

**Curriculum Evaluation for Assessment Anchors
Algebra I**

MODULE 1 A1.1.1 Operations with Real Numbers and Expressions					
Algebra I ANCHOR DESCRIPTOR	<u>Eligible Content</u>	<u>Content Taught & Assessed</u>	<u>Time of Year</u>	<u>Taught Not Assessed</u>	<u>Needs to be Addressed in</u>
A1.1.1.1 Represent and/or use numbers in equivalent forms (e.g., integers, fractions, decimals, percents, square roots, and exponents). <i>Enhanced Standard 2.1.A1.A</i>	A1.1.1.1.1 Compare and/or order any real numbers. Note: Rational and irrational may be mixed.				
	A1.1.1.1.2 Simplify square roots (e.g., $\sqrt{24} = 2\sqrt{6}$).				
A1.1.1.2 Apply number theory concepts to show relationships between real numbers in problem solving settings.	A1.1.1.2.1 Find the Greatest Common Factor (GCF) and/or the Least Common Multiple (LCM) for sets of monomials.				
A1.1.1.3 Use exponents, roots, and/or absolute values to solve problems	A1.1.1.3.1 Simplify/evaluate expressions involving properties/laws of exponents, roots, and/or absolute values to solve problems. Note: Exponents should be integers from -10 to 10.				
A1.1.1.4 Use estimation strategies in problem- solving situations.	A1.1.1.4.1 Use estimation to solve problems.				

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A1.1.1.5 Simplify expressions involving polynomials.	A1.1.1.5.1 Add, subtract, and/or multiply polynomial expressions (express answers in simplest form). Note: Nothing larger than a binomial multiplied by a trinomial.				
	A1.1.1.5.2 Factor algebraic expressions, including difference of squares and trinomials. Note: Trinomials are limited to the form ax^2+bx+c where a is equal to 1 after factoring out all monomial factors				
	A1.1.1.5.3 Simplify/reduce a rational algebraic expression.				

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MODULE 1—Operations and Linear Equations & Inequalities					
A1.1.2 Linear Equations					
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A1.1.2.1 Write, solve, and/or graph linear equations using various <i>methods</i>	A1.1.2.1.1 Write, solve, and/or apply a linear equation (including problem situations).				
	A1.1.2.1.2 Use and/or identify an algebraic property to justify any step in an equation-solving process. Note: Linear equations only.				
	A1.1.2.1.3 Interpret solutions to problems in the context of the problem situation. Note: Linear equations only.				
A1.1.2.2 Write, solve, and/or graph systems of linear equations using various methods.	A1.1.2.2.1 Write and/or solve a system of linear equations (including problem situations) using graphing, substitution, and/or elimination. Note: Limit systems to two linear equations.				
	A1.1.2.2.2 Interpret solutions to problems in the context of the problem situation. Note: Limit systems to two linear equations.				

Algebra 1 Keystone Exam Inventory Tool
Eligible Content may be assessed using problem-solving situations.

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MODULE 1—Operations and Linear Equations & Inequalities					
A1.1.3 Linear Inequalities					
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A1.1.3.1 Write, solve, and/or graph linear inequalities using various methods.	A1.1.3.1.1 Write or solve compound inequalities and/or graph their solution sets on a number line (may include absolute value inequalities).				
	A1.1.3.1.2 Identify or graph the solution set to a linear inequality on a number line.				
	A1.1.3.1.3 Interpret solutions to problems in the context of the problem situation. Note: Limit to linear inequalities.				
A1.1.3.2 Write, solve, and/or graph systems of linear inequalities using various methods.	A1.1.3.2.1 Write and/or solve a system of linear inequalities using graphing. Note: Limit systems to two linear inequalities.				
	A1.1.3.2.2 Interpret solutions to problems in the context of the problem situation. Note: Limit systems to two linear inequalities.				

**Curriculum Evaluation for Assessment Anchors
Algebra I**

MODULE 2—Linear Functions and Data Organizations					
A1.2.1 Functions					
Algebra I ANCHOR DESCRIPTOR	<u>Eligible Content</u>	<u>Content Taught & Assessed</u>	<u>Time of Year</u>	<u>Taught Not Assessed</u>	<u>Needs to be Addressed in</u>
A1.2.1.1 Analyze and/or use patterns or <i>relations</i> .	A1.2.1.1.1 Analyze a set of data for the existence of a pattern and represent the pattern algebraically and/or graphically.				
	A1.2.1.1.2 Determine whether a relation is a function, given a set of points or a graph.				
	A1.2.1.1.3 Identify the domain or range of a relation (may be presented as ordered pairs, a graph, or a table).				
A1.2.1.2 Interpret and/or use linear functions and their equations, graphs, or tables.	A1.2.1.2.1 Create, interpret, and/or use the equation, graph, or table of a linear function.				
	A1.2.1.2.2 Translate from one representation of a linear function to another (i.e., graph, table, and equation).				

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Algebra I**

MODULE 2—Linear Functions and Data Organizations					
A1.2.2 Coordinate Geometry					
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A1.2.2.1 Describe, compute, and/or use the rate of change (slope) of a line.	A1.2.2.1.1 Identify, describe, and/or use constant rates of change.				
	A1.2.2.1.2 Apply the concept of linear rate of change (slope) to solve problems.				
	A1.2.2.1.3 Write or identify a linear equation when given <ul style="list-style-type: none"> · the graph of the line, · two points on the line, or · the slope and a point on the line. Note: Linear equation may be in point-slope, standard, and/or slope-intercept form.				
A1.2.2.2 Analyze and/or interpret data on a scatter plot.	A1.2.2.2.1 Draw, identify, find, and/or write an equation for a line of best fit for a scatter plot.				

**Curriculum Evaluation for Assessment Anchors
Algebra I**

MODULE 2—Linear Functions and Data Organizations					
A1.2.3 Data Analysis					
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A1.2.3.1 Use measures of dispersion to describe a set of data.	A1.2.3.1.1 Calculate and/or interpret the range, quartiles, and interquartile range of data.				
A1.2.3.2 Use data displays in problem solving settings and/or to make predictions.	A1.2.3.2.1 Estimate or calculate to make predictions based on a circle, line, bar graph, measures of central tendency, or other representations.				
	A1.2.3.2.2 Analyze data, make predictions, and/or answer questions based on displayed data (box-and whisker plots, stem-and-leaf plots, scatter plots, measures of central tendency, or other representations).				
	A1.2.3.2.3 Make predictions using the equations or graphs of best-fit lines of scatter plots.				
A1.2.3.3 Apply probability to practical situations.	A1.2.3.3.1 Find probabilities for compound events (e.g., find probability of red and blue, find probability of red or blue) and represent as a fraction, decimal, or percent.				

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