

Table of Contents

A1.N.Q.A.1 1	A1.F.IF.A.1 11	A1.S.ID.C.5 19
A1.N.Q.A.2 1	A1.F.IF.A.2 11	A1.S.ID.C.6 20
A1.N.Q.A.3 1	A1.F.IF.B.3 11	A1.S.ID.C.7 20
A1.A.SSE.A.1a 2	A1.F.IF.B.3 12	
A1.A.SSE.A.1b 2	A1.F.IF.B.4 12	
A1.A.SSE.A.2 2	A1.F.IF.B.5 13	
A1.A.SSE.B.3a 2	A1.F.IF.C.6a 13	
A1.A.SSE.B.3a 3	A1.F.IF.C.6b 13	
A1.A.SSE.B.3b 3	A1.F.IF.C.6b 14	
A1.A.SSE.B.3c 3	A1.F.IF.C.7a 14	
A1.A.APR.A.1 3	A1.F.IF.C.8 14	
A1.A.APR.B.2 3	A1.F.IF.C.8 15	
A1.A.CED.A.1 4	A1.F.BF.A.1a 15	
A1.A.CED.A.2 5	A1.F.BF.B.2 15	
A1.A.CED.A.3 6	A1.F.BF.B.2 16	
A1.A.CED.A.4 6	A1.F.LE.A.1a 16	
A1.A.REI.A.1 7	A1.F.LE.A.1b 16	
A1.A.REI.B.2 7	A1.F.LE.A.1c 17	
A1.A.REI.B.3 7	A1.F.LE.A.2 17	
A1.A.REI.B.3a 7	A1.F.LE.A.3 17	
A1.A.REI.B.3b 8	A1.F.LE.B.4 17	
A1.A.REI.C.4 8	A1.S.ID.A.1 17	
A1.A.REI.D.5 9	A1.S.ID.A.2 18	
A1.A.REI.D.6 9	A1.S.ID.A.3 18	
A1.A.REI.D.6 10	A1.S.ID.B.4 18	
A1.A.REI.D.7 10	A1.S.ID.B.4a 19	
A1.F.IF.A.1 10	A1.S.ID.B.4b 19	

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit(MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A1.N.Q.A.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.	Textbook	1: Searching for Patterns	1: Quantities and Relationships	1: A Picture Is Worth a Thousand Words: Understanding Quantities and Their Relationships pp. M1-7A–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. M2-23A–M2-40
					4: Connect Four: Comparing Linear Functions in Different Forms pp. M2-59A–M2-67
2: Solving Linear Equations and Inequalities	2: It's Literally About Literal Equations: Literal Equations pp. M2-91A–M2-102				
A1.N.Q.A.2	Identify, interpret, and justify appropriate quantities for the purpose of descriptive modeling.	Textbook	1: Searching for Patterns	1: Quantities and Relationships	1: A Picture Is Worth a Thousand Words: Understanding Quantities and Their Relationships pp. M1-7A–M1-20
			3: Investigating Growth and Decay	2: Using Exponential Equations	3: Savings, Tea, and Carbon Dioxide: Modeling Using Exponential Functions pp. M3-103A–M3-114
		MATHia Software	1: Searching for Patterns	1: Function Overview	4: BAC Is BAD News: Choosing a Function to Model BAC pp. M3-115A–M3-124
A1.N.Q.A.3	Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.	Textbook	1: Searching for Patterns	3: Linear Regressions	1: Identifying Quantities
					1: Like a Glove: Least Square Regressions pp. M1-167A–M1-180
			2: Exploring Constant Change	2: Solving Linear Equations and Inequalities	2: Gotta Keep It Correlatin': Correlation pp. M1-181A–M1-195
4: To Fit or Not To Fit? That Is The Question!: Using Residual Plots pp. M1-211A–M1-222					
3: Investigating Growth and Decay	2: Using Exponential Equations	3: Not All Statements Are Made Equal: Modeling Linear Inequalities pp. M2-103A–M2-116			
					4: Don't Confound Your Compounds: Solving and Graphing Compound Inequalities pp. M2-117A–M2-130
					1: Uptown and Downtown: Exponential Equations for Growth and Decay pp. M3-81A–M3-92

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A1.A.SSE.A.1a	Interpret parts of an expression, such as terms, factors, and coefficients.	Textbook	2: Exploring Constant Change	1: Linear Functions	2: Fun with Functions, Linear Ones: Making Sense of Different Representations of a Linear Function pp. M2-23A–M2-40
			5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	2: Endless Forms Most Beautiful: Key Characteristics of Quadratic Functions pp. M5-23A–M5-46
					4: You Lose Some, You Lose Some: Comparing Functions Using Key Characteristics and Average Rate of Change pp. M5-73A–M5-88
2: Solving Quadratic Equations	1: This Time, With Polynomials: Adding, Subtracting, and Multiplying Polynomials pp. M5-101A–M5-125				
A1.A.SSE.A.1b	Interpret complicated expressions by viewing one or more of their parts as a single entity.	Textbook	3: Investigating Growth and Decay	2: Using Exponential Equations	1: Uptown and Downtown: Exponential Equations for Growth and Decay pp. M3-81A–M3-92
			5: Maximizing and Minimizing	2: Solving Quadratic Equations	5: Ladies and Gentlemen, Please Welcome the Quadratic Formula! The Quadratic Formula pp. M5-175A–M5-202
A1.A.SSE.A.2	Use the structure of an expression to identify ways to rewrite it.	Textbook	5: Maximizing and Minimizing	2: Solving Quadratic Equations	2: Solutions, More or Less: Representing Solutions to Quadratic Equations pp. M5-127A–M5-140
		MATHia Software	5: Maximizing and Minimizing	5: Quadratic Expression Factoring	3: Transforming Solutions: Solutions to Quadratic Equations in Vertex Form pp. M5-141A–M5-152
A1.A.SSE.B.3a	Factor a quadratic expression to reveal the zeros of the function it defines.	Textbook	5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	2: Endless Forms Most Beautiful: Key Characteristics of Quadratic Functions pp. M5-23A–M5-46
				2: Solving Quadratic Equations	3: More Than Meets the Eye: Transformations of Quadratic Functions pp. M5-47A–M5-72
		MATHia Software	5: Maximizing and Minimizing		5: Quadratic Expression Factoring
3: Transforming Solutions: Solutions to Quadratic Equations in Vertex Form pp. M5-141A–M5-152					
3: Factoring Trinomials with Coefficients of One					

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit(MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A1.A.SSE.B.3a	Factor a quadratic expression to reveal the zeros of the function it defines.	MATHia Software	5: Maximizing and Minimizing	5: Quadratic Expression Factoring	4: Factoring Trinomials with Coefficients Other than One 6: Factoring Quadratic Expressions
				6: Forms of Quadratics	2: Converting Quadratics to General Form 3: Converting Quadratics to Factored Form 4: Converting Quadratics to Vertex Form
					7: Quadratic Equation Solving
A1.A.SSE.B.3b	Complete the square in a quadratic expression in the form $Ax^2 + Bx + C$ to reveal the maximum or minimum value of the function it defines.	Textbook	5: Maximizing and Minimizing	2: Solving Quadratic Equations	4: The Missing Link: Factoring and Completing the Square pp. M5-153A-M5-174
		MATHia Software	5: Maximizing and Minimizing	6: Forms of Quadratics	2: Converting Quadratics to General Form 3: Converting Quadratics to Factored Form 4: Converting Quadratics to Vertex Form
				7: Quadratic Equation Solving	5: Problem Solving Using Completing the Square
A1.A.SSE.B.3c	Use the properties of exponents to rewrite exponential expressions.	Textbook	3: Investigating Growth and Decay	2: Using Exponential Equations	2: Powers and the Horizontal Line: Interpreting Parameters in Context pp. M3-93A-M3-102
A1.A.APR.A.1	Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.	Textbook	5: Maximizing and Minimizing	2: Solving Quadratic Equations	1: This Time, With Polynomials: Adding, Subtracting, and Multiplying Polynomials pp. M5-101A-M5-125
		MATHia Software	5: Maximizing and Minimizing	4: Polynomial Operations	1: Introduction to Polynomial Arithmetic 2: Adding Polynomials 3: Subtracting Polynomials 4: Using a Factor Table to Multiply Polynomials 5: Multiplying Polynomials
				5: Quadratic Expression Factoring	1: Using a Factor Table to Multiply Binomials 2: Multiplying Binomials
A1.A.APR.B.2	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.	Textbook	5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	2: Endless Forms Most Beautiful: Key Characteristics of Quadratic Functions pp. M5-23A-M5-46

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit(MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A1.A.CED.A.1	Create equations and inequalities in one variable and use them to solve problems.	Textbook	2: Exploring Constant Change	1: Linear Functions	2: Fun with Functions, Linear Ones: Making Sense of Different Representations of a Linear Function pp. M2-23A–M2-40
				2: Solving Linear Equations and Inequalities	1: Strike a Balance: Solving Linear Equations pp. M2-79A–M2-90A
			3: Not All Statements Are Made Equal: Modeling Linear Inequalities pp. M2-103A–M2-116		
			4: Don't Confound Your Compounds: Solving and Graphing Compound Inequalities pp. M2-117A–M2-130		
			3: Investigating Growth and Decay	1: Introduction to Exponential Functions	2: The Power Within: Rational Exponents and Graphs of Exponential Functions pp. M3-23A–M3-44
				2: Using Exponential Equations	1: Uptown and Downtown: Exponential Equations for Growth and Decay pp. M3-81A–M3-92
			2: Powers and the Horizontal Line: Interpreting Parameters in Context pp. M3-93A–M3-102		
		5: Maximizing and Minimizing	3: Applications of Quadratics	1: Ahead of the Curve: Solving Quadratic Inequalities pp. M5-215A–M5-224	
		MATHia Software	2: Exploring Constant Change	2: Linear Equations	1: Modeling Rates of Change
					2: Modeling Linear Equations Given Two Points
					3: Modeling Linear Equations Given an Initial Point
					4: Modeling Linear Equations Using Multiple Representations
			3: Investigating Growth and Decay	5: Solving Exponential Equations	1: Solving Exponential Equations Using a Graph
					2: Solving Contextual Exponential Equations Using Common Bases
5: Maximizing and Minimizing	1: Quadratic Models in Factored Form		3: Solving Complex Exponential Equations Using Common Bases		
		1: Modeling Area as Product of Monomial and Binomial			
2: Modeling Area as Product of Two Binomials					

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit(MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)		
A1.A.CED.A.2	Create equations in two or more variables to represent relationships between quantities; graph equations with two variables on coordinate axes with labels and scales.	Textbook	2: Exploring Constant Change	3: Systems of Equations and Inequalities	1: Double the Fun: Introduction to Systems of Equations pp. M2-139A–M2-154		
					2: The Elimination Round: Using Linear Combinations to Solve a System of Linear Equations pp. M2-155A–M2-168		
					3: Throwing Shade: Graphing Inequalities in Two Variables pp. M2-169A–M2-184		
						4: Functions Derived from Linear Relationships	2: Play Ball!: Absolute Value Equations and Inequalities pp. M2-247A–M2-260
			3: Investigating Growth and Decay	2: Using Exponential Equations	1: Uptown and Downtown: Exponential Equations for Growth and Decay pp. M3-81A–M3-92		
					2: Powers and the Horizontal Line: Interpreting Parameters in Context pp. M3-93A–M3-102		
	5: Maximizing and Minimizing	3: Applications of Quadratics	1: Ahead of the Curve: Solving Quadratic Inequalities pp. M5-215A–M5-224				
			2: All Systems Are Go!: Systems of Quadratic Equations pp. M5-225A–M5-236				

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit(MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A1.A.CED.A.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.	Textbook	2: Exploring Constant Change	2: Solving Linear Equations and Inequalities	3: Not All Statements Are Made Equal: Modeling Linear Inequalities pp. M2-103A–M2-116
				3: Systems of Equations and Inequalities	3: Throwing Shade: Graphing Inequalities in Two Variables pp. M2-169A–M2-184
					4: Working with Constraints: Systems of Linear Inequalities pp. M2-185A–M2-198
					5: Working the System: Solving Systems of Equations and Inequalities pp. M2-199A–M2-208
				6: Take It to the Max...or Min: Linear Programming pp. M2-209A–M2-218	
		4: Functions Derived from Linear Relationships	2: Play Ball!: Absolute Value Equations and Inequalities pp. M2-247A–M2-260		
		5: Maximizing and Minimizing	3: Applications of Quadratics	1: Ahead of the Curve: Solving Quadratic Inequalities pp. M5-215A–M5-224	
				2: All Systems Are Go!: Systems of Quadratic Equations pp. M5-225A–M5-236	
MATHia Software	2: Exploring Constant Change	6: Absolute Value Equations	1: Graphing Simple Absolute Value Equations Using Number Lines		
		2: Solving Absolute Value Equations			
		3: Reasoning About Absolute Value Inequalities			
A1.A.CED.A.4	Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations.	Textbook	2: Exploring Constant Change	2: Solving Linear Equations and Inequalities	2: It's Literally About Literal Equations: Literal Equations pp. M2-91A–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. M5-73A–M5-88
		MATHia Software	2: Exploring Constant Change	2: Linear Equations	5: Extending Equations to Literal Equations
					6: Solving Literal Equations

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit (MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A1.A.REI.A.1	Explain each step in solving an equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.	Textbook	2: Exploring Constant Change	2: Solving Linear Equations and Inequalities	1: Strike a Balance: Solving Linear Equations pp. M2-79A–M2-90A
A1.A.REI.B.2	Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	Textbook	2: Exploring Constant Change	2: Solving Linear Equations and Inequalities	1: Strike a Balance: Solving Linear Equations pp. M2-79A–M2-90A
					3: Not All Statements Are Made Equal: Modeling Linear Inequalities pp. M2-103A–M2-116
					4: Don't Confound Your Compounds: Solving and Graphing Compound Inequalities pp. M2-117A–M2-130
		MATHia Software	2: Exploring Constant Change	3: Linear Inequalities	1: Graphing Inequalities
		3: Investigating Growth and Decay	1: Introduction to Exponential Functions	2: The Power Within: Rational Exponents and Graphs of Exponential Functions pp. M3-23A–M3-44	
A1.A.REI.B.3	Solve quadratic equations and inequalities in one variable.	Textbook	5: Maximizing and Minimizing	2: Solving Quadratic Equations	5: Ladies and Gentlemen, Please Welcome the Quadratic Formula! The Quadratic Formula pp. M5-175A–M5-202
				3: Applications of Quadratics	1: Ahead of the Curve: Solving Quadratic Inequalities pp. M5-215A–M5-224
A1.A.REI.B.3a	Use the method of completing the square to rewrite 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.	Textbook	5: Maximizing and Minimizing	2: Solving Quadratic Equations	4: The Missing Link: Factoring and Completing the Square pp. M5-153A–M5-174
				3: Applications of Quadratics	5: Ladies and Gentlemen, Please Welcome the Quadratic Formula! The Quadratic Formula pp. M5-175A–M5-202
		MATHia Software	5: Maximizing and Minimizing	5: Quadratic Expression Factoring	1: Ahead of the Curve: Solving Quadratic Inequalities pp. M5-215A–M5-224
					7: Completing the Square

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit(MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A1.A.REI.B.3b	Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, knowing and applying the quadratic formula, and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions.	Textbook	5: Maximizing and Minimizing	2: Solving Quadratic Equations	2: Solutions, More or Less: Representing Solutions to Quadratic Equations pp. M5-127A-M5-140
				3: Applications of Quadratics	5: Ladies and Gentlemen, Please Welcome the Quadratic Formula! The Quadratic Formula pp. M5-175A-M5-202
		MATHia Software	5: Maximizing and Minimizing	7: Quadratic Equation Solving	1: Ahead of the Curve: Solving Quadratic Inequalities pp. M5-215A-M5-224
					2: Solving Quadratic Equations by Factoring 3: Solving Quadratic Equations 4: Problem Solving Using Factoring 5: Problem Solving Using Completing the Square
A1.A.REI.C.4	Write and solve a system of linear equations in context.	Textbook	2: Exploring Constant Change	3: Systems of Equations and Inequalities	1: Double the Fun: Introduction to Systems of Equations pp. M2-139A-M2-154
					2: The Elimination Round: Using Linear Combinations to Solve a System of Linear Equations pp. M2-155A-M2-168
		MATHia Software	2: Exploring Constant Change	4: Systems of Linear Equations	5: Working the System: Solving Systems of Equations and Inequalities pp. M2-199A-M2-208
					1: Representing Systems of Linear Functions 3: Solving Linear Systems Using Any Method

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit(MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A1.A.REI.D.5	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).	Textbook	1: Searching for Patterns	1: Quantities and Relationships	1: A Picture Is Worth a Thousand Words: Understanding Quantities and Their Relationships pp. M1-7A–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. M2-23A–M2-40
				3: Systems of Equations and Inequalities	1: Double the Fun: Introduction to Systems of Equations pp. M2-139A–M2-154
			3: Investigating Growth and Decay	1: Introduction to Exponential Functions	1: A Constant Ratio: Geometric Sequences and Exponential Functions pp. M3-7A–M3-22
				2: Using Exponential Equations	2: Powers and the Horizontal Line: Interpreting Parameters in Context pp. M3-93A–M3-102
		5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	1: Up and Down or Down and Up: Exploring Quadratic Functions pp. M5-7A–M5-22	
			2: Solving Quadratic Equations	2: Solutions, More or Less: Representing Solutions to Quadratic Equations pp. M5-127A–M5-140	
MATHia Software	2: Exploring Constant Change	1: Linear Function Overview	4: Exploring Graphs of Linear Functions		
A1.A.REI.D.6	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 approximate solutions using technology. *	Textbook	2: Exploring Constant Change	3: Systems of Equations and Inequalities	1: Double the Fun: Introduction to Systems of Equations pp. M2-139A–M2-154
				6: Take It to the Max...or Min: Linear Programming pp. M2-209A–M2-218	
			4: Functions Derived from Linear Relationships	2: Play Ball!: Absolute Value Equations and Inequalities pp. M2-247A–M2-260	
3: Investigating Growth and Decay	2: Using Exponential Equations	2: Powers and the Horizontal Line: Interpreting Parameters in Context pp. M3-93A–M3-102			

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit(MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)	
A1.A.REI.D.6	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 approximate solutions using technology. *	Textbook	5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	1: Up and Down or Down and Up: Exploring Quadratic Functions pp. M5-7A–M5-22	
				3: Applications of Quadratics	2: All Systems Are Go!: Systems of Quadratic Equations pp. M5-225A–M5-236	
		MATHia Software		2: Exploring Constant Change	4: Systems of Linear Equations	1: Representing Systems of Linear Functions
				3: Investigating Growth and Decay	5: Solving Exponential Equations	1: Solving Exponential Equations Using a Graph
	5: Maximizing and Minimizing	7: Quadratic Equation Solving	1: Making Sense of Roots and Zeros			
A1.A.REI.D.7	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.	Textbook	2: Exploring Constant Change	3: Systems of Equations and Inequalities	3: Throwing Shade: Graphing Inequalities in Two Variables pp. M2-169A–M2-184	
					4: Working with Constraints: Systems of Linear Inequalities pp. M2-185A–M2-198	
					5: Working the System: Solving Systems of Equations and Inequalities pp. M2-199A–M2-208	
		MATHia Software		2: Exploring Constant Change	5: Linear Inequalities in Two Variables	6: Take It to the Max...or Min: Linear Programming pp. M2-209A–M2-218
				1: Graphing Linear Inequalities		
				2: Systems of Linear Inequalities		
A1.F.IF.A.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 $y = f(x)$.	Textbook	1: Searching for Patterns	1: Quantities and Relationships	1: A Picture Is Worth a Thousand Words: Understanding Quantities and Their Relationships pp. M1-7A–M1-20	

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit(MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A1.F.IF.A.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 $y = f(x)$.	Textbook	1: Searching for Patterns	1: Quantities and Relationships	3: F of X: Recognizing Functions and Function Families pp. M1-39A–M1-62
			2: Exploring Constant Change	1: Linear Functions	1: Connecting the Dots: Making Connections Between Arithmetic Sequences and Linear Functions pp. M2-7A–M2-22
		MATHia Software	1: Searching for Patterns	1: Function Overview	2: Introduction to Function Families
			2: Exploring Constant Change	1: Linear Function Overview	1: Writing Sequences as Linear Functions 2: Understanding Linear Functions 4: Exploring Graphs of Linear Functions 5: Identifying Key Characteristics of Graphs of Functions
A1.F.IF.A.2	Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.	Textbook	2: Exploring Constant Change	1: Linear Functions	2: Fun with Functions, Linear Ones: Making Sense of Different Representations of a Linear Function pp. M2-23A–M2-40
				3: Systems of Equations and Inequalities	6: Take It to the Max...or Min: Linear Programming pp. M2-209A–M2-218
		MATHia Software	2: Exploring Constant Change	1: Linear Function Overview	3: Evaluating Linear Functions
A1.F.IF.B.3	For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *	Textbook	1: Searching for Patterns	1: Quantities and Relationships	1: A Picture Is Worth a Thousand Words: Understanding Quantities and Their Relationships pp. M1-7A–M1-20
					2: A Sort of Sorts: Analyzing and Sorting Graphs pp. M1-21A–M1-38
					3: F of X: Recognizing Functions and Function Families pp. M1-39A–M1-62

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit(MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A1.F.IF.B.3	For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *	Textbook	1: Searching for Patterns	1: Quantities and Relationships	4: Function Families for 200, Alex: Recognizing Functions by Characteristics pp. M1-63A–M1-75
			2: Exploring Constant Change	1: Linear Functions	2: Fun with Functions, Linear Ones: Making Sense of Different Representations of a Linear Function pp. M2-23A–M2-40
					3: Get Your Move On: Transforming Linear Functions pp. M2-41A–M2-57
				4: Functions Derived from Linear Relationships	3: I Graph in Pieces: Linear Piecewise Functions pp. M2-261A–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. M3-45A–M3-69
		5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	1: Up and Down or Down and Up: Exploring Quadratic Functions pp. M5-7A–M5-22	
				2: Endless Forms Most Beautiful: Key Characteristics of Quadratic Functions pp. M5-23A–M5-46	
		MATHia Software	3: Investigating Growth and Decay	1: Exponential Functions	2: Introduction to Exponential Functions
			5: Maximizing and Minimizing	1: Quadratic Models in Factored Form	3: Interpreting Maximums of Quadratic Models
				2: Quadratic Models in General Form	1: Modeling Projectile Motion
A1.F.IF.B.4	Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes.*	Textbook	1: Searching for Patterns	1: Quantities and Relationships	3: F of X: Recognizing Functions and Function Families pp. M1-39A–M1-62
				2: Sequences	1: Is There a Pattern Here?: Recognizing Patterns and Sequences pp. M1-87A–M1-102
		MATHia Software	5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	1: Up and Down or Down and Up: Exploring Quadratic Functions pp. M5-7A–M5-22
			3: Investigating Growth and Decay	1: Exponential Functions	3: Relating the Domain to Exponential Functions

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit(MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A1.F.IF.B.5	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.*	Textbook	2: Exploring Constant Change	1: Linear Functions	1: Connecting the Dots: Making Connections Between Arithmetic Sequences and Linear Functions pp. M2-7A–M2-22
			3: Investigating Growth and Decay	2: Using Exponential Equations	1: Uptown and Downtown: Exponential Equations for Growth and Decay pp. M3-81A–M3-92
			5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	2: Endless Forms Most Beautiful: Key Characteristics of Quadratic Functions pp. M5-23A–M5-46
		MATHia Software	2: Exploring Constant Change	1: Linear Function Overview	2: Understanding Linear Functions
			3: Investigating Growth and Decay	1: Exponential Functions	5: Calculating and Interpreting Average Rate of Change
A1.F.IF.C.6a	Graph linear and quadratic functions and show intercepts, maxima, and minima.	Textbook	2: Exploring Constant Change	1: Linear Functions	3: Get Your Move On: Transforming Linear Functions pp. M2-41A–M2-57
				3: Systems of Equations and Inequalities	1: Double the Fun: Introduction to Systems of Equations pp. M2-139A–M2-154
			5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	1: Up and Down or Down and Up: Exploring Quadratic Functions pp. M5-7A–M5-22
		MATHia Software	5: Maximizing and Minimizing	6: Forms of Quadratics	2: Endless Forms Most Beautiful: Key Characteristics of Quadratic Functions pp. M5-23A–M5-46
5: Maximizing and Minimizing	6: Forms of Quadratics		5: Sketching Quadratic Functions		
A1.F.IF.C.6b	Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.	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. M2-229A–M2-246
					2: Play Ball!: Absolute Value Equations and Inequalities pp. M2-247A–M2-260

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit(MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A1.F.IF.C.6b	Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.	Textbook	2: Exploring Constant Change	4: Functions Derived from Linear Relationships	3: I Graph in Pieces: Linear Piecewise Functions pp. M2-261A–M2-274 4: Step by Step: Step Functions pp. M2-275–M2-286
			5: Maximizing and Minimizing	3: Applications of Quadratics	3: Model Behavior: Using Quadratic Functions to Model Data pp. M5-237A–M5-252A
		MATHia Software	2: Exploring Constant Change	7: Graphs of Piecewise Functions	1: Introduction to Piecewise Functions
					2: Graphing Linear Piecewise Functions
					3: Interpreting Piecewise Functions
4: Using Linear Piecewise Functions					
5: Analyzing Step Functions					
A1.F.IF.C.7a	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.	Textbook	5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	2: Endless Forms Most Beautiful: Key Characteristics of Quadratic Functions pp. M5-23A–M5-46
				2: Solving Quadratic Equations	4: The Missing Link: Factoring and Completing the Square pp. M5-153A–M5-174
		MATHia Software	5: Maximizing and Minimizing	5: Quadratic Expression Factoring	7: Completing the Square
				6: Forms of Quadratics	1: Identifying Properties of Quadratic Functions
					2: Converting Quadratics to General Form
3: Converting Quadratics to Factored Form					
4: Converting Quadratics to Vertex Form					
A1.F.IF.C.8	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).	Textbook	2: Exploring Constant Change	1: Linear Functions	4: Connect Four: Comparing Linear Functions in Different Forms pp. M2-59A–M2-67

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit(MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A1.F.IF.C.8	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).	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. M5-73A–M5-88
		MATHia Software	2: Exploring Constant Change	1: Linear Function Overview	6: Comparing Linear Functions in Different Forms
			3: Investigating Growth and Decay	1: Exponential Functions	6: Comparing Exponential Functions in Different Forms
			5: Maximizing and Minimizing	6: Forms of Quadratics	6: Comparing Quadratic Functions in Different Forms
				7: Quadratic Equation Solving	1: Making Sense of Roots and Zeros
A1.F.BF.A.1a	Determine an explicit expression, a recursive process, or steps for calculation from a context.	Textbook	1: Searching for Patterns	2: Sequences	1: Is There a Pattern Here?: Recognizing Patterns and Sequences pp. M1-87A–M1-102
					3: Did You Mean: Recursion?: Determining Recursive and Explicit Expressions from Contexts pp. M1-135A–M1-146
		MATHia Software	3: Investigating Growth and Decay	1: Introduction to Exponential Functions	1: A Constant Ratio: Geometric Sequences and Exponential Functions pp. M3-7A–M3-22
			1: Searching for Patterns	2: Sequences	2: Writing Recursive Formulas 3: Writing Explicit Formulas
A1.F.BF.B.2	Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, 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.	Textbook	2: Exploring Constant Change	1: Linear Functions	2: Fun with Functions, Linear Ones: Making Sense of Different Representations of a Linear Function pp. M2-23A–M2-40
				4: Functions Derived from Linear Relationships	3: Get Your Move On: Transforming Linear Functions pp. M2-41A–M2-57
					1: Putting the V in Absolute Value: Defining Absolute Value Functions and Transformations pp. M2-229A–M2-246

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit(MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A1.F.BF.B.2	Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, 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.	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. M3-45A–M3-69
			5: Maximizing and Minimizing	1: Introduction to Quadratic Functions	3: More Than Meets the Eye: Transformations of Quadratic Functions pp. M5-47A–M5-72
		MATHia Software	2: Exploring Constant Change	1: Linear Function Overview	4: Exploring Graphs of Linear Functions
			3: Investigating Growth and Decay	3: Linear and Exponential Transformations	1: Introduction to Transforming Exponential Functions
					2: Shifting Vertically
					3: Reflecting and Dilating using Graphs
					4: Shifting Horizontally
					5: Transforming using Tables of Values
					6: Using Multiple Transformations
			5: Maximizing and Minimizing	3: Linear and Quadratic Transformations	1: Shifting Vertically
2: Reflecting and Dilating using Graphs					
3: Shifting Horizontally					
4: Transforming Using Tables of Values					
9: Function Operations	1: Operating with Functions on the Coordinate Plane				
A1.F.LE.A.1a	Recognize that linear functions grow by equal differences over equal intervals and that exponential functions grow by equal factors over equal intervals.	Textbook	2: Exploring Constant Change	1: Linear Functions	1: Connecting the Dots: Making Connections Between Arithmetic Sequences and Linear Functions pp. M2-7A–M2-22
			3: Investigating Growth and Decay	1: Introduction to Exponential Functions	1: A Constant Ratio: Geometric Sequences and Exponential Functions pp. M3-7A–M3-22
A1.F.LE.A.1b	Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.	Textbook	2: Exploring Constant Change	1: Linear Functions	1: Connecting the Dots: Making Connections Between Arithmetic Sequences and Linear Functions pp. M2-7A–M2-22
		MATHia Software	3: Investigating Growth and Decay	4: Comparing Linear and Exponential Models	1: Recognizing Linear and Exponential Models

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit(MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A1.F.LE.A.1c	Recognize situations in which a quantity grows or decays by a constant factor per unit interval relative to another.	Textbook	3: Investigating Growth and Decay	2: Using Exponential Equations	1: Uptown and Downtown: Exponential Equations for Growth and Decay pp. M3-81A–M3-92
		MATHia Software	3: Investigating Growth and Decay	4: Comparing Linear and Exponential Models	1: Recognizing Linear and Exponential Models 2: Recognizing Growth and Decay
A1.F.LE.A.2	Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a table, a description of a relationship, or input-output pairs.	Textbook	2: Exploring Constant Change	1: Linear Functions	1: Connecting the Dots: Making Connections Between Arithmetic Sequences and Linear Functions pp. M2-7A–M2-22
			3: Investigating Growth and Decay	1: Introduction to Exponential Functions	1: A Constant Ratio: Geometric Sequences and Exponential Functions pp. M3-7A–M3-22 2: The Power Within: Rational Exponents and Graphs of Exponential Functions pp. M3-23A–M3-44
A1.F.LE.A.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.	Textbook	3: Investigating Growth and Decay	2: Using Exponential Equations	1: Uptown and Downtown: Exponential Equations for Growth and Decay pp. M3-81A–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. M5-73A–M5-88
A1.F.LE.B.4	Interpret the parameters in a linear or exponential function in terms of a context.	Textbook	3: Investigating Growth and Decay	1: Introduction to Exponential Functions	1: A Constant Ratio: Geometric Sequences and Exponential Functions pp. M3-7A–M3-22
				2: Using Exponential Equations	1: Uptown and Downtown: Exponential Equations for Growth and Decay pp. M3-81A–M3-92 2: Powers and the Horizontal Line: Interpreting Parameters in Context pp. M3-93A–M3-102
A1.S.ID.A.1	Represent single or multiple data sets with dot plots, histograms, stem plots (stem and leaf), and box plots.	Textbook	4: Describing Distributions	1: One-Variable Statistics	1: Way to Represent!: Graphically Representing Data pp. M4-7A–M4-16 2: A Skewed Reality: Determining the Better Measure of Center and Spread for a Data Set pp. M4-17A–M4-34 3: Dare to Compare: Comparing Data Sets pp. M4-35A–M4-44
		MATHia Software	4: Describing Distributions	1: Numerical Summary Statistics	3: Comparing and Interpreting Measures of Center

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit(MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A1.S.ID.A.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.	Textbook	4: Describing Distributions	1: One-Variable Statistics	1: Way to Represent!: Graphically Representing Data pp. M4-7A-M4-16
					2: A Skewed Reality: Determining the Better Measure of Center and Spread for a Data Set pp. M4-17A-M4-34
					3: Dare to Compare: Comparing Data Sets pp. M4-35A-M4-44
		MATHia Software	4: Describing Distributions	1: Numerical Summary Statistics	1: Determining Appropriate Measures
					3: Comparing and Interpreting Measures of Center
					4: Calculating Standard Deviation
A1.S.ID.A.3	Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).	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. M4-17A-M4-34
					3: Dare to Compare: Comparing Data Sets pp. M4-35A-M4-44
		MATHia Software	4: Describing Distributions	1: Numerical Summary Statistics	3: Comparing and Interpreting Measures of Center
					2: Measuring the Effects of Changing Data Sets
A1.S.ID.B.4	Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.	Textbook	1: Searching for Patterns	3: Linear Regressions	3: The Residual Effect: Creating Residual Plots pp. M1-197A-M1-210
					4: To Fit or Not To Fit? That Is The Question!: Using Residual Plots pp. M1-211A-M1-222

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit(MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A1.S.ID.B.4a	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.	Textbook	1: Searching for Patterns	3: Linear Regressions	1: Like a Glove: Least Square Regressions pp. M1-167A-M1-180
					2: Gotta Keep It Correlatin': Correlation pp. M1-181A-M1-195
					3: The Residual Effect: Creating Residual Plots pp. M1-197A-M1-210
		MATHia Software	3: Investigating Growth and Decay	2: Using Exponential Equations	4: To Fit or Not To Fit? That Is The Question!: Using Residual Plots pp. M1-211A-M1-222
					3: Savings, Tea, and Carbon Dioxide: Modeling Using Exponential Functions pp. M3-103A-M3-114
					4: BAC Is BAD News: Choosing a Function to Model BAC pp. M3-115A-M3-124
MATHia Software	5: Maximizing and Minimizing	3: Applications of Quadratics	3: Model Behavior: Using Quadratic Functions to Model Data pp. M5-237A-M5-252A		
			1: Exploring Linear Regression		
A1.S.ID.B.4b	Fit a linear function for a scatter plot that suggests a linear association.	Textbook	1: Searching for Patterns	3: Linear Regressions	2: Using Linear Regression
					1: Using Regression Models
					1: Like a Glove: Least Square Regressions pp. M1-167A-M1-180
		MATHia Software	1: Searching for Patterns	3: Linear Regression	1: Exploring Linear Regression
A1.S.ID.C.5	Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.	Textbook	1: Searching for Patterns	3: Linear Regressions	2: Gotta Keep It Correlatin': Correlation pp. M1-181A-M1-195
					3: The Residual Effect: Creating Residual Plots pp. M1-197A-M1-210
		MATHia Software	1: Searching for Patterns	3: Linear Regression	1: Exploring Linear Regression
A1.S.ID.C.5	Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.	Textbook	1: Searching for Patterns	3: Linear Regressions	4: To Fit or Not To Fit? That Is The Question!: Using Residual Plots pp. M1-211A-M1-222
					3: Interpreting Lines of Best Fit

Standard ID	Description	Location	Module	Topic (Textbook)/ Unit(MATHia Software)	Lesson (Textbook) / Workspace (MATHia Software)
A1.S.ID.C.6	Use technology to compute and interpret the correlation coefficient of a linear fit.	Textbook	1: Searching for Patterns	3: Linear Regressions	2: Gotta Keep It Correlatin': Correlation pp. M1-181A-M1-195
		MATHia Software	1: Searching for Patterns	3: Linear Regression	3: Interpreting Lines of Best Fit
A1.S.ID.C.7	Distinguish between correlation and causation.	Textbook	1: Searching for Patterns	3: Linear Regressions	2: Gotta Keep It Correlatin': Correlation pp. M1-181A-M1-195