

# ADAM Sub-test and Section Titles and Descriptions

This document provides an additional description of what math tasks are assessed by each section of *ADAM*. These sections are organized from easiest to hardest within each sub-tests.

**ADAM is organized as follows:**  
Strands, Sub-tests, Sections (Constructs)

Specific sub-test of ADAM (44 in total)

This is the scope and sequence of skills within each sub-test. Each skill is tested with a set of test questions to improve accuracy.

The highest set at which the student masters determines his or her GLS score

Sub-test ID	Section Title (Constructs)	Raw Score	Grade Level Score	Descriptions
<b>Numbers</b>				
NUM-01	Rounding (10s, 100s, 1,000s)	10	4.9	Students will correctly round to the nearest 10s, 100s, and 1000s.
NUM-01	Rounding	9	3.9	Students will correctly round.
NUM-01	Comma & Place Holder	8	3.5	Students will identify the correct use of the comma in four-digit and larger numbers.
NUM-01	Counting (By Hundreds and Thousands)	7	2.9	Students will count by 100s and 1000s.
NUM-01	Text and Numerals	6	2.6	Students will identify the correct word to correspond with a numeral.
NUM-01	Counting (By 1s 2s 3s 5s and 10s)	5	2.3	Students will count by 1s, 2s, 3s, 5s, and 10s.
NUM-01	Numerals (2 digits)	4	1.9	Students will identify the appropriate two-digit missing number on the number line.
NUM-01	Cardinal & Ordinal Numbers	3	1.5	Students will identify the corresponding cardinal number.
NUM-01	Counting Backwards	2	0.9	Students will identify the number that comes before a given number.
NUM-01	Numerals	1	0.5	Given manipulatives, students will identify a number of objects.

Hardest skill

Easiest skill

Sub-test ID	Sub-test	Section Title	Raw Score	Grade Level Score	Descriptions for instructional placement
	<b>Numbers</b>				
NUM-01		Rounding (10s, 100s, 1,000s)	10	4.9	Students will correctly round to the nearest 10s, 100s, and 1000s.
NUM-01		Rounding	9	3.9	Students will correctly round.
NUM-01		Comma & Place Holder	8	3.5	Students will identify the correct use of the comma in four-digit and larger numbers.
NUM-01		Counting (By Hundreds and Thousands)	7	2.9	Students will count by 100s and 1000s.
NUM-01		Text and Numerals	6	2.6	Students will identify the correct word to correspond with a numeral.
NUM-01		Counting (By 1s 2s 3s 5s and 10s)	5	2.3	Students will count by 1s, 2s, 3s, 5s, and 10s.
NUM-01		Numerals (2 digits)	4	1.9	Students will identify the appropriate two-digit missing number on the number line.
NUM-01		Cardinal & Ordinal Numbers	3	1.5	Students will identify the corresponding cardinal number.
NUM-01		Counting Backwards	2	0.9	Students will identify the number that comes before a given number.
NUM-01		Numerals	1	0.5	Given manipulatives, students will identify a number of objects.
	<b>Place Value</b>				
NUM-02		Place Value (Decimals)	6	5.9	Students will identify the place value of decimals.
NUM-02		Place Value (Thousand, Ten Thousand, Hundred Thousand, Millions)	5	4.9	Students will identify thousands, ten-thousands, hundred-thousands, and millions.
NUM-02		Place Value (Expanded Form)	4	3.9	Students will identify the expanded form of a given number.
NUM-02		Place Value (Thousand, Ten Thousand and Hundred Thousand)	3	3.5	Students will identify thousands, ten-thousands, and hundred-thousands.
NUM-02		Place Value (Ones, Ten, Hundreds)	2	2.9	Students will identify place value in three-digit numbers.
NUM-02		Place Value (Ones and Tens)	1	1.9	Students will identify place value in two-digit numbers.
	<b>Comparing and Ordering</b>				
NUM-03		Decimals (Comparing & Ordering)	6	4.9	Students will compare and order decimals.
NUM-03		Comparing & Ordering	5	4.5	Students will compare and order multi-digit numbers.
NUM-03		Money (Equivalent and Non-equivalent Numbers Using Money)	4	3.9	Students will compare money amounts.
NUM-03		Comparing Using Symbols (3 digits)	3	2.9	Students will compare three-digit numbers using appropriate symbols.
NUM-03		Comparing Using Symbols (2 digits)	2	1.9	Students will compare two-digit numbers using appropriate symbols.
NUM-03		Comparing (0-10)	1	0.9	Students will compare single-digit numbers.
	<b>Addition of Whole Numbers</b>				
NUM-04		Addition (Multiple Digits)	7	4.9	Students will add three- and four-digit numbers with regrouping.
NUM-04		Addition (Regrouping)	6	4.5	Students will add multi-digit numbers with regrouping.
NUM-04		Multi-digit Addition (Non-regrouping)	5	2.9	Students will add multi-digit numbers without regrouping.
NUM-04		Addition (2 digit + 1 digit)	4	1.9	Students will add a two-digit number and single digit.
NUM-04		Addition ( to 10)	3	1.6	Students will correctly add single digits.
NUM-04		Addition (Equivalent Forms)	2	1.3	Students will identify equivalent addition number sentences.
NUM-04		Modeling addition and subtraction with objects	1	0.9	Students will use manipulatives to model addition and subtraction.
	<b>Subtraction of Whole Numbers</b>				
NUM-05		Subtraction (Regrouping)	3	4.9	Students will subtract multi-digit numbers with regrouping.
NUM-05		Multi-digit Subtraction (Non-regrouping)	2	2.9	Students will subtract multi-digit numbers without regrouping.
NUM-05		Subtracting (from 10)	1	1.9	Students will subtract single digits.
	<b>Multiplication of Whole Numbers</b>				
NUM-06		Multiplication (Commutative, Associative, & Distributive Terminology)	9	5.9	Students correctly identify the commutative, associative, and distributive properties.
NUM-06		Multiplication (2 and 3 digit number by a 2 digit number)	8	5.5	Students will multiply two- and three-digit numbers by a two-digit number.
NUM-06		Multiplication (3 digit number by 1 digit number)	7	4.9	Students will multiply a single digit by a three-digit number.
NUM-06		Multiplication (2 digit number by 1 digit number)	6	4.6	Students will multiply a single digit by a two-digit number.
NUM-06		Multiplication (Commutative, Associative, & Distributive Application)	5	4.3	Students will use the commutative, associative, and distributive properties.
NUM-06		Multiplication (Powers of Ten)	4	3.9	Students will multiply single digits by powers of 10.
NUM-06		Multiplication Facts (Factors 2 to 10)	3	3.7	Students will multiply single digits.
NUM-06		Multiplication Facts (Factors of 0 and 1)	2	3.5	Students will multiply single digits by 0 and 1.
NUM-06		Multiplication Readiness (Grouping and Repeated Addition)	1	3.2	Students will group objects to model multiplication.
	<b>Division of Whole Numbers</b>				
NUM-07		Division (4 Digits)	5	5.9	Students will divide four-digits numbers, with no remainders.
NUM-07		Division (Whole Numbers)	4	4.9	Students will long divide, with no remainders.
NUM-07		Division Facts	3	3.9	Students will divide using a single-digit divisor, with no remainders.
NUM-07		Division (1 Digit Divisor and Remainders)	2	3.6	Students will divide using a single-digit divisor, with remainders.
NUM-07		Modeling Division (As the Inverse of Multiplication)	1	3.3	Student will use manipulatives to model division as the inverse of multiplication.
	<b>Fractions</b>				
NUM-08		Adding and Subtracting Fractions (Unlike Denominator)	26	7.9	Students will add and subtract fractions with unlike denominators.
NUM-08		Converting Fractions	25	7.5	Students will convert fractions.
NUM-08		Least Common Multiple & Greatest Common Factor	24	6.9	Students will calculate the least common multiple and greatest common factor.
NUM-08		Multiplying and Dividing Positive Fractions	23	6.5	Students will multiply and divide fractions.
NUM-08		Solving Problems Using Fractions	22	5.9	Students will solve word problems using fractions.
NUM-08		Fractions (Multiplying & Dividing Fractions)	21	5.8	Students will multiply and divide fractions.
NUM-08		Fractions (Multiplying Patterns of Fractions)	20	5.6	Students will multiply fractions.
NUM-08		Subtracting Fractions	19	5.5	Students will subtract fractions.
NUM-08		Fractions (Adding Unlike Denominators)	18	5.3	Students will add fractions with unlike denominators.
NUM-08		Fractions (Proper, Improper, and Mixed Fractions)	17	5.2	Students will identify proper fractions, improper fractions, and mixed numbers.
NUM-08		Multiplying Fractions by a Whole Number	16	4.9	Students will multiply fractions by a whole number.
NUM-08		Fractions (Adding like Denominators)	15	4.8	Students will add fractions with like denominators.
NUM-08		Fractions (Least Common Multiple)	14	4.6	Students will calculate the least common multiple.

NUM-08	Fractions (Comparing and Ordering)	13	4.5	Students will compare and order fractions.
NUM-08	Fractions (Mixed Numbers and Decimals with Place Value Tenths and Hundredths)	12	4.3	Students will express fractions as decimals.
NUM-08	Fractions (Equivalent Fractions Lowest Terms)	11	4.2	Students will express fractions in the lowest terms.
NUM-08	Fractions (Solving Problems)	10	3.9	Students will solve word problems using fractions.
NUM-08	Fractions (as Decimals and Place Value Tenths and Hundredths)	9	3.8	Students will identify the decimal equivalent of a fraction.
NUM-08	Ordering Fractions	8	3.6	Students will order fractions.
NUM-08	Comparing Fractions	7	3.5	Students will compare fractions.
NUM-08	Fractions (Equivalent Fractions)	6	3.3	Students will identify equivalent fractions.
NUM-08	Fractions (Representing Fractions)	5	3.2	Students will represent fractions.
NUM-08	Fractions (Equivalent Fractions Using Shaded Circles)	4	2.9	Students will identify equivalent fractions by looking at shaded circles
NUM-08	Fractions (as Parts of Sets)	3	2.6	Students will identify fractions, using manipulatives, as parts of a set.
NUM-08	Fractions (Representing & Comparing Fractions, like Denom or Num)	2	2.3	Students will compare fractions with the same denominator.
NUM-08	Partitioning Objects into Parts	1	1.9	Students will identify fractions, using manipulatives, as parts of a whole.
<b>Number Theory</b>				
NUM-09	Number Theory (Divisibility Rules)	7	5.9	Students will use divisibility rules.
NUM-09	Number Theory (Common Greatest Factors)	6	5.7	Students will identify greatest common factors.
NUM-09	Number Theory (Prime Factors)	5	5.5	Students will identify prime factors.
NUM-09	Number Theory (Prime/Composite Numbers)	4	5.2	Students will identify prime and composite numbers.
NUM-09	Number Theory (Multiples)	3	4.9	Students will identify multiples.
NUM-09	Number Theory (Factors)	2	4.6	Students will identify factors.
NUM-09	Number Theory (Divisibility)	1	4.3	Students will identify and use rules of divisibility.
<b>Decimal Operations</b>				
NUM-10	Terminating and Repeating Decimals	4	7.9	Students will identify terminating and repeating decimals.
NUM-10	Decimals (Division)	3	5.9	Students will divide decimals.
NUM-10	Decimals (Multiplication & Money Notation)	2	5.6	Students will multiply decimals using money notation.
NUM-10	Decimals (Adding and Subtracting)	1	5.3	Students will add and subtract decimals.
<b>Percentages</b>				
NUM-11	Discounts and Markups	8	7.9	Students will solve word problems involving discount and markup percentages.
NUM-11	Percentages (Increase and Decrease)	7	7.5	Students will calculate percentage increase and decrease.
NUM-11	Percentages (Calculate)	6	6.9	Students will calculate percentages.
NUM-11	Percentages (Estimating and Calculating)	5	5.9	Students will estimate percentages.
NUM-11	Percentages (Proportions)	4	5.7	Students will identify missing elements of proportions.
NUM-11	Percentages (Ratios)	3	5.5	Students will convert ratios and percentages.
NUM-11	Percentages (Percents & Decimals)	2	5.4	Students will convert percentages and decimals.
NUM-11	Percentages (Percents & Fractions)	1	5.2	Students will convert percentages and fractions.
<b>Ratios and Proportions</b>				
NUM-12	Using Proportions to Solve Problems	2	7.9	Students will solve word problems involving proportions.
NUM-12	Interpreting and Using Ratios	1	6.9	Students will interpret ratios.
<b>Positive and Negative Integers</b>				
NUM-13	Multiplying and Dividing Negative Numbers	6	7.9	Students will multiply and divide positive and negative numbers.
NUM-13	Adding and Subtracting Negative Numbers	5	7.5	Students will add and subtract positive and negative numbers.
NUM-13	Absolute Value	4	6.9	Students will determine absolute value.
NUM-13	Solving Problems with Integer Operations	3	6.7	Students will solve word problems involving integer operations.
NUM-13	Ordering Rational Numbers	2	6.5	Students will put rational numbers in order.
NUM-13	Positive and Negative Numbers	1	6.2	Students will identify positive and negative numbers.
<b>Exponents</b>				
NUM-14	Rational Numbers and Exponent Rules	6	7.9	Students will identify and apply rules of exponents.
NUM-14	Square Roots	5	7.8	Students will calculate square roots.
NUM-14	Pos. & Neg. Whole Number Exponents	4	7.6	Students will calculate using negative exponents.
NUM-14	Irrational Numbers	3	7.5	Students will calculate with irrational numbers.
NUM-14	Rational Integer Operations and Powers	2	7.3	Students will calculate using rational integer operations.
NUM-14	Scientific Notation	1	7.2	Students will write numbers in scientific notation.

Sub-test ID	Sub-test	Section Title (Constructs)	Raw Score	Grade Level Score	Descriptions for instructional placement
	<b>Money</b>				
ME1-01		Money (Values)	2	2.9	Students will identify the value of a group of coins.
ME1-01		Money (Recognition)	1	0.9	Given the name of the coin, students will correctly identify the corresponding picture.
	<b>Time</b>				
ME1-02		Time (Calendar Weeks)	4	3.9	Students will demonstrate understanding of days of the week.
ME1-02		Elapsed Time	3	3.5	Given two times, students will calculate the elapsed time.
ME1-02		Time (Calendar Months)	2	2.9	Students will demonstrate understanding of calendar months.
ME1-02		Time (Reading a Clock)	1	1.9	Students will correctly read a clock.
	<b>Temperature</b>				
ME1-03		Temperature (Reading Temp)	2	3.9	Students will correctly read a thermometer.
ME1-03		Temperature (Concept)	1	2.9	Students will demonstrate understanding of a thermometer.
	<b>Length</b>				
ME1-04		Converting Units (More Complex)	12	5.9	Students will convert units that require more than one step.
ME1-04		Metric (Comparing Metric Length)	11	4.9	Students will compare metric units of length.
ME1-04		Metric (Converting Units of Length)	10	4.8	Students will convert metric units of length.
ME1-04		Metric (Length)	9	4.6	Students will measure length using metric units.
ME1-04		Customary (Comparing Units of Length)	8	4.5	Students will compare customary units of length.
ME1-04		Customary (Converting Units of Length)	7	4.3	Students will convert customary units of length.
ME1-04		Customary (Length)	6	4.2	Students will measure length using customary units.
ME1-04		Length (Customary and Metric Units)	5	3.9	Students will measure length using customary and metric units.
ME1-04		Customary & Metric (Concepts of Length)	4	2.9	Students will demonstrate basic understanding of the concept of length.
ME1-04		Number Line	3	2.5	Students will identify positions on the number line.
ME1-04		Measuring Length by Object	2	1.9	Students will measure length using non-standard units (ex: desks, paperclips, etc).
ME1-04		Comparative Vocabulary	1	0.9	Students will use comparative vocabulary to identify similarities and differences between two objects.
	<b>Weight</b>				
ME1-05		Weight (Converting and Comparing Units of weight)	4	5.9	Students will compare and convert customary and metric units of weight.
ME1-05		Weight (Units of Measure)	3	4.9	Students will identify the appropriate unit for different measures of weight.
ME1-05		Weight (Customary)	2	3.9	Students will measure weight using customary units.
ME1-05		Customary and Metric (Concepts of Weight)	1	2.9	Students will demonstrate basic understanding of the concept of width.
	<b>Capacity &amp; Volume</b>				
ME1-06		Metric (Comparing Metric Capacity/Volume)	5	5.9	Students will compare and convert metric units of capacity.
ME1-06		Customary (Units of Capacity/Volume)	4	5.5	Students will compare and convert customary units of capacity.
ME1-06		Capacity (Units of Measure)	3	3.9	Students will identify the appropriate unit for different measures of capacity.
ME1-06		Metric (Capacity)	2	2.9	Students will measure capacity using metric units.
ME1-06		Customary (Capacity)	1	2.5	Students will measure capacity using customary units.
	<b>Rate</b>				
ME1-07		Solving Rate Problems	5	7.9	Students will solve rate problems using metric units.
ME1-07		Scale	4	7.6	Students will solve word problems involving pictures drawn to scale.
ME1-07		Comparing Rates	3	7.3	Students will solve more complicated word problems involving rates.
ME1-07		Solving Problems Using Rate	2	5.9	Students will solve multi-step word problems involving rate.
ME1-07		Understanding Rate	1	5.5	Students will solve simple word problems involving rate.

Sub-test ID	Sub-test	Section Title (Constructs)	Raw Score	Grade Level Score	Descriptions for instructional placement
		<b>Patterns &amp; Sorting</b>			
DAT-01		Problem Solving (Linear Patterns)	5	2.9	Students will solve word problems involving linear patterns.
DAT-01		Extending Linear Patterns	4	2.5	Students will identify the missing number in a linear number pattern.
DAT-01		Extending Patterns	3	1.9	Students will identify the next object in a pattern of either shapes or numbers.
DAT-01		Sorting by Common Attributes	2	1.5	Students will identify the common attribute of a group of items.
DAT-01		Simple Patterns	1	0.9	Students will identify the next object in a pattern involving shapes.
		<b>Data Representation</b>			
DAT-02		Problem Solving (Data Representation)	4	2.9	Students will solve word problems using data.
DAT-02		Features of Data Sets	3	2.6	Students will identify range, minimums and maximums of data sets.
DAT-02		Multiple Representations of the Same Data	2	2.3	Students will identify an alternative representation of the same data.
DAT-02		Simple Data Representation	1	1.9	Students will describe data used in tally charts and pictographs.
		<b>Simple Probability</b>			
DAT-03		Probability of Multiple Events	5	7.9	Students will calculate probabilities of multiple events.
DAT-03		Representing Probabilities	4	7.5	Students will represent probability in terms of decimals and percentages.
DAT-03		Estimating Future Events	3	6.9	Students will estimate the probability of future events, given present data.
DAT-03		Simple Probability	2	4.9	Students will identify the probability of a simple event.
DAT-03		Likelihood	1	3.9	Students will identify the likelihood of certain events.
		<b>Outcomes</b>			
DAT-04		Representing Possible Outcomes	4	6.9	Students will correctly identify possible outcomes for simple and compound events.
DAT-04		Representing Outcomes	3	4.9	Students will identify the correct tree diagram of possible results for compound events.
DAT-04		Representing Results	2	3.9	Students will read and interpret line graphs representing results.
DAT-04		Recording Outcomes	1	3.5	Students will identify possible outcomes from simple events (i.e. coin toss or die roll)
		<b>Displaying Data</b>			
DAT-05		Scatterplots	5	7.9	Students will read and interpret scatterplots.
DAT-05		Data Representation	4	7.5	Students will read and interpret a variety of graphs
DAT-05		Comparing Data (Fractions and Percents)	3	5.9	Students will identify the correct fraction representations for percent for various data.
DAT-05		Displaying Data	2	5.5	Students will identify the most appropriate type of graph for displaying various data.
DAT-05		Interpreting Graphs	1	4.9	Students will read and interpret bar graphs.
		<b>Measures of Central Tendency</b>			
DAT-06		Data Set Quartiles	7	7.9	Students will calculate quartiles for a given data set.
DAT-06		Use of Measures of Central Tendency	6	6.9	Students will solve word problems involving measures of central tendency.
DAT-06		Outliers	5	6.8	Students will identify how measures of central tendency change when an outlier is removed.
DAT-06		Changing Central Tendency	4	6.5	Students will identify changes in measures of central tendency when the data set also changes.
DAT-06		Computing Measures of Central Tendency	3	6.3	Students will compute mean, median, mode, and range from give data.
DAT-06		Mean, Median, and Mode (Computing)	2	5.9	Students will calculate mean, median, and mode from data presented in a table.
DAT-06		Mean, Median, and Mode (Conceptual)	1	4.9	Students will identify mean, median, and mode from tables and tally charts.
		<b>Ordered Pairs</b>			
DAT-07		Writing Ordered Pairs	2	5.9	Students will identify ordered pairs on a graph.
DAT-07		Identifying Ordered Pairs	1	5.5	Students will identify ordered pairs on a graph.
		<b>Samples</b>			
DAT-08		Independent and Dependent Events	4	7.9	Students will identify an event as independent or dependent.
DAT-08		Sampling Errors	3	7.8	Students will identify sources of bias.
DAT-08		Selecting Samples	2	7.5	Students will identify the appropriate samples for a given research question.
DAT-08		Samples	1	7.3	Students will solve word problems regarding selecting a sample.

Sub-test ID	Sub-test	Section Title (Constructs)	Raw Score	Grade Level Score	Descriptions for instructional placement
	<b>Location &amp; Direction</b>				
GEO-01		Location & Direction	2	0.9	Students will identify objects as on top, below, left of, or right of.
GEO-01		Location Vocabulary	1	0.5	Students will identify objects as above, below, left of, or right of.
	<b>2D Shapes</b>				
GEO-02		Solving Problems Involving Congruence	12	7.9	Students will solve word problems involving congruence.
GEO-02		Translations and Reflections	11	7.6	Students will identify correct translations and reflections of a given shape.
GEO-02		Elements of Geometric Figures	10	7.3	Students will identify attributes of polygons.
GEO-02		Symmetry	9	4.9	Students will identify lines of symmetry.
GEO-02		Identifying Congruency Figures	8	4.5	Students will identify the pair of figures that are congruent.
GEO-02		Polygons	7	3.9	Students will identify the polygon, given the name.
GEO-02		Forming Polygons	6	2.9	Students will identify 2D shapes used to form polygons.
GEO-02		Describing Shapes	5	2.5	Students will identify attributes of more complex 2D shapes.
GEO-02		Shapes (Attributes)	4	1.9	Students will identify attributes of given shapes.
GEO-02		2D Shapes (Name Given)	3	1.5	Students will identify the shape, given the name.
GEO-02		Comparing Shapes	2	0.9	Students will compare attributes of simple shapes.
GEO-02		2D Shapes (Shape Given)	1	0.5	Students will identify the names of given shapes.
	<b>3D Shapes</b>				
GEO-03		3D Geometric Elements	6	7.9	Students will identify attributes of different 3D shapes.
GEO-03		Patterns for 3D Figures	5	7.5	Students will identify the 3D figure that would be constructed given a 2D pattern.
GEO-03		Qualities of 3D Figures	4	4.9	Students will identify attributes of 3D figures.
GEO-03		Composing 3D Shapes	3	3.9	Students will identify the shape constructed by combining two shapes.
GEO-03		3D Shapes	2	3.5	Students will identify the name of a given 3D shape.
GEO-03		3D Faces	1	1.9	Students will identify the number of faces on a 3D objects.
	<b>Triangles</b>				
GEO-04		Pythagorean Theorem	5	7.9	Students will use the pythagorean theorem to solve for a missing side length of a right triangle.
GEO-04		Solving for Unknown Angles	4	6.9	Students will solve for the missing angle in a triangle.
GEO-04		Triangle (Definitions)	3	5.9	Students will identify the type of triangle, given the shape.
GEO-04		Right Angle Knowledge	2	3.9	Students will identify right angles, and the degrees in a right angle.
GEO-04		Triangles (Attributes)	1	3.5	Students will identify attributes of give triangles.
	<b>Quadrilaterals</b>				
GEO-05		Quadrilateral (Definitions)	2	5.9	Students will identify the correct definitions for given quadrilaterals.
GEO-05		Quadrilaterals (Attributes)	1	3.9	Students will identify attributes of quadrilaterals.
	<b>Area &amp; Perimeter</b>				
GEO-06		Area of Complex Figures	9	7.9	Students will calculate the area of non-standard figures.
GEO-06		Perimeter, Area, and Volume	8	7.5	Students will calculate perimeter, area, surface area, and volume.
GEO-06		Area of Triangles and Parallelograms	7	6.9	Students will calculate the area of triangles and parallelograms.
GEO-06		Units of Measure (2D & 3D Shapes)	6	5.9	Students will identify the correct unit of measurement when calculating perimeter and area.
GEO-06		Area and Perimeter (Word Problems)	5	4.9	Students will solve word problems that involve calculating area and perimeter.
GEO-06		Solving for Area vs Perimeter	4	3.9	Students will identify the formulae for area and perimeter, and use them to calculate area and perimeter.
GEO-06		Area vs Perimeter (Figures with the Same Area, Different Perimeters)	3	3.6	Students will identify pairs of different rectangles with either the same area or same perimeter.
GEO-06		Area (Square Units Shown)	2	3.3	Students will calculate area of a rectangle, with square units shown.
GEO-06		Dividing Rectangles into Squares (Precursor to Area/Perimeter)	1	2.9	Students will divide a rectangle into squares in order to calculate area.
	<b>Lines</b>				
GEO-07		Parallel and Perpendicular Lines	4	4.7	Students will identify parallel and perpendicular lines.
GEO-07		Calculating Vertical Line Segment Length	3	4.5	Students will calculate the length of a vertical line segment, given the points at which it begins and ends.
GEO-07		Calculating Horizontal Line Segment Length	2	4.4	Students will calculate the length of a horizontal line segment, given the points at which it begins and ends.
GEO-07		Recognizing Lines, Line Segments, and Rays	1	4.2	Students will identify lines, line segments, and rays
	<b>Circles</b>				
GEO-08		Calculating using Pi	3	6.9	Students will calculate circumference and area of circles.
GEO-08		Pi	2	6.5	Students will identify and use formulae for circumference and area of a circle.
GEO-08		Qualities of a Circle	1	4.9	Students will identify attributes of circles.
	<b>Angles</b>				
GEO-09		Types of Angles	3	6.9	Students will identify relationships between angles.

GEO-09	Sum of Angles	2	5.9	Students will identify missing angles in a circle.
GEO-09	Angles and Angle Measurement	1	4.9	Students will identify types of angles by their measurements.
<b>Volume &amp; Surface Area</b>				
GEO-10	Surface Area and Volume of Complex Solids	4	7.9	Students will calculate volume and surface area of complex solids.
GEO-10	Volume of Triangular Prisms and Cylinders	3	6.9	Students will calculate volume of triangular prisms and cylinders.
GEO-10	Volume	2	5.9	Students will calculate volume of quadrilaterals.
GEO-10	Surface Area	1	5.5	Students will calculate surface area of quadrilaterals.
<b>Geometric Relationships</b>				
GEO-11	Changes of Scale	3	7.9	Students will calculate changes in scale.
GEO-11	Expressing Geometric Relationship	2	6.9	Students will express relationships between 3D shapes.
GEO-11	Using Variables in Geometric Equations	1	6.5	Students will use variables to solve geometric equations.

Sub-test ID	Sub-test	Section Title (Constructs)	Raw Score	Grade Level Score	Descriptions for instructional placement
	<b>Relationships</b>				
ALG-01		Equivalent Multiplication	7	4.9	Students will identify which two multiplication expressions are equivalent.
ALG-01		Equivalent Addition	6	4.5	Students will identify which two addition expressions are equivalent.
ALG-01		Rules of Linear Patterns	5	3.9	Students will identify missing elements of linear patterns, and express the rule of a pattern.
ALG-01		Comm. & Assoc. Properties of Mult.	4	3.8	Given a complete multiplication sentence, students will apply the commutative and associative rules.
ALG-01		Symbolic Unit Conversions	3	3.5	Students will provide the number sentence for simple unit conversions.
ALG-01		Relationships of Quantities	2	3.3	Students will identify the number sentence necessary for solving word problems involving quantities.
ALG-01		Sorting by Unlike Objects	1	0.9	Students will identify the unlike object, or to identify what a group of objects have in common
	<b>Expressions &amp; Problem Solving</b>				
ALG-02		Multiplying and Dividing Monomials	18	7.9	Students will multiply or divide two monomials.
ALG-02		Positive Whole Number Powers	17	7.8	Students will apply knowledge of bases and exponents.
ALG-02		Simplifying Expressions	16	7.6	Students will simplify expressions involving variables and exponents.
ALG-02		Using Order of Operations to Evaluate Expressions	15	7.4	Students will simplify expressions using the order of operations.
ALG-02		Writing Expressions	14	7.2	Students will write expressions and equations to represent a given scenario.
ALG-02		Solving Problems Using Order of Operations	13	6.9	Students will solve problems by applying knowledge of the order of operations.
ALG-02		Applying Order of Operations	12	6.8	Students will simplify expressions, by applying the order of operations, including exponents.
ALG-02		Equivalent Expressions	11	6.5	Students will identify the expression that is equivalent to a given expression.
ALG-02		Writing Algebraic Expressions	10	6.3	Students will identify the correct expression when given the same in words.
ALG-02		Using Distributive Property	9	5.9	Students will simplify expressions or solve equations that involve using the distributive property.
ALG-02		Order of Operations (with Parentheses)	8	4.9	Students will simplify expressions that involve applying rules of the order of operations.
ALG-02		Mathematical Expressions (Using Parentheses)	7	4.5	Students will simplify expressions that involve parentheses.
ALG-02		Selecting Operations	6	3.9	Students will choose the operator that goes in the blank to make the addition or subtraction number sentence true.
ALG-02		Problem Solving Using Data (Addition and Subtraction)	5	2.9	Students are expected to solve word problems using addition and subtraction, from data presented in table format.
ALG-02		Problem Solving (Addition and Subtraction)	4	2.5	Students are expected to solve word problems using addition and subtraction.
ALG-02		Number Sentences and Problems (Addition and Subtraction)	3	1.9	Students will identify the word problem that would be solved using a given addition or subtraction expression.
ALG-02		Symbols	2	1.6	Students will identify given symbols when used in context.
ALG-02		Number Sentences (Addition and Subtraction)	1	1.3	Students will identify the correct addition or subtraction number sentence for solving a given word problem.
	<b>Equations</b>				
ALG-03		Solving Multi-Step Rate Problems	13	7.9	Students will solve multi-step problems involving rate.
ALG-03		Solving Two-Step Linear Equations	12	7.6	Students will solve two-step equations.
ALG-03		Algebraic Terminology	11	7.3	Students will identify and use algebraic vocabulary (constant, coefficient, equation, expression, etc).
ALG-03		Solving One-Step Inequalities	10	6.9	Students will solve one-step inequalities.
ALG-03		Solving One-Step Linear Equations	9	6.5	Students will solve one-step linear equations.
ALG-03		Solving Linear Functions	8	5.9	Students will solve one-step linear functions.
ALG-03		Solving by Substitution	7	5.6	Students will solve one-step equations using the substitution method.
ALG-03		Problem Solving and Data	6	5.3	Students will solve word problems using graph data.
ALG-03		Simple Equations	5	4.9	Students will solve one-step equations.
ALG-03		Formulas	4	4.6	Using manipulatives, students will understand and use the formula for area.
ALG-03		Concept of Variables	3	4.3	Students will identify missing numbers from a completed number sentence.
ALG-03		Functional Relationships (Problem Solving)	2	3.9	Students will solve one-step multiplication problems involving quantities.
ALG-03		Problem Solving (with Equations/Inequalities)	1	3.5	Students will solve word problems involving simple one step equations.
	<b>Graphing Algebraic Relationships</b>				
ALG-04		Plotting Set Ratios	5	7.9	Students will solve problems involving ratios and linear functions.
ALG-04		Slope	4	7.8	Students will demonstrate knowledge of the slope of a line.
ALG-04		Graphing Functions	3	7.5	Students will identify the correct graph of a function.
ALG-04		Graphic Representations	2	7.3	Students will identify different graphic representations of information.
ALG-04		Coordinate Plane	1	5.9	Students will demonstrate knowledge of the quadrants of the Cartesian plane.