EUREKA MATH™

GREAT MINDS

ABOUT *EUREKA MATH*

Created by the nonprofit Great Minds, *Eureka Math* helps teachers deliver unparalleled math instruction that provides students with a deep understanding and fluency in math. Crafted by teachers and math scholars, the curriculum carefully sequences the mathematical progressions to maximize coherence from Prekindergarten through Precalculus—a principle tested and proven to be essential in students' mastery of math.

Teachers and students using *Eureka Math* find the trademark "Aha!" moments in *Eureka Math* to be a source of joy and inspiration, lesson after lesson, year after year.

ALIGNED

Eureka Math is the only curriculum found by EdReports.org to align fully with the Common Core State Standards for Mathematics for all grades, Kindergarten through Grade 8. Great Minds offers detailed analyses which demonstrate how each grade of *Eureka Math* aligns with specific state standards. Access these free alignment studies at greatminds.org/state-studies.

DATA

Schools and districts nationwide are experiencing student growth and impressive test scores after using *Eureka Math*. See their stories and data at greatminds.org/data.

FULL SUITE OF RESOURCES

As a nonprofit, Great Minds offers the *Eureka Math* curriculum as PDF downloads for free, noncommercial use. Access the free PDFs at greatminds.org/math/curriculum.

The teacher–writers who created the curriculum have also developed essential resources, available only from Great Minds, including the following:

- Printed material in English and Spanish
- Digital resources
- Professional development
- Classroom tools and manipulatives
- Teacher support materials
- Parent resources

Texas Essential Knowledge and Skills for Mathematics Correlation to *Eureka Math*™

ALGEBRA I

The majority of the Algebra I Texas Essential Knowledge and Skills for Mathematics are fully covered by the Algebra I *Eureka Math* curriculum. The areas where the Algebra I Texas Essential Knowledge and Skills for Mathematics and Algebra I *Eureka Math* do not align will require the use of *Eureka Math* content from other grade levels or courses, or supplemental materials. A detailed analysis of alignment is provided in the table below. With strategic placement of supplemental materials, *Eureka Math* can ensure students are successful in achieving the proficiencies of the Texas Essential Knowledge and Skills for Mathematics while still benefiting from the coherence and rigor of *Eureka Math*.

INDICATORS

Green indicates that the Texas standard is fully addressed in *Eureka Math*.

Yellow indicates that the Texas standard may not be completely addressed in *Eureka Math*.

Red indicates that the Texas standard is not addressed in *Eureka Math*.

Blue indicates there is a discrepancy between the grade level at which this standard is addressed in the Texas standards and in *Eureka Math*.

Mathematical Process Standards		Aligned Components of *Eureka Math*
(1) The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:		
a. apply mathematics to problems arising in everyday life, society, and the workplace;		This process standard is analogous to the CCSSM Standards for Mathematical Practice 1, which is specifically addressed in the following modules: Algebra I M1: Relationships Between Quantities and Reasoning with Equations and Their Graphs Algebra I M2: Descriptive Statistics Algebra I M3: Linear and Exponential Functions Algebra I M4: Polynomial and Quadratic Expressions, Equations, and Functions Algebra I M5: A Synthesis of Modeling with Equations and Functions

Mathematical Process Standards	Aligned Components of *Eureka Math*
b. use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;	This process standard is analogous to the CCSSM Standards for Mathematical Practice 1, which is specifically addressed in the following modules: Algebra I M1: Relationships Between Quantities and Reasoning with Equations and Their Graphs Algebra I M2: Descriptive Statistics Algebra I M3: Linear and Exponential Functions Algebra I M4: Polynomial and Quadratic Expressions, Equations, and Functions Algebra I M5: A Synthesis of Modeling with Equations and Functions
c. select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;	This process standard is analogous to the CCSSM Standards for Mathematical Practice 5, which is specifically addressed in the following modules: Algebra I M2: Descriptive Statistics Algebra I M4: Polynomial and Quadratic Expressions, Equations, and Functions Algebra I M5: A Synthesis of Modeling with Equations and Functions

Mathematical Process Standards	Aligned Components of *Eureka Math*
d. communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;	This process standard is analogous to the CCSSM Standards for Mathematical Practice 4, which is specifically addressed in the following modules: Algebra I M1: Relationships Between Quantities and Reasoning with Equations and Their Graphs Algebra I M2: Descriptive Statistics Algebra I M3: Linear and Exponential Functions Algebra I M4: Polynomial and Quadratic Expressions, Equations, and Functions Algebra I M5: A Synthesis of Modeling with Equations and Functions
e. create and use representations to organize, record, and communicate mathematical ideas;	This process standard is analogous to the CCSSM Standards for Mathematical Practice 6, which is specifically addressed in the following modules: Algebra I M1: Relationships Between Quantities and Reasoning with Equations and Their Graphs Algebra I M2: Descriptive Statistics Algebra I M4: Polynomial and Quadratic Expressions, Equations, and Functions Algebra I M5: A Synthesis of Modeling with Equations and Functions

Mathematical Process Standards	Aligned Components of *Eureka Math*
f. analyze mathematical relationships to connect and communicate mathematical ideas; and	This process standard is analogous to the CCSSM Standards for Mathematical Practice 2, which is specifically addressed in the following modules: Algebra I M1: Relationships Between Quantities and Reasoning with Equations and Their Graphs Algebra I M2: Descriptive Statistics Algebra I M3: Linear and Exponential Functions Algebra I M4: Polynomial and Quadratic Expressions, Equations, and Functions Algebra I M5: A Synthesis of Modeling with Equations and Functions
g. display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.	This process standard is analogous to the CCSSM Standards for Mathematical Practice 3, which is specifically addressed in the following modules: Algebra I M1: Relationships Between Quantities and Reasoning with Equations and Their Graphs Algebra I M2: Descriptive Statistics

Skill	Expectations		Aligned Components of *Eureka Math*
Linear Functions, Equations, and Inequalities	**111.39.2** The student applies the mathematical process standards when using properties of linear functions to write and represent in multiple ways, with and without technology, linear equations, inequalities, and systems of equations. The student is expected to:		
	a. determine the domain and range of a linear function in mathematical problems; determine reasonable domain and range values for real-world situations, both continuous and discrete; and represent domain and range using inequalities;		Algebra I M2 Lesson 14: Modeling Relationships with a Line Algebra I M3 Topic B: Functions and Their Graphs
	b. write linear equations in two variables in various forms, including $y = mx + b$, $Ax + By = C$, and $y - y_1 = m(x - x_1)$, given one point and the slope and given two points;		G8 M4 Topic C: Slope and Equations of Lines Algebra I M1 Lesson 5: Two Graphing Stories Algebra I M1 Lesson 20: Solution Sets to Equations with Two Variables Algebra I M1 Lesson 28: Federal Income Tax Algebra I M3 Lesson 1: Integer Sequences—Should You Believe in Patterns? Algebra I M4 Lesson 16: Graphing Quadratic Equations from the Vertex Form, $y = a(x - h)^2 + k$ Algebra I M5: A Synthesis of Modeling with Equations and Functions

Skill	Expectations	Aligned Components of *Eureka Math*
	c. write linear equations in two variables given a table of values, a graph, and a verbal description;	G8 M4 Topic C: Slope and Equations of Lines G8 M4 Lesson 29: Word Problems Algebra I M1 Lesson 5: Two Graphing Stories Algebra I M1 Lesson 20: Solution Sets to Equations with Two Variables Algebra I M1 Topic D: Creating Equations to Solve Problems Algebra I M3 Lesson 1: Integer Sequences—Should You Believe in Patterns? Algebra I M4 Lesson 16: Graphing Quadratic Equations from the Vertex Form, $y = a(x - h)^2 + k$ Algebra I M5: A Synthesis of Modeling with Equations and Functions
	d. write and solve equations involving direct variation;	G7 M1 Topic B: Unit Rate and the Constant of Proportionality G7 M3 Lesson 7: Understanding Equations G7 M3 Lessons 8–9: Using If-Then Moves in Solving Equations G8 M4: Linear Equations
	e. write the equation of a line that contains a given point and is parallel to a given line;	Geometry M4 Lesson 8: Parallel and Perpendicular Lines

Skill	Expectations	Aligned Components of *Eureka Math*
	f. write the equation of a line that contains a given point and is perpendicular to a given line;	Geometry M4 Lesson 8: Parallel and Perpendicular Lines
	g. write an equation of a line that is parallel or perpendicular to the *X* or *Y* axis and determine whether the slope of the line is zero or undefined;	G8 M4 Lesson 14: The Graph of a Linear Equation—Horizontal and Vertical Lines Geometry M4 Lesson 4: Designing a Search Robot to Find a Beacon
	h. write linear inequalities in two variables given a table of values, a graph, and a verbal description; and	Algebra I M1 Lesson 22: Solution Sets to Simultaneous Equations Algebra I M1 Lesson 24: Applications of Systems of Equations and Inequalities Algebra I M1 Lesson 25: Solving Problems in Two Ways—Rates and Algebra Note: Supplemental material is necessary to address tables of values.

Skill	Expectations	Aligned Components of *Eureka Math*
	i. write systems of two linear equations given a table of values, a graph, and a verbal description.	G8 M4 Lesson 24: Introduction to Simultaneous Equations G8 M4 Lesson 29: Word Problems G8 M4 Lesson 30: Conversion Between Celsius and Fahrenheit Algebra I M1 Lessons 22–23: Solution Sets to Simultaneous Equations Algebra I M1 Lesson 24: Applications of Systems of Equations and Inequalities Algebra I M1 Lesson 25: Solving Problems in Two Ways—Rates and Algebra Note: Supplemental material is necessary to address tables of values.

Skill	Expectations		Aligned Components of *Eureka Math*
	111.39.3 The student applies the mathematical process standards when using graphs of linear functions, key features, and related transformations to represent in multiple ways and solve, with and without technology, equations, inequalities, and systems of equations. The student is expected to:		
	a. determine the slope of a line given a table of values, a graph, two points on the line, and an equation written in various forms, including $y = mx + b$, $Ax + By = C$, and $y - y_1 = m(x - x_1)$;		G8 M4 Topic C: Slope and Equations of Lines Algebra I M2 Lesson 16: More on Modeling Relationships with a Line Algebra I M3 Lesson 14: Linear and Exponential Models—Comparing Growth Rates Algebra I M3 Lesson 21: Comparing Linear and Exponential Models Again Algebra I M5: A Synthesis of Modeling with Equations and Functions

Skill	Expectations	Aligned Components of *Eureka Math*
	b. calculate the rate of change of a linear function represented tabularly, graphically, or algebraically in context of mathematical and real-world problems;	G8 M4 Topic C: Slope and Equations of Lines Algebra I M2 Lesson 16: More on Modeling Relationships with a Line Algebra I M3 Lesson 6: Exponential Growth—U.S. Population and World Population Algebra I M3 Lesson 14: Linear and Exponential Models—Comparing Growth Rates Algebra I M3 Lesson 21: Comparing Linear and Exponential Models Again Algebra I M5: A Synthesis of Modeling with Equations and Functions

Skill	Expectations		Aligned Components of *Eureka Math*
	c. graph linear functions on the coordinate plane and identify key features, including *x*-intercept, *y*-intercept, zeros, and slope, in mathematical and real-world problems;		G8 M4 Topic C: Slope and Equations of Lines Algebra I M1 Lesson 2: Graphs of Quadratic Functions Algebra I M2 Lesson 14: Modeling Relationships with a Line Algebra I M3 Lesson 1: Integer Sequences—Should You Believe in Patterns? Algebra I M3 Lesson 13: Interpreting the Graph of a Function Algebra I M3 Lesson 14: Linear and Exponential Models—Comparing Growth Rates Algebra I M3 Lesson 22: Modeling an Invasive Species Population
	d. graph the solution set of linear inequalities in two variables on the coordinate plane;		Algebra I M1 Lesson 21: Solution Sets to Inequalities with Two Variables

Skill	Expectations	Aligned Components of *Eureka Math*
	e. determine the effects on the graph of the parent function $f(x) = x$ when $f(x)$ is replaced by $af(x), f(x) + d, f(x - c), f(bx)$ for specific values of a, b, c, and d;	Algebra I M1 Lesson 2: Graphs of Quadratic Functions Algebra I M2 Lesson 14: Modeling Relationships with a Line Algebra I M3 Lesson 1: Integer Sequences—Should You Believe in Patterns? Algebra I M3 Lesson 14: Linear and Exponential Models—Comparing Growth Rates Algebra I M3 Lesson 17: Four Interesting Transformations of Functions Algebra I M3 Topic C: Transformations of Functions Algebra I M4 Topic C: Function Transformations and Modeling
	f. graph systems of two linear equations in two variables on the coordinate plane and determine the solutions if they exist;	Algebra I M1 Lesson 5: Two Graphing Stories Algebra I M1 Lesson 20: Solution Sets to Equations with Two Variables Algebra I M1 Lesson 28: Federal Income Tax Algebra I M3 Lesson 16: Graphs Can Solve Equations Too Algebra I M4 Lesson 16: Graphing Quadratic Equations from the Vertex Form, $y = a(x - h)^2 + k$ Algebra I M5: A Synthesis of Modeling with Equations and Functions

Skill	Expectations	Aligned Components of *Eureka Math*
	g. estimate graphically the solutions to systems of two linear equations with two variables in real-world problems; and	Algebra I M1 Lesson 5: Two Graphing Stories Algebra I M1 Lesson 20: Solution Sets to Equations with Two Variables Algebra I M1 Lesson 28: Federal Income Tax Algebra I M3 Lesson 16: Graphs Can Solve Equations Too Algebra I M4 Lesson 16: Graphing Quadratic Equations from the Vertex Form, $y = a(x - h)^2 + k$ Algebra I M5: A Synthesis of Modeling with Equations and Functions
	h. graph the solution set of systems of two linear inequalities in two variables on the coordinate plane.	Algebra I M1 Lesson 21: Solution Sets to Inequalities with Two Variables Algebra I M1 Lesson 22: Solution Sets to Simultaneous Equations Algebra I M1 Lesson 24: Applications of Systems of Equations and Inequalities

Skill	Expectations		Aligned Components of *Eureka Math*
	111.39.4 The student applies the mathematical process standards to formulate statistical relationships and evaluate their reasonableness based on real-world data. The student is expected to:		
	a. calculate, using technology, the correlation coefficient between two quantitative variables and interpret this quantity as a measure of the strength of the linear association;		Algebra I M2 Lesson 19: Interpreting Correlation Algebra I M2 Lesson 20: Analyzing Data Collected on Two Variables
	b. compare and contrast association and causation in real-world problems; and		Algebra I M2 Lesson 11: Conditional Relative Frequencies and Association Algebra I M2 Lesson 19: Interpreting Correlation Algebra I M2 Lesson 20: Analyzing Data Collected on Two Variables
	c. write, with and without technology, linear functions that provide a reasonable fit to data to estimate solutions and make predictions for real-world problems.		G8 M6 Topic B: Bivariate Numerical Data Algebra I M1 Topic D: Creating Equations to Solve Problems Algebra I M2 Topic D: Numerical Data on Two Variables Algebra I M3 Lesson 1: Integer Sequences—Should You Believe in Patterns? Algebra I M3 Lesson 14: Linear and Exponential Models—Comparing Growth Rates

Skill	Expectations		Aligned Components of *Eureka Math*
	111.39.5 The student applies the mathematical process standards to solve, with and without technology, linear equations and evaluate the reasonableness of their solutions. The student is expected to:		
	a. solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides;		Algebra I M1 Lesson 10: True and False Equations Algebra I M1 Lesson 20: Solution Sets to Equations with Two Variables Algebra I M1 Topic D: Creating Equations to Solve Problems

Skill	Expectations	Aligned Components of *Eureka Math*
	b. solve linear inequalities in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides; and	Algebra I M1 Lesson 6: Algebraic Expressions—The Distributive Property Algebra I M1 Lesson 11: Solution Sets for Equations and Inequalities Algebra I M1 Lesson 14: Solving Inequalities Algebra I M1 Lesson 15: Solution Sets of Two or More Equations (or Inequalities) Joined by "And" or "Or" Algebra I M1 Lesson 16: Solving and Graphing Inequalities Joined by "And" or "Or" Algebra I M1 Lesson 21: Solution Sets to Inequalities with Two Variables Algebra I M1 Lesson 27: Recursive Challenge Problem—The Double and Add 5 Game

Skill	Expectations	Aligned Components of *Eureka Math*
	c. solve systems of two linear equations with two variables for mathematical and real-world problems.	Algebra I M1 Lesson 5: Two Graphing Stories Algebra I M1 Lessons 22–23: Solution Sets to Simultaneous Equations Algebra I M1 Lesson 24: Applications of Systems of Equations and Inequalities Algebra I M1 Lesson 28: Federal Income Tax Algebra I M3 Lesson 16: Graphs Can Solve Equations Too Algebra I M4 Lesson 16: Graphing Quadratic Equations from the Vertex Form, $y = a(x - h)^2 + k$ Algebra I M5: A Synthesis of Modeling with Equations and Functions

Skill	Expectations		Aligned Components of *Eureka Math*
Quadratic Functions and Equations	**111.39.6** The student applies the mathematical process standards when using properties of quadratic functions to write and represent in multiple ways, with and without technology, quadratic equations. The student is expected to:		
	a. determine the domain and range of quadratic functions and represent the domain and range using inequalities;		Algebra I M1 Lesson 2: Graphs of Quadratic Functions Algebra I M3 Lesson 10: Representing, Naming, and Evaluating Functions Algebra I M3 Lesson 11: The Graph of a Function Algebra I M3 Lesson 12: The Graph of the Equation $y = f(x)$ Algebra I M4 Lesson 10: Interpreting Quadratic Functions from Graphs and Tables Algebra I M4 Lesson 17: Graphing Quadratic Functions from the Standard Form, $f(x) = ax^2 + bx + c$ Algebra I M4 Topic C: Function Transformations and Modeling
	b. write equations of quadratic functions given the vertex and another point on the graph, write the equation in vertex form ($f(x) = a(x - h)^2 + k$), and rewrite the equation from vertex form to standard form ($f(x) = ax^2 + bx + c$); and		Algebra I M4 Lesson 16: Graphing Quadratic Equations from the Vertex Form, $y = a(x - h)^2 + k$ Note: Supplemental material is necessary to address writing an equation given the vertex and a second point.

Skill	Expectations	Aligned Components of *Eureka Math*
	c. write quadratic functions when given real solutions and graphs of their related equations.	Algebra I M1 Lesson 2: Graphs of Quadratic Functions Algebra I M1 Topic D: Creating Equations to Solve Problems Algebra I M3 Lesson 1: Integer Sequences—Should You Believe in Patterns? Algebra I M4 Lesson 10: Interpreting Quadratic Functions from Graphs and Tables Algebra I M4 Lesson 17: Graphing Quadratic Functions from the Standard Form, $f(x) = ax^2 + bx + c$ Algebra I M4 Topic C: Function Transformations and Modeling

Skill	Expectations		Aligned Components of *Eureka Math*
	111.39.7 The student applies the mathematical process standards when using graphs of quadratic functions and their related transformations to represent in multiple ways and determine, with and without technology, the solutions to equations. The student is expected to:		
	a. graph quadratic functions on the coordinate plane and use the graph to identify key attributes, if possible, including x-intercept, y-intercept, zeros, maximum value, minimum values, vertex, and the equation of the axis of symmetry;		Algebra I M1 Lesson 2: Graphs of Quadratic Functions Algebra I M3 Lesson 1: Integer Sequences—Should You Believe in Patterns? Algebra I M3 Lesson 13: Interpreting the Graph of a Function Algebra I M3 Lesson 22: Modeling an Invasive Species Population Algebra I M4 Lesson 8: Exploring the Symmetry in Graphs of Quadratic Functions Algebra I M4 Lesson 10: Interpreting Quadratic Functions from Graphs and Tables Algebra I M4 Lesson 16: Graphing Quadratic Equations from the Vertex Form, $y = a(x - h)^2 + k$ Algebra I M4 Lesson 17: Graphing Quadratic Functions from the Standard Form, $f(x) = ax^2 + bx + c$ Algebra I M4 Topic C: Function Transformations and Modeling

Skill	Expectations	Aligned Components of *Eureka Math*
	b. describe the relationship between the linear factors of quadratic expressions and the zeros of their associated quadratic functions; and	Algebra I M1 Lesson 2: Graphs of Quadratic Functions Algebra I M4: Polynomial and Quadratic Expressions, Equations, and Functions
	c. determine the effects on the graph of the parent function $f(x) = x^2$ when $f(x)$ is replaced by $af(x)$, $f(x) + d$, $f(x - c)$, $f(bx)$ for specific values of a, b, c, and d.	Algebra I M1 Lesson 2: Graphs of Quadratic Functions Algebra I M3 Lesson 1: Integer Sequences—Should You Believe in Patterns? Algebra I M3 Topic C: Transformations of Functions Algebra I M4 Lesson 10: Interpreting Quadratic Functions from Graphs and Tables Algebra I M4 Lesson 17: Graphing Quadratic Functions from the Standard Form, $f(x) = ax^2 + bx + c$ Algebra I M4 Topic C: Functions Transformations and Modeling

Skill	Expectations		Aligned Components of *Eureka Math*
	111.39.8 The student applies the mathematical process standards to solve, with and without technology, quadratic equations and evaluate the reasonableness of their solutions. The student formulates statistical relationships and evaluates their reasonableness based on real-world data. The student is expected to:		
	a. solve quadratic equations having real solutions by factoring, taking square roots, completing the square, and applying the quadratic formula; and		Algebra I M1 Lesson 17: Equations Involving Factored Expressions Algebra I M4: Polynomial and Quadratic Expressions, Equations, and Functions
	b. write, using technology, quadratic functions that provide a reasonable fit to data to estimate solutions and make predictions for real-world problems.		Algebra I M1 Lesson 2: Graphs of Quadratic Functions Algebra I M2 Lessons 12–13: Relationships Between Two Numerical Variables Algebra I M4 Lesson 10: Interpreting Quadratic Functions from Graphs and Tables Algebra I M4 Lesson 17: Graphing Quadratic Functions from the Standard Form, $f(x) = ax^2 + bx + c$ Algebra I M4 Topic C: Function Transformations and Modeling Note: Supplemental material is necessary to incorporate the use of technology.

Skill	Expectations		Aligned Components of *Eureka Math*
Exponential Functions and Equations	**111.39.9** The student applies the mathematical process standards when using properties of exponential functions and their related transformations to write, graph, and represent in multiple ways exponential equations and evaluate, with and without technology, the reasonableness of their solutions. The student formulates statistical relationships and evaluates their reasonableness based on real-world data. The student is expected to:		
	a. determine the domain and range of exponential functions of the form $f(x) = ab^x$ and represent the domain and range using inequalities;		Algebra I M3 Lesson 4: Why Do Banks Pay YOU to Provide Their Services? Algebra I M3 Topic B: Functions and Their Graphs Algebra I M3 Lesson 23: Newton's Law of Cooling Note: Supplemental material is necessary to address the domain and range of an exponential function.
	b. interpret the meaning of the values of a and b in exponential functions of the form $f(x) = ab^x$ in real-world problems;		Algebra I M3 Lesson 4: Why Do Banks Pay YOU to Provide Their Services? Algebra I M3 Lesson 14: Linear and Exponential Models—Comparing Growth Rates Algebra I M3 Lesson 23: Newton's Law of Cooling

Skill	Expectations	Aligned Components of *Eureka Math*
	c. write exponential functions in the form $f(x) = ab^x$ (where b is a rational number) to describe problems arising from mathematical and real-world situations, including growth and decay;	Algebra I M1 Topic D: Creating Equations to Solve Problems Algebra I M3 Lesson 1: Integer Sequences—Should You Believe in Patterns? Algebra I M3 Lesson 14: Linear and Exponential Models—Comparing Growth Rates Algebra I M3 Lesson 23: Newton's Law of Cooling Algebra I M3 Topic B: Functions and Their Graphs Algebra I M5 Lesson 9: Modeling a Context from a Verbal Description
	d. graph exponential functions that model growth and decay and identify key features, including y-intercept and asymptote, in mathematical and real-world problems; and	Algebra I M1 Lesson 2: Graphs of Quadratic Functions Algebra I M3: Linear and Exponential Functions
	e. write, using technology, exponential functions that provide a reasonable fit to data and make predictions for real-world problems.	Algebra I M2 Topic D: Numerical Data on Two Variables Algebra I M3 Lesson 4: Why Do Banks Pay YOU to Provide Their Services? Algebra I M3 Lesson 14: Linear and Exponential Models—Comparing Growth Rates Algebra I M3 Lesson 23: Newton's Law of Cooling

Skill	Expectations		Aligned Components of *Eureka Math*
Number and Algebraic Methods	**111.39.10** The student applies the mathematical process standards and algebraic methods to rewrite in equivalent forms and perform operations on polynomial expressions. The student is expected to:		
	a. add and subtract polynomials of degree one and degree two;		Algebra I M1 Lesson 8: Adding and Subtracting Polynomials
	b. multiply polynomials of degree one and degree two;		Algebra I M1 Lesson 6: Algebraic Expressions—The Distributive Property Algebra I M1 Lesson 9: Multiplying Polynomials Algebra I M4 Lessons 1–2: Multiplying and Factoring Polynomial Expressions
	c. determine the quotient of a polynomial of degree one and polynomial of degree two when divided by a polynomial of degree one and polynomial of degree two when the degree of the divisor does not exceed the degree of the dividend;		Algebra II M1 Lesson 3: The Division of Polynomials Algebra II M1 Lesson 4: Comparing Methods—Long Division, Again?
	d. rewrite polynomial expressions of degree one and degree two in equivalent forms using the distributive property;		Algebra I M1 Topic B: The Structure of Expressions Algebra I M4 Lesson 11: Completing the Square

Skill	Expectations		Aligned Components of *Eureka Math*
	e. factor, if possible, trinomials with real factors in the form $ax^2 + bx + c$, including perfect square trinomials of degree two; and		Algebra I M4 Topic A: Quadratic Expressions, Equations, Functions, and Their Connection to Rectangles Algebra I M4 Lesson 12: Completing the Square
	f. decide if a binomial can be written as the difference of two squares and, if possible, use the structure of a difference of two squares to rewrite the binomial.		Algebra I M4 Lesson 1: Multiplying and Factoring Polynomial Expressions
	111.39.11 The student applies the mathematical process standards and algebraic methods to rewrite algebraic expressions into equivalent forms. The student is expected to:		
	a. simplify numerical radical expressions involving square roots; and		G8 M7 Lesson 4: Simplifying Square Roots Algebra I M4 Lesson 14: Deriving the Quadratic Formula Algebra I M4 Lesson 15: Using the Quadratic Formula Algebra II M1 Lesson 9: Radicals and Conjugates Algebra II M1 Lesson 28: A Focus on Square Roots
	b. simplify numeric and algebraic expressions using the laws of exponents, including integral and rational exponents.		G8 M1: Integer Exponents and Scientific Notation Algebra I M3 Lesson 23: Newton's Law of Cooling Algebra II M3 Topic A: Real Numbers

Skill	Expectations		Aligned Components of *Eureka Math*
	111.39.12 The student applies the mathematical process standards and algebraic methods to write, solve, analyze, and evaluate equations, relations, and functions. The student is expected to:		
	a. decide whether relations represented verbally, tabularly, graphically, and symbolically define a function;		G8 M5 Lesson 2: Formal Definition of a Function G8 M5 Lesson 5: Graphs of Functions and Equations G8 M5 Lesson 7: Comparing Linear Functions and Graphs
	b. evaluate functions, expressed in function notation, given one or more elements in their domains;		Algebra I M3 Lesson 1: Integer Sequences—Should You Believe in Patterns? Algebra I M3 Topic B: Functions and Their Graphs
	c. identify terms of arithmetic and geometric sequences when the sequences are given in function form using recursive processes;		Algebra I M1 Topic D: Creating Equations and Solving Problems Algebra I M3 Topic A: Linear and Exponential Sequences Algebra I M3 Lesson 8: Why Stay with Whole Numbers? Algebra I M5 Lesson 5: Modeling from a Sequence
	d. write a formula for the n^{th} term of arithmetic and geometric sequences, given the value of several of their terms; and		Algebra I M3 Topic A: Linear and Exponential Sequences Algebra I M3 Lesson 8: Why Stay with Whole Numbers? Algebra I M5 Lesson 5: Modeling from a Sequence

Skill	Expectations	Aligned Components of *Eureka Math*
	e. solve mathematic and scientific formulas, and other literal equations, for a specified variable.	Algebra I M1 Lesson 19: Rearranging Formulas