.40	6%	21%	52%	22%	2%	0%
Need									
Autism	299	1273.53	70.00	3%	33%	49%	15%	0%	0%
DD	0	*	*	*	*	*	*	*	*
ED	8	*	*	*	*	*	*	*	*
EDP	3	*	*	*	*	*	*	*	*
HI	2	*	*	*	*	*	*	*	*
MD	23	1285.70	52.41	0%	30%	44%	26%	0%	0%
MDSSI	64	1139.69	109.06	53%	25%	20%	2%	25%	0%
MIID	342	1314.88	62.08	0%	9%	59%	32%	0%	0%
MOID	129	1260.36	54.56	3%	33%	57%	8%	1%	0%
OHI	24	1347.58	86.28	0%	8%	42%	50%	0%	0%
OI	71	1252.55	88.54	13%	25%	48%	14%	3%	0%
SID	19	1162.89	97.11	42%	47%	11%	0%	5%	0%
SLD	33	1348.45	63.20	0%	0%	55%	46%	0%	0%
SLI	0	*	*	*	*	*	*	*	*
VI	3	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
SES									
Free/Reduced Lunch	551	1285.77	79.36	6%	20%	51%	24%	2%	0%
No Lunch Assistance	469	1271.07	90.79	7%	24%	51%	18%	3%	0%
Other	0	*	*	*	*	*	*	*	*
Migrant									
Non-Migrant	1017	1279.18	85.12	6%	22%	51%	21%	2%	0%
Migrant	3	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
ELL									
Non-ELL	984	1277.96	85.81	7%	23%	50%	21%	2%	0%
ELL	36	1307.83	55.31	0%	6%	72%	22%	0%	0%
Other	0	*	*	*	*	*	*	*	*

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		Scale Score		% at Performance Level					
	N	*M*	*SD*	FFBS	AS	MS	ES	NR	INV
Grade 6									
Total	962	1293.07	93.03	7%	20%	42%	31%	2%	0%
Ethnic Background									
White	349	1291.01	93.97	6%	22%	42%	30%	3%	0%
Black	76	1286.32	96.58	11%	13%	45%	32%	1%	0%
Hispanic	431	1294.38	89.22	8%	21%	42%	30%	2%	0%
American Indian	70	1314.24	94.19	4%	13%	41%	41%	4%	0%
Asian	18	1250.56	86.82	11%	33%	50%	6%	6%	0%
Hawaiian Pacific Islander	4	*	*	*	*	*	*	*	*
Multiracial	14	1294.50	126.54	14%	7%	43%	56%	0%	0%
Other	0	*	*	*	*	*	*	*	*
Gender									
Male	601	1296.04	90.35	6%	22%	40%	32%	2%	0%
Female	361	1288.11	97.26	8%	18%	45%	29%	3%	0%
Need									
Autism	288	1283.68	84.18	7%	30%	39%	24%	1%	0%
DD	0	*	*	*	*	*	*	*	*
ED	12	1366.59	61.76	0%	0%	25%	75%	0%	0%
EDP	1	*	*	*	*	*	*	*	*
HI	2	*	*	*	*	*	*	*	*
MD	22	1294.23	70.83	0%	23%	55%	23%	0%	0%
MDSSI	52	1168.21	122.55	44%	27%	19%	10%	19%	0%
MIID	320	1335.05	61.37	0%	5%	51%	44%	0%	0%
MOID	124	1264.31	60.15	3%	39%	51%	7%	1%	0%
OHI	19	1368.79	61.16	0%	0%	26%	74%	0%	0%
OI	65	1234.69	117.54	20%	26%	31%	23%	11%	0%
SID	22	1187.55	100.98	32%	41%	23%	5%	9%	0%
SLD	33	1378.85	68.35	0%	0%	27%	73%	0%	0%
SLI	2	*	*	*	*	*	*	*	*
VI	0	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
SES									
Free/Reduced Lunch	485	1301.66	93.01	7%	17%	42%	34%	2%	0%
No Lunch Assistance	477	1284.33	92.34	7%	24%	42%	27%	3%	0%
Other	0	*	*	*	*	*	*	*	*
Migrant									
Non-Migrant	958	1293.02	93.19	7%	20%	42%	31%	2%	0%
Migrant	4	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
ELL									
Non-ELL	941	1292.58	93.39	7%	20%	42%	30%	2%	0%
ELL	21	1315.00	73.63	0%	24%	33%	43%	0%	0%
Other	0	*	*	*	*	*	*	*	*

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		Scale Score		% at Performance Level					
	N	*M*	*SD*	FFBS	AS	MS	ES	NR	INV
Grade 7									
Total	967	1293.11	87.66	7%	17%	52%	25%	3%	0%
Ethnic Background									
White	366	1298.42	87.68	5%	17%	51%	27%	2%	0%
Black	80	1300.46	72.95	4%	18%	55%	24%	1%	0%
Hispanic	428	1288.27	88.01	8%	18%	52%	23%	3%	0%
American Indian	50	1301.62	89.07	8%	8%	58%	26%	2%	0%
Asian	19	1267.58	98.55	11%	16%	53%	21%	5%	0%
Hawaiian Pacific Islander	3	*	*	*	*	*	*	*	*
Multiracial	21	1267.33	111.59	14%	10%	67%	10%	10%	0%
Other	0	*	*	*	*	*	*	*	*
Gender									
Male	616	1299.51	81.01	5%	16%	55%	25%	2%	0%
Female	351	1281.89	97.36	10%	18%	48%	24%	5%	0%
Need									
Autism	253	1292.42	75.80	4%	20%	55%	21%	0%	0%
DD	0	*	*	*	*	*	*	*	*
ED	7	*	*	*	*	*	*	*	*
EDP	12	1307.58	73.69	0%	17%	58%	25%	0%	0%
HI	4	*	*	*	*	*	*	*	*
MD	26	1293.23	61.25	8%	12%	62%	19%	0%	0%
MDSSI	60	1189.07	107.00	33%	35%	30%	2%	17%	0%
MIID	316	1332.93	61.22	0%	5%	56%	39%	0%	0%
MOID	138	1262.08	60.02	6%	30%	59%	5%	2%	0%
OHI	29	1339.76	55.50	0%	3%	55%	41%	0%	0%
OI	68	1234.18	107.68	22%	21%	46%	12%	12%	0%
SID	18	1176.94	93.14	39%	44%	17%	0%	17%	0%
SLD	29	1377.10	70.92	0%	0%	35%	66%	0%	0%
SLI	4	*	*	*	*	*	*	*	*
VI	3	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
SES									
Free/Reduced Lunch	474	1299.70	80.41	5%	13%	54%	27%	2%	0%
No Lunch Assistance	493	1286.77	93.74	8%	21%	50%	22%	3%	0%
Other	0	*	*	*	*	*	*	*	*
Migrant									
Non-Migrant	961	1293.02	87.85	7%	17%	52%	25%	3%	0%
Migrant	6	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
ELL									
Non-ELL	942	1292.80	88.56	7%	17%	52%	25%	3%	0%
ELL	25	1304.80	40.23	0%	4%	72%	24%	0%	0%
Other	0	*	*	*	*	*	*	*	*

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		Scale Score		% at Performance Level					
	N	*M*	*SD*	FFBS	AS	MS	ES	NR	INV
Grade 8									
Total	1030	1293.34	77.96	6%	17%	50%	28%	2%	0%
Ethnic Background									
White	396	1290.13	84.29	8%	15%	49%	28%	2%	0%
Black	76	1296.59	79.52	5%	15%	47%	33%	1%	0%
Hispanic	435	1296.04	75.11	4%	15%	52%	28%	2%	0%
American Indian	66	1302.55	68.42	2%	21%	46%	32%	0%	0%
Asian	39	1280.79	45.84	0%	36%	46%	18%	0%	0%
Hawaiian Pacific Islander	1	*	*	*	*	*	*	*	*
Multiracial	17	1295.12	47.33	0%	18%	53%	29%	0%	0%
Other	0	*	*	*	*	*	*	*	*
Gender									
Male	631	1293.72	79.89	6%	17%	48%	28%	2%	0%
Female	399	1292.75	74.91	5%	16%	52%	28%	2%	0%
Need									
Autism	230	1294.75	64.74	4%	20%	51%	25%	0%	0%
DD	0	*	*	*	*	*	*	*	*
ED	8	*	*	*	*	*	*	*	*
EDP	13	1319.85	65.17	0%	8%	54%	39%	0%	0%
HI	4	*	*	*	*	*	*	*	*
MD	25	1289.60	83.72	8%	8%	64%	20%	0%	0%
MDSSI	69	1202.12	85.30	30%	41%	28%	1%	9%	0%
MIID	355	1330.61	56.53	0%	4%	52%	45%	0%	0%
MOID	137	1274.48	44.03	2%	18%	72%	8%	1%	0%
OHI	15	1318.20	48.37	0%	13%	40%	47%	0%	0%
OI	91	1259.56	94.67	10%	34%	39%	18%	7%	0%
SID	40	1177.65	87.25	35%	53%	13%	0%	20%	0%
SLD	37	1346.43	60.87	0%	3%	38%	60%	0%	0%
SLI	3	*	*	*	*	*	*	*	*
VI	1	*	*	*	*	*	*	*	*
Other	2	*	*	*	*	*	*	*	*
SES									
Free/Reduced Lunch	486	1299.81	77.05	4%	15%	51%	31%	2%	0%
No Lunch Assistance	544	1287.57	78.39	7%	18%	49%	26%	2%	0%
Other	0	*	*	*	*	*	*	*	*
Migrant									
Non-Migrant	1026	1293.23	78.06	6%	17%	50%	28%	2%	0%
Migrant	4	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
ELL									
Non-ELL	1013	1293.00	77.48	6%	17%	50%	28%	2%	0%
ELL	17	1314.18	103.62	6%	6%	59%	29%	6%	0%
Other	0	*	*	*	*	*	*	*	*

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
High School									
Total	1035	1297.87	88.18	6%	13%	57%	25%	4%	0%
Ethnic Background									
White	404	1301.14	81.47	5%	14%	57%	24%	2%	0%
Black	58	1312.17	78.25	5%	10%	53%	31%	3%	0%
Hispanic	440	1293.12	98.59	7%	13%	55%	25%	6%	0%
American Indian	89	1307.34	71.52	3%	8%	64%	25%	1%	0%
Asian	26	1276.81	82.20	8%	8%	73%	12%	0%	0%
Hawaiian Pacific Islander	5	*	*	*	*	*	*	*	*
Multiracial	13	1291.08	67.78	0%	23%	54%	23%	0%	0%
Other	0	*	*	*	*	*	*	*	*
Gender									
Male	641	1303.11	85.30	5%	12%	58%	26%	3%	0%
Female	394	1289.35	92.13	8%	15%	55%	2300%	5%	0%
Need									
Autism	214	1298.71	80.29	3%	19%	57%	21%	1%	0%
DD	0	*	*	*	*	*	*	*	*
ED	10	*	*	*	*	*	*	*	*
EDP	12	1320.58	58.93	0%	17%	50%	33%	0%	0%
HI	1	*	*	*	*	*	*	*	*
MD	20	1299.15	63.73	0%	20%	60%	20%	0%	0%
MDSSI	49	1182.08	118.61	35%	29%	37%	0%	27%	0%
MIID	389	1336.65	56.78	0%	2%	60%	38%	0%	0%
MOID	155	1263.55	51.37	5%	22%	72%	1%	2%	0%
OHI	15	1333.73	74.34	0%	13%	40%	47%	0%	0%
OI	114	1242.06	123.41	21%	17%	51%	11%	13%	0%
SID	16	1186.12	80.14	31%	63%	6%	0%	19%	0%
SLD	32	1346.71	45.11	0%	0%	50%	50%	0%	0%
SLI	3	*	*	*	*	*	*	*	*
VI	5	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
SES									
Free/Reduced Lunch	529	1309.05	81.20	4%	10%	60%	27%	3%	0%
No Lunch Assistance	506	1286.18	93.59	8%	16%	54%	22%	5%	0%
Other	0	*	*	*	*	*	*	*	*
Migrant									
Non-Migrant	1032	1298.15	87.81	6%	13%	57%	25%	4%	0%
Migrant	3	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
ELL									
Non-ELL	1028	1297.66	88.40	6%	13%	57%	25%	4%	0%
ELL	7	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*

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Table 8.1.1.3
2014 AIMS A State Test Results
Science Grades 4, 8, and High School

| | *N* | Scale Score | | % at Performance Level | | | | | |
		M	*SD*	FFBS	AS	MS	ES	NR	INV
Grade 4									
Total	1052	1288.04	74.23	6%	18%	55%	22%	1%	0%
Ethnic Background									
White	348	1288.24	74.12	6%	18%	52%	24%	1%	0%
Black	93	1290.49	62.81	2%	24%	56%	18%	1%	0%
Hispanic	488	1285.41	77.94	7%	16%	57%	20%	1%	0%
American Indian	73	1307.49	62.18	1%	16%	47%	36%	0%	0%
Asian	26	1270.69	74.55	8%	15%	65%	12%	0%	0%
Hawaiian Pacific Islander	6	*	*	*	*	*	*	*	*
Multiracial	18	1292.78	74.11	6%	22%	56%	17%	0%	0%
Other	0	*	*	*	*	*	*	*	*
Gender									
Male	673	1293.30	69.37	5%	17%	54%	25%	1%	0%
Female	379	1278.72	81.42	8%	19%	56%	18%	2%	0%
Need									
Autism	303	1283.64	65.40	4%	21%	57%	18%	0%	0%
DD	25	1325.72	56.55	0%	8%	52%	40%	0%	0%
ED	10	*	*	*	*	*	*	*	*
EDP	6	*	*	*	*	*	*	*	*
HI	3	*	*	*	*	*	*	*	*
MD	23	1282.61	50.04	4%	30%	52%	13%	0%	0%
MDSSI	69	1206.74	84.11	25%	44%	29%	3%	10%	0%
MIID	329	1319.05	53.81	0%	5%	63%	62%	0%	0%
MOID	119	1262.51	48.73	3%	35%	58%	4%	1%	0%
OHI	26	1326.69	99.01	4%	4%	58%	35%	4%	0%
OI	60	1262.18	60.50	10%	25%	55%	10%	0%	0%
SID	27	1145.41	95.71	56%	30%	15%	0%	7%	0%
SLD	40	1345.50	60.29	0%	0%	45%	55%	0%	0%
SLI	3	*	*	*	*	*	*	*	*
VI	8	*	*	*	*	*	*	*	*
Other	1	*	*	*	*	*	*	*	*
SES									
Free/Reduced Lunch	535	1296.08	69.58	4%	14%	57%	25%	1%	0%
No Lunch Assistance	517	1279.73	77.95	7%	21%	53%	19%	1%	0%
Other	0	*	*	*	*	*	*	*	*
Migrant									
Non-Migrant	1049	1287.99	74.33	6%	18%	55%	22%	1%	0%
Migrant	3	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
ELL									
Non-ELL	1013	1287.53	75.22	6%	18%	54%	22%	1%	0%
ELL	39	1301.31	38.89	0%	5%	80%	15%	0%	0%
Other	2	*	*	*	*	*	*	*	*

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		Scale Score		% at Performance Level					
	N	*M*	*SD*	FFBS	AS	MS	ES	NR	INV
Grade 8									
Total	1030	1282.88	64.58	5%	14%	56%	26%	2%	0%
Ethnic Background									
White	396	1278.72	70.23	7%	15%	51%	27%	2%	0%
Black	76	1283.51	55.83	4%	9%	61%	26%	1%	0%
Hispanic	435	1286.40	63.62	4%	12%	58%	26%	2%	0%
American Indian	66	1289.08	40.63	0%	17%	55%	29%	0%	0%
Asian	39	1277.10	47.79	3%	23%	62%	13%	0%	0%
Hawaiian Pacific Islander	1	*	*	*	*	*	*	*	*
Multiracial	17	1292.53	61.45	0%	12%	65%	24%	0%	0%
Other	0	*	*	*	*	*	*	*	*
Gender									
Male	631	1284.08	67.10	5%	15%	53%	27%	2%	0%
Female	399	1280.98	60.40	4%	12%	59%	24%	2%	0%
Need									
Autism	230	1285.22	53.94	3%	15%	59%	23%	0%	0%
DD	0	*	*	*	*	*	*	*	*
ED	8	*	*	*	*	*	*	*	*
EDP	13	1298.00	31.46	0%	0%	69%	31%	0%	0%
HI	4	*	*	*	*	*	*	*	*
MD	25	1286.16	65.26	4%	12%	64%	20%	0%	0%
MDSSI	69	1212.29	83.90	23%	33%	42%	1%	9%	0%
MIID	355	1310.26	39.90	0%	3%	58%	40%	0%	0%
MOID	137	1268.31	38.24	2%	22%	68%	8%	1%	0%
OHI	15	1300.60	30.36	0%	7%	67%	27%	0%	0%
OI	91	1256.12	84.50	11%	23%	45%	21%	7%	0%
SID	40	1185.53	90.30	33%	50%	18%	0%	20%	0%
SLD	37	1331.11	47.17	0%	0%	43%	57%	0%	0%
SLI	3	*	*	*	*	*	*	*	*
VI	1	*	*	*	*	*	*	*	*
Other	2	*	*	*	*	*	*	*	*
SES									
Free/Reduced Lunch	486	1288.66	62.93	4%	10%	57%	30%	2%	0%
No Lunch Assistance	544	1277.72	65.64	6%	17%	55%	22%	2%	0%
Other	0	*	*	*	*	*	*	*	*
Migrant									
Non-Migrant	1026	1282.74	64.64	5%	14%	56%	26%	2%	0%
Migrant	4	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
ELL									
Non-ELL	1013	1282.80	64.25	5%	14%	55%	26%	2%	0%
ELL	17	1287.82	84.25	6%	6%	65%	24%	6%	0%
Other	0	*	*	*	*	*	*	*	*

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		Scale Score		% at Performance Level					
	N	*M*	*SD*	FFBS	AS	MS	ES	NR	INV
High School									
Total	919	1266.90	68.97	7%	20%	58%	17%	4%	0%
Ethnic Background									
White	348	1271.09	66.95	6%	20%	57%	18%	2%	0%
Black	54	1274.74	58.07	4%	17%	61%	19%	4%	0%
Hispanic	402	1262.36	76.33	8%	19%	56%	17%	5%	0%
American Indian	76	1272.20	45.11	3%	21%	63%	13%	1%	0%
Asian	24	1261.33	63.54	4%	13%	71%	13%	0%	0%
Hawaiian Pacific Islander	5	*	*	*	*	*	*	*	*
Multiracial	10	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
Gender									
Male	568	1271.57	63.46	6%	18%	57%	19%	3%	0%
Female	351	1259.33	76.55	8%	22%	58%	13%	5%	0%
Need									
Autism	188	1269.66	57.91	5%	26%	53%	16%	1%	0%
DD	0	*	*	*	*	*	*	*	*
ED	8	*	*	*	*	*	*	*	*
EDP	10	*	*	*	*	*	*	*	*
HI	1	*	*	*	*	*	*	*	*
MD	18	1276.33	46.50	0%	33%	56%	11%	0%	0%
MDSSI	43	1169.98	113.89	35%	37%	28%	0%	28%	0%
MIID	355	1294.24	38.14	0%	6%	70%	23%	0%	0%
MOID	134	1249.99	43.17	7%	34%	56%	3%	2%	0%
OHI	12	1286.42	39.76	0%	17%	50%	33%	0%	0%
OI	99	1216.66	106.02	21%	28%	39%	11%	13%	0%
SID	15	1189.73	81.74	27%	53%	20%	0%	20%	0%
SLD	29	1310.38	36.71	0%	3%	55%	41%	0%	0%
SLI	3	*	*	*	*	*	*	*	*
VI	4	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
SES									
Free/Reduced Lunch	473	1273.00	57.62	4%	15%	65%	16%	3%	0%
No Lunch Assistance	446	1260.42	78.81	9%	24%	49%	18%	4%	0%
Other	0	*	*	*	*	*	*	*	*
Migrant									
Non-Migrant	916	1267.15	68.50	6%	20%	57%	17%	3%	0%
Migrant	3	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*
ELL									
Non-ELL	912	1266.60	69.11	7%	20%	57%	17%	4%	0%
ELL	7	*	*	*	*	*	*	*	*
Other	0	*	*	*	*	*	*	*	*

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Table 8.1.1.5
2014 AIMS A Frequency Distribution Mathematics Grade 3

Raw Score	Scale Score	FREQ	%	CUML %	Raw Score	Scale Score	FREQ	%	CUML %
0	1000	10	1.0%	1.0%	61	1262	13	1.3%	34.5%
1	1025	0	0.0%	1.0%	62	1263	16	1.6%	36.1%
2	1075	0	0.0%	1.0%	63	1264	12	1.2%	37.3%
3	1104	0	0.0%	1.0%	64	1265	14	1.4%	38.8%
4	1124	5	0.5%	1.5%	65	1266	9	0.9%	39.7%
5	1139	1	0.1%	1.6%	66	1267	20	2.0%	41.7%
6	1151	0	0.0%	1.6%	67	1268	8	0.8%	42.5%
7	1160	0	0.0%	1.6%	68	1269	11	1.1%	43.6%
8	1168	3	0.3%	1.9%	69	1270	15	1.5%	45.1%
9	1175	0	0.0%	1.9%	70	1271	12	1.2%	46.4%
10	1180	0	0.0%	1.9%	71	1272	12	1.2%	47.6%
11	1185	0	0.0%	1.9%	72	1273	4	0.4%	48.0%
12	1189	0	0.0%	1.9%	73	1274	15	1.5%	49.5%
13	1193	3	0.3%	2.2%	74	1275	20	2.0%	51.5%
14	1197	1	0.1%	2.3%	75	1276	18	1.8%	53.3%
15	1200	1	0.1%	2.4%	76	1277	18	1.8%	55.2%
16	1202	5	0.5%	2.9%	77	1278	12	1.2%	56.4%
17	1205	1	0.1%	3.0%	78	1279	19	1.9%	58.3%
18	1208	4	0.4%	3.4%	79	1280	15	1.5%	59.8%
19	1210	1	0.1%	3.5%	80	1281	21	2.1%	61.9%
20	1212	8	0.8%	4.4%	81	1282	21	2.1%	64.1%
21	1214	3	0.3%	4.7%	82	1283	18	1.8%	65.9%
22	1216	3	0.3%	5.0%	83	1285	19	1.9%	67.8%
23	1218	4	0.4%	5.4%	84	1286	20	2.0%	69.8%
24	1219	7	0.7%	6.1%	85	1287	5	0.5%	70.3%
25	1221	3	0.3%	6.4%	86	1288	16	1.6%	72.0%
26	1223	1	0.1%	6.5%	87	1289	14	1.4%	73.4%
27	1224	9	0.9%	7.4%	88	1291	15	1.5%	74.9%
28	1226	7	0.7%	8.1%	89	1292	18	1.8%	76.7%
29	1227	2	0.2%	8.3%	90	1293	9	0.9%	77.6%
30	1229	2	0.2%	8.5%	91	1295	10	1.0%	78.6%
31	1230	4	0.4%	8.9%	92	1296	12	1.2%	79.9%
32	1231	5	0.5%	9.4%	93	1298	13	1.3%	81.2%
33	1233	5	0.5%	9.9%	94	1299	9	0.9%	82.1%
34	1234	6	0.6%	10.5%	95	1301	19	1.9%	84.0%
35	1235	8	0.8%	11.3%	96	1302	14	1.4%	85.4%
36	1236	5	0.5%	11.8%	97	1304	13	1.3%	86.7%
37	1237	5	0.5%	12.3%	98	1306	10	1.0%	87.8%
38	1239	5	0.5%	12.9%	99	1307	11	1.1%	88.9%
39	1240	9	0.9%	13.8%	100	1309	15	1.5%	90.4%
40	1241	8	0.8%	14.6%	101	1311	7	0.7%	91.1%
41	1242	2	0.2%	14.8%	102	1313	11	1.1%	92.2%
42	1243	8	0.8%	15.6%	103	1316	12	1.2%	93.4%
43	1244	8	0.8%	16.4%	104	1318	2	0.2%	93.6%
44	1245	9	0.9%	17.3%	105	1321	10	1.0%	94.6%
45	1246	7	0.7%	18.0%	106	1323	4	0.4%	95.0%
46	1247	9	0.9%	18.9%	107	1326	8	0.8%	95.9%
47	1248	10	1.0%	19.9%	108	1329	12	1.2%	97.1%
48	1249	14	1.4%	21.4%	109	1333	4	0.4%	97.5%
49	1250	9	0.9%	22.3%	110	1337	4	0.4%	97.9%
50	1251	7	0.7%	23.0%	111	1341	2	0.2%	98.1%
51	1252	6	0.6%	23.6%	112	1346	6	0.6%	98.7%
52	1253	10	1.0%	24.6%	113	1352	4	0.4%	99.1%
53	1254	10	1.0%	25.6%	114	1359	1	0.1%	99.2%
54	1255	17	1.7%	27.3%	115	1367	1	0.1%	99.3%
55	1256	6	0.6%	27.9%	116	1378	4	0.4%	99.7%
56	1257	13	1.3%	29.3%	117	1392	0	0.0%	99.7%
57	1258	7	0.7%	30.0%	118	1415	2	0.2%	99.9%
58	1259	12	1.2%	31.2%	119	1456	0	0.0%	99.9%
59	1260	13	1.3%	32.5%	120	1500	1	0.1%	100.0%
60	1261	7	0.7%	33.2%					

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; FREQ = frequency, CUML % = Cumulative percentage of students.

Table 8.1.1.6
2014 AIMS A Frequency Distribution Mathematics Grade 4

Raw Score	Scale Score	FREQ	%	CUML %	Raw Score	Scale Score	FREQ	%	CUML %
0	1000	5	0.5%	0.5%	61	1260	14	1.3%	29.3%
1	1000	1	0.1%	0.6%	62	1261	16	1.5%	30.9%
2	1049	0	0.0%	0.6%	63	1262	15	1.4%	32.3%
3	1082	0	0.0%	0.6%	64	1263	9	0.9%	33.2%
4	1104	3	0.3%	0.9%	65	1264	10	1.0%	34.1%
5	1121	1	0.1%	1.0%	66	1265	16	1.5%	35.7%
6	1135	1	0.1%	1.1%	67	1266	7	0.7%	36.3%
7	1145	0	0.0%	1.1%	68	1268	13	1.3%	37.6%
8	1154	3	0.3%	1.3%	69	1269	7	0.7%	38.3%
9	1162	3	0.3%	1.6%	70	1270	14	1.3%	39.6%
10	1169	2	0.2%	1.8%	71	1271	13	1.3%	40.9%
11	1174	1	0.1%	1.9%	72	1272	14	1.3%	42.2%
12	1179	1	0.1%	2.0%	73	1273	13	1.3%	43.5%
13	1184	3	0.3%	2.3%	74	1274	15	1.4%	44.9%
14	1188	2	0.2%	2.5%	75	1275	13	1.3%	46.2%
15	1192	2	0.2%	2.7%	76	1276	17	1.6%	47.8%
16	1195	6	0.6%	3.3%	77	1277	13	1.3%	49.0%
17	1198	0	0.0%	3.3%	78	1279	14	1.3%	50.4%
18	1201	0	0.0%	3.3%	79	1280	15	1.4%	51.8%
19	1203	2	0.2%	3.5%	80	1281	17	1.6%	53.5%
20	1206	4	0.4%	3.8%	81	1282	14	1.3%	54.8%
21	1208	4	0.4%	4.2%	82	1283	12	1.2%	56.0%
22	1210	5	0.5%	4.7%	83	1285	13	1.3%	57.2%
23	1212	1	0.1%	4.8%	84	1286	11	1.1%	58.3%
24	1214	3	0.3%	5.1%	85	1287	14	1.3%	59.6%
25	1216	0	0.0%	5.1%	86	1289	20	1.9%	61.5%
26	1218	4	0.4%	5.5%	87	1290	13	1.3%	62.8%
27	1220	7	0.7%	6.2%	88	1291	17	1.6%	64.4%
28	1221	3	0.3%	6.4%	89	1293	18	1.7%	66.2%
29	1223	0	0.0%	6.4%	90	1294	16	1.5%	67.7%
30	1224	1	0.1%	6.5%	91	1296	17	1.6%	69.3%
31	1226	3	0.3%	6.8%	92	1298	20	1.9%	71.3%
32	1227	7	0.7%	7.5%	93	1299	17	1.6%	72.9%
33	1229	0	0.0%	7.5%	94	1301	15	1.4%	74.3%
34	1230	8	0.8%	8.3%	95	1303	20	1.9%	76.3%
35	1231	8	0.8%	9.0%	96	1305	23	2.2%	78.5%
36	1233	7	0.7%	9.7%	97	1307	12	1.2%	79.6%
37	1234	3	0.3%	10.0%	98	1309	14	1.3%	81.0%
38	1235	2	0.2%	10.2%	99	1311	12	1.2%	82.1%
39	1237	8	0.8%	11.0%	100	1313	12	1.2%	83.3%
40	1238	6	0.6%	11.5%	101	1316	13	1.3%	84.5%
41	1239	5	0.5%	12.0%	102	1318	12	1.2%	85.7%
42	1240	9	0.9%	12.9%	103	1321	16	1.5%	87.2%
43	1241	3	0.3%	13.2%	104	1324	12	1.2%	88.4%
44	1242	10	1.0%	14.1%	105	1327	12	1.2%	89.5%
45	1243	7	0.7%	14.8%	106	1330	7	0.7%	90.2%
46	1245	8	0.8%	15.6%	107	1334	7	0.7%	90.9%
47	1246	10	1.0%	16.5%	108	1338	5	0.5%	91.3%
48	1247	6	0.6%	17.1%	109	1342	7	0.7%	92.0%
49	1248	6	0.6%	17.7%	110	1347	10	1.0%	93.0%
50	1249	6	0.6%	18.3%	111	1352	10	1.0%	93.9%
51	1250	7	0.7%	18.9%	112	1358	13	1.3%	95.2%
52	1251	9	0.9%	19.8%	113	1365	9	0.9%	96.1%
53	1252	7	0.7%	20.5%	114	1373	9	0.9%	96.9%
54	1253	12	1.2%	21.6%	115	1383	6	0.6%	97.5%
55	1254	9	0.9%	22.5%	116	1395	4	0.4%	97.9%
56	1255	5	0.5%	23.0%	117	1412	6	0.6%	98.5%
57	1256	14	1.3%	24.3%	118	1437	5	0.5%	98.9%
58	1257	13	1.3%	25.6%	119	1483	7	0.7%	99.6%
59	1258	14	1.3%	26.9%	120	1500	4	0.4%	100.0%
60	1259	11	1.1%	28.0%					

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; FREQ = frequency, CUML % = Cumulative percentage of students.

Table 8.1.1.7
2014 AIMS A Frequency Distribution Mathematics Grade 5

Raw Score	Scale Score	FREQ	%	CUML %	Raw Score	Scale Score	FREQ	%	CUML %
0	1000	7	0.7%	0.7%	61	1255	8	0.8%	28.8%
1	1000	0	0.0%	0.7%	62	1256	15	1.5%	30.3%
2	1040	1	0.1%	0.8%	63	1257	9	0.9%	31.2%
3	1071	2	0.2%	1.0%	64	1258	15	1.5%	32.7%
4	1092	0	0.0%	1.0%	65	1259	16	1.6%	34.3%
5	1109	0	0.0%	1.0%	66	1260	9	0.9%	35.2%
6	1122	0	0.0%	1.0%	67	1261	16	1.6%	36.8%
7	1133	3	0.3%	1.3%	68	1262	15	1.5%	38.3%
8	1142	8	0.8%	2.1%	69	1263	15	1.5%	39.8%
9	1150	0	0.0%	2.1%	70	1264	17	1.7%	41.5%
10	1157	0	0.0%	2.1%	71	1265	10	1.0%	42.5%
11	1163	0	0.0%	2.1%	72	1266	16	1.6%	44.1%
12	1168	3	0.3%	2.4%	73	1267	11	1.1%	45.2%
13	1173	2	0.2%	2.6%	74	1268	13	1.3%	46.5%
14	1177	0	0.0%	2.6%	75	1269	12	1.2%	47.7%
15	1181	0	0.0%	2.6%	76	1270	14	1.4%	49.1%
16	1185	4	0.4%	3.0%	77	1271	14	1.4%	50.6%
17	1188	0	0.0%	3.0%	78	1272	21	2.1%	52.7%
18	1191	0	0.0%	3.0%	79	1273	12	1.2%	53.9%
19	1194	7	0.7%	3.7%	80	1274	25	2.5%	56.4%
20	1197	6	0.6%	4.3%	81	1275	10	1.0%	57.4%
21	1199	2	0.2%	4.5%	82	1276	17	1.7%	59.1%
22	1202	2	0.2%	4.7%	83	1278	8	0.8%	59.9%
23	1204	2	0.2%	4.9%	84	1279	12	1.2%	61.1%
24	1206	9	0.9%	5.8%	85	1280	10	1.0%	62.1%
25	1208	1	0.1%	5.9%	86	1281	12	1.2%	63.3%
26	1210	1	0.1%	6.0%	87	1282	19	1.9%	65.2%
27	1212	1	0.1%	6.1%	88	1283	19	1.9%	67.1%
28	1214	4	0.4%	6.5%	89	1285	18	1.8%	68.9%
29	1215	2	0.2%	6.7%	90	1286	13	1.3%	70.2%
30	1217	4	0.4%	7.1%	91	1287	19	1.9%	72.1%
31	1219	7	0.7%	7.8%	92	1289	24	2.4%	74.5%
32	1220	4	0.4%	8.2%	93	1290	10	1.0%	75.5%
33	1222	3	0.3%	8.5%	94	1291	15	1.5%	77.0%
34	1223	0	0.0%	8.5%	95	1293	9	0.9%	77.9%
35	1225	1	0.1%	8.6%	96	1294	16	1.6%	79.5%
36	1226	3	0.3%	8.9%	97	1296	14	1.4%	80.9%
37	1228	5	0.5%	9.4%	98	1297	14	1.4%	82.3%
38	1229	6	0.6%	10.0%	99	1299	18	1.8%	84.1%
39	1230	2	0.2%	10.2%	100	1301	17	1.7%	85.8%
40	1231	7	0.7%	10.9%	101	1303	7	0.7%	86.5%
41	1233	8	0.8%	11.7%	102	1305	19	1.9%	88.4%
42	1234	4	0.4%	12.1%	103	1307	16	1.6%	90.0%
43	1235	7	0.7%	12.8%	104	1309	9	0.9%	90.9%
44	1236	6	0.6%	13.4%	105	1311	9	0.9%	91.8%
45	1238	7	0.7%	14.1%	106	1314	9	0.9%	92.7%
46	1239	5	0.5%	14.6%	107	1317	8	0.8%	93.5%
47	1240	7	0.7%	15.3%	108	1320	10	1.0%	94.5%
48	1241	9	0.9%	16.2%	109	1323	8	0.8%	95.3%
49	1242	9	0.9%	17.1%	110	1327	7	0.7%	96.0%
50	1243	7	0.7%	17.8%	111	1331	12	1.2%	97.2%
51	1244	7	0.7%	18.5%	112	1336	7	0.7%	97.9%
52	1245	15	1.5%	20.0%	113	1341	2	0.2%	98.1%
53	1246	4	0.4%	20.4%	114	1348	5	0.5%	98.6%
54	1248	10	1.0%	21.4%	115	1356	5	0.5%	99.1%
55	1249	10	1.0%	22.4%	116	1367	2	0.2%	99.3%
56	1250	13	1.3%	23.7%	117	1381	2	0.2%	99.5%
57	1251	7	0.7%	24.4%	118	1404	1	0.1%	99.6%
58	1252	11	1.1%	25.5%	119	1447	1	0.1%	99.7%
59	1253	13	1.3%	26.8%	120	1500	3	0.3%	100.0%
60	1254	12	1.2%	28.0%					

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; FREQ = frequency, CUML % = Cumulative percentage of students.

Table 8.1.1.8
2014 AIMS A Frequency Distribution Mathematics Grade 6

Raw Score	Scale Score	FREQ	%	CUML %	Raw Score	Scale Score	FREQ	%	CUML %
0	1000	4	0.4%	0.4%	61	1261	7	0.7%	32.4%
1	1000	0	0.0%	0.4%	62	1262	8	0.9%	33.2%
2	1000	1	0.1%	0.5%	63	1264	11	1.2%	34.4%
3	1000	0	0.0%	0.5%	64	1265	13	1.4%	35.8%
4	1013	3	0.3%	0.9%	65	1267	15	1.6%	37.4%
5	1039	0	0.0%	0.9%	66	1268	18	1.9%	39.3%
6	1060	0	0.0%	0.9%	67	1270	10	1.1%	40.4%
7	1077	0	0.0%	0.9%	68	1272	13	1.4%	41.7%
8	1092	4	0.4%	1.3%	69	1273	8	0.9%	42.6%
9	1104	4	0.4%	1.7%	70	1275	17	1.8%	44.4%
10	1115	1	0.1%	1.8%	71	1276	15	1.6%	46.0%
11	1124	1	0.1%	1.9%	72	1278	15	1.6%	47.6%
12	1133	3	0.3%	2.2%	73	1279	9	1.0%	48.6%
13	1140	0	0.0%	2.2%	74	1281	12	1.3%	49.8%
14	1147	0	0.0%	2.2%	75	1282	13	1.4%	51.2%
15	1153	1	0.1%	2.3%	76	1284	10	1.1%	52.3%
16	1158	6	0.6%	3.0%	77	1286	11	1.2%	53.5%
17	1163	1	0.1%	3.1%	78	1287	19	2.0%	55.5%
18	1168	2	0.2%	3.3%	79	1289	13	1.4%	56.9%
19	1172	0	0.0%	3.3%	80	1291	24	2.6%	59.4%
20	1176	4	0.4%	3.7%	81	1292	18	1.9%	61.3%
21	1180	1	0.1%	3.8%	82	1294	17	1.8%	63.2%
22	1184	2	0.2%	4.0%	83	1296	16	1.7%	64.9%
23	1187	3	0.3%	4.4%	84	1298	20	2.1%	67.0%
24	1190	2	0.2%	4.6%	85	1300	13	1.4%	68.4%
25	1193	2	0.2%	4.8%	86	1301	18	1.9%	70.3%
26	1196	3	0.3%	5.1%	87	1303	17	1.8%	72.1%
27	1199	3	0.3%	5.4%	88	1305	5	0.5%	72.6%
28	1201	3	0.3%	5.8%	89	1307	16	1.7%	74.3%
29	1204	4	0.4%	6.2%	90	1310	18	1.9%	76.3%
30	1206	4	0.4%	6.6%	91	1312	19	2.0%	78.3%
31	1209	3	0.3%	6.9%	92	1314	17	1.8%	80.1%
32	1211	4	0.4%	7.3%	93	1316	16	1.7%	81.8%
33	1213	4	0.4%	7.8%	94	1319	17	1.8%	83.6%
34	1215	4	0.4%	8.2%	95	1321	9	1.0%	84.6%
35	1217	6	0.6%	8.8%	96	1324	16	1.7%	86.3%
36	1220	6	0.6%	9.5%	97	1327	16	1.7%	88.0%
37	1221	9	1.0%	10.4%	98	1329	14	1.5%	89.5%
38	1223	10	1.1%	11.5%	99	1332	11	1.2%	90.6%
39	1225	3	0.3%	11.8%	100	1336	9	1.0%	91.6%
40	1227	4	0.4%	12.2%	101	1339	8	0.9%	92.4%
41	1229	7	0.7%	13.0%	102	1342	9	1.0%	93.4%
42	1231	7	0.7%	13.7%	103	1346	7	0.7%	94.1%
43	1233	8	0.9%	14.6%	104	1350	10	1.1%	95.2%
44	1234	9	1.0%	15.5%	105	1355	5	0.5%	95.7%
45	1236	4	0.4%	16.0%	106	1359	9	1.0%	96.7%
46	1238	7	0.7%	16.7%	107	1364	1	0.1%	96.8%
47	1239	9	1.0%	17.7%	108	1370	10	1.1%	97.9%
48	1241	13	1.4%	19.1%	109	1376	2	0.2%	98.1%
49	1243	8	0.9%	19.9%	110	1383	2	0.2%	98.3%
50	1244	12	1.3%	21.2%	111	1391	6	0.6%	98.9%
51	1246	12	1.3%	22.5%	112	1400	3	0.3%	99.3%
52	1247	3	0.3%	22.8%	113	1411	1	0.1%	99.4%
53	1249	7	0.7%	23.5%	114	1423	1	0.1%	99.5%
54	1250	14	1.5%	25.0%	115	1439	1	0.1%	99.6%
55	1252	18	1.9%	26.9%	116	1458	0	0.0%	99.6%
56	1253	7	0.7%	27.7%	117	1485	2	0.2%	99.8%
57	1255	7	0.7%	28.4%	118	1500	2	0.2%	100.0%
58	1256	9	1.0%	29.4%	119	1500	0	0.0%	100.0%
59	1258	12	1.3%	30.7%	120	1500	0	0.0%	100.0%
60	1259	9	1.0%	31.6%					

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; FREQ = frequency, CUML % = Cumulative percentage of students.

Table 8.1.1.9
2014 AIMS A Frequency Distribution Mathematics Grade 7

Raw Score	Scale Score	FREQ	%	CUML %	Raw Score	Scale Score	FREQ	%	CUML %
0	1000	1	0.1%	0.1%	61	1277	15	1.6%	38.9%
1	1000	0	0.0%	0.1%	62	1278	24	2.6%	41.5%
2	1000	0	0.0%	0.1%	63	1280	10	1.1%	42.6%
3	1015	0	0.0%	0.1%	64	1281	19	2.0%	44.6%
4	1046	1	0.1%	0.2%	65	1282	13	1.4%	46.0%
5	1069	1	0.1%	0.3%	66	1284	12	1.3%	47.2%
6	1088	0	0.0%	0.3%	67	1285	16	1.7%	48.9%
7	1104	0	0.0%	0.3%	68	1286	18	1.9%	50.9%
8	1117	4	0.4%	0.7%	69	1288	11	1.2%	52.0%
9	1128	0	0.0%	0.7%	70	1289	13	1.4%	53.4%
10	1138	0	0.0%	0.7%	71	1291	17	1.8%	55.2%
11	1147	0	0.0%	0.7%	72	1292	18	1.9%	57.1%
12	1155	4	0.4%	1.2%	73	1293	15	1.6%	58.7%
13	1162	2	0.2%	1.4%	74	1295	11	1.2%	59.9%
14	1168	1	0.1%	1.5%	75	1296	17	1.8%	61.7%
15	1174	2	0.2%	1.7%	76	1298	12	1.3%	63.0%
16	1179	3	0.3%	2.0%	77	1299	14	1.5%	64.5%
17	1184	1	0.1%	2.1%	78	1301	7	0.7%	65.2%
18	1189	2	0.2%	2.3%	79	1302	14	1.5%	66.7%
19	1193	1	0.1%	2.4%	80	1304	15	1.6%	68.3%
20	1197	2	0.2%	2.7%	81	1305	20	2.1%	70.4%
21	1201	3	0.3%	3.0%	82	1307	17	1.8%	72.2%
22	1204	2	0.2%	3.2%	83	1308	10	1.1%	73.3%
23	1207	2	0.2%	3.4%	84	1310	9	1.0%	74.3%
24	1210	4	0.4%	3.8%	85	1311	11	1.2%	75.4%
25	1213	3	0.3%	4.1%	86	1313	9	1.0%	76.4%
26	1216	3	0.3%	4.5%	87	1315	9	1.0%	77.3%
27	1219	7	0.7%	5.2%	88	1317	11	1.2%	78.5%
28	1221	7	0.7%	6.0%	89	1318	10	1.1%	79.6%
29	1224	4	0.4%	6.4%	90	1320	12	1.3%	80.9%
30	1226	2	0.2%	6.6%	91	1322	14	1.5%	82.3%
31	1228	2	0.2%	6.8%	92	1324	9	1.0%	83.3%
32	1231	3	0.3%	7.1%	93	1326	14	1.5%	84.8%
33	1233	7	0.7%	7.9%	94	1328	8	0.9%	85.6%
34	1235	2	0.2%	8.1%	95	1330	12	1.3%	86.9%
35	1237	2	0.2%	8.3%	96	1333	8	0.9%	87.8%
36	1239	6	0.6%	8.9%	97	1335	8	0.9%	88.6%
37	1241	8	0.9%	9.8%	98	1338	7	0.7%	89.4%
38	1242	9	1.0%	10.7%	99	1340	7	0.7%	90.1%
39	1244	8	0.9%	11.6%	100	1343	7	0.7%	90.9%
40	1246	7	0.7%	12.3%	101	1346	12	1.3%	92.1%
41	1248	3	0.3%	12.7%	102	1349	8	0.9%	93.0%
42	1249	9	1.0%	13.6%	103	1352	6	0.6%	93.6%
43	1251	12	1.3%	14.9%	104	1356	7	0.7%	94.4%
44	1252	8	0.9%	15.7%	105	1359	10	1.1%	95.4%
45	1254	5	0.5%	16.3%	106	1363	8	0.9%	96.3%
46	1256	8	0.9%	17.1%	107	1368	6	0.6%	96.9%
47	1257	10	1.1%	18.2%	108	1373	5	0.5%	97.4%
48	1259	13	1.4%	19.6%	109	1378	2	0.2%	97.7%
49	1260	8	0.9%	20.4%	110	1384	4	0.4%	98.1%
50	1262	7	0.7%	21.2%	111	1391	3	0.3%	98.4%
51	1263	11	1.2%	22.3%	112	1399	3	0.3%	98.7%
52	1264	19	2.0%	24.4%	113	1408	4	0.4%	99.1%
53	1266	9	1.0%	25.3%	114	1419	0	0.0%	99.1%
54	1267	16	1.7%	27.0%	115	1433	2	0.2%	99.4%
55	1269	19	2.0%	29.0%	116	1450	2	0.2%	99.6%
56	1270	22	2.3%	31.4%	117	1474	1	0.1%	99.7%
57	1271	15	1.6%	33.0%	118	1500	3	0.3%	100.0%
58	1273	15	1.6%	34.6%	119	1500	0	0.0%	100.0%
59	1274	13	1.4%	36.0%	120	1500	0	0.0%	100.0%
60	1276	13	1.4%	37.3%					

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; FREQ = frequency, CUML % = Cumulative percentage of students.

Table 8.1.1.10
2014 AIMS A Frequency Distribution Mathematics Grade 8

Raw Score	Scale Score	FREQ	%	CUML %	Raw Score	Scale Score	FREQ	%	CUML %
0	1000	3	0.3%	0.3%	61	1273	17	1.7%	41.9%
1	1000	0	0.0%	0.3%	62	1275	9	0.9%	42.8%
2	1000	1	0.1%	0.4%	63	1276	16	1.6%	44.4%
3	1025	0	0.0%	0.4%	64	1277	17	1.7%	46.1%
4	1056	2	0.2%	0.6%	65	1279	8	0.8%	46.9%
5	1078	1	0.1%	0.7%	66	1280	19	1.9%	48.8%
6	1097	0	0.0%	0.7%	67	1281	19	1.9%	50.6%
7	1112	1	0.1%	0.8%	68	1283	18	1.8%	52.4%
8	1124	3	0.3%	1.1%	69	1284	18	1.8%	54.2%
9	1135	0	0.0%	1.1%	70	1285	10	1.0%	55.2%
10	1144	1	0.1%	1.2%	71	1287	9	0.9%	56.1%
11	1153	0	0.0%	1.2%	72	1288	17	1.7%	57.8%
12	1160	3	0.3%	1.5%	73	1289	16	1.6%	59.4%
13	1166	2	0.2%	1.7%	74	1291	10	1.0%	60.4%
14	1172	0	0.0%	1.7%	75	1292	13	1.3%	61.6%
15	1177	1	0.1%	1.8%	76	1294	18	1.8%	63.4%
16	1182	4	0.4%	2.2%	77	1295	14	1.4%	64.8%
17	1187	4	0.4%	2.6%	78	1296	17	1.7%	66.5%
18	1191	2	0.2%	2.8%	79	1298	23	2.3%	68.8%
19	1195	4	0.4%	3.2%	80	1299	18	1.8%	70.6%
20	1198	5	0.5%	3.7%	81	1301	10	1.0%	71.6%
21	1201	3	0.3%	4.0%	82	1302	10	1.0%	72.5%
22	1205	5	0.5%	4.5%	83	1304	11	1.1%	73.6%
23	1208	6	0.6%	5.1%	84	1305	11	1.1%	74.7%
24	1210	7	0.7%	5.7%	85	1307	15	1.5%	76.2%
25	1213	2	0.2%	5.9%	86	1309	10	1.0%	77.2%
26	1216	3	0.3%	6.2%	87	1310	10	1.0%	78.2%
27	1218	1	0.1%	6.3%	88	1312	11	1.1%	79.3%
28	1220	5	0.5%	6.8%	89	1314	10	1.0%	80.3%
29	1223	2	0.2%	7.0%	90	1316	19	1.9%	82.2%
30	1225	7	0.7%	7.7%	91	1317	12	1.2%	83.3%
31	1227	8	0.8%	8.5%	92	1319	15	1.5%	84.8%
32	1229	9	0.9%	9.4%	93	1321	12	1.2%	86.0%
33	1231	7	0.7%	10.1%	94	1323	9	0.9%	86.9%
34	1233	9	0.9%	11.0%	95	1325	18	1.8%	88.7%
35	1235	13	1.3%	12.3%	96	1327	5	0.5%	89.2%
36	1237	6	0.6%	12.9%	97	1330	13	1.3%	90.5%
37	1238	8	0.8%	13.7%	98	1332	8	0.8%	91.3%
38	1240	7	0.7%	14.4%	99	1334	7	0.7%	92.0%
39	1242	11	1.1%	15.5%	100	1337	7	0.7%	92.7%
40	1243	5	0.5%	16.0%	101	1340	8	0.8%	93.5%
41	1245	11	1.1%	17.0%	102	1342	7	0.7%	94.2%
42	1247	7	0.7%	17.7%	103	1345	7	0.7%	94.8%
43	1248	16	1.6%	19.3%	104	1349	5	0.5%	95.3%
44	1250	9	0.9%	20.2%	105	1352	9	0.9%	96.2%
45	1251	10	1.0%	21.2%	106	1356	8	0.8%	97.0%
46	1253	20	2.0%	23.2%	107	1360	1	0.1%	97.1%
47	1254	8	0.8%	24.0%	108	1364	4	0.4%	97.5%
48	1256	15	1.5%	25.5%	109	1369	1	0.1%	97.6%
49	1257	6	0.6%	26.1%	110	1374	4	0.4%	98.0%
50	1258	9	0.9%	27.0%	111	1380	5	0.5%	98.5%
51	1260	15	1.5%	28.4%	112	1387	0	0.0%	98.5%
52	1261	13	1.3%	29.7%	113	1396	6	0.6%	99.1%
53	1263	16	1.6%	31.3%	114	1405	3	0.3%	99.4%
54	1264	17	1.7%	33.0%	115	1418	1	0.1%	99.5%
55	1265	14	1.4%	34.4%	116	1433	1	0.1%	99.6%
56	1267	15	1.5%	35.9%	117	1455	3	0.3%	99.9%
57	1268	8	0.8%	36.7%	118	1488	0	0.0%	99.9%
58	1269	12	1.2%	37.9%	119	1500	1	0.1%	100.0%
59	1271	9	0.9%	38.8%	120	1500	0	0.0%	100.0%
60	1272	15	1.5%	40.2%					

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; FREQ = frequency, CUML % = Cumulative percentage of students.

Table 8.1.1.11
2014 AIMS A Frequency Distribution Mathematics High School

Raw Score	Scale Score	FREQ	%	CUML %	Raw Score	Scale Score	FREQ	%	CUML %
0	1000	6	0.6%	0.6%	61	1278	11	1.1%	47.2%
1	1000	1	0.1%	0.7%	62	1280	14	1.4%	48.6%
2	1000	0	0.0%	0.7%	63	1281	18	1.8%	50.4%
3	1029	0	0.0%	0.7%	64	1283	15	1.5%	51.9%
4	1061	4	0.4%	1.1%	65	1284	17	1.7%	53.6%
5	1085	1	0.1%	1.2%	66	1285	12	1.2%	54.8%
6	1104	1	0.1%	1.3%	67	1287	6	0.6%	55.4%
7	1119	0	0.0%	1.3%	68	1288	14	1.4%	56.8%
8	1131	3	0.3%	1.6%	69	1290	15	1.5%	58.3%
9	1142	3	0.3%	1.9%	70	1291	9	0.9%	59.2%
10	1151	0	0.0%	1.9%	71	1293	22	2.2%	61.4%
11	1159	0	0.0%	1.9%	72	1294	13	1.3%	62.7%
12	1166	2	0.2%	2.1%	73	1296	18	1.8%	64.5%
13	1172	2	0.2%	2.3%	74	1298	15	1.5%	66.0%
14	1177	2	0.2%	2.5%	75	1299	15	1.5%	67.5%
15	1182	1	0.1%	2.6%	76	1301	14	1.4%	68.9%
16	1187	8	0.8%	3.4%	77	1302	14	1.4%	70.3%
17	1191	0	0.0%	3.4%	78	1304	15	1.5%	71.8%
18	1195	2	0.2%	3.6%	79	1306	14	1.4%	73.2%
19	1198	2	0.2%	3.8%	80	1307	11	1.1%	74.3%
20	1202	5	0.5%	4.3%	81	1309	18	1.8%	76.2%
21	1205	4	0.4%	4.7%	82	1311	10	1.0%	77.2%
22	1208	2	0.2%	4.9%	83	1313	17	1.7%	78.9%
23	1211	2	0.2%	5.1%	84	1314	21	2.1%	81.0%
24	1213	13	1.3%	6.4%	85	1316	14	1.4%	82.4%
25	1216	7	0.7%	7.1%	86	1318	10	1.0%	83.4%
26	1219	2	0.2%	7.3%	87	1320	17	1.7%	85.1%
27	1221	7	0.7%	8.0%	88	1322	16	1.6%	86.7%
28	1223	9	0.9%	8.9%	89	1324	7	0.7%	87.4%
29	1225	4	0.4%	9.3%	90	1326	5	0.5%	87.9%
30	1228	5	0.5%	9.8%	91	1328	9	0.9%	88.8%
31	1230	4	0.4%	10.2%	92	1331	11	1.1%	89.9%
32	1232	7	0.7%	10.9%	93	1333	3	0.3%	90.2%
33	1234	6	0.6%	11.5%	94	1335	7	0.7%	90.9%
34	1236	9	0.9%	12.4%	95	1338	3	0.3%	91.2%
35	1237	12	1.2%	13.6%	96	1341	9	0.9%	92.1%
36	1239	12	1.2%	14.8%	97	1343	9	0.9%	93.0%
37	1241	7	0.7%	15.5%	98	1346	10	1.0%	94.0%
38	1243	10	1.0%	16.5%	99	1349	4	0.4%	94.4%
39	1245	15	1.5%	18.0%	100	1352	7	0.7%	95.1%
40	1246	6	0.6%	18.6%	101	1356	4	0.4%	95.5%
41	1248	10	1.0%	19.6%	102	1359	3	0.3%	95.8%
42	1250	14	1.4%	21.0%	103	1363	7	0.7%	96.5%
43	1251	10	1.0%	22.0%	104	1367	6	0.6%	97.1%
44	1253	8	0.8%	22.8%	105	1371	5	0.5%	97.6%
45	1254	12	1.2%	24.0%	106	1376	4	0.4%	98.0%
46	1256	17	1.7%	25.8%	107	1381	3	0.3%	98.3%
47	1257	19	1.9%	27.7%	108	1386	3	0.3%	98.6%
48	1259	9	0.9%	28.6%	109	1392	3	0.3%	98.9%
49	1261	13	1.3%	29.9%	110	1399	2	0.2%	99.1%
50	1262	11	1.1%	31.0%	111	1407	0	0.0%	99.1%
51	1264	15	1.5%	32.5%	112	1415	5	0.5%	99.6%
52	1265	12	1.2%	33.7%	113	1425	1	0.1%	99.7%
53	1267	17	1.7%	35.4%	114	1437	1	0.1%	99.8%
54	1268	12	1.2%	36.6%	115	1451	0	0.0%	99.8%
55	1269	16	1.6%	38.2%	116	1469	0	0.0%	99.8%
56	1271	16	1.6%	39.8%	117	1494	0	0.0%	99.8%
57	1272	14	1.4%	41.2%	118	1500	0	0.0%	99.8%
58	1274	21	2.1%	43.3%	119	1500	1	0.1%	99.9%
59	1275	10	1.0%	44.3%	120	1500	1	0.1%	100.0%
60	1277	18	1.8%	46.1%					

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; FREQ = frequency, CUML % = Cumulative percentage of students.

Table 8.1.1.12
2014 AIMS A Frequency Distribution Reading Grade 3

Raw Score	Scale Score	FREQ	%	CUML %	Raw Score	Scale Score	FREQ	%	CUML %
0	1000	10	1.0%	1.0%	61	1248	17	1.7%	28.4%
1	1000	0	0.0%	1.0%	62	1250	16	1.6%	30.1%
2	1000	0	0.0%	1.0%	63	1251	4	0.4%	30.5%
3	1026	1	0.1%	1.1%	64	1252	12	1.2%	31.7%
4	1053	5	0.5%	1.6%	65	1253	13	1.3%	33.0%
5	1073	0	0.0%	1.6%	66	1254	18	1.8%	34.8%
6	1089	0	0.0%	1.6%	67	1256	11	1.1%	35.9%
7	1102	0	0.0%	1.6%	68	1257	8	0.8%	36.7%
8	1112	3	0.3%	1.9%	69	1258	10	1.0%	37.8%
9	1122	0	0.0%	1.9%	70	1259	10	1.0%	38.8%
10	1130	1	0.1%	2.0%	71	1261	16	1.6%	40.4%
11	1137	0	0.0%	2.0%	72	1262	20	2.0%	42.4%
12	1143	2	0.2%	2.2%	73	1263	14	1.4%	43.8%
13	1149	0	0.0%	2.2%	74	1264	11	1.1%	44.9%
14	1154	0	0.0%	2.2%	75	1266	17	1.7%	46.7%
15	1158	1	0.1%	2.3%	76	1267	9	0.9%	47.6%
16	1163	11	1.1%	3.4%	77	1268	19	1.9%	49.5%
17	1167	0	0.0%	3.4%	78	1270	18	1.8%	51.3%
18	1171	1	0.1%	3.5%	79	1271	12	1.2%	52.5%
19	1174	0	0.0%	3.5%	80	1272	21	2.1%	54.7%
20	1177	7	0.7%	4.3%	81	1273	19	1.9%	56.6%
21	1180	1	0.1%	4.4%	82	1275	12	1.2%	57.8%
22	1183	0	0.0%	4.4%	83	1276	18	1.8%	59.6%
23	1186	4	0.4%	4.8%	84	1278	10	1.0%	60.6%
24	1189	4	0.4%	5.2%	85	1279	13	1.3%	61.9%
25	1191	1	0.1%	5.3%	86	1280	24	2.4%	64.4%
26	1194	4	0.4%	5.7%	87	1282	18	1.8%	66.2%
27	1196	1	0.1%	5.8%	88	1283	18	1.8%	68.0%
28	1198	7	0.7%	6.5%	89	1285	12	1.2%	69.2%
29	1200	3	0.3%	6.8%	90	1286	18	1.8%	71.1%
30	1202	3	0.3%	7.1%	91	1288	13	1.3%	72.4%
31	1204	3	0.3%	7.4%	92	1289	17	1.7%	74.1%
32	1206	5	0.5%	7.9%	93	1291	13	1.3%	75.4%
33	1208	7	0.7%	8.6%	94	1293	15	1.5%	76.9%
34	1210	5	0.5%	9.1%	95	1295	5	0.5%	77.4%
35	1212	4	0.4%	9.5%	96	1296	13	1.3%	78.7%
36	1213	3	0.3%	9.8%	97	1298	11	1.1%	79.9%
37	1215	2	0.2%	10.0%	98	1300	8	0.8%	80.7%
38	1217	5	0.5%	10.5%	99	1302	12	1.2%	81.9%
39	1218	11	1.1%	11.6%	100	1304	18	1.8%	83.7%
40	1220	2	0.2%	11.8%	101	1306	12	1.2%	84.9%
41	1222	2	0.2%	12.0%	102	1309	9	0.9%	85.8%
42	1223	5	0.5%	12.6%	103	1311	19	1.9%	87.8%
43	1225	7	0.7%	13.3%	104	1314	19	1.9%	89.7%
44	1226	3	0.3%	13.6%	105	1316	9	0.9%	90.6%
45	1227	4	0.4%	14.0%	106	1319	10	1.0%	91.6%
46	1229	6	0.6%	14.6%	107	1322	5	0.5%	92.1%
47	1230	12	1.2%	15.8%	108	1326	9	0.9%	93.0%
48	1232	4	0.4%	16.2%	109	1329	5	0.5%	93.5%
49	1233	8	0.8%	17.0%	110	1334	7	0.7%	94.2%
50	1234	4	0.4%	17.4%	111	1338	11	1.1%	95.3%
51	1236	13	1.3%	18.7%	112	1343	8	0.8%	96.2%
52	1237	6	0.6%	19.3%	113	1350	8	0.8%	97.0%
53	1238	6	0.6%	19.9%	114	1357	3	0.3%	97.3%
54	1240	5	0.5%	20.4%	115	1366	8	0.8%	98.1%
55	1241	13	1.3%	21.8%	116	1378	2	0.2%	98.3%
56	1242	11	1.1%	22.9%	117	1395	1	0.1%	98.4%
57	1243	8	0.8%	23.7%	118	1422	5	0.5%	98.9%
58	1245	5	0.5%	24.2%	119	1475	6	0.6%	99.5%
59	1246	16	1.6%	25.8%	120	1500	5	0.5%	100.0%
60	1247	9	0.9%	26.7%					

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; FREQ = frequency, CUML % = Cumulative percentage of students.

Table 8.1.1.13
2014 AIMS A Frequency Distribution Reading Grade 4

Raw Score	Scale Score	FREQ	%	CUML %	Raw Score	Scale Score	FREQ	%	CUML %
0	1000	4	0.4%	0.4%	61	1255	8	0.8%	26.1%
1	1000	0	0.0%	0.4%	62	1256	13	1.3%	27.3%
2	1000	0	0.0%	0.4%	63	1258	12	1.2%	28.5%
3	1008	1	0.1%	0.5%	64	1259	15	1.4%	29.9%
4	1037	3	0.3%	0.8%	65	1261	11	1.1%	31.0%
5	1059	2	0.2%	1.0%	66	1262	13	1.3%	32.2%
6	1076	1	0.1%	1.1%	67	1263	8	0.8%	33.0%
7	1090	0	0.0%	1.1%	68	1265	13	1.3%	34.2%
8	1102	4	0.4%	1.4%	69	1266	18	1.7%	36.0%
9	1112	1	0.1%	1.5%	70	1267	10	1.0%	36.9%
10	1121	0	0.0%	1.5%	71	1269	11	1.1%	38.0%
11	1129	3	0.3%	1.8%	72	1270	16	1.5%	39.5%
12	1136	3	0.3%	2.1%	73	1272	16	1.5%	41.1%
13	1142	0	0.0%	2.1%	74	1273	7	0.7%	41.7%
14	1148	1	0.1%	2.2%	75	1274	7	0.7%	42.4%
15	1154	1	0.1%	2.3%	76	1276	11	1.1%	43.5%
16	1158	5	0.5%	2.8%	77	1277	15	1.4%	44.9%
17	1163	4	0.4%	3.2%	78	1279	17	1.6%	46.5%
18	1167	3	0.3%	3.5%	79	1280	24	2.3%	48.8%
19	1171	1	0.1%	3.6%	80	1282	17	1.6%	50.5%
20	1175	4	0.4%	3.9%	81	1283	12	1.2%	51.6%
21	1178	1	0.1%	4.0%	82	1285	12	1.2%	52.8%
22	1182	1	0.1%	4.1%	83	1286	14	1.3%	54.1%
23	1185	2	0.2%	4.3%	84	1288	15	1.4%	55.6%
24	1188	9	0.9%	5.2%	85	1289	10	1.0%	56.5%
25	1191	1	0.1%	5.3%	86	1291	10	1.0%	57.5%
26	1194	5	0.5%	5.8%	87	1292	13	1.3%	58.8%
27	1196	2	0.2%	6.0%	88	1294	13	1.3%	60.0%
28	1199	6	0.6%	6.5%	89	1296	17	1.6%	61.6%
29	1201	3	0.3%	6.8%	90	1297	19	1.8%	63.5%
30	1204	1	0.1%	6.9%	91	1299	14	1.3%	64.8%
31	1206	5	0.5%	7.4%	92	1301	18	1.7%	66.5%
32	1208	2	0.2%	7.6%	93	1303	23	2.2%	68.8%
33	1210	1	0.1%	7.7%	94	1305	16	1.5%	70.3%
34	1212	3	0.3%	8.0%	95	1307	12	1.2%	71.4%
35	1214	4	0.4%	8.4%	96	1309	12	1.2%	72.6%
36	1216	1	0.1%	8.5%	97	1311	14	1.3%	73.9%
37	1218	7	0.7%	9.1%	98	1313	19	1.8%	75.8%
38	1220	5	0.5%	9.6%	99	1315	12	1.2%	76.9%
39	1222	3	0.3%	9.9%	100	1318	23	2.2%	79.1%
40	1224	7	0.7%	10.6%	101	1320	16	1.5%	80.7%
41	1225	10	1.0%	11.5%	102	1323	26	2.5%	83.2%
42	1227	5	0.5%	12.0%	103	1326	11	1.1%	84.2%
43	1229	8	0.8%	12.8%	104	1329	16	1.5%	85.8%
44	1230	3	0.3%	13.1%	105	1332	11	1.1%	86.8%
45	1232	7	0.7%	13.8%	106	1335	21	2.0%	88.8%
46	1233	4	0.4%	14.1%	107	1339	9	0.9%	89.7%
47	1235	7	0.7%	14.8%	108	1342	11	1.1%	90.8%
48	1237	9	0.9%	15.7%	109	1347	11	1.1%	91.8%
49	1238	3	0.3%	16.0%	110	1352	12	1.2%	93.0%
50	1240	7	0.7%	16.6%	111	1357	12	1.2%	94.1%
51	1241	12	1.2%	17.8%	112	1363	11	1.1%	95.2%
52	1242	4	0.4%	18.2%	113	1370	10	1.0%	96.2%
53	1244	8	0.8%	18.9%	114	1379	10	1.0%	97.1%
54	1245	7	0.7%	19.6%	115	1390	6	0.6%	97.7%
55	1247	6	0.6%	20.2%	116	1404	4	0.4%	98.1%
56	1248	5	0.5%	20.7%	117	1424	4	0.4%	98.5%
57	1250	17	1.6%	22.3%	118	1456	3	0.3%	98.8%
58	1251	17	1.6%	23.9%	119	1500	4	0.4%	99.1%
59	1252	7	0.7%	24.6%	120	1500	9	0.9%	100.0%
60	1254	7	0.7%	25.3%					

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; FREQ = frequency, CUML % = Cumulative percentage of students.

Table 8.1.1.14
2014 AIMS A Frequency Distribution Reading Grade 5

Raw Score	Scale Score	FREQ	%	CUML %	Raw Score	Scale Score	FREQ	%	CUML %
0	1000	4	0.4%	0.4%	61	1243	6	0.6%	24.2%
1	1000	1	0.1%	0.5%	62	1245	9	0.9%	25.1%
2	1000	0	0.0%	0.5%	63	1246	9	0.9%	26.0%
3	1000	0	0.0%	0.5%	64	1248	7	0.7%	26.7%
4	1000	4	0.4%	0.9%	65	1250	10	1.0%	27.7%
5	1000	0	0.0%	0.9%	66	1251	7	0.7%	28.4%
6	1012	0	0.0%	0.9%	67	1253	12	1.2%	29.6%
7	1031	2	0.2%	1.1%	68	1255	10	1.0%	30.6%
8	1046	2	0.2%	1.3%	69	1256	11	1.1%	31.7%
9	1060	0	0.0%	1.3%	70	1258	13	1.3%	33.0%
10	1072	0	0.0%	1.3%	71	1260	15	1.5%	34.5%
11	1082	0	0.0%	1.3%	72	1261	19	1.9%	36.4%
12	1091	8	0.8%	2.1%	73	1263	9	0.9%	37.3%
13	1100	1	0.1%	2.2%	74	1265	17	1.7%	39.0%
14	1108	2	0.2%	2.4%	75	1266	16	1.6%	40.6%
15	1115	0	0.0%	2.4%	76	1268	6	0.6%	41.2%
16	1121	4	0.4%	2.8%	77	1270	15	1.5%	42.7%
17	1127	3	0.3%	3.1%	78	1272	10	1.0%	43.7%
18	1133	1	0.1%	3.2%	79	1273	18	1.8%	45.5%
19	1138	3	0.3%	3.5%	80	1275	11	1.1%	46.6%
20	1143	3	0.3%	3.8%	81	1277	10	1.0%	47.6%
21	1147	3	0.3%	4.1%	82	1279	15	1.5%	49.1%
22	1151	1	0.1%	4.2%	83	1281	10	1.0%	50.2%
23	1155	1	0.1%	4.3%	84	1283	15	1.5%	51.7%
24	1159	2	0.2%	4.5%	85	1285	13	1.3%	53.0%
25	1163	2	0.2%	4.7%	86	1287	12	1.2%	54.2%
26	1166	4	0.4%	5.1%	87	1289	12	1.2%	55.4%
27	1170	1	0.1%	5.2%	88	1291	16	1.6%	57.0%
28	1173	5	0.5%	5.7%	89	1293	12	1.2%	58.2%
29	1176	1	0.1%	5.8%	90	1295	11	1.1%	59.3%
30	1179	0	0.0%	5.8%	91	1297	12	1.2%	60.5%
31	1182	0	0.0%	5.8%	92	1299	20	2.0%	62.5%
32	1185	8	0.8%	6.6%	93	1302	15	1.5%	64.0%
33	1187	2	0.2%	6.8%	94	1304	14	1.4%	65.4%
34	1190	2	0.2%	7.0%	95	1306	11	1.1%	66.5%
35	1192	4	0.4%	7.4%	96	1309	13	1.3%	67.8%
36	1195	6	0.6%	8.0%	97	1312	12	1.2%	69.0%
37	1197	2	0.2%	8.2%	98	1314	30	3.0%	72.0%
38	1200	2	0.2%	8.4%	99	1317	10	1.0%	73.0%
39	1202	4	0.4%	8.8%	100	1320	17	1.7%	74.7%
40	1204	4	0.4%	9.2%	101	1323	13	1.3%	76.0%
41	1206	5	0.5%	9.7%	102	1327	11	1.1%	77.1%
42	1208	2	0.2%	9.9%	103	1330	14	1.4%	78.5%
43	1210	4	0.4%	10.3%	104	1334	15	1.5%	80.0%
44	1212	8	0.8%	11.1%	105	1338	15	1.5%	81.5%
45	1214	3	0.3%	11.4%	106	1342	19	1.9%	83.4%
46	1216	5	0.5%	11.9%	107	1347	17	1.7%	85.1%
47	1218	11	1.1%	13.0%	108	1352	17	1.7%	86.8%
48	1220	3	0.3%	13.3%	109	1358	13	1.3%	88.1%
49	1222	6	0.6%	13.9%	110	1364	18	1.8%	89.9%
50	1224	9	0.9%	14.8%	111	1371	10	1.0%	90.9%
51	1226	10	1.0%	15.8%	112	1379	12	1.2%	92.1%
52	1227	8	0.8%	16.6%	113	1389	14	1.4%	93.5%
53	1229	5	0.5%	17.1%	114	1401	13	1.3%	94.8%
54	1231	3	0.3%	17.4%	115	1415	8	0.8%	95.6%
55	1233	10	1.0%	18.4%	116	1434	12	1.2%	96.8%
56	1234	7	0.7%	19.1%	117	1461	8	0.8%	97.6%
57	1236	12	1.2%	20.3%	118	1500	12	1.2%	98.8%
58	1238	10	1.0%	21.3%	119	1500	7	0.7%	99.5%
59	1240	12	1.2%	22.5%	120	1500	5	0.5%	100.0%
60	1241	11	1.1%	23.6%					

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; FREQ = frequency, CUML % = Cumulative percentage of students.

Table 8.1.1.15
2014 AIMS A Frequency Distribution Reading Grade 6

Raw Score	Scale Score	FREQ	%	CUML %	Raw Score	Scale Score	FREQ	%	CUML %
0	1000	2	0.2%	0.2%	61	1245	7	0.7%	23.6%
1	1000	2	0.2%	0.4%	62	1247	10	1.1%	24.7%
2	1000	0	0.0%	0.4%	63	1249	8	0.9%	25.6%
3	1000	0	0.0%	0.4%	64	1251	5	0.5%	26.1%
4	1000	2	0.2%	0.6%	65	1252	6	0.6%	26.7%
5	1000	0	0.0%	0.6%	66	1254	3	0.3%	27.1%
6	1008	2	0.2%	0.9%	67	1256	8	0.9%	27.9%
7	1027	0	0.0%	0.9%	68	1258	11	1.2%	29.1%
8	1044	3	0.3%	1.2%	69	1259	9	1.0%	30.0%
9	1058	1	0.1%	1.3%	70	1261	8	0.9%	30.9%
10	1070	2	0.2%	1.5%	71	1263	10	1.1%	31.9%
11	1081	0	0.0%	1.5%	72	1265	3	0.3%	32.3%
12	1090	1	0.1%	1.6%	73	1266	9	1.0%	33.2%
13	1099	0	0.0%	1.6%	74	1268	6	0.6%	33.9%
14	1107	0	0.0%	1.6%	75	1270	8	0.9%	34.7%
15	1114	0	0.0%	1.6%	76	1272	4	0.4%	35.1%
16	1121	5	0.5%	2.1%	77	1274	6	0.6%	35.8%
17	1127	2	0.2%	2.3%	78	1276	8	0.9%	36.6%
18	1132	2	0.2%	2.6%	79	1277	9	1.0%	37.6%
19	1138	2	0.2%	2.8%	80	1279	6	0.6%	38.2%
20	1143	6	0.6%	3.4%	81	1281	10	1.1%	39.3%
21	1147	1	0.1%	3.5%	82	1283	12	1.3%	40.6%
22	1152	1	0.1%	3.6%	83	1285	10	1.1%	41.6%
23	1156	2	0.2%	3.8%	84	1287	13	1.4%	43.0%
24	1160	3	0.3%	4.2%	85	1289	13	1.4%	44.4%
25	1163	5	0.5%	4.7%	86	1291	8	0.9%	45.3%
26	1167	2	0.2%	4.9%	87	1294	9	1.0%	46.2%
27	1170	2	0.2%	5.1%	88	1296	9	1.0%	47.2%
28	1174	0	0.0%	5.1%	89	1298	10	1.1%	48.2%
29	1177	5	0.5%	5.6%	90	1300	10	1.1%	49.3%
30	1180	1	0.1%	5.8%	91	1303	17	1.8%	51.1%
31	1183	3	0.3%	6.1%	92	1305	10	1.1%	52.2%
32	1185	5	0.5%	6.6%	93	1308	22	2.3%	54.5%
33	1188	3	0.3%	6.9%	94	1310	12	1.3%	55.8%
34	1191	2	0.2%	7.1%	95	1313	12	1.3%	57.1%
35	1193	4	0.4%	7.6%	96	1316	18	1.9%	59.0%
36	1196	3	0.3%	7.9%	97	1318	20	2.1%	61.1%
37	1198	5	0.5%	8.4%	98	1321	10	1.1%	62.2%
38	1201	4	0.4%	8.8%	99	1324	13	1.4%	63.6%
39	1203	9	1.0%	9.8%	100	1328	16	1.7%	65.3%
40	1205	2	0.2%	10.0%	101	1331	16	1.7%	67.0%
41	1207	4	0.4%	10.4%	102	1334	15	1.6%	68.6%
42	1209	4	0.4%	10.9%	103	1338	21	2.2%	70.8%
43	1212	3	0.3%	11.2%	104	1342	22	2.3%	73.2%
44	1214	5	0.5%	11.7%	105	1346	17	1.8%	75.0%
45	1216	5	0.5%	12.2%	106	1351	19	2.0%	77.0%
46	1218	5	0.5%	12.8%	107	1356	24	2.6%	79.6%
47	1220	5	0.5%	13.3%	108	1361	23	2.4%	82.0%
48	1222	8	0.9%	14.2%	109	1367	18	1.9%	83.9%
49	1223	5	0.5%	14.7%	110	1374	19	2.0%	85.9%
50	1225	7	0.7%	15.4%	111	1381	24	2.6%	88.5%
51	1227	10	1.1%	16.5%	112	1390	16	1.7%	90.2%
52	1229	4	0.4%	16.9%	113	1400	15	1.6%	91.8%
53	1231	6	0.6%	17.6%	114	1412	15	1.6%	93.4%
54	1233	7	0.7%	18.3%	115	1426	12	1.3%	94.7%
55	1235	6	0.6%	19.0%	116	1446	10	1.1%	95.7%
56	1236	6	0.6%	19.6%	117	1473	10	1.1%	96.8%
57	1238	9	1.0%	20.6%	118	1500	13	1.4%	98.2%
58	1240	6	0.6%	21.2%	119	1500	8	0.9%	99.0%
59	1242	9	1.0%	22.2%	120	1500	9	1.0%	100.0%
60	1243	7	0.7%	22.9%					

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; FREQ = frequency, CUML % = Cumulative percentage of students.

Table 8.1.1.16
2014 AIMS A Frequency Distribution Reading Grade 7

Raw Score	Scale Score	FREQ	%	CUML %	Raw Score	Scale Score	FREQ	%	CUML %
0	1000	2	0.2%	0.2%	61	1248	9	1.0%	19.8%
1	1000	0	0.0%	0.2%	62	1249	12	1.3%	21.1%
2	1000	0	0.0%	0.2%	63	1251	8	0.9%	21.9%
3	1000	0	0.0%	0.2%	64	1253	9	1.0%	22.9%
4	1000	0	0.0%	0.2%	65	1255	8	0.9%	23.7%
5	1008	0	0.0%	0.2%	66	1257	11	1.2%	24.9%
6	1029	1	0.1%	0.3%	67	1258	2	0.2%	25.1%
7	1046	0	0.0%	0.3%	68	1260	10	1.1%	26.2%
8	1061	4	0.4%	0.7%	69	1262	19	2.0%	28.2%
9	1073	1	0.1%	0.9%	70	1264	12	1.3%	29.5%
10	1084	0	0.0%	0.9%	71	1266	11	1.2%	30.6%
11	1093	0	0.0%	0.9%	72	1267	10	1.1%	31.7%
12	1102	2	0.2%	1.1%	73	1269	15	1.6%	33.3%
13	1109	0	0.0%	1.1%	74	1271	4	0.4%	33.7%
14	1116	0	0.0%	1.1%	75	1273	10	1.1%	34.8%
15	1123	0	0.0%	1.1%	76	1275	6	0.6%	35.4%
16	1128	4	0.4%	1.5%	77	1277	13	1.4%	36.8%
17	1134	0	0.0%	1.5%	78	1278	11	1.2%	38.0%
18	1139	1	0.1%	1.6%	79	1280	11	1.2%	39.1%
19	1144	1	0.1%	1.7%	80	1282	9	1.0%	40.1%
20	1148	3	0.3%	2.0%	81	1284	19	2.0%	42.1%
21	1152	1	0.1%	2.1%	82	1286	11	1.2%	43.3%
22	1156	0	0.0%	2.1%	83	1288	8	0.9%	44.1%
23	1160	2	0.2%	2.3%	84	1290	18	1.9%	46.1%
24	1164	5	0.5%	2.9%	85	1292	14	1.5%	47.6%
25	1167	0	0.0%	2.9%	86	1294	11	1.2%	48.7%
26	1171	3	0.3%	3.2%	87	1296	7	0.7%	49.5%
27	1174	3	0.3%	3.5%	88	1298	15	1.6%	51.1%
28	1177	3	0.3%	3.8%	89	1301	12	1.3%	52.3%
29	1180	1	0.1%	3.9%	90	1303	12	1.3%	53.6%
30	1183	2	0.2%	4.1%	91	1305	9	1.0%	54.6%
31	1185	3	0.3%	4.5%	92	1307	13	1.4%	56.0%
32	1188	7	0.7%	5.2%	93	1310	16	1.7%	57.7%
33	1191	0	0.0%	5.2%	94	1312	22	2.3%	60.0%
34	1193	4	0.4%	5.6%	95	1314	13	1.4%	61.4%
35	1196	5	0.5%	6.2%	96	1317	17	1.8%	63.2%
36	1198	7	0.7%	6.9%	97	1320	15	1.6%	64.8%
37	1200	1	0.1%	7.0%	98	1322	14	1.5%	66.3%
38	1203	1	0.1%	7.1%	99	1325	15	1.6%	67.9%
39	1205	3	0.3%	7.4%	100	1328	14	1.5%	69.4%
40	1207	5	0.5%	8.0%	101	1331	13	1.4%	70.7%
41	1209	4	0.4%	8.4%	102	1334	18	1.9%	72.7%
42	1211	2	0.2%	8.6%	103	1338	20	2.1%	74.8%
43	1213	5	0.5%	9.1%	104	1341	11	1.2%	76.0%
44	1216	6	0.6%	9.8%	105	1345	16	1.7%	77.7%
45	1218	6	0.6%	10.4%	106	1349	24	2.6%	80.2%
46	1220	4	0.4%	10.9%	107	1354	17	1.8%	82.0%
47	1222	3	0.3%	11.2%	108	1359	17	1.8%	83.8%
48	1224	4	0.4%	11.6%	109	1364	12	1.3%	85.1%
49	1226	6	0.6%	12.2%	110	1370	16	1.7%	86.8%
50	1227	3	0.3%	12.6%	111	1376	16	1.7%	88.5%
51	1229	7	0.7%	13.3%	112	1384	16	1.7%	90.2%
52	1231	5	0.5%	13.8%	113	1392	15	1.6%	91.8%
53	1233	5	0.5%	14.4%	114	1403	13	1.4%	93.2%
54	1235	9	1.0%	15.3%	115	1416	10	1.1%	94.3%
55	1237	2	0.2%	15.5%	116	1433	8	0.9%	95.1%
56	1239	3	0.3%	15.9%	117	1457	13	1.4%	96.5%
57	1240	6	0.6%	16.5%	118	1496	10	1.1%	97.6%
58	1242	10	1.1%	17.6%	119	1500	9	1.0%	98.5%
59	1244	4	0.4%	18.0%	120	1500	14	1.5%	100.0%
60	1246	8	0.9%	18.8%					

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; FREQ = frequency, CUML % = Cumulative percentage of students.

Table 8.1.1.17
2014 AIMS A Frequency Distribution Reading Grade 8

Raw Score	Scale Score	FREQ	%	CUML %	Raw Score	Scale Score	FREQ	%	CUML %
0	1000	3	0.3%	0.3%	61	1251	3	0.3%	21.4%
1	1000	0	0.0%	0.3%	62	1252	3	0.3%	21.7%
2	1000	0	0.0%	0.3%	63	1254	9	0.9%	22.6%
3	1028	1	0.1%	0.4%	64	1255	4	0.4%	23.0%
4	1055	1	0.1%	0.5%	65	1256	7	0.7%	23.7%
5	1076	1	0.1%	0.6%	66	1258	7	0.7%	24.4%
6	1092	0	0.0%	0.6%	67	1259	10	1.0%	25.4%
7	1105	0	0.0%	0.6%	68	1260	4	0.4%	25.8%
8	1115	2	0.2%	0.8%	69	1262	3	0.3%	26.1%
9	1124	1	0.1%	0.9%	70	1263	14	1.4%	27.5%
10	1132	0	0.0%	0.9%	71	1264	6	0.6%	28.0%
11	1139	1	0.1%	1.0%	72	1266	14	1.4%	29.4%
12	1145	0	0.0%	1.0%	73	1267	11	1.1%	30.5%
13	1150	1	0.1%	1.1%	74	1269	8	0.8%	31.3%
14	1155	0	0.0%	1.1%	75	1270	12	1.2%	32.5%
15	1160	1	0.1%	1.2%	76	1271	9	0.9%	33.4%
16	1164	3	0.3%	1.5%	77	1273	7	0.7%	34.1%
17	1168	0	0.0%	1.5%	78	1274	13	1.3%	35.4%
18	1171	3	0.3%	1.8%	79	1276	10	1.0%	36.4%
19	1174	1	0.1%	1.9%	80	1277	13	1.3%	37.7%
20	1177	4	0.4%	2.3%	81	1278	7	0.7%	38.4%
21	1180	1	0.1%	2.4%	82	1280	6	0.6%	38.9%
22	1183	3	0.3%	2.7%	83	1281	7	0.7%	39.6%
23	1186	3	0.3%	3.0%	84	1283	7	0.7%	40.3%
24	1188	3	0.3%	3.3%	85	1284	8	0.8%	41.1%
25	1191	1	0.1%	3.4%	86	1286	13	1.3%	42.4%
26	1193	3	0.3%	3.7%	87	1287	11	1.1%	43.5%
27	1196	8	0.8%	4.5%	88	1289	16	1.6%	45.1%
28	1198	0	0.0%	4.5%	89	1291	11	1.1%	46.2%
29	1200	2	0.2%	4.7%	90	1292	10	1.0%	47.2%
30	1202	3	0.3%	5.0%	91	1294	13	1.3%	48.5%
31	1204	5	0.5%	5.5%	92	1296	16	1.6%	50.0%
32	1206	7	0.7%	6.1%	93	1297	16	1.6%	51.6%
33	1208	5	0.5%	6.6%	94	1299	20	2.0%	53.6%
34	1210	4	0.4%	7.0%	95	1301	13	1.3%	54.9%
35	1212	0	0.0%	7.0%	96	1303	24	2.4%	57.3%
36	1213	5	0.5%	7.5%	97	1305	12	1.2%	58.5%
37	1215	3	0.3%	7.8%	98	1307	15	1.5%	60.0%
38	1217	5	0.5%	8.3%	99	1309	15	1.5%	61.4%
39	1218	4	0.4%	8.7%	100	1311	15	1.5%	62.9%
40	1220	3	0.3%	9.0%	101	1314	12	1.2%	64.1%
41	1222	3	0.3%	9.3%	102	1316	15	1.5%	65.6%
42	1223	6	0.6%	9.9%	103	1319	16	1.6%	67.2%
43	1225	1	0.1%	10.0%	104	1322	11	1.1%	68.3%
44	1227	3	0.3%	10.3%	105	1324	14	1.4%	69.7%
45	1228	2	0.2%	10.5%	106	1327	17	1.7%	71.4%
46	1230	5	0.5%	11.0%	107	1331	19	1.9%	73.2%
47	1231	11	1.1%	12.1%	108	1334	14	1.4%	74.6%
48	1233	4	0.4%	12.5%	109	1338	19	1.9%	76.5%
49	1234	6	0.6%	13.1%	110	1343	25	2.5%	79.0%
50	1235	8	0.8%	13.9%	111	1348	31	3.1%	82.1%
51	1237	10	1.0%	14.9%	112	1353	21	2.1%	84.1%
52	1238	7	0.7%	15.6%	113	1360	28	2.8%	86.9%
53	1240	5	0.5%	16.1%	114	1367	26	2.6%	89.5%
54	1241	6	0.6%	16.7%	115	1377	25	2.5%	92.0%
55	1243	7	0.7%	17.3%	116	1390	22	2.2%	94.2%
56	1244	9	0.9%	18.2%	117	1408	13	1.3%	95.4%
57	1245	7	0.7%	18.9%	118	1437	17	1.7%	97.1%
58	1247	8	0.8%	19.7%	119	1494	19	1.9%	99.0%
59	1248	8	0.8%	20.5%	120	1500	10	1.0%	100.0%
60	1250	6	0.6%	21.1%					

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; FREQ = frequency, CUML % = Cumulative percentage of students.

Table 8.1.1.18
2014 AIMS A Frequency Distribution Reading High School

Raw Score	Scale Score	FREQ	%	CUML %	Raw Score	Scale Score	FREQ	%	CUML %
0	1000	4	0.4%	0.4%	61	1260	10	1.0%	21.7%
1	1000	0	0.0%	0.4%	62	1261	12	1.2%	22.9%
2	1016	0	0.0%	0.4%	63	1263	9	0.9%	23.8%
3	1054	1	0.1%	0.5%	64	1264	6	0.6%	24.4%
4	1080	4	0.4%	0.9%	65	1265	8	0.8%	25.3%
5	1099	1	0.1%	1.0%	66	1266	9	0.9%	26.2%
6	1113	0	0.0%	1.0%	67	1268	10	1.0%	27.2%
7	1125	0	0.0%	1.0%	68	1269	10	1.0%	28.2%
8	1135	1	0.1%	1.1%	69	1270	5	0.5%	28.7%
9	1143	1	0.1%	1.2%	70	1271	5	0.5%	29.2%
10	1150	0	0.0%	1.2%	71	1273	5	0.5%	29.7%
11	1156	0	0.0%	1.2%	72	1274	7	0.7%	30.4%
12	1162	3	0.3%	1.5%	73	1275	4	0.4%	30.8%
13	1167	3	0.3%	1.8%	74	1277	5	0.5%	31.3%
14	1171	1	0.1%	1.9%	75	1278	10	1.0%	32.3%
15	1175	0	0.0%	1.9%	76	1279	8	0.8%	33.1%
16	1179	2	0.2%	2.1%	77	1281	11	1.1%	34.2%
17	1183	0	0.0%	2.1%	78	1282	6	0.6%	34.8%
18	1186	1	0.1%	2.2%	79	1283	8	0.8%	35.6%
19	1189	1	0.1%	2.3%	80	1285	12	1.2%	36.8%
20	1192	7	0.7%	3.0%	81	1286	12	1.2%	38.0%
21	1195	0	0.0%	3.0%	82	1287	12	1.2%	39.2%
22	1197	3	0.3%	3.3%	83	1289	14	1.4%	40.6%
23	1200	2	0.2%	3.5%	84	1290	6	0.6%	41.2%
24	1202	5	0.5%	4.0%	85	1292	10	1.0%	42.2%
25	1205	5	0.5%	4.5%	86	1293	14	1.4%	43.6%
26	1207	2	0.2%	4.7%	87	1295	9	0.9%	44.5%
27	1209	3	0.3%	5.0%	88	1296	7	0.7%	45.2%
28	1211	10	1.0%	6.0%	89	1298	13	1.3%	46.5%
29	1213	3	0.3%	6.3%	90	1299	11	1.1%	47.6%
30	1215	0	0.0%	6.3%	91	1301	15	1.5%	49.1%
31	1217	5	0.5%	6.8%	92	1303	8	0.8%	49.9%
32	1219	3	0.3%	7.1%	93	1304	9	0.9%	50.8%
33	1220	0	0.0%	7.1%	94	1306	10	1.0%	51.8%
34	1222	3	0.3%	7.4%	95	1308	12	1.2%	53.0%
35	1224	1	0.1%	7.5%	96	1310	8	0.8%	53.8%
36	1225	7	0.7%	8.2%	97	1312	8	0.8%	54.6%
37	1227	3	0.3%	8.5%	98	1314	16	1.6%	56.2%
38	1229	2	0.2%	8.7%	99	1316	20	2.0%	58.2%
39	1230	4	0.4%	9.1%	100	1318	17	1.7%	59.9%
40	1232	5	0.5%	9.6%	101	1321	15	1.5%	61.4%
41	1233	4	0.4%	10.0%	102	1323	24	2.4%	63.8%
42	1235	4	0.4%	10.4%	103	1326	20	2.0%	65.8%
43	1236	2	0.2%	10.6%	104	1328	19	1.9%	67.7%
44	1238	5	0.5%	11.1%	105	1331	13	1.3%	69.0%
45	1239	8	0.8%	11.9%	106	1334	19	1.9%	70.9%
46	1240	2	0.2%	12.1%	107	1338	13	1.3%	72.2%
47	1242	3	0.3%	12.4%	108	1341	22	2.2%	74.4%
48	1243	5	0.5%	12.9%	109	1345	12	1.2%	75.7%
49	1245	5	0.5%	13.4%	110	1350	23	2.3%	78.0%
50	1246	8	0.8%	14.2%	111	1355	28	2.8%	80.8%
51	1247	5	0.5%	14.7%	112	1360	32	3.2%	84.0%
52	1249	8	0.8%	15.5%	113	1367	23	2.3%	86.3%
53	1250	4	0.4%	15.9%	114	1375	26	2.6%	88.9%
54	1251	3	0.3%	16.2%	115	1385	19	1.9%	90.8%
55	1252	4	0.4%	16.6%	116	1398	25	2.5%	93.3%
56	1254	7	0.7%	17.3%	117	1415	11	1.1%	94.4%
57	1255	7	0.7%	18.0%	118	1444	17	1.7%	96.1%
58	1256	7	0.7%	18.7%	119	1499	17	1.7%	97.8%
59	1258	12	1.2%	19.9%	120	1500	22	2.2%	100.0%
60	1259	8	0.8%	20.7%					

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; FREQ = frequency, CUML % = Cumulative percentage of students.

Table 8.1.1.19
2014 AIMS A Frequency Distribution Science Grade 4

Raw Score	Scale Score	FREQ	%	CUML %	Raw Score	Scale Score	FREQ	%	CUML %
0	1000	5	0.5%	0.5%	61	1253	5	0.5%	24.4%
1	1000	2	0.2%	0.7%	62	1254	9	0.9%	25.3%
2	1000	0	0.0%	0.7%	63	1255	6	0.6%	25.9%
3	1015	1	0.1%	0.8%	64	1257	15	1.4%	27.3%
4	1043	2	0.2%	1.0%	65	1258	9	0.9%	28.2%
5	1065	0	0.0%	1.0%	66	1259	16	1.5%	29.7%
6	1082	1	0.1%	1.1%	67	1261	9	0.9%	30.6%
7	1097	0	0.0%	1.1%	68	1262	7	0.7%	31.3%
8	1109	5	0.5%	1.5%	69	1263	9	0.9%	32.1%
9	1119	1	0.1%	1.6%	70	1264	9	0.9%	33.0%
10	1128	2	0.2%	1.8%	71	1266	6	0.6%	33.6%
11	1136	0	0.0%	1.8%	72	1267	8	0.8%	34.3%
12	1143	5	0.5%	2.3%	73	1268	10	1.0%	35.3%
13	1149	0	0.0%	2.3%	74	1270	10	1.0%	36.3%
14	1155	2	0.2%	2.5%	75	1271	10	1.0%	37.2%
15	1160	4	0.4%	2.9%	76	1272	9	0.9%	38.1%
16	1165	3	0.3%	3.2%	77	1274	17	1.6%	39.7%
17	1169	2	0.2%	3.4%	78	1275	14	1.3%	41.1%
18	1173	1	0.1%	3.5%	79	1276	7	0.7%	41.7%
19	1177	0	0.0%	3.5%	80	1278	10	1.0%	42.7%
20	1180	6	0.6%	4.0%	81	1279	13	1.3%	43.9%
21	1183	3	0.3%	4.3%	82	1281	5	0.5%	44.4%
22	1186	2	0.2%	4.5%	83	1282	11	1.1%	45.5%
23	1189	0	0.0%	4.5%	84	1284	11	1.1%	46.5%
24	1192	6	0.6%	5.1%	85	1285	8	0.8%	47.3%
25	1195	2	0.2%	5.3%	86	1287	13	1.3%	48.6%
26	1197	0	0.0%	5.3%	87	1288	12	1.2%	49.7%
27	1200	4	0.4%	5.7%	88	1290	14	1.3%	51.1%
28	1202	4	0.4%	6.1%	89	1292	13	1.3%	52.3%
29	1204	3	0.3%	6.3%	90	1294	15	1.4%	53.8%
30	1206	4	0.4%	6.7%	91	1295	8	0.8%	54.5%
31	1208	5	0.5%	7.2%	92	1297	12	1.2%	55.7%
32	1210	4	0.4%	7.6%	93	1299	12	1.2%	56.8%
33	1212	6	0.6%	8.2%	94	1301	19	1.8%	58.7%
34	1214	5	0.5%	8.7%	95	1303	17	1.6%	60.3%
35	1216	9	0.9%	9.5%	96	1305	20	1.9%	62.2%
36	1218	5	0.5%	10.0%	97	1307	17	1.6%	63.8%
37	1219	4	0.4%	10.4%	98	1309	15	1.4%	65.3%
38	1221	0	0.0%	10.4%	99	1312	13	1.3%	66.5%
39	1223	4	0.4%	10.8%	100	1314	13	1.3%	67.8%
40	1224	6	0.6%	11.3%	101	1317	29	2.8%	70.6%
41	1226	6	0.6%	11.9%	102	1319	23	2.2%	72.8%
42	1227	4	0.4%	12.3%	103	1322	20	1.9%	74.7%
43	1229	6	0.6%	12.9%	104	1325	16	1.5%	76.3%
44	1230	5	0.5%	13.4%	105	1329	15	1.4%	77.7%
45	1232	2	0.2%	13.6%	106	1332	16	1.5%	79.2%
46	1233	9	0.9%	14.4%	107	1336	15	1.4%	80.7%
47	1235	1	0.1%	14.5%	108	1340	21	2.0%	82.7%
48	1236	7	0.7%	15.2%	109	1344	21	2.0%	84.7%
49	1237	4	0.4%	15.6%	110	1349	17	1.6%	86.3%
50	1239	7	0.7%	16.3%	111	1355	13	1.3%	87.6%
51	1240	9	0.9%	17.1%	112	1361	19	1.8%	89.4%
52	1241	6	0.6%	17.7%	113	1368	14	1.3%	90.8%
53	1243	7	0.7%	18.4%	114	1377	14	1.3%	92.1%
54	1244	5	0.5%	18.8%	115	1388	23	2.2%	94.3%
55	1245	9	0.9%	19.7%	116	1402	15	1.4%	95.8%
56	1247	6	0.6%	20.3%	117	1422	12	1.2%	96.9%
57	1248	11	1.1%	21.3%	118	1453	12	1.2%	98.1%
58	1249	10	1.0%	22.3%	119	1500	12	1.2%	99.2%
59	1250	9	0.9%	23.2%	120	1500	8	0.8%	100.0%
60	1252	8	0.8%	23.9%					

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; FREQ = frequency, CUML % = Cumulative percentage of students.

Table 8.1.1.20
2014 AIMS A Frequency Distribution Science Grade 8

Raw Score	Scale Score	FREQ	%	CUML %	Raw Score	Scale Score	FREQ	%	CUML %
0	1000	2	0.2%	0.2%	61	1258	11	1.1%	26.3%
1	1000	0	0.0%	0.2%	62	1259	9	0.9%	27.2%
2	1019	0	0.0%	0.2%	63	1260	10	1.0%	28.1%
3	1053	2	0.2%	0.4%	64	1262	8	0.8%	28.9%
4	1077	1	0.1%	0.5%	65	1263	13	1.3%	30.2%
5	1096	1	0.1%	0.6%	66	1264	9	0.9%	31.1%
6	1111	1	0.1%	0.7%	67	1265	12	1.2%	32.3%
7	1123	0	0.0%	0.7%	68	1266	5	0.5%	32.8%
8	1133	3	0.3%	1.0%	69	1267	6	0.6%	33.4%
9	1142	0	0.0%	1.0%	70	1268	12	1.2%	34.6%
10	1150	0	0.0%	1.0%	71	1269	9	0.9%	35.5%
11	1157	0	0.0%	1.0%	72	1270	13	1.3%	36.8%
12	1163	1	0.1%	1.1%	73	1271	7	0.7%	37.5%
13	1168	3	0.3%	1.4%	74	1272	11	1.1%	38.6%
14	1173	2	0.2%	1.6%	75	1274	10	1.0%	39.5%
15	1178	2	0.2%	1.8%	76	1275	10	1.0%	40.5%
16	1182	4	0.4%	2.2%	77	1276	8	0.8%	41.3%
17	1186	0	0.0%	2.2%	78	1277	13	1.3%	42.6%
18	1189	0	0.0%	2.2%	79	1278	7	0.7%	43.3%
19	1192	3	0.3%	2.5%	80	1279	16	1.6%	44.9%
20	1195	4	0.4%	2.9%	81	1280	8	0.8%	45.7%
21	1198	2	0.2%	3.1%	82	1282	6	0.6%	46.3%
22	1201	1	0.1%	3.2%	83	1283	6	0.6%	46.9%
23	1204	2	0.2%	3.4%	84	1284	13	1.3%	48.2%
24	1206	1	0.1%	3.5%	85	1285	8	0.8%	49.0%
25	1208	1	0.1%	3.6%	86	1287	13	1.3%	50.2%
26	1210	1	0.1%	3.7%	87	1288	11	1.1%	51.3%
27	1212	6	0.6%	4.3%	88	1289	7	0.7%	52.0%
28	1214	3	0.3%	4.6%	89	1291	13	1.3%	53.3%
29	1216	3	0.3%	4.9%	90	1292	17	1.7%	55.0%
30	1218	4	0.4%	5.3%	91	1294	14	1.4%	56.4%
31	1220	3	0.3%	5.6%	92	1295	12	1.2%	57.6%
32	1222	8	0.8%	6.3%	93	1297	17	1.7%	59.3%
33	1223	6	0.6%	6.9%	94	1298	15	1.5%	60.8%
34	1225	3	0.3%	7.2%	95	1300	13	1.3%	62.0%
35	1226	2	0.2%	7.4%	96	1302	15	1.5%	63.5%
36	1228	3	0.3%	7.7%	97	1304	15	1.5%	65.0%
37	1229	8	0.8%	8.5%	98	1305	15	1.5%	66.5%
38	1231	3	0.3%	8.8%	99	1307	17	1.7%	68.2%
39	1232	10	1.0%	9.8%	100	1309	23	2.3%	70.5%
40	1234	6	0.6%	10.4%	101	1312	17	1.7%	72.2%
41	1235	7	0.7%	11.1%	102	1314	15	1.5%	73.6%
42	1236	0	0.0%	11.1%	103	1316	17	1.7%	75.3%
43	1238	4	0.4%	11.5%	104	1319	21	2.1%	77.4%
44	1239	7	0.7%	12.2%	105	1322	15	1.5%	78.9%
45	1240	1	0.1%	12.3%	106	1325	18	1.8%	80.7%
46	1241	4	0.4%	12.7%	107	1328	15	1.5%	82.2%
47	1243	6	0.6%	13.3%	108	1332	20	2.0%	84.1%
48	1244	5	0.5%	13.8%	109	1336	23	2.3%	86.4%
49	1245	5	0.5%	14.3%	110	1340	21	2.1%	88.5%
50	1246	12	1.2%	15.5%	111	1345	18	1.8%	90.3%
51	1247	8	0.8%	16.3%	112	1351	26	2.6%	92.9%
52	1248	7	0.7%	16.9%	113	1358	17	1.7%	94.5%
53	1250	7	0.7%	17.6%	114	1366	14	1.4%	95.9%
54	1251	9	0.9%	18.5%	115	1376	8	0.8%	96.7%
55	1252	12	1.2%	19.7%	116	1389	10	1.0%	97.7%
56	1253	7	0.7%	20.4%	117	1407	8	0.8%	98.5%
57	1254	10	1.0%	21.4%	118	1434	6	0.6%	99.1%
58	1255	12	1.2%	22.6%	119	1484	7	0.7%	99.8%
59	1256	12	1.2%	23.8%	120	1500	2	0.2%	100.0%
60	1257	14	1.4%	25.2%					

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; FREQ = frequency, CUML % = Cumulative percentage of students.

Table 8.1.1.21
2014 AIMS A Frequency Distribution Science High School

Raw Score	Scale Score	FREQ	%	CUML %	Raw Score	Scale Score	FREQ	%	CUML %
0	1000	5	0.6%	0.6%	61	1250	8	0.9%	24.4%
1	1002	1	0.1%	0.7%	62	1251	6	0.7%	25.1%
2	1054	1	0.1%	0.8%	63	1252	11	1.2%	26.3%
3	1083	1	0.1%	0.9%	64	1253	7	0.8%	27.1%
4	1104	2	0.2%	1.1%	65	1253	8	0.9%	28.0%
5	1119	0	0.0%	1.1%	66	1254	7	0.8%	28.8%
6	1131	0	0.0%	1.1%	67	1255	3	0.3%	29.1%
7	1141	0	0.0%	1.1%	68	1256	11	1.2%	30.4%
8	1149	4	0.5%	1.6%	69	1257	8	0.9%	31.3%
9	1156	0	0.0%	1.6%	70	1258	4	0.5%	31.7%
10	1162	1	0.1%	1.7%	71	1259	6	0.7%	32.4%
11	1167	1	0.1%	1.8%	72	1260	9	1.0%	33.4%
12	1172	5	0.6%	2.4%	73	1261	6	0.7%	34.1%
13	1176	0	0.0%	2.4%	74	1262	8	0.9%	35.0%
14	1180	0	0.0%	2.4%	75	1263	4	0.5%	35.4%
15	1183	1	0.1%	2.5%	76	1264	7	0.8%	36.2%
16	1186	3	0.3%	2.8%	77	1265	7	0.8%	37.0%
17	1189	2	0.2%	3.0%	78	1266	10	1.1%	38.1%
18	1192	0	0.0%	3.0%	79	1267	10	1.1%	39.3%
19	1194	1	0.1%	3.2%	80	1268	6	0.7%	40.0%
20	1197	3	0.3%	3.5%	81	1269	7	0.8%	40.7%
21	1199	0	0.0%	3.5%	82	1271	9	1.0%	41.8%
22	1201	0	0.0%	3.5%	83	1272	5	0.6%	42.3%
23	1203	1	0.1%	3.6%	84	1273	10	1.1%	43.5%
24	1205	5	0.6%	4.2%	85	1274	7	0.8%	44.2%
25	1207	3	0.3%	4.5%	86	1275	10	1.1%	45.4%
26	1209	3	0.3%	4.9%	87	1276	13	1.5%	46.8%
27	1210	4	0.5%	5.3%	88	1277	7	0.8%	47.6%
28	1212	3	0.3%	5.6%	89	1279	10	1.1%	48.8%
29	1213	1	0.1%	5.8%	90	1280	18	2.0%	50.8%
30	1215	1	0.1%	5.9%	91	1281	21	2.4%	53.2%
31	1216	2	0.2%	6.1%	92	1283	13	1.5%	54.6%
32	1218	2	0.2%	6.3%	93	1284	11	1.2%	55.9%
33	1219	2	0.2%	6.5%	94	1285	15	1.7%	57.6%
34	1221	4	0.5%	7.0%	95	1287	12	1.4%	58.9%
35	1222	3	0.3%	7.3%	96	1288	21	2.4%	61.3%
36	1223	5	0.6%	7.9%	97	1290	20	2.3%	63.5%
37	1224	2	0.2%	8.1%	98	1291	22	2.5%	66.0%
38	1226	5	0.6%	8.7%	99	1293	21	2.4%	68.4%
39	1227	4	0.5%	9.1%	100	1295	20	2.3%	70.7%
40	1228	6	0.7%	9.8%	101	1297	13	1.5%	72.1%
41	1229	2	0.2%	10.0%	102	1298	16	1.8%	73.9%
42	1230	8	0.9%	10.9%	103	1301	15	1.7%	75.6%
43	1231	5	0.6%	11.5%	104	1303	28	3.2%	78.8%
44	1233	8	0.9%	12.4%	105	1305	19	2.1%	80.9%
45	1234	1	0.1%	12.5%	106	1307	16	1.8%	82.7%
46	1235	7	0.8%	13.3%	107	1310	14	1.6%	84.3%
47	1236	5	0.6%	13.9%	108	1313	18	2.0%	86.3%
48	1237	1	0.1%	14.0%	109	1316	21	2.4%	88.7%
49	1238	2	0.2%	14.2%	110	1320	19	2.1%	90.9%
50	1239	5	0.6%	14.8%	111	1324	11	1.2%	92.1%
51	1240	4	0.5%	15.2%	112	1328	14	1.6%	93.7%
52	1241	10	1.1%	16.4%	113	1334	12	1.4%	95.0%
53	1242	4	0.5%	16.8%	114	1340	10	1.1%	96.2%
54	1243	8	0.9%	17.7%	115	1348	5	0.6%	96.7%
55	1244	8	0.9%	18.6%	116	1359	9	1.0%	97.7%
56	1245	11	1.2%	19.9%	117	1373	5	0.6%	98.3%
57	1246	9	1.0%	20.9%	118	1396	4	0.5%	98.8%
58	1247	4	0.5%	21.3%	119	1440	5	0.6%	99.3%
59	1248	5	0.6%	21.9%	120	1500	6	0.7%	100.0%
60	1249	14	1.6%	23.5%					

Note: Blue = Exceeds, Green = Meets, Yellow = Approaches, and Orange = Falls Far Below the Standard; FREQ = frequency, CUML % = Cumulative percentage of students.

Part 9: Reliability and Validity Evidence

Part 9 of the Technical Report provides evidence supporting the reliability and validity of the 2014 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 2014 AIMS A assessments was estimated by internal consistency for each section (Multiple-Choice and Performance Tasks) for each test.

9.1.1 Measures of Internal Consistency

Cronbach's alpha is a frequently used to 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 2014 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
2014 AIMS A Internal Consistency

	Mathematics			Reading			Science		
		Alpha			**Alpha**			**Alpha**	
Grade	**N**	**MC**	**PT**	**N**	**MC**	**PT**	**N**	**MC**	**PT**
3	1,016	0.77	0.94	1,016	0.76	0.94			
4	1,051	0.83	0.94	1,051	0.78	0.95	1,051	0.86	0.95
5	1,019	0.75	0.94	1,019	0.84	0.96			
6	961	0.78	0.94	961	0.84	0.96			
7	966	0.79	0.95	966	0.85	0.96			
8	1,029	0.75	0.94	1,029	0.86	0.96	1,029	0.85	0.96
HS	1,034	0.74	0.94	1,034	0.88	0.97	918	0.86	0.97

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 specific purposes or uses. Test score validation is not a quantifiable property but an ongoing process, beginning at initial conceptualization of the assessment and continuing throughout the entire assessment process.

The 2014 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 8 (Test Results), 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. The 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. These two parts provide a general discussion of test form creation and editing process, the process of selecting operational test items, the content distribution, and the 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 the academic performance of students with significant cognitive disabilities in Arizona.

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 2014 AIMS A assessments. The results presented in this section indicate that, from the classical perspective, the items used to calculate student scores generally function appropriately for the population the tests were designed to assess.

Part 7 of the Technical Report describes the calibration and equating methods, as well as processes and procedures for deriving scale scores from students' raw scores and the data cleaning steps which ensure

valid calibration and scaling. Some references to introductory and advanced discussions of IRT are provided.

Part 8 of the Technical Report describes information about the results of the 2014 spring administration of the AIMS A assessments. Importantly, this also describes the results for the many subgroups (e.g., ethnicity/race, primary disability classification, and social economic status, Free/Reduced Lunch). The analyses of these subgroup comparisons, provides evidence that generally, the test is not advantaging or disadvantaging any specific subgroup.

Part 9 of the Technical Report (above) describes Cronbach's alpha as a measure for internal consistency for Reading, Mathematics, and Science. These results indicate that the AIMS A assessments produce student scores that are highly reliable.

Part 9 of the Technical Report (below) describes the correlations between student scores on the 2014 AIMS A Reading, Mathematics, and Science tests. The results of this analyses, with correlations all over .80, are consistent with the expectations given the constructs measured.

Part 10 of the Technical Report describes the cut score classifications as determined by the standard setting and the standard error of measurement at those cuts on the 2014 AIMS A assessments.

Additional evidence to support the validity of the 2014 AIMS A assessments is provided by previous AIMS A technical reports available at www.azed.gov.

9.2.1   Correlations among AIMS A Assessments

Correlations were examined between scale scores on 2014 AIMS A Mathematics, Reading, and Science 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 the number of non-responsive students.

The correlations are presented by grade in Tables 9.2.1.1 through 9.2.1.7. The patterns of correlation presented in the tables are all over .80 and are consistent with expectations given the constructs measured.

Table 9.2.1.1
2014 AIMS A Correlation between Assessments
Grade 3

Test	Math	Reading
Math	1	.862
Reading	.819	1

N=934

Table 9.2.1.2
2014 AIMS A Correlation among Assessments
Grade 4

Test	Math	Reading	Science
Math	1	.840	.848
Reading	.840	1	.888
Science	.848	.888	1.

N=992

Table 9.2.1.3
2014 AIMS A Correlation between Assessments
Grade 5

Test	Math	Reading
Math	1	.871
Reading	.871	1

N=958

Table 9.2.1.4
2014 AIMS A Correlation between Assessments
Grade 6

Test	Math	Reading
Math	1	.855
Reading	.855	1

N=938

Table 9.2.1.5
2014 AIMS A Correlation between Assessments
Grade 7

Test	Math	Reading
Math	1	.807
Reading	.807	1

N=1023

Table 9.2.1.6
2014 AIMS A Correlation among Assessments
Grade 8

Test	Math	Reading	Science
Math	1	.846	.860
Reading	.846	1	.897
Science	.860	.897	1

N=976

Table 9.2.1.7
2014 AIMS A Correlation among Assessments
High School

Test	Math	Reading	Science
Math	1	.825	.833
Reading	.825	1	.894
Science	.833	.894	1

N=859

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 2014 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
AIMS A Scale Score Ranges by Performance Level Set in 2009

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	1199-1248	1249-1328	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
	HS	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.

10.2 Standard Error of Measurement at Cut Scores

The standard error of measurement (SEM) at each of the score cuts is presented in Table 10.2.1. These SEM values, which are based on both the error at each theta scale and the scale score's transformation constant (M1, described in Section 7.4), are lowest at the most critical cut (Meets the Standards) which determines proficiency on each assessment. The increase in error at the other two cuts is as expected within the Item Response Theory framework.

Table 10.2.1
2014 AIMS A Standard Error of Measurement at Cut Scores

Test		AS Cut Score	AS SEM	MS Cut Score	MS SEM	ES Cut Score	ES SEM
Mathematics							
	3	1222	11	1250	8	1295	10
	4	1222	11	1250	9	1302	12
	5	1223	11	1250	9	1303	12
	6	1187	20	1250	14	1314	16
	7	1182	23	1250	13	1316	14
	8	1201	18	1250	13	1301	12
	HS	1199	19	1250	14	1331	16
Reading							
	3	1211	13	1250	11	1302	14
	4	1187	18	1250	12	1332	19
	5	1163	22	1250	15	1331	23
	6	1165	22	1250	16	1337	23
	7	1182	19	1250	15	1340	22
	8	1196	15	1250	12	1331	19
	HS	1187	17	1250	11	1345	20
Science							
	4	1188	17	1250	11	1331	19
	8	1197	15	1250	10	1315	14
	HS	1197	13	1250	9	1309	15

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

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APPENDIX A:
AIMS A Eligibility Criteria

Arizona Department of Education
Alternate Assessment Eligibility Determination
08/01/2012

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 a disability. 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 an intellectual disability (ID) across *all* areas: commensurate abilities in mathematics, reading, *and* writing, adaptive behavior scores, and measures of intellectual abilities.

Check disability category:

☐ MIID   ☐ MOID   ☐ SID
☐ MD with ID component   ☐ MDSSI with ID component   ☐ TBI with ID component
☐ Autism with ID 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.

Arizona Department of Education   March 2010

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:
    o Content area of expertise
    o Grade level experience
    o Specific skill or knowledge expertise for committee function
    o Prior experience on ADE committees—a minimum 50% of each committee will have prior experience
    o Location of district/school
        ▪ Rural/urban/suburban
        ▪ Approximately 50% of committee members from Maricopa County when appropriate for purpose of committee
    o Ethnicity of school population or committee member
    o SES of school population
    o 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 – *All distracters are infinitive format***
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. *(This distracter does not use infinitive format and is not parallel)*	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 – *Each distracter is different.*
	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? *(If students get this correct they will get the second correct because this question provides the answer for the second.)* 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? *(Using "not" should be avoided because kids tend to read over it, but sometimes it can't be avoided.)* a. The first pig's b. The second pig's c. The third pig's

7. Distracters should all be similar in length.

Do's and Don'ts of Item Writing	
Don't Do	**Do – *Stepping format***
Why did the wolf go to grandma's house? a. He was hungry and wanted some food. b. He liked Red. c. He wanted cookies	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 – *Another Format.*
	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 for lunch.

8. Distracters should all be plausible. NO THROW AWAYS!

Don't Do -
Why did the wolf go to grandma's house? a. To eat Little Red Riding Hood. b. To get the basket of goodies. *(This could be an answer based on a misreading.)* c. He liked to wear women's clothes. *(Even with a misreading this is not plausible and can not be supported with the text.)*

9. Identify your answer!

AIMS A ITEM WRITING JULY 10-12

Audra Ahumada

Alternate
Assessment Director

Arizona
Department of
Education

Item Writing Overview

- Who are our students?

- What have we learned about our assessment?

- Where are we headed?

- Development of Items

Who are our Students?

□ Data collected through the Learner Characteristic Inventory From 2012

□ Used to inform the National Center and State Collaborative (NCSC)

□ Any surprises?

Learner Characteristic Inventory

□ 6,678 inventories completed. (All data collected is teacher reported)

Student's grade

The distribution of students who participate in the AA-AAS in Western State D across IEP grade levels is relatively uniform (see Exhibit 1). Western State D did not require students in grades 9, 11, or 12 to participate in the assessment; students reported from these grades may represent respondent error.

Exhibit 1. IEP Grade Level

IEP Grade Level	n	%
Grade 3	911	13.6
Grade 4	938	14.1
Grade 5	924	13.8
Grade 6	956	14.3
Grade 7	915	13.7
Grade 8	836	12.5
Grade 9	13	0.2
Grade 10	929	13.9
Grade 11	115	1.7
Grade 12	141	2.1
Not specified	0	0.0
Total	6,678	99.9

Note. Due to rounding, numbers may exceed or be less than 100%.

5

AIMS A by Disability Category

IDEA Disability Category	n	%
Intellectual disability/mental retardation (includes mild, moderate, and profound)	3,753	56.2
Multiple disabilities	833	12.5
Autism	1,485	22.2
Speech or language impairment	19	0.3
Hearing impairment	33	0.5
Visual impairment	17	0.3
Traumatic brain injury	33	0.5
Emotional disability	73	1.1
Deaf/Blind	6	0.1
Other health impairment	159	2.4
Orthopedic	53	0.8
Other	214	3.2
Not specified	0	0.0
Total	6,678	100.1

Note. Due to rounding, numbers may exceed or be less than 100%.

Classroom Setting

Primary Classroom Setting	n	%
Special school	544	8.2
Self-contained special education classroom	4,818	72.2
Primarily self-contained special education classroom	712	10.7
Resource room/general education class	319	4.8
General education class inclusive/collaborative	285	4.3
Not specified	0	0.0
Total	6,678	100.2

Note. Due to rounding, numbers may exceed or be less than 100%.

Communication

Expressive communication profile

Teachers selected from among the following options for each student's expressive communication characteristics:

- Symbolic—Uses symbolic language to communicate: Student uses verbal or written words, signs, Braille, or language-based augmentative systems to request, initiate, and respond to questions, describe things or events, and express refusal;

- Emerging symbolic—Uses intentional communication, but not at a symbolic language level: Student uses understandable communication through such modes as gestures, pictures, objects/textures, points, etc., to clearly express a variety of intentions; or

- Pre-symbolic—Student communicates primarily through cries, facial expressions, change in muscle tone, etc., but no clear use of objects/textures, regularized gestures, pictures, signs, etc., to communicate.

Expressive Communication

- Symbolic Language 69.9%
- Emerging Symbolic Language 19.5%
- Pre-symbolic 10.7%

Receptive Communication

- Independently follow 1-2 step directions 50.7%
- Require additional cues to follow 1-2 step directions 37.4%
- Alerts to sensory input but requires physical assistance to follow simple directions 8.7%
- Uncertain response to sensory stimuli 3.3%

Reading

- Read basic sight words 38.5%
- Read fluently with basic understanding 21%
- Read with critical understanding 4.5%
- Aware of text/Braille, follows directionality 19.7%
- No observable awareness of print or Braille 16.3%

Math

- Computational procedures with/without calculator 43.5%
- Count with 1:1 correspondence 26%
- No observational awareness of numbers 15.3%
- Applies computational procedures to solve real-life problems 5.7%
- Counts rote to five 9.6%

What have we learned about our assessment?

- ☐ Longitudinal Examination of Alternate Assessment Progressions (LEAAP)

- ☐ Examined content and performance expectation within a grade and across grade levels

Depth of Knowledge ELA

Depth of Knowledge Math

Where are we headed

- □ Transitioning to Common Core

- □ Filling in gaps in progressions

- □ Develop items for identified standards

- □ Focus will be Science, Reading and then Math

- □ 5 multiple choice and 5 performance tasks

Can we hit the target?

- □ Vocabulary

- □ Rigor

- □ Real-life application

- □ Practical progressions

Reading

DEPTHS OF KNOWLEDGE
Reading

Level 1: Recognizing and Recalling

Level 1 tasks require students to recognize or recall basic facts, terms, or definitions of grade-level words and text.

Level 2: Using Fundamental Concepts and Procedures

Level 2 tasks require students to use basic facts, definitions, graphics, skills, or concepts that are grade appropriate when reading or communicating.

Level 3: Concluding and Explaining

Level 3 tasks require students to use stated and implied information and text elements to draw conclusions about a grade-level text. Students explain and convey ideas effectively.

Level 4: Evaluating, Extending, and Making Connections

Level 4 tasks require students to evaluate, interpret, or create grade-level text. Students make connections among texts, experiences, and issues.

Math

Depths of Knowledge: Mathematics

Level 1:   Recognizing and Recalling

Level 1 tasks require the student to recognize and recall basic facts, terms, concepts, and definitions of the content and processes of mathematics.

Level 2:   Using Fundamental Concepts and Procedures

Level 2 tasks require the student to apply basic facts, terms, concepts and definitions of the content and processes of mathematics.

Level 3:   Concluding and Explaining

Level 3 tasks require the student to demonstrate an understanding of complex ideas, to draw conclusions based on this understanding, and to communicate ideas and conclusions effectively.

Level 4:   Evaluating, Extending, and Making Connections

Level 4 tasks require the student to synthesize skills and techniques from various concepts of mathematics to solve multifaceted problems, and to justify conclusions using mathematical definitions, properties, and principles.

Level 5:   Integrative Thinking & Performance

Level 5 tasks require the student to demonstrate the ability to integrate the knowledge, processes, and skills of mathematics in abstract or real-world problem situations.

Science

Depth of Knowledge (DOK) Levels for Science

Level 1: Recognizing and Recalling

Level 1 tasks require the student to recognize or recall memorized knowledge, such as facts, terms, concepts, and definitions, or to complete highly routine procedures or processes.

Level 2: Using Fundamental Concepts and Processes

Level 2 tasks require the student to describe or apply concepts and processes related to Science.

Level 3: Concluding and Explaining

Level 3 tasks require the student to demonstrate an understanding of complex ideas, to draw conclusions based on this understanding, and to communicate ideas and conclusions effectively.

Level 4: Evaluating, Extending, and Making Connections

Level 4 tasks require the student to synthesize skills and techniques from various concepts of Science to solve multifaceted problems, to justify conclusions, and to support scientific arguments using scientific definitions, properties, and principles.

Item Criteria Do's and Don'ts

- Cue words should be bolded – main, mainly, most, best, not, before, right after, last, at least, etc.
- No italics – titles of books, etc., should be underlined.
- Tested vocabulary should be underlined in the passage and in the questions (should appear in the same font, size, etc., in the questions as in the passage).
- Questions and answer choices should be stated clearly and concisely.
- Information in the stem should not clue answers to the question or other questions.
- Items should clearly assess the standard and performance objective.
- Closed and open stems can be used.
- Use periods at the end of answer choices for open-stem items if they complete the sentence.
- Numerical answer choices should be in ascending or descending order, when possible.
- Multiple-choice fill-in-the-blank items may be used when applicable, however use should be minimal.
- Stems must really ask a question or pose a problem.
- Avoid using "never" and "always" in answer choices.
- Options should fit grammatically, logically, and semantically with the stem. There should be no "throw-away" options.
- Options should be parallel in structure, when possible. If not, option pairs should be parallel or stair stepped.
- There must be one, and only one, correct answer in multiple choice items.
- Do not use "what or why do you think" stems in multiple choice items.

Committee Feedback

- ☐ Scoring Rubric
- ☐ Demonstration Videos
- ☐ Scripted Lesson Plans
- ☐ Performance Task Materials - packaging

APPENDIX D:
2014 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 to April 1, 2014. The onsite testing monitors evaluated the environment in which the student was being assessed, as well as the administration of the performance tasks of the assessment. In addition to the AIMS A external consultants observing the administration of the alternate assessment, the external consultants participated in an inter-rater reliability study that more closely examined the performance task scoring rubric as a valid measurement tool for the AIMS A. Data was collected through a random sample of observations. The consultants were trained and reviewed training videos on how to use the performance task scoring rubric. The consultant's rating was then compared to the test administrator's rating. The overall inter-rater reliability percentage was 85.5%.

The external consultants 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 2014. The sampling was done based on special education need, ethnicity, gender, and region. A total of 60 students were selected.

Based on the committee's input, the following were instituted for AIMS A's 2014 administration.
- Each district is required to designate an alternate assessment test coordinator that will participate in the mandatory online training and is responsible to train all staff in their district on the proper administration and scoring of the performance tasks. Including training to address clarification of prompting, modeling, and cueing, based on recommendations from the Alternate Assessment External Consultants. Video demonstrations of the use of the performance tasks scoring rubric can be accessed on the Arizona Department of Education AIMS A web page at AIMS A Science under the Videos and Webinars tab.
- The Performance Task will be clarified to include those definitions on prompting, modeling, and cueing provided by the National Alternate Assessment Center.

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** (Indentify 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