

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 II

The majority of the Algebra II Texas Essential Knowledge and Skills for Mathematics are fully covered by the Algebra II *Eureka Math* curriculum. The areas where the Algebra II Texas Essential Knowledge and Skills for Mathematics and Algebra II *Eureka Math* do not align will require the use of *Eureka Math* content from other 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***

Mathematical Process Standards	Aligned Components of <i>Eureka Math</i>
<p>(1) The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>a. apply mathematics to problems arising in everyday life, society, and the workplace;</p>	<p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 1, which is specifically addressed in the following modules:</p> <p>Algebra II M1: Polynomial, Rational, and Radical Relationships</p> <p>Algebra II M2: Trigonometric Functions</p> <p>Algebra II M3: Exponential and Logarithmic Functions</p>
<p>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;</p>	<p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 1, which is specifically addressed in the following modules:</p> <p>Algebra II M1: Polynomial, Rational, and Radical Relationships</p> <p>Algebra II M2: Trigonometric Functions</p> <p>Algebra II M3: Exponential and Logarithmic Functions</p>

Mathematical Process Standards

Aligned Components of *Eureka Math*

<p>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;</p>	<p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 5, which is specifically addressed in the following modules:</p> <p>Algebra II M1: Polynomial, Rational, and Radical Relationships</p> <p>Algebra II M4: Inferences and Conclusions from Data</p>
<p>d. communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;</p>	<p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 4, which is specifically addressed in the following modules:</p> <p>Algebra II M1: Polynomial, Rational, and Radical Relationships</p> <p>Algebra II M2: Trigonometric Functions</p> <p>Algebra II M3: Exponential and Logarithmic Functions</p> <p>Algebra II M4: Inferences and Conclusions from Data</p>

Mathematical Process Standards

Aligned Components of *Eureka Math*

<p>e. create and use representations to organize, record, and communicate mathematical ideas;</p>	<p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 6, which is specifically addressed in the following modules:</p> <p>Algebra II M1: Polynomial, Rational, and Radical Relationships</p> <p>Algebra II M2: Trigonometric Functions</p> <p>Algebra II M3: Exponential and Logarithmic Functions</p> <p>Algebra II M4: Inferences and Conclusions from Data</p>
<p>f. analyze mathematical relationships to connect and communicate mathematical ideas; and</p>	<p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 2, which is specifically addressed in the following modules:</p> <p>Algebra II M1: Polynomial, Rational, and Radical Relationships</p> <p>Algebra II M2: Trigonometric Functions</p> <p>Algebra II M3: Exponential and Logarithmic Functions</p> <p>Algebra II M4: Inferences and Conclusions from Data</p>

Mathematical Process Standards

Aligned Components of *Eureka Math*

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 II M2: Trigonometric Functions

Algebra II M4: Inferences and Conclusions from Data

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
Attributes of Functions and Their Inverses	111.40.2 The student applies mathematical processes to understand that functions have distinct key attributes and understand the relationship between a function and its inverse. The student is expected to:	
	a. graph the functions $f(x) = \sqrt{x}$, $f(x) = 1/x$, $f(x) = x^3$, $f(x) = \sqrt[3]{x}$, $f(x) = b^x$, $f(x) = x $, and $f(x) = \log_b(x)$ where b is 2, 10, and e , and, when applicable, analyze the key attributes such as domain, range, intercepts, symmetries, asymptotic behavior, and maximum and minimum given an interval;	Algebra II M1 Lesson 14: Graphing Factored Polynomials Algebra II M3 Topic C: Exponential and Logarithmic Functions and their Graphs Algebra II M3 Topic D: Using Logarithms in Modeling Situations Algebra II M3 Lesson 33: The Million Dollar Problem

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	<p>b. graph and write the inverse of a function using notation such as $f^{-1}(x)$;</p>	<p>Algebra I M1 Lesson 2: Graphs of Quadratic Functions</p> <p>Algebra I M3 Lesson 1: Integer Sequences—Should You Believe in Patterns?</p> <p>Algebra I M3 Lesson 9: Representing, Naming, and Evaluating Functions</p> <p>Algebra II M3 Lesson 22: Choosing a Model</p> <p>Algebra II M3 Lesson 23: Bean Counting;</p> <p>Precalculus and Advanced Topics M3 Lesson 13: Horizontal and Vertical Asymptotes of Graphs of Rational Functions</p> <p>Precalculus and Advanced Topics M3 Lesson 14: Graphing Rational Functions</p> <p>Precalculus and Advanced Topics M3 Lesson 15: Transforming Rational Functions</p> <p>Precalculus and Advanced Topics M3 Topic C: Inverse Functions</p>
	<p>c. describe and analyze the relationship between a function and its inverse (quadratic and square root, logarithmic and exponential), including the restriction(s) on domain, which will restrict its range; and</p>	<p>Algebra II M3 Topic C: Exponential and Logarithmic Functions and their Graphs</p> <p>Algebra II M3 Lesson 27: Modeling with Exponential Functions</p> <p>Algebra II M3 Lesson 28: Newton’s Law of Cooling, Revisited</p> <p>Algebra II M3 Lesson 33: The Million Dollar Problem</p>

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	<p>d. use the composition of two functions, including the necessary restrictions on the domain, to determine if the functions are inverses of each other.</p>	<p>Precalculus and Advanced Topics M3 Topic C: Inverse Functions</p>
<p>Systems of Equations and Inequalities</p>	<p>111.40.3 The student applies mathematical processes to formulate systems of equations and inequalities, use a variety of methods to solve, and analyze reasonableness of solutions. The student is expected to:</p>	
	<p>a. formulate systems of equations, including systems consisting of three linear equations in three variables and systems consisting of two equations, the first linear and the second quadratic;</p>	<p>Algebra I M1 Lesson 17: Equations Involving Factored Expressions</p> <p>Algebra I M1 Lesson 20: Solution Sets to Equations with Two Variables</p> <p>Algebra I M1 Lesson 22: Solution Sets to Simultaneous Equations</p> <p>Algebra II M1 Lesson 30: Linear Systems in Three Variables</p>
	<p>b. solve systems of three linear equations in three variables by using Gaussian elimination, technology with matrices, and substitution;</p>	<p>Algebra II M1 Lesson 30: Linear Systems in Three Variables</p> <p>Precalculus and Advanced Topics M2 Topic C: Systems of Linear Equations</p>

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	c. solve, algebraically, systems of two equations in two variables consisting of a linear equation and a quadratic equation;	Algebra II M1 Lesson 31: Systems of Equations Algebra II M1 Lesson 32: Graphing Systems of Equations
	d. determine the reasonableness of solutions to systems of a linear equation and a quadratic equation in two variables;	Algebra II M1 Lesson 31: Systems of Equations Algebra II M1 Lesson 32: Graphing Systems of Equations
	e. formulate systems of at least two linear inequalities in two variables;	Algebra I M1 Lesson 22: Solution Sets to Simultaneous Equations Algebra I M1 Lesson 24: Applications of Systems of Equations and Inequalities
	f. solve systems of two or more linear inequalities in two variables; and	Algebra I M1 Lesson 22: Solution Sets to Simultaneous Equations Algebra I M1 Lesson 24: Applications of Systems of Equations and Inequalities
	g. determine possible solutions in the solution set of systems of two or more linear inequalities in 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 <i>Eureka Math</i>
Quadratic and Square Root Functions, Equations, and Inequalities	111.40.4 The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. The student is expected to:	
	a. write the quadratic function given three specified points in the plane;	Algebra I M4 Lesson 24: Modeling with Quadratic Functions; Algebra II M1 Lesson 1: Successive Differences in Polynomials Algebra II M1 Lesson 30: Linear Systems in Three Variables

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	<p>b. write the equation of a parabola using given attributes, including vertex, focus, directrix, axis of symmetry, and direction of opening;</p>	<p>Algebra I M3 Lesson 13: Interpreting the Graph of a Function</p> <p>Algebra I M3 Lesson 22: Modeling an Invasive Species Population</p> <p>Algebra I M4 Lesson 8: Exploring the Symmetry in Graphs of Quadratic Functions</p> <p>Algebra I M4 Lesson 16: Graphing Quadratic Equations from the Vertex Form, $y = a(x - h)^2 + k$</p> <p>Algebra II M1 Lesson 33: The Definition of a Parabola</p> <p>Algebra II M1 Lesson 34: Are All Parabolas Congruent?</p> <p>Algebra II M1 Lesson 35: Are All Parabolas Similar?</p>
	<p>c. determine the effect on the graph of $f(x) = \sqrt{x}$ when $f(x)$ is replaced by $af(x)$, $f(x) + d$, $f(bx)$, and $f(x - c)$ for specific positive and negative values of a, b, c, and d;</p>	<p>Algebra I M4 Topic C: Function Transformations and Modeling</p>

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	<p>d. transform a quadratic function $f(x) = ax^2 + bx + c$ to the form $f(x) = a(x - h)^2 + k$ to identify the different attributes of $f(x)$;</p>	<p>Algebra II M1 Lesson 12: Overcoming Obstacles in Factoring</p> <p>Algebra II M1 Lesson 22: Equivalent Rational Expressions</p> <p>Algebra II M1 Lesson 23: Comparing Rational Expressions</p> <p>Algebra II M1 Lesson 33: The Definition of a Parabola</p> <p>Algebra II M1 Lesson 34: Are All Parabolas Congruent?</p> <p>Algebra II M1 Lesson 35: Are All Parabolas Similar?</p> <p>Algebra II M2 Lesson 11: Transforming the Graph of the Sine Function</p> <p>Algebra II M2 Lesson 12: Ferris Wheels—Using Trigonometric Functions to Model Cyclical Behavior</p> <p>Algebra II M3 Lesson 1: Integer Exponents</p>
	<p>e. formulate quadratic and square root equations using technology given a table of data;</p>	<p>Algebra I M1 Lesson 17: Equations Involving Factored Expressions</p> <p>Algebra I M4 Lesson 18: Graphing Cubic, Square Root, and Cube Root Functions</p> <p>Algebra I M4 Lesson 22: Comparing Quadratic, Square Root, and Cube Root Functions Represented in Different Ways</p> <p>Algebra II M4 Lesson 30: Evaluating Reports Based on Data from an Experiment</p>

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	f. solve quadratic and square root equations;	<p>Algebra I M1 Lesson 17: Equations Involving Factored Expressions</p> <p>Algebra I M4 Lesson 6: Solving Basic One-Variable Quadratic Equations</p> <p>Algebra I M4 Lesson 7: Creating and Solving Quadratic Equations in One Variable</p> <p>Algebra I M4 Lesson 13: Solving Quadratic Equations by Completing the Square</p> <p>Algebra I M4 Lesson 15: Using the Quadratic Formula</p> <p>Algebra II M1 Lesson 12: Overcoming Obstacles in Factoring</p> <p>Algebra II M1 Lesson 28: A Focus on Square Roots</p> <p>Algebra II M1 Lesson 29: Solving Radical Equations</p> <p>Algebra II M1 Lesson 32: Graphing Systems of Equations</p> <p>Algebra II M1 Lesson 38: Complex Numbers as Solutions to Equations</p>
	g. identify extraneous solutions of square root equations; and	<p>Algebra II M1 Lesson 28: A Focus on Square Roots</p> <p>Algebra II M1 Lesson 29: Solving Radical Equations</p>
	h. solve quadratic inequalities.	<i>Eureka Math</i> does not address quadratic inequalities.

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
Exponential and Logarithmic Functions and Equations	111.40.5 The student applies mathematical processes to understand that exponential and logarithmic functions can be used to model situations and solve problems. The student is expected to:	
	a. determine the effects on the key attributes on the graphs of $f(x) = b^x$ and $f(x) = \log_b(x)$ where b is 2, 10, and e when $f(x)$ is replaced by $af(x)$, $f(x) + d$, and $f(x - c)$ for specific positive and negative real values of a , c , and d ;	Algebra II M2 Lesson 11: Transforming the Graph of the Sine Function Algebra II M2 Lesson 12: Ferris Wheels—Using Trigonometric Functions to Model Cyclical Behavior Algebra II M3 Topic C: Exponential and Logarithmic Functions and their Graphs Algebra II M3 Lesson 27: Modeling with Exponential Functions Algebra II M3 Lesson 28: Newton’s Law of Cooling, Revisited Algebra II M3 Lesson 33: The Million Dollar Problem
	b. formulate exponential and logarithmic equations that model real-world situations, including exponential relationships written in recursive notation;	Algebra II M3: Exponential and Logarithmic Functions

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	c. rewrite exponential equations as their corresponding logarithmic equations and logarithmic equations as their corresponding exponential equations;	Algebra II M1 Lesson 12: Overcoming Obstacles in Factoring Algebra II M1 Lesson 22: Equivalent Rational Expressions Algebra II M1 Lesson 23: Comparing Rational Expressions Algebra II M3: Exponential and Logarithmic Functions
	d. solve exponential equations of the form $y = ab^x$ where a is a nonzero real number and b is greater than zero and not equal to one and single logarithmic equations having real solutions; and	Algebra II M3 Lesson 7: Bacteria and Exponential Growth Algebra II M3 Topic C: Exponential and Logarithmic Functions and their Graphs Algebra II M3 Lesson 24: Solving Exponential Equations Algebra II M3 Lesson 28: Newton's Law of Cooling, Revisited Algebra II M3 Topic E: Geometric Series and Finance
	e. determine the reasonableness of a solution to a logarithmic equation.	Algebra II M3 Topic C: Exponential and Logarithmic Functions and their Graphs Algebra II M3 Lesson 28: Newton's Law of Cooling, Revisited

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
Cubic, Cube Root, Absolute Value and Rational Functions, Equations, and Inequalities	111.40.6 The student applies mathematical processes to understand that cubic, cube root, absolute value and rational functions, equations, and inequalities can be used to model situations, solve problems, and make predictions. The student is expected to:	
	a. analyze the effect on the graphs of $f(x) = x^3$ and $f(x) = \sqrt[3]{x}$ when $f(x)$ is replaced by $af(x)$, $f(bx)$, $f(x - c)$, and $f(x) + d$ for specific positive and negative real values of a , b , c , and d ;	Algebra II M2 Lesson 11: Transforming the Graph of the Sine Function Algebra II M2 Lesson 12: Ferris Wheels—Using Trigonometric Functions to Model Cyclical Behavior Algebra II M3 Lesson 22: Choosing a Model Algebra II M3 Lesson 23: Bean Counting
	b. solve cube root equations that have real roots;	Algebra II M1 Lesson 28: A Focus on Square Roots
	c. analyze the effect on the graphs of $f(x) = x $ when $f(x)$ is replaced by $af(x)$, $f(bx)$, $f(x - c)$, and $f(x) + d$ for specific positive and negative real values of a , b , c , and d ;	Algebra II M2 Lesson 11: Transforming the Graph of the Sine Function Algebra II M2 Lesson 12: Ferris Wheels—Using Trigonometric Functions to Model Cyclical Behavior Algebra II M3 Lesson 22: Choosing a Model Algebra II M3 Lesson 23: Bean Counting
	d. formulate absolute value linear equations;	<i>Eureka Math</i> does not address absolute value linear equations.

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	e. solve absolute value linear equations;	Algebra I M3 Lesson 16: Graphs Can Solve Equations Too Note: Supplemental material is necessary to address solving absolute value equations algebraically.
	f. solve absolute value linear inequalities;	<i>Eureka Math</i> does not address absolute value linear inequalities.
	g. analyze the effect on the graphs of $f(x) = 1/x$ when $f(x)$ is replaced by $af(x)$, $f(bx)$, $f(x - c)$, and $f(x) + d$ for specific positive and negative real values of a , b , c , and d ;	Algebra I M3 Topic C: Transformations of Functions Algebra I M4 Lesson 18: Graphing Cubic, Square Root, and Cube Root Functions Algebra I M4 Lesson 19: Translating Graphs of Functions Algebra I M4 Lesson 20: Stretching and Shrinking Graphs of Functions Precalculus and Advanced Topics M3 Lesson 15: Transforming Rational Functions
	h. formulate rational equations that model real-world situations;	Algebra II M1 Lesson 26: Solving Rational Equations Algebra II M1 Lesson 27: Word Problems Leading to Rational Equations
	i. solve rational equations that have real solutions;	Algebra II M1 Lesson 26: Solving Rational Equations Algebra II M1 Lesson 27: Word Problems Leading to Rational Equations

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	j. determine the reasonableness of a solution to a rational equation;	Algebra II M1 Lesson 26: Solving Rational Equations Algebra II M1 Lesson 27: Word Problems Leading to Rational Equations
	k. determine the asymptotic restrictions on the domain of a rational function and represent domain and range using interval notation, inequalities, and set notation; and	Precalculus and Advanced Topics M1 Lesson 2: Wishful Thinking—Does Linearity Hold? Precalculus and Advanced Topics M3 Topic B: Rational Functions and Composition of Functions
	l. formulate and solve equations involving inverse variation.	<i>Eureka Math</i> does not explicitly address inverse variation.

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
Number and Algebraic Methods	111.40.7 The student applies mathematical processes to simplify and perform operations on expressions and to solve equations. The student is expected to:	
	a. add, subtract, and multiply complex numbers;	<p>Algebra II M1 Topic D: A Surprise from Geometry—Complex Numbers Overcome All Obstacles</p> <p>Precalculus and Advanced Topics M1 Lesson 6: Complex Numbers as Vectors</p> <p>Precalculus and Advanced Topics M1 Topic B: Complex Number Operations and Transformations</p> <p>Precalculus and Advanced Topics M1 Lessons 18–19: Exploiting the Connection to Trigonometry</p> <p>Precalculus and Advanced Topics M1 Lesson 20: Exploiting the Connection to Cartesian Coordinates</p> <p>Precalculus and Advanced Topics M2 Lesson 4: Linear Transformations Review;</p>

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	b. add, subtract, and multiply polynomials;	<p>Algebra I M1 Topic B: The Structure of Expressions</p> <p>Algebra I M4 Lesson 1: Multiplying and Factoring Polynomial Expressions</p> <p>Algebra I M4 Lesson 2: Multiplying and Factoring Polynomial Expressions</p> <p>Algebra II M1 Lesson 2: The Multiplication of Polynomials</p> <p>Algebra II M1 Lesson 5: Putting It All Together</p>
	c. determine the quotient of a polynomial of degree three and of degree four when divided by a polynomial of degree one and of degree two;	<p>Algebra II M1 Lesson 3: The Division of Polynomials</p> <p>Algebra II M1 Lesson 4: Comparing Methods—Long Division, Again?</p> <p>Algebra II M1 Lesson 5: Putting It All Together</p> <p>Algebra II M1 Lesson 6: Dividing by $x - a$ and by $x + a$</p> <p>Algebra II M1 Lesson 18: Overcoming a Second Obstacle in Factoring—What If There Is a Remainder?</p> <p>Algebra II M1 Lesson 19: The Remainder Theorem</p>
	d. determine the linear factors of a polynomial function of degree three and of degree four using algebraic methods;	<p>Algebra II M1 Lesson 8: The Power of Algebra—Finding Primes</p> <p>Algebra II M1 Lesson 11: The Special Role of Zero in Factoring</p> <p>Algebra II M1 Topic B: Factoring—Its Use and Its Obstacles</p>

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	<p>e. determine linear and quadratic factors of a polynomial expression of degree three and of degree four, including factoring the sum and difference of two cubes and factoring by grouping;</p>	<p>Algebra II M1 Lesson 8: The Power of Algebra—Finding Primes</p> <p>Algebra II M1 Lesson 11: The Special Role of Zero in Factoring</p> <p>Algebra II M1 Lesson 12: Overcoming Obstacles in Factoring</p> <p>Algebra II M1 Lesson 13: Mastering Factoring</p> <p>Algebra II M1 Lesson 14: Graphing Factored Polynomials</p>
	<p>f. determine the sum, difference, product, and quotient of rational expressions with integral exponents of degree one and of degree two;</p>	<p>Algebra II M1 Lesson 18: Overcoming a Second Obstacle in Factoring—What If There Is a Remainder?</p> <p>Algebra II M1 Lesson 24: Multiplying and Dividing Rational Expressions</p> <p>Algebra II M1 Lesson 25: Adding and Subtracting Rational Expressions</p> <p>Algebra II M1 Lesson 26: Solving Rational Equations</p> <p>Algebra II M1 Lesson 27: Word Problems Leading to Rational Equations</p>

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	g. rewrite radical expressions that contain variables to equivalent forms;	Algebra II M1 Lesson 9: Radicals and Conjugates Algebra II M1 Lesson 12: Overcoming Obstacles in Factoring Algebra II M1 Lesson 22: Equivalent Rational Expressions Algebra II M1 Lesson 23: Comparing Rational Expressions Algebra II M1 Lesson 28: A Focus on Square Roots Algebra II M1 Lesson 29: Solving Radical Equations Algebra II M3 Lesson 1: Integer Exponents
	h. solve equations involving rational exponents; and	<i>Eureka Math</i> does not address solving equations with rational exponents.
	i. write the domain and range of a function in interval notation, inequalities, and set notation.	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 $y = f(x)$ Precalculus and Advanced Topics M3 Lesson 11: Rational Functions

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
Data	<p>111.40.8 The student applies mathematical processes to analyze data, select appropriate models, write corresponding functions, and make predictions. The student is expected to:</p>	
	<p>a. analyze data to select the appropriate model from among linear, quadratic, and exponential models;</p>	<p>Algebra II M3 Lesson 18: Graphs of Exponential Functions and Logarithmic Functions</p> <p>Algebra II M3 Lesson 20: Transformations of the Graphs of Logarithmic and Exponential Functions</p> <p>Algebra II M3 Lesson 27: Modeling with Exponential Functions</p> <p>Algebra II M3 Lesson 33: The Million Dollar Problem</p>
	<p>b. use regression methods available through technology to write a linear function, a quadratic function, and an exponential function from a given set of data; and</p>	<p>Algebra II M2 Lesson 13: Tides, Sound Waves, and Stock Markets</p> <p>Algebra II M3 Lesson 18: Graphs of Exponential Functions and Logarithmic Functions</p> <p>Algebra II M3 Lesson 20: Transformations of the Graphs of Logarithmic and Exponential Functions</p> <p>Algebra II M3 Lesson 27: Modeling with Exponential Functions</p> <p>Algebra II M3 Lesson 33: The Million Dollar Problem</p>

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	<p>c. predict and make decisions and critical judgments from a given set of data using linear, quadratic, and exponential models.</p>	<p>Algebra II M3 Lesson 18: Graphs of Exponential Functions and Logarithmic Functions</p> <p>Algebra II M3 Lesson 20: Transformations of the Graphs of Logarithmic and Exponential Functions</p> <p>Algebra II M3 Lesson 27: Modeling with Exponential Functions</p> <p>Algebra II M3 Lesson 33: The Million Dollar Problem</p>