I CAN Learn®
EDUCATION SYSTEMS

Algebra I Correlation to Mathematics Content Standards

	Mathematics Curriculum Framework	I CAN Learn® Lesson #	I CAN Learn® Lesson Title
NUMBER AND OPERATION			
AI.1.1.1	Demonstrate meanings for real numbers, absolute value, integer exponents, and square roots.	HA1-020	Classifying Numbers into Subsets of Real Numbers
		MPA-064	Finding Square Roots of Perfect Squares
		MPA-065	Estimating Square Roots
		HA1-015	Graphing Real Numbers Using a Number Line
		HA1-025	Comparing and Ordering Real Numbers
		HA1-030	Using Opposites and Absolute Values
		HA1-810	Simplifying Expressions Using the Multiplication Properties of Exponents
		HA1-815	Simplifying Expressions with Negative and Zero Exponents
		HA1-818	Simplifying Expressions Using the Division Properties of Exponents
		HA1-485	Writing Rational Numbers as Decimals or Fractions
AI.1.1.2	Demonstrate how the properties of real numbers apply to rational numbers.	HA1-480	Finding the Square Roots of Rational Numbers
		MM1-565	Finding Squares and Square Roots
AI.1.2.1	Judge the effects of multiplication, division, addition, subtraction, exponents, and square roots on the magnitudes of quantities.	HA1-035	Adding Real Numbers Using a Number Line
		HA1-040	The Addition Rule for Real Numbers
		HA1-045	Subtracting Real Numbers
		HA1-050	Multiplying Real Numbers
		HA1-055	Dividing Real Numbers
		HA1-062	Adding, Subtracting, Multiplying, and Dividing Real Numbers
		HA1-060	Evaluating Numerical Expressions Using the Order of Operations
		HA1-810	Simplifying Expressions Using the Multiplication Properties of Exponents
		HA1-815	Simplifying Expressions with Negative and Zero Exponents
		HA1-818	Simplifying Expressions Using the Division Properties of Exponents
		HA1-480	Finding the Square Roots of Rational Numbers
		MPA-065	Estimating Square Roots
AI.1.3.1	Perform computations with exponents, radicals, and scientific notation.	HA1-005	Evaluating Algebraic Expressions
		HA1-065	Evaluating Expressions Containing Exponents
		HA1-076	Basic Distributive Property
		HA1-085	Simplifying Expressions Using the Properties of Real Numbers
		HA1-090	Simplifying Expressions Using the Property of -1
		HA1-080	Simplifying and Evaluating Algebraic Expressions Containing Grouping Symbols
		HA1-060	Evaluating Numerical Expressions Using the Order of Operations
		HA1-220	Identifying and Multiplying Monomials
		HA1-225	Dividing Monomials and Simplifying Expressions Having an Exponent of Zero

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		HA1-230	Raising a Monomial or Quotient of Monomials to a Power
		HA1-920	Simplifying Algebraic Expressions Using the Distributive Property
		HA1-320	Simplifying Rational Expressions
		HA1-490	Simplifying Square Roots
		HA1-492	Simplifying Square and Cube Roots
		HA1-495	Simplifying Sums and Differences of Radicals
		HA1-500	Simplifying Products of Radicals
		HA1-505	Simplifying Quotients of Radicals
		HA1-235	Applying Scientific Notation
AI.1.3.2	Apply number sense to contextual situations and judge reasonableness of solutions.	Throughout	Standard is demonstrated throughout. For examples, see the following lessons:
		HA1-130	Identifying Postulates, Theorems, and Properties
		MPA-006	Determining Reasonableness of Answers and Appropriate Method of Computation
		HA1-449	Applying Inductive and Deductive Reasoning
AI.1.3.3	Use the properties of real numbers to simplify expressions.	HA1-220	Identifying and Multiplying Monomials
		HA1-225	Dividing Monomials and Simplifying Expressions Having an Exponent of Zero
		HA1-230	Raising a Monomial or Quotient of Monomials to a Power
		HA1-240	Identifying the Degree of Polynomials and Simplifying by Combining Like Terms
		HA1-245	Adding and Subtracting Polynomials
		HA1-920	Simplifying Algebraic Expressions Using the Distributive Property
		HA1-255	Multiplying Two Binomials Using the FOIL Method
		HA1-260	Squaring a Binomial and Finding the Product of a Sum and Difference
		HA1-355	Dividing Polynomials
		HA1-270	Factoring the Greatest Common Monomial Factor from a Polynomial
		HA1-271	Factoring Trinomials and the Differences of Squares Using Algebra Tiles
		HA1-275	Factoring the Difference Between Two Squares and Perfect Square Trinomials
		HA1-280	Factoring $x^2 + bx + c$ When c is Greater Than Zero
		HA1-285	Factoring $x^2 + bx + c$ When c is Less Than Zero
		HA1-300	Factoring a Polynomial Completely
CONCEPTS AND PRINCIPALS OF MEASUREMENT			
AI.2.1.1	Make decisions about units and scales that are appropriate for a given problem.	HA1-402	Translating Among Multiple Representations of Functions
		HA1-441	Applications of Functions and Relations Involving Distance, Rate, and Time
		HA1-442	Interpreting Graphs of Functions in Real-Life Situations
		HA1-960	Real-World Applications of Linear Functions
		HA1-955	Analyzing Linear Functions
		HA1-935	Analyzing Graphs of Quadratic Functions
		HA1-940	Applications of Quadratic Equations
		HA1-945	Real-World Applications of Quadratic Functions
AI.2.2.1	Convert rates using dimensional analysis.	MPA-155	Comparing and Converting Rates
CONCEPTS AND LANGUAGE OF ALGEBRA AND FUNCTIONS			
AI.3.1.1	Represent linear patterns and functional relationships in a table and as a graph.	HA1-402	Translating Among Multiple Representations of Functions
		HA1-436	Identifying Relations
		HA1-437	Identifying Relations as Functions
		HA1-438	Finding the Domain and Range of Functions
		HA1-439	Using Function Notation
		HA1-955	Analyzing Linear Functions
		HA1-380	Graphing Linear Equations
		HA1-385	Finding the Slope of a Line from its Graph or from the Coordinates of Two Points

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		HA1-398	Graphing Linear Equations Using Slope and y-Intercept or Slope and a Point
		HA1-401	How Variations of "m" and "b" Affect the Graph of y = mx + b
		HA1-415	Graphing Linear Inequalities with Two Variables
		HA1-416	Graphing Linear Inequalities with Two Variables Using the Graphing Calculator
		HA1-441	Applications of Functions and Relations Involving Distance, Rate, and Time
		HA1-442	Interpreting Graphs of Functions in Real-Life Situations
		HA1-447	Identifying Number Patterns
		HA1-448	Finding the nth Term of a Pattern
		HA1-450	Solving Problems Involving Direct Variation
		HA1-180	Graphing Equations and Inequalities on the Number Line
		HA1-185	Solving Inequalities Using the Addition and Subtraction Properties
		HA1-190	Solving Inequalities Using the Multiplication and Division Properties
		HA1-195	Solving Inequalities Using More Than One Property
		HA1-200	Combined Inequalities
		HA1-205	Solving Combined Inequalities
		HA1-210	Solving Equations Involving Absolute Value
		HA1-215	Solving Absolute Value Inequalities
AI.3.1.2	Describe the graphs of linear and quadratic functions and discuss their appearances in terms of the basic concepts of intercepts and rate of change.	HA1-955	Analyzing Linear Functions
		HA1-380	Graphing Linear Equations
		HA1-385	Finding the Slope of a Line from its Graph or from the Coordinates of Two Points
		HA1-398	Graphing Linear Equations Using Slope and y-Intercept or Slope and a Point
		HA1-401	How Variations of "m" and "b" Affect the Graph of y = mx + b
		HA1-415	Graphing Linear Inequalities with Two Variables
		HA1-416	Graphing Linear Inequalities with Two Variables Using the Graphing Calculator
		HA1-441	Applications of Functions and Relations Involving Distance, Rate, and Time
		HA1-442	Interpreting Graphs of Functions in Real-Life Situations
		HA1-927	Graphing $f(x) = ax^2$ Using Dilations
		HA1-928	Graphing $f(x) = ax^2$ Using Dilations and Reflections
		HA1-929	Graphing $f(x) = ax^2 + c$ Using Dilations, Reflections, and Vertical Translations
		HA1-935	Analyzing Graphs of Quadratic Functions
		HA1-940	Applications of Quadratic Equations
		HA1-945	Real-World Applications of Quadratic Functions
AI.3.2.1	Represent linear patterns and relationships with an equation.	HA1-439	Using Function Notation
		HA1-405	Determining an Equation of a Line Given the Slope and Coordinates of One Point
		HA1-410	Determining an Equation of a Line Given the Coordinates of Two Points
		HA1-394	Interchanging Linear Equations Between Standard Form and Slope-Intercept Form
		HA1-395	Finding the Equation of a Line Parallel or Perpendicular to a Given Line
		HA1-447	Identifying Number Patterns
		HA1-448	Finding the nth Term of a Pattern
AI.3.2.2	Recognize and generate equivalent forms of algebraic expressions and solve equations, inequalities, and systems of equations.	HA1-125	Solving Equations Using More Than One Property
		HA1-140	Solving Equations by Combining Like Terms
		HA1-144	Using a Concrete Model to Solve Equations with Variables on Both Sides
		HA1-145	Solving Equations with Variables on Both Sides
		HA1-360	Expressing Ratios in Simplest Form and Solving Equations Involving Proportions
		HA1-150	Writing an Equation to Solve Word Problems
		HA1-155	Writing an Equation to Solve Consecutive Integer Problems
		HA1-160	Writing an Equation to Solve Distance, Rate, and Time Problems

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		HA1-135	Evaluating Formulas
		HA1-175	Solving Literal Equations
		HA1-195	Solving Inequalities Using More Than One Property
		HA1-200	Combined Inequalities
		HA1-205	Solving Combined Inequalities
		HA1-210	Solving Equations Involving Absolute Value
		HA1-215	Solving Absolute Value Inequalities
		HA1-455	Solving Systems of Linear Equations by Graphing
		HA1-460	Solving Systems of Linear Equations by the Substitution Method
		HA1-465	Solving Systems of Linear Equations by the Addition/Subtraction Method
		HA1-470	Solving Systems of Linear Equations by the Multiply/Add/Subtract Method
		HA1-806	Solving Systems of Linear Equations Using the Graphing Calculator
		HA1-475	Graphing the Solution Set of a System of Linear Inequalities
		HA1-870	Solving Problems with Systems of Linear Equations and Inequalities
		HA1-305	Solving Polynomial Equations by Factoring
		HA1-310	The Practical Use of Polynomial Equations
		HA1-536	Solving Quadratic Equations Using the Graphing Calculator
AI.3.3.1	Develop proportional relationships to solve problems.	HA1-160	Writing an Equation to Solve Distance, Rate, and Time Problems
		HA1-362	Solving Work Problems
		HA1-165	Using Equations to Solve Percent Problems
		HA1-170	Solving Percent of Change Problems
		HA1-360	Expressing Ratios in Simplest Form and Solving Equations Involving Proportions
		HA1-450	Solving Problems Involving Direct Variation
		HA1-453	Solving Problems Involving Inverse Variation
AI.3.4.1	Interpret changes to the parent function y = x .	HA1-398	Graphing Linear Equations Using Slope and y-Intercept or Slope and a Point
		HA1-401	How Variations of "m" and "b" Affect the Graph of y = mx + b
		HA1-395	Finding the Equation of a Line Parallel or Perpendicular to a Given Line
		HA1-450	Solving Problems Involving Direct Variation
DATA ANALYSIS, PROBABILITY, AND STATISTICS			
AI.5.2.1	Make predictions and draw conclusions based on measures of central tendency.	HA1-540	Finding the Mean, Median, and Mode from Data and Frequency Distribution Tables
		HA1-541	Analyzing Data Using the Measures of Central Tendency and the Range
		MPA-097	Constructing Box-and-Whisker Plots
		MPA-099	Recognizing Misleading Statistics and Graphs
		MPA-840	Interpreting Data
AI.5.2.2	Make predictions using linear relations, scatter plots, trend lines, charts, and tables.	MPA-132	Interpreting and Creating Scatterplots
		HA1-965	Determining the Best-Fitting Line
		HA1-892	Data Analysis Using the Graphing Calculator
		HA1-877	Drawing Inferences and Making Predictions from Tables and Graphs

MM1-Fundamentals of Mathematics
MPA- Pre-Algebra
HA1-Algebra 1
Note: Standards were taken from the Algebra I Mathematics Content Standards K-12 document adopted by the Idaho State Board of Education in 07/07/2008.