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Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
8.EE.1	Apply the properties (product, quotient, power, zero, negative exponents, and rational exponents) of integer exponents to generate equivalent numerical expressions.	MATHia Software	3: Investigating Growth and Decay	1: Introduction to Exponential Functions	2: Rational Exponents
N-RN.1	Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents.	Algebra 1 Textbook	3: Investigating Growth and Decay	1: Introduction to Exponential Functions	2: The Power Within: Rational Exponents and Graphs of Exponential Functions pp. M3-23–M3-44
		MATHia Software	3: Investigating Growth and Decay	1: Introduction to Exponential Functions	2: Rational Exponents
N-RN.2	Rewrite expressions involving radicals and rational exponents using the properties of exponents. For example: Write equivalent representations that utilize both positive and negative exponents.	Algebra 1 Textbook	3: Investigating Growth and Decay	1: Introduction to Exponential Functions	2: The Power Within: Rational Exponents and Graphs of Exponential Functions pp. M3-23–M3-44
			5: Maximizing and Minimizing	2: Solving Quadratic Equations	2: Solutions, More or Less: Representing Solutions to Quadratic Equations pp. M5-127–M5-140 5: Ladies and Gentlemen, Please Welcome the Quadratic Formula! The Quadratic Formula pp. M5-175–M5-202
		MATHia Software	3: Investigating Growth and Decay	1: Introduction to Exponential Functions	2: Rational Exponents
N-RN.3	Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational.	Algebra 1 Textbook	3: Investigating Growth and Decay	1: Introduction to Exponential Functions	2: The Power Within: Rational Exponents and Graphs of Exponential Functions pp. M3-23–M3-44
			5: Maximizing and Minimizing	2: Solving Quadratic Equations	5: Ladies and Gentlemen, Please Welcome the Quadratic Formula! The Quadratic Formula pp. M5-175–M5-202
N-Q.1	Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.	Algebra 1 Textbook	1: Searching for Patterns	1: Quantities and Relationships	1: A Picture Is Worth a Thousand Words: Understanding Quantities and Their Relationships pp. M1-7–M1-20
			2: Exploring Constant Change	1: Linear Functions	2: Fun with Functions, Linear Ones: Making Sense of Different Representations of a Linear Function pp. M2-23–M2-40 4: Connect Four: Comparing Linear Functions in Different Forms pp. M2-59–M2-67
				2: Solving Linear Equations and Inequalities	2: It's Literally About Literal Equations: Literal Equations pp. M2-91–M2-102

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
N-Q.2	Define appropriate quantities for the purpose of descriptive modeling.	Algebra 1 Textbook	1: Searching for Patterns	1: Quantities and Relationships	1: A Picture Is Worth a Thousand Words: Understanding Quantities and Their Relationships pp. M1-7–M1-20
			3: Investigating Growth and Decay	2: Using Exponential Equations	3: Savings, Tea, and Carbon Dioxide: Modeling Using Exponential Functions pp. M3-103–M3-114 4: BAC Is BAD News: Choosing a Function to Model Data pp. M3-115–M3-124
		MATHia Software	1: Searching for Patterns	1: Quantities and Relationships	1: Understanding Quantities and Their Relationships
			2: Exploring Constant Change	1: Linear Functions	2: Multiple Representations of Linear Functions
N-Q.3	Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.	Algebra 1 Textbook	1: Searching for Patterns	3: Linear Regressions	1: Like a Glove: Least Squares Regressions pp. M1-167–M1-180
					2: Gotta Keep It Correlatin': Correlation pp. M1-181–M1-195
					4: To Fit or Not to Fit? That Is the Question!: Using Residual Plots pp. M1-211–M1-222
		Algebra 1 Textbook	2: Exploring Constant Change	2: Solving Linear Equations and inequalities	3: Not All Statements Are Made Equal: Modeling Linear Inequalities pp. M2-103–M2-116
					4: Don't Confound Your Compounds: Solving and Graphing Compound Inequalities pp. M2-117–M2-130
					1: Uptown and Downtown: Exponential Equations for Growth and Decay pp. M3-81–M3-92
N-CN.1	Know there is a complex number i such that $i^2 = -1$, and every complex number has the form $a + bi$ with a and b real.	Algebra 1 Textbook	5: Maximizing and Minimizing	2: Solving Quadratic Equations	5: Ladies and Gentlemen, Please Welcome the Quadratic Formula!: The Quadratic Formula pp. M5-175–M5-202
A-SSE.1.a	Interpret parts of an expression, such as terms, factors, and coefficients.	Algebra 1 Textbook	2: Exploring Constant Change	1: Linear Functions	2: Fun with Functions, Linear Ones: Making Sense of Different Representations of a Linear Function pp. M2-23–M2-40

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A-SSE.1.a	Interpret parts of an expression, such as terms, factors, and coefficients.	Algebra 1 Textbook	5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	4: You Lose Some, You Lose Some: Comparing Functions Using Key Characteristics and Average Rate of Change pp. M5-73–M5-88
				2: Solving Quadratic Equations	1: This Time, with Polynomials: Adding, Subtracting, and Multiplying Polynomials pp. M5-101–M5-125
		MATHia Software	5: Maximizing and Minimizing	2: Solving Quadratic Equations	5: Adding, Subtracting, and Multiplying Polynomials
A-SSE.1.b	Interpret complicated expressions by viewing one or more of their parts as a single entity. For example, interpret $P(1+r)^n$ as the product of P and a factor not depending on P .	Algebra 1 Textbook	3: Investigating Growth and Decay	2: Using Exponential Equations	1: Uptown and Downtown: Exponential Equations for Growth and Decay pp. M3-81–M3-92
			5: Maximizing and Minimizing	2: Solving Quadratic Equations	5: Ladies and Gentlemen, Please Welcome the Quadratic Formula!: The Quadratic Formula pp. M5-175–M5-202
A-SSE.2	Use the structure of an expression to identify ways to rewrite it. For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.	Algebra 1 Textbook	5: Maximizing and Minimizing	2: Solving Quadratic Equations	2: Solutions, More or Less: Representing Solutions to Quadratic Equations pp. M5-127–M5-140
		MATHia Software	5: Maximizing and Minimizing	2: Solving Quadratic Equations	3: Transforming Solutions: Solutions to Quadratic Equations in Vertex Form pp. M5-141–M5-152 6: Representing Solutions to Quadratic Equations
A-SSE.3.a	Factor a quadratic expression to reveal the zeros of the function it defines. For example, $x^2 + 4x + 3 = (x + 3)(x + 1)$.	Algebra 1 Textbook	5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	2: Endless Forms Most Beautiful: Key Characteristics of Quadratic Functions pp. M5-23–M5-46
					3: More Than Meets the Eye: Transformations of Quadratic Functions pp. M5-47–M5-72
				MATHia Software	5: Maximizing and Minimizing
		3: Transforming Solutions: Solutions to Quadratic Equations in Vertex Form pp. M5-141–M5-152			
		5: Maximizing and Minimizing	2: Solving Quadratic Equations		
				8: Factoring and Completing the Square	
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Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A-SSE.3.b	Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines. For example, $x^2 + 4x + 3 = (x + 2)^2 - 1$.	Algebra 1 Textbook	5: Maximizing and Minimizing	2: Solving Quadratic Equations	4: The Missing Link: Factoring and Completing the Square pp. M5-153–M5-174
		MATHia Software	5: Maximizing and Minimizing	2: Solving Quadratic Equations	8: Factoring and Completing the Square
A-SSE.3.c	Use the properties of exponents to transform expressions for exponential functions.	Algebra 1 Textbook	3: Investigating Growth and Decay	2: Using Exponential Equations	2: Powers and the Horizontal Line: Interpreting Parameters in Context pp. M3-93–M3-102
A-APR.1	Add, subtract, and multiply polynomials. Understand that polynomials form a system similar to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication.	Algebra 1 Textbook	5: Maximizing and Minimizing	2: Solving Quadratic Equations	1: This Time, with Polynomials: Adding, Subtracting, and Multiplying Polynomials pp. M5-101–M5-125
		MATHia Software	5: Maximizing and Minimizing	2: Solving Quadratic Equations	5: Adding, Subtracting, and Multiplying Polynomials
					5: Adding, Subtracting, and Multiplying Polynomials
					5: Adding, Subtracting, and Multiplying Polynomials
					5: Adding, Subtracting, and Multiplying Polynomials
A-APR.3	Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.	Algebra 1 Textbook	5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	2: Endless Forms Most Beautiful: Key Characteristics of Quadratic Functions pp. M5-23–M5-46
A-CED.1	Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.	Algebra 1 Textbook	2: Exploring Constant Change	1: Linear Functions	2: Fun with Functions, Linear Ones: Making Sense of Different Representations of a Linear Function pp. M2-23–M2-40
				2: Solving Linear Equations and Inequalities	1: Strike a Balance: Solving Linear Equations pp. M2-79–M2-90
					3: Not All Statements Are Made Equal: Modeling Linear Inequalities pp. M2-103–M2-116
				4: Don't Confound Your Compounds: Solving and Graphing Compound Inequalities pp. M2-117–M2-130	

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A-CED.1	Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.	Algebra 1 Textbook	3: Investigating Growth and Decay	1: Introduction to Exponential Functions	2: The Power Within: Rational Exponents and Graphs of Exponential Functions pp. M3-23–M3-44
				2: Using Exponential Equations	1: Uptown and Downtown: Exponential Equations for Growth and Decay pp. M3-81–M3-92
			2: Powers and the Horizontal Line: Interpreting Parameters in Context pp. M3-93–M3-102		
		5: Maximizing and Minimizing	3: Applications of Quadratics	1: Ahead of the Curve: Solving Quadratic Inequalities pp. M5-215–M5-224	
		MATHia Software	2: Exploring Constant Change	1: Linear Functions	2: Multiple Representations of Linear Functions
			3: Investigating Growth and Decay	1: Introduction to Exponential Functions	2: Rational Exponents
5: Maximizing and Minimizing	1: Introduction to Quadratic Functions		1: Exploring Quadratic Functions 1: Exploring Quadratic Functions		
A-CED.2	Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.	Algebra 1 Textbook	2: Exploring Constant Change	3: Systems of Linear Equations and Inequalities	1: Double the Fun: Introduction to Systems of Equations pp. M2-139–M2-154
					2: The Elimination Round: Using Linear Combinations to Solve a System of Linear Equations pp. M2-155–M2-168
					3: Throwing Shade: Graphing Inequalities in Two Variables pp. M2-169–M2-184
			4: Functions Derived from Linear Relationships	2: Play Ball: Absolute Value Equations and Inequalities pp. M2-247–M2-260	
			3: Investigating Growth and Decay	2: Using Exponential Equations	1: Uptown and Downtown: Exponential Equations for Growth and Decay pp. M3-81–M3-92
			2: Powers and the Horizontal Line: Interpreting Parameters in Context pp. M3-93–M3-102		
5: Maximizing and Minimizing	3: Applications of Quadratics	1: Ahead of the Curve: Solving Quadratic Inequalities pp. M5-215–M5-224			

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A-CED.2	Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.	Algebra 1 Textbook	5: Maximizing and Minimizing	3: Applications of Quadratics	2: All Systems Are Go!: Systems of Quadratic Equations pp. M5-225–M5-236
		MATHia Software	3: Investigating Growth and Decay	2: Using Exponential Equations	5: Solving Exponential Equations 5: Solving Exponential Equations
A-CED.3	Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. For example, represent inequalities describing cost constraints in various situations.	Algebra 1 Textbook	2: Exploring Constant Change	2: Solving Linear Equations and inequalities	3: Not All Statements Are Made Equal: Modeling Linear Inequalities pp. M2-103–M2-116
				3: Systems of Linear Equations and Inequalities	3: Throwing Shade: Graphing Inequalities in Two Variables pp. M2-169–M2-184
					4: Working with Constraints: System of Linear Inequalities pp. M2-185–M2-198
					5: Working the System: Solving Systems of Equations and Inequalities pp. M2-199–M2-208
		4: Functions Derived from Linear Relationships	2: Play Ball: Absolute Value Equations and Inequalities pp. M2-247–M2-260		
		Algebra 1 Textbook	5: Maximizing and Minimizing	3: Applications of Quadratics	1: Ahead of the Curve: Solving Quadratic Inequalities pp. M5-215–M5-224
					2: All Systems Are Go!: Systems of Quadratic Equations pp. M5-225–M5-236
		MATHia Software	2: Exploring Constant Change	3: Systems of Equations and Inequalities	10: Graphing a System of Linear Inequalities
4: Functions Derived from Linear Relationships	12: Absolute Value Equations and Inequalities				
	12: Absolute Value Equations and Inequalities				
	12: Absolute Value Equations and Inequalities				

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)	
A-CED.4	Rearrange formulas (literal equations) to highlight a quantity of interest, using the same reasoning as in solving equations. For example, rearrange Ohm's law $V = IR$ to highlight resistance R .	Algebra 1 Textbook	2: Exploring Constant Change	2: Solving Linear Equations and inequalities	2: It's Literally About Literal Equations: Literal Equations pp. M2-91–M2-102	
			5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	4: You Lose Some, You Lose Some: Comparing Functions Using Key Characteristics and Average Rate of Change pp. M5-73–M5-88	
		MATHia Software	2: Exploring Constant Change	2: Solving Linear Equations and Inequalities	5: Solving Linear and Literal Equations 5: Solving Linear and Literal Equations	
A-REI.1	Apply properties of mathematics to justify steps in solving equations in one variable.	Algebra 1 Textbook	2: Exploring Constant Change	2: Solving Linear Equations and inequalities	1: Strike a Balance: Solving Linear Equations pp. M2-79–M2-90	
		MATHia Software	2: Exploring Constant Change	2: Solving Linear Equations and Inequalities	5: Solving Linear and Literal Equations 5: Solving Linear and Literal Equations	
A-REI.3	Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	Algebra 1 Textbook	2: Exploring Constant Change	2: Solving Linear Equations and inequalities	1: Strike a Balance: Solving Linear Equations pp. M2-79–M2-90	
					3: Not All Statements Are Made Equal: Modeling Linear Inequalities pp. M2-103–M2-116	
			4: Don't Confound Your Compounds: Solving and Graphing Compound Inequalities pp. M2-117–M2-130			
		MATHia Software	2: Exploring Constant Change	3: Investigating Growth and Decay	1: Introduction to Exponential Functions	2: The Power Within: Rational Exponents and Graphs of Exponential Functions pp. M3-23–M3-44
				2: Exploring Constant Change	2: Solving Linear Equations and Inequalities	5: Solving Linear and Literal Equations
4: Functions Derived from Linear Relationships	2: Solving Linear Equations and Inequalities	6: Modeling Linear Inequalities				
		6: Modeling Linear Inequalities	6: Modeling Linear Inequalities	12: Absolute Value Equations and Inequalities		
A-REI.4	Solve quadratic equations in one variable.			Algebra 1 Textbook	5: Maximizing and Minimizing	2: Solving Quadratic Equations
		3: Applications of Quadratics	1: Ahead of the Curve: Solving Quadratic Inequalities pp. M5-215–M5-224			

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A-REI.4.a	Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions. Derive the quadratic formula from this form.	Algebra 1 Textbook	5: Maximizing and Minimizing	2: Solving Quadratic Equations	4: The Missing Link: Factoring and Completing the Square pp. M5-153–M5-174 5: Ladies and Gentlemen, Please Welcome the Quadratic Formula! The Quadratic Formula pp. M5-175–M5-202
				3: Applications of Quadratics	1: Ahead of the Curve: Solving Quadratic Inequalities pp. M5-215–M5-224
		MATHia Software	5: Maximizing and Minimizing	2: Solving Quadratic Equations	8: Factoring and Completing the Square 9: The Quadratic Formula
A-REI.4.b	Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a - bi$ for real numbers a and b .	Algebra 1 Textbook	5: Maximizing and Minimizing	2: Solving Quadratic Equations	2: Solutions, More or Less: Representing Solutions to Quadratic Equations pp. M5-127–M5-140 5: Ladies and Gentlemen, Please Welcome the Quadratic Formula! The Quadratic Formula pp. M5-175–M5-202
				3: Applications of Quadratics	1: Ahead of the Curve: Solving Quadratic Inequalities pp. M5-215–M5-224
		MATHia Software	5: Maximizing and Minimizing	2: Solving Quadratic Equations	7: Solutions to Quadratic Equations in Vertex Form
					8: Factoring and Completing the Square
					9: The Quadratic Formula
					9: The Quadratic Formula
A-REI.5	Show that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.	Algebra 1 Textbook	2: Exploring Constant Change	3: Systems of Linear Equations and Inequalities	2: The Elimination Round: Using Linear Combinations to Solve a System of Linear Equations pp. M2-155–M2-168
		MATHia Software	2: Exploring Constant Change	3: Systems of Equations and Inequalities	8: Using Linear Combinations to Solve a System of Linear Equations

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A-REI.6	Solve systems of linear equations exactly and approximately, e.g., with graphs or algebraically, focusing on pairs of linear equations in two variables.	Algebra 1 Textbook	2: Exploring Constant Change	3: Systems of Linear Equations and Inequalities	1: Double the Fun: Introduction to Systems of Equations pp. M2-139–M2-154
					2: The Elimination Round: Using Linear Combinations to Solve a System of Linear Equations pp. M2-155–M2-168
		MATHia Software	2: Exploring Constant Change	3: Systems of Equations and Inequalities	5: Working the System: Solving Systems of Equations and Inequalities pp. M2-199–M2-208
					7: Introduction to Systems of Linear Equations 7: Introduction to Systems of Linear Equations 7: Introduction to Systems of Linear Equations 8: Using Linear Combinations to Solve a System of Linear Equations
A-REI.7	Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. For example, find the points of intersection between the line $y = -3x$ and the circle $x^2 + y^2 = 3$.	Algebra 1 Textbook	5: Maximizing and Minimizing	3: Applications of Quadratics	2: All Systems Are Go!: Systems of Quadratic Equations pp. M5-225–M5-236
A-REI.10	Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).	Algebra 1 Textbook	1: Searching for Patterns	1: Quantities and Relationships	1: A Picture Is Worth a Thousand Words: Understanding Quantities and Their Relationships pp. M1-7–M1-20
			2: Exploring Constant Change	1: Linear Functions	2: Fun with Functions, Linear Ones: Making Sense of Different Representations of a Linear Function pp. M2-23–M2-40
				3: Systems of Linear Equations and Inequalities	1: Double the Fun: Introduction to Systems of Equations pp. M2-139–M2-154
			3: Investigating Growth and Decay	1: Introduction to Exponential Functions	1: A Constant Ratio: Geometric Sequences and Exponential Functions pp. M3-7–M3-22
2: Using Exponential Equations	2: Powers and the Horizontal Line: Interpreting Parameters in Context pp. M3-93–M3-102				

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A-REI.10	Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).	Algebra 1 Textbook	5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	1: Up and Down or Down and Up: Exploring Quadratic Functions pp. M5-7–M5-22
				2: Solving Quadratic Equations	2: Solutions, More or Less: Representing Solutions to Quadratic Equations pp. M5-127–M5-140
		MATHia Software	2: Exploring Constant Change	1: Linear Functions	3: Transforming Linear Functions
				3: Investigating Growth and Decay	5: Solving Exponential Equations 5: Solving Exponential Equations
A-REI.11	Explain why the x-coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.	Algebra 1 Textbook	2: Exploring Constant Change	3: Systems of Linear Equations and Inequalities	1: Double the Fun: Introduction to Systems of Equations pp. M2-139–M2-154 6: Take It to the Max ? or Min: Linear Programming pp. M2-209–M2-218
				4: Functions Derived from Linear Relationships	2: Play Ball: Absolute Value Equations and Inequalities pp. M2-247–M2-260
			3: Investigating Growth and Decay	2: Using Exponential Equations	2: Powers and the Horizontal Line: Interpreting Parameters in Context pp. M3-93–M3-102
			5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	1: Up and Down or Down and Up: Exploring Quadratic Functions pp. M5-7–M5-22
		3: Applications of Quadratics		2: All Systems Are Go!: Systems of Quadratic Equations pp. M5-225–M5-236	
		MATHia Software	2: Exploring Constant Change	3: Systems of Equations and Inequalities	7: Introduction to Systems of Linear Equations
				4: Functions Derived from Linear Relationships	12: Absolute Value Equations and Inequalities
			3: Investigating Growth and Decay	2: Using Exponential Equations	5: Solving Exponential Equations
			5: Maximizing and Minimizing	2: Solving Quadratic Equations	6: Representing Solutions to Quadratic Equations

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A-REI.12	Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.	Algebra 1 Textbook	2: Exploring Constant Change	3: Systems of Linear Equations and Inequalities	3: Throwing Shade: Graphing Inequalities in Two Variables pp. M2-169–M2-184
					4: Working with Constraints: System of Linear Inequalities pp. M2-185–M2-198
					5: Working the System: Solving Systems of Equations and Inequalities pp. M2-199–M2-208
					6: Take It to the Max ? or Min: Linear Programming pp. M2-209–M2-218
		MATHia Software	2: Exploring Constant Change	3: Systems of Equations and Inequalities	9: Graphing Linear Inequalities in Two Variables
					9: Graphing Linear Inequalities in Two Variables 10: Graphing a System of Linear Inequalities
F-IF.1	Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x . The graph of f is the graph of the equation $y = f(x)$.	Algebra 1 Textbook	1: Searching for Patterns	1: Quantities and Relationships	1: A Picture Is Worth a Thousand Words: Understanding Quantities and Their Relationships pp. M1-7–M1-20
			2: Exploring Constant Change	1: Linear Functions	3: F of X: Recognizing Functions and Function Families pp. M1-39–M1-62
		MATHia Software	1: Searching for Patterns	1: Quantities and Relationships	1: Connecting the Dots: Making Connections Between Arithmetic Sequences and Linear Functions pp. M2-7–M2-22
			2: Exploring Constant Change	1: Linear Functions	2: Recognizing Functions and Function Families
					2: Recognizing Functions and Function Families
					1: Connecting Arithmetic Sequences and Linear Functions
1: Connecting Arithmetic Sequences and Linear Functions					
3: Transforming Linear Functions					

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
F-IF.2	Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.	Algebra 1 Textbook	2: Exploring Constant Change	1: Linear Functions	2: Fun with Functions, Linear Ones: Making Sense of Different Representations of a Linear Function pp. M2-23–M2-40
				3: Systems of Linear Equations and Inequalities	6: Take It to the Max ? or Min: Linear Programming pp. M2-209–M2-218
		MATHia Software	1: Searching for Patterns	1: Quantities and Relationships	2: Recognizing Functions and Function Families
F-IF.3	Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. For example, the Fibonacci sequence is defined recursively by $f(0) = f(1) = 1$, $f(n + 1) = f(n) + f(n - 1)$ for n not equal to 1.	Algebra 1 Textbook	1: Searching for Patterns	2: Sequences	1: Is There a Pattern Here?: Recognizing Patterns and Sequences pp. M1-87–M1-102
			2: Exploring Constant Change	1: Linear Functions	1: Connecting the Dots: Making Connections Between Arithmetic Sequences and Linear Functions pp. M2-7–M2-22
		MATHia Software	1: Searching for Patterns	2: Sequences	3: Recognizing Patterns and Sequences
					3: Recognizing Patterns and Sequences
					4: Determining Recursive and Explicit Expressions
3: Investigating Growth and Decay	1: Introduction to Exponential Functions	1: Geometric Sequences and Exponential Functions			
F-IF.4	For a function that models a relationship between two quantities, o interpret key features of graphs and tables in terms of the quantities, and o sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity periodicity.	Algebra 1 Textbook	1: Searching for Patterns	1: Quantities and Relationships	1: A Picture Is Worth a Thousand Words: Understanding Quantities and Their Relationships pp. M1-7–M1-20
					2: A Sort of Sorts: Analyzing and Sorting Graphs pp. M1-21–M1-38
					3: F of X: Recognizing Functions and Function Families pp. M1-39–M1-62
					4: Function Families for 200, Alex: Recognizing Functions by Characteristics pp. M1-63–M1-75
		Algebra 1 Textbook	2: Exploring Constant Change	1: Linear Functions	2: Fun with Functions, Linear Ones: Making Sense of Different Representations of a Linear Function pp. M2-23–M2-40
3: Get Your Move On: Transforming Linear Functions pp. M2-41–M2-57					

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
F-IF.4	For a function that models a relationship between two quantities, o interpret key features of graphs and tables in terms of the quantities, and o sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity periodicity.	Algebra 1 Textbook	2: Exploring Constant Change	4: Functions Derived from Linear Relationships	3: I Graph in Pieces: Linear Piecewise Functions pp. M2-261–M2-274
			3: Investigating Growth and Decay	1: Introduction to Exponential Functions	3: Now I Know My A, B, C, Ds: Transformations of Exponential Functions pp. M3-45–M3-69
			5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	1: Up and Down or Down and Up: Exploring Quadratic Functions pp. M5-7–M5-22 2: Endless Forms Most Beautiful: Key Characteristics of Quadratic Functions pp. M5-23–M5-46
		MATHia Software	5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	1: Exploring Quadratic Functions 1: Exploring Quadratic Functions 1: Exploring Quadratic Functions
F-IF.5	Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. For example, if the function $h(n)$ gives the number of person-hours it takes to assemble n engines in a factory, then negative numbers would be an inappropriate domain for the function.	Algebra 1 Textbook	1: Searching for Patterns	1: Quantities and Relationships 2: Sequences	3: F of X: Recognizing Functions and Function Families pp. M1-39–M1-62 1: Is There a Pattern Here?: Recognizing Patterns and Sequences pp. M1-87–M1-102
			5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	1: Up and Down or Down and Up: Exploring Quadratic Functions pp. M5-7–M5-22
			MATHia Software	1: Searching for Patterns	1: Quantities and Relationships
		3: Investigating Growth and Decay		2: Using Exponential Equations	6: Modeling Using Exponential Functions
		F-IF.6	Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.	Algebra 1 Textbook	2: Exploring Constant Change
3: Investigating Growth and Decay	2: Using Exponential Equations				1: Uptown and Downtown: Exponential Equations for Growth and Decay pp. M3-81–M3-92
5: Maximizing and Minimizing	1: Introduction to Quadratic Functions				2: Endless Forms Most Beautiful: Key Characteristics of Quadratic Functions pp. M5-23–M5-46
MATHia Software	2: Exploring Constant Change			1: Linear Functions	1: Connecting Arithmetic Sequences and Linear Functions

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)	
F-IF.6	Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.	MATHia Software	2: Exploring Constant Change	1: Linear Functions	1: Connecting Arithmetic Sequences and Linear Functions	
			3: Investigating Growth and Decay	2: Using Exponential Equations	4: Exponential Equations for Growth and Decay	
			5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	2: Key Characteristics of Quadratic Functions	
F-IF.7.a	Graph linear and quadratic functions and show intercepts, maxima, and minima.	Algebra 1 Textbook	2: Exploring Constant Change	1: Linear Functions	3: Get Your Move On: Transforming Linear Functions pp. M2-41–M2-57	
				3: Systems of Linear Equations and Inequalities	1: Double the Fun: Introduction to Systems of Equations pp. M2-139–M2-154	
			5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	1: Up and Down or Down and Up: Exploring Quadratic Functions pp. M5-7–M5-22	
		MATHia Software	5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	2: Endless Forms Most Beautiful: Key Characteristics of Quadratic Functions pp. M5-23–M5-46	
					1: Exploring Quadratic Functions	4: Sketching and Comparing Quadratic Functions
F-IF.7.b	Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.	Algebra 1 Textbook	2: Exploring Constant Change	4: Functions Derived from Linear Relationships	1: Putting the V in Absolute Value: Defining Absolute Value Functions and Transformations pp. M2-229–M2-246	
					2: Play Ball: Absolute Value Equations and Inequalities pp. M2-247–M2-260	
					3: I Graph in Pieces: Linear Piecewise Functions pp. M2-261–M2-274	
					4: Step by Step: Step Functions pp. M2-275–M2-286	
		MATHia Software	2: Exploring Constant Change	4: Functions Derived from Linear Relationships	3: Applications of Quadratics	3: Model Behavior: Using Quadratic Functions to Model Data pp. M5-237–M5-252
					11: Defining Absolute Value Functions and Transformations	
						13: Linear Piecewise Functions
				13: Linear Piecewise Functions		

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
F-IF.7.b	Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.	MATHia Software	2: Exploring Constant Change	4: Functions Derived from Linear Relationships	13: Linear Piecewise Functions
					13: Linear Piecewise Functions
					14: Step Functions
F-IF.7.e	Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.	Algebra 1 Textbook	3: Investigating Growth and Decay	1: Introduction to Exponential Functions	3: Now I Know My A, B, C, Ds: Transformations of Exponential Functions pp. M3-45–M3-69
F-IF.8.a	Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.	Algebra 1 Textbook	5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	2: Endless Forms Most Beautiful: Key Characteristics of Quadratic Functions pp. M5-23–M5-46
				2: Solving Quadratic Equations	4: The Missing Link: Factoring and Completing the Square pp. M5-153–M5-174
		MATHia Software	5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	2: Key Characteristics of Quadratic Functions
				2: Solving Quadratic Equations	8: Factoring and Completing the Square
F-IF.8.b	Use the properties of exponents to interpret expressions for exponential functions.	Algebra 1 Textbook	3: Investigating Growth and Decay	1: Introduction to Exponential Functions	2: The Power Within: Rational Exponents and Graphs of Exponential Functions pp. M3-23–M3-44
					3: Now I Know My A, B, C, Ds: Transformations of Exponential Functions pp. M3-45–M3-69
				2: Using Exponential Equations	2: Powers and the Horizontal Line: Interpreting Parameters in Context pp. M3-93–M3-102
F-IF.9	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically, in tables, or by verbal descriptions). For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.	Algebra 1 Textbook	2: Exploring Constant Change	1: Linear Functions	4: Connect Four: Comparing Linear Functions in Different Forms pp. M2-59–M2-67
			5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	4: You Lose Some, You Lose Some: Comparing Functions Using Key Characteristics and Average Rate of Change pp. M5-73–M5-88
		MATHia Software	2: Exploring Constant Change	1: Linear Functions	4: Comparing Linear Functions in Different Forms
			3: Investigating Growth and Decay	2: Using Exponential Equations	4: Exponential Equations for Growth and Decay
			5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	4: Sketching and Comparing Quadratic Functions

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
F-BF.1.a	Determine an explicit expression, a recursive process, or steps for calculation from a context.	Algebra 1 Textbook	1: Searching for Patterns	2: Sequences	1: Is There a Pattern Here?: Recognizing Patterns and Sequences pp. M1-87–M1-102
					3: Did You Mean: Recursion?: Determining Recursive and Explicit Expressions from Contexts pp. M1-135–M1-146
		MATHia Software	3: Investigating Growth and Decay	1: Introduction to Exponential Functions	1: A Constant Ratio: Geometric Sequences and Exponential Functions pp. M3-7–M3-22
			1: Searching for Patterns	2: Sequences	4: Determining Recursive and Explicit Expressions
F-BF.1.b	Combine standard function types using arithmetic operations. For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.	Algebra 1 Textbook	3: Investigating Growth and Decay	2: Using Exponential Equations	4: Determining Recursive and Explicit Expressions
					3: Savings, Tea, and Carbon Dioxide: Modeling Using Exponential Functions pp. M3-103–M3-114
F-BF.2	Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.	Algebra 1 Textbook	1: Searching for Patterns	2: Sequences	2: The Password Is ? Operations!: Arithmetic and Geometric Sequences pp. M1-103–M1-134
					4: Pegs, N Discs: Modeling Using Sequences pp. M1-147–M1-158
F-BF.3	Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them	Algebra 1 Textbook	2: Exploring Constant Change	1: Linear Functions	2: Fun with Functions, Linear Ones: Making Sense of Different Representations of a Linear Function pp. M2-23–M2-40
				3: Get Your Move On: Transforming Linear Functions pp. M2-41–M2-57	
			3: Investigating Growth and Decay	4: Functions Derived from Linear Relationships	1: Putting the V in Absolute Value: Defining Absolute Value Functions and Transformations pp. M2-229–M2-246
				1: Introduction to Exponential Functions	3: Now I Know My A, B, C, Ds: Transformations of Exponential Functions pp. M3-45–M3-69

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
F-BF.3	Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them	Algebra 1 Textbook	5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	3: More Than Meets the Eye: Transformations of Quadratic Functions pp. M5-47–M5-72
		MATHia Software	2: Exploring Constant Change	1: Linear Functions	3: Transforming Linear Functions
					3: Transforming Linear Functions
					3: Transforming Linear Functions
					3: Transforming Linear Functions
			4: Functions Derived from Linear Relationships	11: Defining Absolute Value Functions and Transformations	
				11: Defining Absolute Value Functions and Transformations	
				11: Defining Absolute Value Functions and Transformations	
				11: Defining Absolute Value Functions and Transformations	
			3: Investigating Growth and Decay	1: Introduction to Exponential Functions	3: Transformations of Exponential Functions
					3: Transformations of Exponential Functions
					3: Transformations of Exponential Functions
					3: Transformations of Exponential Functions
					3: Transformations of Exponential Functions
5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	3: Transformations of Quadratic Functions			
		3: Transformations of Quadratic Functions			
		3: Transformations of Quadratic Functions			
		3: Transformations of Quadratic Functions			
	2: Solving Quadratic Equations	5: Adding, Subtracting, and Multiplying Polynomials			
F-BF.4	Find inverse functions.	MATHia Software	5: Maximizing and Minimizing	3: Applications of Quadratics	10: Using Quadratic Functions to Model Data 10: Using Quadratic Functions to Model Data
F-BF.4.a	Solve an equation of the form $f(x) = c$ for a simple function f that has an inverse and write an expression for the inverse.	Algebra 1 Textbook	2: Exploring Constant Change	4: Functions Derived from Linear Relationships	5: A Riddle Wrapped in a Mystery: Inverses of Linear Functions pp. M2-287–M2-300
			5: Maximizing and Minimizing	3: Applications of Quadratics	3: Model Behavior: Using Quadratic Functions to Model Data pp. M5-237–M5-252

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
F-BF.4.d	(+) Produce an invertible function from a non-invertible function by restricting the domain.	Algebra 1 Textbook	5: Maximizing and Minimizing	3: Applications of Quadratics	3: Model Behavior: Using Quadratic Functions to Model Data pp. M5-237–M5-252
F-LE.1.a	Show that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals.	Algebra 1 Textbook	2: Exploring Constant Change	1: Linear Functions	1: Connecting the Dots: Making Connections Between Arithmetic Sequences and Linear Functions pp. M2-7–M2-22
			3: Investigating Growth and Decay	1: Introduction to Exponential Functions	1: A Constant Ratio: Geometric Sequences and Exponential Functions pp. M3-7–M3-22
		MATHia Software	2: Exploring Constant Change	1: Linear Functions	1: Connecting Arithmetic Sequences and Linear Functions
F-LE.1.b	Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.	Algebra 1 Textbook	2: Exploring Constant Change	1: Linear Functions	1: Connecting the Dots: Making Connections Between Arithmetic Sequences and Linear Functions pp. M2-7–M2-22
		MATHia Software	3: Investigating Growth and Decay	2: Using Exponential Equations	4: Exponential Equations for Growth and Decay
F-LE.1.c	Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.	Algebra 1 Textbook	3: Investigating Growth and Decay	2: Using Exponential Equations	1: Uptown and Downtown: Exponential Equations for Growth and Decay pp. M3-81–M3-92
		MATHia Software	3: Investigating Growth and Decay	2: Using Exponential Equations	4: Exponential Equations for Growth and Decay 4: Exponential Equations for Growth and Decay
F-LE.2	Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or input-output table of values.	Algebra 1 Textbook	2: Exploring Constant Change	1: Linear Functions	1: Connecting the Dots: Making Connections Between Arithmetic Sequences and Linear Functions pp. M2-7–M2-22
			3: Investigating Growth and Decay	1: Introduction to Exponential Functions	1: A Constant Ratio: Geometric Sequences and Exponential Functions pp. M3-7–M3-22 2: The Power Within: Rational Exponents and Graphs of Exponential Functions pp. M3-23–M3-44
F-LE.3	Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.	Algebra 1 Textbook	3: Investigating Growth and Decay	2: Using Exponential Equations	1: Uptown and Downtown: Exponential Equations for Growth and Decay pp. M3-81–M3-92
			5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	4: You Lose Some, You Lose Some: Comparing Functions Using Key Characteristics and Average Rate of Change pp. M5-73–M5-88

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
F-LE.5	Interpret the parameters in a linear or exponential function in terms of a context.	Algebra 1 Textbook	3: Investigating Growth and Decay	1: Introduction to Exponential Functions	1: A Constant Ratio: Geometric Sequences and Exponential Functions pp. M3-7-M3-22
				2: Using Exponential Equations	1: Uptown and Downtown: Exponential Equations for Growth and Decay pp. M3-81-M3-92
					2: Powers and the Horizontal Line: Interpreting Parameters in Context pp. M3-93-M3-102
S-ID.1	Represent data with plots on the real number line (dot plots, histograms, and box plots).	Algebra 1 Textbook	4: Describing Distributions	1: One-Variable Statistics	1: Way to Represent: Graphically Representing Data pp. M4-7-M4-16
					2: A Skewed Reality: Determining the Better Measure of Center and Spread for a Data Set pp. M4-17-M4-34
					3: Dare to Compare: Comparing Data Sets pp. M4-35-M4-44
		MATHia Software	4: Describing Distributions	1: One-Variable Statistics	1: Graphically Representing Data 2: Comparing Measures of Center and Spread
S-ID.2	Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.	Algebra 1 Textbook	4: Describing Distributions	1: One-Variable Statistics	1: Way to Represent: Graphically Representing Data pp. M4-7-M4-16
					2: A Skewed Reality: Determining the Better Measure of Center and Spread for a Data Set pp. M4-17-M4-34
					3: Dare to Compare: Comparing Data Sets pp. M4-35-M4-44
		MATHia Software	4: Describing Distributions	1: One-Variable Statistics	2: Comparing Measures of Center and Spread
					2: Comparing Measures of Center and Spread 3: Comparing Data Sets
S-ID.3	Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers). For example: Justify why median price of homes or income is used instead of the mean.	Algebra 1 Textbook	4: Describing Distributions	1: One-Variable Statistics	2: A Skewed Reality: Determining the Better Measure of Center and Spread for a Data Set pp. M4-17-M4-34
					3: Dare to Compare: Comparing Data Sets pp. M4-35-M4-44
		MATHia Software	4: Describing Distributions	1: One-Variable Statistics	1: Graphically Representing Data
					2: Comparing Measures of Center and Spread 3: Comparing Data Sets

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
S-ID.5	Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.	Algebra 1 Textbook	4: Describing Distributions	2: Two-Variable Categorical Data	1: It Takes Two: Creating and Interpreting Frequency Distributions pp. M4-55–M4-71
					2: Relatively Speaking: Relative Frequency Distribution pp. M4-73–M4-83
					3: On One Condition ? or More: Conditional Relative Frequency Distribution pp. M4-85–M4-94
					4: Data Jam: Drawing Conclusions from Data pp. M4-95–M4-104
		MATHia Software	4: Describing Distributions	2: Two-Variable Categorical Data	4: Two-Variable Categorical Data
					4: Two-Variable Categorical Data
					4: Two-Variable Categorical Data
					4: Two-Variable Categorical Data
					4: Two-Variable Categorical Data
S-ID.6	Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.	Algebra 1 Textbook	1: Searching for Patterns	3: Linear Regressions	3: The Residual Effect: Creating Residual Plots pp. M1-197–M1-210
					4: To Fit or Not to Fit? That Is the Question!: Using Residual Plots pp. M1-211–M1-222

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
S-ID.6.a	Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models.	Algebra 1 Textbook	1: Searching for Patterns	3: Linear Regressions	1: Like a Glove: Least Squares Regressions pp. M1-167–M1-180
					2: Gotta Keep It Correlatin': Correlation pp. M1-181–M1-195
					3: The Residual Effect: Creating Residual Plots pp. M1-197–M1-210
			3: Investigating Growth and Decay	2: Using Exponential Equations	4: To Fit or Not to Fit? That Is the Question!: Using Residual Plots pp. M1-211–M1-222
					3: Savings, Tea, and Carbon Dioxide: Modeling Using Exponential Functions pp. M3-103–M3-114
					4: BAC Is BAD News: Choosing a Function to Model Data pp. M3-115–M3-124
			5: Maximizing and Minimizing	3: Applications of Quadratics	3: Model Behavior: Using Quadratic Functions to Model Data pp. M5-237–M5-252
					5: Least Squares Regression
					5: Least Squares Regression
MATHia Software	1: Searching for Patterns	3: Linear Regressions	6: Modeling Using Exponential Functions		
			3: Investigating Growth and Decay	2: Using Exponential Equations	
			5: Maximizing and Minimizing	3: Applications of Quadratics	
S-ID.6.b	Informally assess the fit of a function by plotting and analyzing residuals. For example: Describe solutions to problems that require interpolation and extrapolation.	Algebra 1 Textbook	1: Searching for Patterns	3: Linear Regressions	10: Using Quadratic Functions to Model Data
					3: The Residual Effect: Creating Residual Plots pp. M1-197–M1-210
		MATHia Software	1: Searching for Patterns	3: Linear Regressions	4: To Fit or Not to Fit? That Is the Question!: Using Residual Plots pp. M1-211–M1-222
S-ID.6.c	Fit a linear function for a scatter plot that suggests a linear association.	Algebra 1 Textbook	1: Searching for Patterns	3: Linear Regressions	1: Like a Glove: Least Squares Regressions pp. M1-167–M1-180
					2: Gotta Keep It Correlatin': Correlation pp. M1-181–M1-195
					4: To Fit or Not to Fit? That Is the Question!: Using Residual Plots pp. M1-211–M1-222
		MATHia Software	1: Searching for Patterns	3: Linear Regressions	5: Least Squares Regression

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
S-ID.7	Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.	Algebra 1 Textbook	1: Searching for Patterns	3: Linear Regressions	1: Like a Glove: Least Squares Regressions pp. M1-167–M1-180
		MATHia Software	1: Searching for Patterns	3: Linear Regressions	5: Least Squares Regression 6: Correlation
S-ID.8	Compute (using technology) and interpret the correlation coefficient of a linear fit.	Algebra 1 Textbook	1: Searching for Patterns	3: Linear Regressions	2: Gotta Keep It Correlatin': Correlation pp. M1-181–M1-195
		MATHia Software	1: Searching for Patterns	3: Linear Regressions	6: Correlation
S-ID.9	Distinguish between correlation and causation.	Algebra 1 Textbook	1: Searching for Patterns	3: Linear Regressions	2: Gotta Keep It Correlatin': Correlation pp. M1-181–M1-195
		MATHia Software	1: Searching for Patterns	3: Linear Regressions	6: Correlation