



Algebra Correlation to Mathematics Content Standards

	Mathematics Curriculum Framework	I CAN Learn [®] Lesson Number	I CAN Learn [®] Lesson Title
COMPUTATION AND ESTIMATION			
ALG.CES.1	The learner will be able to apply appropriate computation techniques to obtain solutions to multi-step real world problems involving fractions, decimals, integers, and irrational numbers.	Throughout	
ALG.CES.2	The learner will be able to use estimation to determine the reasonableness of a calculation.	Throughout	
ALG.CES.3	The learner will be able to compute using operations involving powers.	Throughout	This standard is demonstrated throughout. For examples see:
		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
		HA1-065	Evaluating Expressions Containing Exponents
GEOMETRY			
ALG.GEO.1	The learner will be able to plot points on a coordinate grid.	HA1-370	Graphing Ordered Pairs on a Coordinate Plane
ALG.GEO.2	The learner will be able to recognize graphs of lines, including special cases.	HA1-180	Graphing Equations and Inequalities on the Number Line
		HA1-441	Applications of Functions and Relations Involving Distance, Rate, and Time
		HA1-442	Interpreting Graphs of Functions in Real-Life Situations
		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
		HA1-402	Translating Among Multiple Representations of Functions
		HA1-866	Drawing a Line Using Slope-Intercept Form and Determining if Two Lines are Parallel or Perpendicular
ALG.GEO.3	The learner will be able to compute the slope when presented with the change of two variables.	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
ALG.GEO.4	The learner will be able to make graphs of linear inequalities using the number line and/or the Cartesian plane.	HA1-180	Graphing Equations and Inequalities on the Number Line
		HA1-415	Graphing Linear Inequalities with Two Variables
		HA1-416	Graphing Linear Inequalities with Two Variables Using the Graphing Calculator
NUMBER SENSE AND NUMERATION			
ALG.NSN.1	The learner will be able to express fractions, decimals, and percents in appropriate form as needed for solving problems presented in a real world context.	Throughout	
ALG.NSN.2	The learner will be able to use negative exponents when expressing rational numbers in exponential notation.	HA1-815	Simplifying Expressions with Negative and Zero Exponents
ALG.NSN.3	The learner will be able to solve problems through the use of ratios or proportions.	HA1-160	Writing an Equation to Solve Distance, Rate, and Time Problems
		HA1-362	Solving Work Problems

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		HA1-360	Expressing Ratios in Simplest Form and Solving Equations Involving Proportions
ALG.NSN.4	The learner will be able to use percents to solve real world problems.	HA1-165	Using Equations to Solve Percent Problems
		HA1-170	Solving Percent of Change Problems
ALG.NSN.5	The learner will be able to determine the percent of increase or percent of decrease.	HA1-170	Solving Percent of Change Problems
ALG.NSN.6	The learner will be able to choose the appropriate operation to obtain solutions to real world problems involving integers, ratios, proportions, percents, decimals and fractions.	Throughout	
ALG.NSN.7	The learner will be able to identify real world examples of irrational numbers, including pi and root 2.	HA1-020	Classifying Numbers into Subsets of Real Numbers
		HA1-890	Using Models to Derive Formulas for Two-Dimensional Geometric Figures
		HA1-891	Using Models to Derive Formulas for Three-Dimensional Solids
ALG.NSN.8	The learner will be able to add, subtract, multiply, and divide with square roots.	HA1-490	Simplifying Square Roots
		HA1-495	Simplifying Sums and Differences of Radicals
		HA1-500	Simplifying Products of Radicals
		HA1-505	Simplifying Quotients of Radicals
ALG.NSN.9	The learner will be able to use both direct and inverse variation in solving problems.	HA1-450	Solving Problems Involving Direct Variation
		HA1-453	Solving Problems Involving Inverse Variation
ALG.NSN.10	The learner will be able to apply estimation strategies to predict calculated results when solving problems.	Throughout	
ALG.NSN.11	The learner will be able to determine decimal approximations of irrational numbers through the use of a calculator.	HA1-480	Finding the Square Roots of Rational Numbers
		MPA-065	Estimating Square Roots
ALG.NSN.12	The learner will be able to recognize subsets of the real number system.	HA1-020	Classifying Numbers into Subsets of Real Numbers
PATTERNS, FUNCTIONS, ALGEBRA			
ALG.PFA.1	The learner will be able to evaluate numerical or algebraic expressions with or without exponents.	HA1-005	Evaluating Algebraic Expressions
		HA1-065	Evaluating Expressions Containing Exponents
		HA1-070	Evaluating Formulas for Given Values of the Variables
ALG.PFA.2	The learner will be able to identify the absolute value of a given number.	HA1-030	Using Opposites and Absolute Values
ALG.PFA.3	The learner will be able to identify and use properties of real numbers.	HA1-085	Simplifying Expressions Using the Properties of Real Numbers
		HA1-076	Basic Distributive Property
		HA1-130	Identifying Postulates, Theorems, and Properties
ALG.PFA.4	The learner will be able to simplify numeric expressions.	HA1-060	Evaluating Numerical Expressions Using the Order of Operations
ALG.PFA.5	The learner will be able to apply the basic operations on rational numbers.	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
ALG.PFA.6	The learner will be able to evaluate basic algebraic expressions.	HA1-005	Evaluating Algebraic Expressions
		HA1-065	Evaluating Expressions Containing Exponents
		HA1-070	Evaluating Formulas for Given Values of the Variables
ALG.PFA.7	The learner will be able to graph linear equations and inequalities on the number line.	HA1-180	Graphing Equations and Inequalities on the Number Line
ALG.PFA.8	The learner will be able to use a table of values to graph linear equations on a coordinate plane	HA1-380	Graphing Linear Equations
ALG.PFA.9	The learner will be able to determine the slope of a line given the graph of the line, including vertical and horizontal lines.	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
		HA1-866	Drawing a Line Using Slope-Intercept Form and Determining if Two Lines are Parallel or Perpendicular
ALG.PFA.10	The learner will be able to explain the definition of the slope of a line as a rate of change.	HA1-955	Analyzing Linear Functions
		MPA-140	Examining Linear Equations in Slope-Intercept Form
		MPA-142	Solving Problems With Linear Functions and Direct Variation
ALG.PFA.11	The learner will be able to interpret the meaning of the slope of a line from a graph representing a real world situation.	MPA-142	Solving Problems With Linear Functions and Direct Variation
		HA1-442	Interpreting Graphs of Functions in Real-Life Situations
ALG.PFA.12	The learner will be able to recognize the slope and/or intercepts of a linear equation.	HA1-398	Graphing Linear Equations Using Slope and y-Intercept or Slope and a Point
		HA1-405	Determining an Equation of a Line Given the Slope and Coordinates of One Point
		HA1-394	Interchanging Linear Equations Between Standard Form and Slope-Intercept Form
		HA1-401	How Variations of "m" and "b" Affect the Graph of $y = mx + b$
ALG.PFA.13	The learner will be able to write the equation of a line when presented with suitable information.	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
		HA1-395	Finding the Equation of a Line Parallel or Perpendicular to a Given Line
ALG.PFA.14	The learner will be able to simplify expressions containing integers, exponents, and roots.	Throughout	This standard is demonstrated throughout. For examples see:
		HA1-810	Simplifying Expressions Using the Multiplication Properties of Exponents (Future release)
		HA1-815	Simplifying Expressions with Negative and Zero Exponents
		HA1-818	Simplifying Expressions Using the Division Properties of Exponents
		HA1-090	Simplifying Expressions Using the Property of -1
		HA1-490	Simplifying Square Roots
ALG.PFA.15	The learner will be able to simplify basic algebraic fractions.	HA1-320	Simplifying Rational Expressions
		HA1-355	Dividing Polynomials
ALG.PFA.16	The learner will be able to apply the laws of exponents to simplify expressions containing integer exponents.	HA1-810	Simplifying Expressions Using the Multiplication Properties of Exponents (Future release)
		HA1-815	Simplifying Expressions with Negative and Zero Exponents
		HA1-818	Simplifying Expressions Using the Division Properties of Exponents
ALG.PFA.17	The learner will be able to simplify algebraic expressions.	HA1-075	Simplifying Algebraic Expressions by Combining Like Terms
		HA1-079	Using a Concrete Model to Simplify Algebraic Expressions
		HA1-085	Simplifying Expressions Using the Properties of Real Numbers
		HA1-090	Simplifying Expressions Using the Property of -1
ALG.PFA.18	The learner will be able to obtain solutions to basic inequalities involving one variable.	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
ALG.PFA.19	The learner will be able to obtain solutions to linear equations employing a variety of methods.	HA1-115	Using the Addition and Subtraction Properties for Equations
		HA1-120	Using the Multiplication and Division Properties for Equations
		HA1-124	Using a Concrete Model to Solve One- and Two-Step 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
		HA1-382	Solving Linear Equations Using the Graphing Calculator
ALG.PFA.20	The learner will be able to solve problems by solving linear inequalities.	HA1-105	Translating Word Statements into Inequalities

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ALG.PFA.21	The learner will be able to solve problems using linear equations.	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
		HA1-362	Solving Work Problems
		HA1-165	Using Equations to Solve Percent Problems
		HA1-170	Solving Percent of Change Problems
		HA1-135	Evaluating Formulas
ALG.PFA.22	The learner will be able to use the order of operations to write expressions from real world scenarios.	HA1-060	Evaluating Numerical Expressions Using the Order of Operations
		HA1-003	Order of Operations
ALG.PFA.23	The learner will be able to translate word expressions into algebraic expressions or inequalities.	HA1-095	Translating Word Phrases into Algebraic Expressions
		HA1-105	Translating Word Statements into Inequalities
ALG.PFA.24	The learner will be able to convey relationships by writing equations.	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
		HA1-362	Solving Work Problems
		HA1-165	Using Equations to Solve Percent Problems
		HA1-170	Solving Percent of Change Problems
		HA1-135	Evaluating Formulas
ALG.PFA.25	The learner will be able to make translations of verbal sentences into algebraic equations and inequalities.	HA1-104	Translating Word Statements into Equations
		HA1-105	Translating Word Statements into Inequalities
ALG.PFA.26	The learner will be able to solve single-step and multi-step linear equations that illustrate real world scenarios.	HA1-115	Using the Addition and Subtraction Properties for Equations
		HA1-120	Using the Multiplication and Division Properties for Equations
		HA1-124	Using a Concrete Model to Solve One- and Two-Step 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
		HA1-382	Solving Linear Equations Using the Graphing Calculator
ALG.PFA.27	The learner will be able to translate word expressions into algebraic equations.	HA1-104	Translating Word Statements into Equations
ALG.PFA.28	The learner will be able to represent problem scenarios with algebraic expressions and equations.	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
		HA1-362	Solving Work Problems
		HA1-165	Using Equations to Solve Percent Problems
		HA1-170	Solving Percent of Change Problems
		HA1-135	Evaluating Formulas
ALG.PFA.29	The learner will be able to differentiate between functions and relations.	HA1-436	Identifying Relations
		HA1-437	Identifying Relations as Functions
ALG.PFA.30	The learner will be able to identify the domain and range of a given function or relation.	HA1-438	Finding the Domain and Range of Functions
ALG.PFA.31	The learner will be able to apply patterns in order to obtain solutions to problems.	HA1-447	Identifying Number Patterns
		HA1-448	Finding the nth Term of a Pattern
ALG.PFA.32	The learner will be able to associate patterns to the concepts of functions.	HA1-447	Identifying Number Patterns

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		HA1-448	Finding the nth Term of a Pattern
		HA1-402	Translating Among Multiple Representations of Functions
ALG.PFA.33	The learner will be able to recognize the inverse relationships between exponentiation and root extraction.	HA1-480	Finding the Square Roots of Rational Numbers
ALG.PFA.34	The learner will be able to determine a function rule to explain tables of related input-output variables.	HA1-439	Using Function Notation
		HA1-402	Translating Among Multiple Representations of Functions
		HA1-436	Identifying Relations
		HA1-437	Identifying Relations as Functions
ALG.PFA.35	The learner will be able to factor basic quadratic expressions.	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
		HA1-290	Factoring $ax^2 + bx + c$
		HA1-291	Factoring Quadratic Equations Using the Graphing Calculator
		HA1-295	Factoring by Removing a Common Factor and Grouping
ALG.PFA.36	The learner will be able to perform addition, subtraction, and multiplication of polynomials.	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
ALG.PFA.37	The learner will be able to determine the leading coefficient, constant term, and total number of terms in a polynomial.	HA1-240	Identifying the Degree of Polynomials and Simplifying by Combining Like Terms
ALG.PFA.38	The learner will be able to determine the degree of polynomials.	HA1-240	Identifying the Degree of Polynomials and Simplifying by Combining Like Terms
ALG.PFA.39	The learner will be able to find monomial factors in polynomials.	HA1-270	Factoring the Greatest Common Monomial Factor from a Polynomial
ALG.PFA.40	The learner will be able to recognize polynomial 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
ALG.PFA.41	The learner will be able to solve quadratic equations by factoring.	HA1-305	Solving Polynomial Equations by Factoring
		HA1-310	The Practical Use of Polynomial Equations

*Activities include open-response Journal questions and Problem Sets of the Day.

MM1-Fundamentals of Mathematics

MPA- Pre-Algebra

HA1-Algebra 1

Note: Standards were taken from the U.S. Virgin Islands Algebra Mathematics Content Standards document adopted by the U.S. Virgin Islands Department of Education in 2008.