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## Grade 6 | Common Core State Standards for Mathematics (2011) Correlation to *Eureka Math*<sup>2</sup>® (2027)

*Eureka Math*<sup>2</sup> is a research-proven math curriculum that empowers teachers to center instructional techniques on student success. Teachers can foster more “aha!” learning moments by providing the support needed for all learners to build a more confident math mindset.

This *Eureka Math*<sup>2</sup> edition builds on a strong foundation of effective instruction. It provides teachers with guidance on delivering rigorous instruction that honors student choice and encourages confident problem-solving.

*Eureka Math*<sup>2</sup> carefully sequences mathematical content to maximize vertical alignment from kindergarten through high school. This kind of sequencing has proven to be essential in students’ mastery of math.

### Teachability

*Eureka Math*<sup>2</sup> employs streamlined materials that allow teachers to plan more efficiently and focus their energy on delivering high-quality instruction that meets the individual needs of their students. Differentiation suggestions, slide decks, digital interactives, and multiple forms of assessment are just a few of the resources built into the teacher materials.

### Accessibility

*Eureka Math*<sup>2</sup> incorporates Universal Design for Learning (UDL) principles so all learners can access the mathematics and take on challenging math concepts. UDL, Differentiation, and Multilingual Learner supports are built into the instructional design and are clearly identified in the *Teach* book.

The curriculum also carries a focus on readability. By eliminating unnecessary words and using clear sentences, the *Eureka Math*<sup>2</sup> teacher-writers have created one of the most readable mathematics curricula on the market. The curriculum’s readability and accessibility help all students see themselves as mathematical thinkers and doers who are fully capable of owning their mathematics learning.

### Math Confidence

*Eureka Math*<sup>2</sup> fosters a classroom culture of learning by encouraging student-led discourse and cognitive engagement that results in confident learners. By leveraging consistent models, routines, and progressions, teachers can remove barriers and allow all students an avenue to success. Within the digital platform, each grade includes wordless videos and digital interactives that spark students’ curiosity and help them make conceptual connections. Using the *Learn* books, students wonder, explore, and make sense of mathematics, which helps them develop a strong, positive mathematical identity.

| Common Core State Standards for Mathematics   | Aligned Components of <i>Eureka Math</i> <sup>2</sup>   |
|---|---|
| <p><b>MP.1</b><br/>Make sense of problems and persevere in solving them.</p>            | <p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p> |
| <p><b>MP.2</b><br/>Reason abstractly and quantitatively.</p>                            | <p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p> |
| <p><b>MP.3</b><br/>Construct viable arguments and critique the reasoning of others.</p> | <p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p> |
| <p><b>MP.4</b><br/>Model with mathematics.</p>  | <p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p> |
| <p><b>MP.5</b><br/>Use appropriate tools strategically.</p>                             | <p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p> |
| <p><b>MP.6</b><br/>Attend to precision.</p>   | <p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p> |
| <p><b>MP.7</b><br/>Look for and make use of structure.</p>                              | <p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p> |
| <p><b>MP.8</b><br/>Look for and express regularity in repeated reasoning.</p>           | <p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p> |

## Ratios and Proportional Relationships

### 6.RP.A Understand ratio concepts and use ratio reasoning to solve problems.

| Common Core State Standards   | Aligned Components of <i>Eureka Math</i> <sup>2</sup>   |
|---|---|
| <p><b>6.RP.A.1</b></p> <p>Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.</p>   | <p>6 M1 Lesson 2: Introduction to Ratios</p> <p>6 M1 Lesson 3: Ratios and Tape Diagrams</p> <p>6 M1 Lesson 4: Exploring Ratios by Making Batches</p> <p>6 M1 Lesson 5: Equivalent Ratios</p> <p>6 M1 Lesson 8: Addition Patterns in Ratio Relationships</p> <p>6 M1 Lesson 10: Multiplicative Reasoning in Ratio Relationships</p> <p>6 M1 Lesson 11: Applications of Ratio Reasoning</p>   |
| <p><b>6.RP.A.2</b></p> <p>Understand the concept of a unit rate <math>\frac{a}{b}</math> associated with a ratio <math>a:b</math> with <math>b \neq 0</math>, and use rate language in the context of a ratio relationship.</p> | <p>6 M1 Lesson 15: The Value of the Ratio</p> <p>6 M1 Lesson 16: Speed</p> <p>6 M1 Lesson 17: Rates</p> <p>6 M1 Lesson 18: Comparing Rates</p> <p>6 M1 Lesson 19: Using Rates to Convert Units</p> <p>6 M1 Lesson 20: Solving Rate Problems</p>   |
| <p><b>6.RP.A.3</b></p> <p>Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.</p>       | <p>6 M1 Lesson 1: Jars of Jelly Beans</p> <p>6 M1 Lesson 3: Ratios and Tape Diagrams</p> <p>6 M1 Lesson 4: Exploring Ratios by Making Batches</p> <p>6 M1 Lesson 5: Equivalent Ratios</p> <p>6 M1 Lesson 6: Ratio Tables and Double Number Lines</p> <p>6 M1 Lesson 8: Addition Patterns in Ratio Relationships</p> <p>6 M1 Lesson 9: Multiplication Patterns in Ratio Relationships</p> <p>6 M1 Lesson 10: Multiplicative Reasoning in Ratio Relationships</p> |

| Common Core State Standards   | Aligned Components of <i>Eureka Math</i> <sup>2</sup>  |
|---|--|
| <p><b>6.RP.A.3 continued</b></p>  | <p>6 M1 Lesson 11: Applications of Ratio Reasoning</p> <p>6 M4 Lesson 22: Relationship Between Two Variables</p> <p>6 M4 Lesson 23: Graphs of Ratio Relationships</p>  |
| <p><b>6.RP.A.3.a</b></p> <p>Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.</p> | <p>6 M1 Lesson 6: Ratio Tables and Double Number Lines</p> <p>6 M1 Lesson 7: Graphs of Ratio Relationships</p> <p>6 M1 Lesson 8: Addition Patterns in Ratio Relationships</p> <p>6 M1 Lesson 9: Multiplication Patterns in Ratio Relationships</p> <p>6 M1 Lesson 10: Multiplicative Reasoning in Ratio Relationships</p> <p>6 M1 Lesson 11: Applications of Ratio Reasoning</p> <p>6 M1 Lesson 12: Multiple Ratio Relationships</p> <p>6 M1 Lesson 13: Comparing Ratio Relationships, Part 1</p> <p>6 M1 Lesson 14: Comparing Ratio Relationships, Part 2</p> <p>6 M1 Lesson 15: The Value of the Ratio</p> <p>6 M1 Lesson 16: Speed</p> <p>6 M1 Lesson 18: Comparing Rates</p> |
| <p><b>6.RP.A.3.b</b></p> <p>Solve unit rate problems including those involving unit pricing and constant speed.</p>   | <p>6 M1 Lesson 16: Speed</p> <p>6 M1 Lesson 17: Rates</p> <p>6 M1 Lesson 18: Comparing Rates</p> <p>6 M1 Lesson 19: Using Rates to Convert Units</p> <p>6 M1 Lesson 20: Solving Rate Problems</p> <p>6 M1 Lesson 21: Solving Multi-Step Rate Problems</p> <p>6 M5 Lesson 8: Areas of Composite Figures in Real-World Situations</p> <p>6 M5 Lesson 13: Surface Area in Real-World Situations</p>   |

| Common Core State Standards  | Aligned Components of <i>Eureka Math</i> <sup>2</sup>   |
|--|---|
| <p><b>6.RP.A.3.c</b></p> <p>Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means <math>\frac{30}{100}</math> times the quantity); solve problems involving finding the whole, given a part and the percent.</p> | <p>6 M1 Lesson 22: Introduction to Percents</p> <p>6 M1 Lesson 23: Finding the Percent</p> <p>6 M1 Lesson 24: Finding a Part</p> <p>6 M1 Lesson 25: Finding the Whole</p> <p>6 M1 Lesson 26: Solving Percent Problems</p> |
| <p><b>6.RP.A.3.d</b></p> <p>Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.</p>  | <p>6 M1 Lesson 19: Using Rates to Convert Units</p> <p>6 M1 Lesson 20: Solving Rate Problems</p> <p>6 M1 Lesson 21: Solving Multi-Step Rate Problems</p>  |

## The Number System

**6.NS.A Apply and extend previous understandings of multiplication and division to divide fractions by fractions.**

| Common Core State Standards   | Aligned Components of <i>Eureka Math</i> <sup>2</sup>  |
|---|--|
| <p><b>6.NS.A.1</b></p> <p>Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem.</p> | <p>6 M2 Lesson 6: Dividing a Whole Number by a Fraction</p> <p>6 M2 Lesson 7: Dividing a Fraction by a Whole Number</p> <p>6 M2 Lesson 8: Dividing Fractions by Making Common Denominators</p> <p>6 M2 Lesson 9: Dividing Fractions by Using Tape Diagrams</p> <p>6 M2 Lesson 10: Dividing Fractions by Using the Invert and Multiply Strategy</p> <p>6 M2 Lesson 11: Applications of Fraction Division</p> <p>6 M2 Lesson 12: Fraction Operations in a Real-World Situation</p> |

## The Number System

### 6.NS.B Compute fluently with multi-digit numbers and find common factors and multiples.

| Common Core State Standards   | Aligned Components of <i>Eureka Math</i> <sup>2</sup>  |
|---|--|
| <p><b>6.NS.B.2</b></p> <p>Fluently divide multi-digit numbers using the standard algorithm.</p>   | <p>6 M2 Lesson 17: Partial Quotients</p> <p>6 M2 Lesson 18: The Standard Division Algorithm</p> <p>6 M2 Lesson 19: Expressing Quotients as Decimals</p>  |
| <p><b>6.NS.B.3</b></p> <p>Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.</p>  | <p>6 M2 Lesson 13: Decimal Addition and Subtraction</p> <p>6 M2 Lesson 14: Patterns in Multiplying Decimals</p> <p>6 M2 Lesson 15: Decimal Multiplication</p> <p>6 M2 Lesson 21: Dividing a Decimal by a Whole Number</p> <p>6 M2 Lesson 22: Dividing a Decimal by a Decimal Greater Than 1</p> <p>6 M2 Lesson 23: Dividing a Decimal by a Decimal Less Than 1</p> <p>6 M2 Lesson 24: Living on Mars</p>   |
| <p><b>6.NS.B.4</b></p> <p>Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor.</p> | <p>5 M1 Lesson 21: Express a composite number to 50 as a product of its prime factors.</p> <p>6 M2 Lesson 1: Factors and Multiples</p> <p>6 M2 Lesson 2: Divisibility</p> <p>6 M2 Lesson 3: The Greatest Common Factor</p> <p>6 M2 Lesson 4: The Least Common Multiple</p> <p>6 M2 Lesson 5: The Euclidean Algorithm</p> <p>6 M4 Lesson 13: The Distributive Property</p> <p>6 M4 Lesson 14: Using the Distributive Property to Factor Expressions</p> |

## The Number System

### 6.NS.C Apply and extend previous understandings of numbers to the system of rational numbers.

| Common Core State Standards  | Aligned Components of <i>Eureka Math</i> <sup>2</sup>   |
|--|---|
| <p><b>6.NS.C.5</b></p> <p>Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.</p> | <p>6 M3 Lesson 1: Positive and Negative Numbers</p> <p>6 M3 Lesson 4: Rational Numbers in Real-World Situations</p>                   |
| <p><b>6.NS.C.6</b></p> <p>Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.</p>   | <p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p>   |
| <p><b>6.NS.C.6.a</b></p> <p>Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., <math>-(-3) = 3</math>, and that 0 is its own opposite.</p>   | <p>6 M3 Lesson 2: Integers</p> <p>6 M3 Lesson 3: Rational Numbers</p> <p>6 M3 Lesson 4: Rational Numbers in Real-World Situations</p> |

| Common Core State Standards  | Aligned Components of <i>Eureka Math</i> <sup>2</sup>   |
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| <p><b>6.NS.C.6.b</b></p> <p>Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.</p> | <p>6 M3 Lesson 10: The Four Quadrants of the Coordinate Plane</p> <p>6 M3 Lesson 11: Plotting Points in the Coordinate Plane</p> <p>6 M3 Lesson 12: Reflections in the Coordinate Plane</p> <p>6 M3 Lesson 13: Constructing the Coordinate Plane</p>  |
| <p><b>6.NS.C.6.c</b></p> <p>Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.</p>   | <p>6 M3 Lesson 3: Rational Numbers</p> <p>6 M3 Lesson 11: Plotting Points in the Coordinate Plane</p> <p>6 M3 Lesson 12: Reflections in the Coordinate Plane</p> <p>6 M3 Lesson 13: Constructing the Coordinate Plane</p> <p>6 M3 Lesson 15: Distance in the Coordinate Plane</p> <p>6 M3 Lesson 16: Figures in the Coordinate Plane</p> <p>6 M3 Lesson 17: Problem Solving with the Coordinate Plane</p> |
| <p><b>6.NS.C.7</b></p> <p>Understand ordering and absolute value of rational numbers.</p>  | <p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p>   |
| <p><b>6.NS.C.7.a</b></p> <p>Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram.</p>  | <p>6 M3 Lesson 5: Comparing Rational Numbers</p> <p>6 M3 Lesson 6: Ordering Rational Numbers</p>  |
| <p><b>6.NS.C.7.b</b></p> <p>Write, interpret, and explain statements of order for rational numbers in real-world contexts.</p>   | <p>6 M3 Lesson 5: Comparing Rational Numbers</p> <p>6 M3 Lesson 6: Ordering Rational Numbers</p>  |

| Common Core State Standards   | Aligned Components of <i>Eureka Math</i> <sup>2</sup>  |
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| <p><b>6.NS.C.7.c</b></p> <p>Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation.</p>  | <p>6 M3 Lesson 7: Absolute Value</p>   |
| <p><b>6.NS.C.7.d</b></p> <p>Distinguish comparisons of absolute value from statements about order.</p>  | <p>6 M3 Lesson 8: Absolute Value and Order</p> <p>6 M3 Lesson 9: Interpreting Order and Distance in Real-World Situations</p>  |
| <p><b>6.NS.C.8</b></p> <p>Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.</p> | <p>6 M3 Lesson 14: Modeling with the Coordinate Plane</p> <p>6 M3 Lesson 15: Distance in the Coordinate Plane</p> <p>6 M3 Lesson 16: Figures in the Coordinate Plane</p> <p>6 M3 Lesson 17: Problem Solving with the Coordinate Plane</p> <p>6 M5 Lesson 5: Perimeter and Area in the Coordinate Plane</p> |

## Expressions and Equations

### 6.EE.A Apply and extend previous understandings of arithmetic to algebraic expressions.

| Common Core State Standards  | Aligned Components of <i>Eureka Math</i> <sup>2</sup>  |
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| <p><b>6.EE.A.1</b></p> <p>Write and evaluate numerical expressions involving whole-number exponents.</p> | <p>6 M4 Lesson 1: Expressions with Addition and Subtraction</p> <p>6 M4 Lesson 2: Expressions with Multiplication and Division</p> <p>6 M4 Lesson 3: Exploring Exponents</p> <p>6 M4 Lesson 4: Evaluating Expressions with Exponents</p> <p>6 M4 Lesson 5: Exploring Order of Operations</p> <p>6 M4 Lesson 6: Order of Operations</p> |

| Common Core State Standards   | Aligned Components of <i>Eureka Math</i> <sup>2</sup>  |
|---|--|
| <p><b>6.EE.A.2</b></p> <p>Write, read, and evaluate expressions in which letters stand for numbers.</p>   | <p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p>  |
| <p><b>6.EE.A.2.a</b></p> <p>Write expressions that record operations with numbers and with letters standing for numbers.</p>  | <p>6 M4 Lesson 7: Algebraic Expressions with Addition and Subtraction</p> <p>6 M4 Lesson 8: Algebraic Expressions with Addition, Subtraction, Multiplication, and Division</p> <p>6 M4 Lesson 9: Addition and Subtraction Expressions from Real-World Situations</p>   |
| <p><b>6.EE.A.2.b</b></p> <p>Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity.</p>   | <p>6 M4 Lesson 7: Algebraic Expressions with Addition and Subtraction</p> <p>6 M4 Lesson 8: Algebraic Expressions with Addition, Subtraction, Multiplication, and Division</p> <p>6 M4 Lesson 9: Addition and Subtraction Expressions from Real-World Situations</p> <p>6 M4 Lesson 11: Modeling Real-World Situations with Expressions</p>  |
| <p><b>6.EE.A.2.c</b></p> <p>Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).</p> | <p>6 M4 Lesson 8: Algebraic Expressions with Addition, Subtraction, Multiplication, and Division</p> <p>6 M4 Lesson 11: Modeling Real-World Situations with Expressions</p> <p>6 M4 Lesson 12: Applying Properties to Multiplication and Division Expressions</p> <p>6 M4 Lesson 17: Equations and Solutions</p> <p>6 M5 Lesson 1: The Area of a Parallelogram</p> <p>6 M5 Lesson 3: The Area of a Triangle</p> <p>6 M5 Lesson 12: From Nets to Surface Area</p> <p>6 M5 Lesson 13: Surface Area in Real-World Situations</p> <p>6 M5 Lesson 14: Designing a Box</p> <p>6 M5 Lesson 16: Applying Volume Formulas</p> |

| Common Core State Standards  | Aligned Components of <i>Eureka Math</i> <sup>2</sup>  |
|--|--|
| <p><b>6.EE.A.3</b></p> <p>Apply the properties of operations to generate equivalent expressions.</p>   | <p>6 M4 Lesson 12: Applying Properties to Multiplication and Division Expressions</p> <p>6 M4 Lesson 13: The Distributive Property</p> <p>6 M4 Lesson 14: Using the Distributive Property to Factor Expressions</p> <p>6 M4 Lesson 15: Combining Like Terms by Using the Distributive Property</p> <p>6 M4 Lesson 16: Equivalent Algebraic Expressions</p> <p>6 M5 Lesson 4: Areas of Triangles in Real-World Situations</p> <p>6 M5 Lesson 6: Problem Solving with Area in the Coordinate Plane</p> <p>6 M5 Lesson 7: Area of Trapezoids and Other Polygons</p> |
| <p><b>6.EE.A.4</b></p> <p>Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them).</p> | <p>6 M4 Lesson 12: Applying Properties to Multiplication and Division Expressions</p> <p>6 M4 Lesson 13: The Distributive Property</p> <p>6 M4 Lesson 14: Using the Distributive Property to Factor Expressions</p> <p>6 M4 Lesson 15: Combining Like Terms by Using the Distributive Property</p> <p>6 M4 Lesson 16: Equivalent Algebraic Expressions</p> <p>6 M5 Lesson 7: Area of Trapezoids and Other Polygons</p> <p>6 M5 Lesson 12: From Nets to Surface Area</p> <p>6 M5 Lesson 17: Problem Solving with Volume</p>                                       |

**Expressions and Equations****6.EE.B Reason about and solve one-variable equations and inequalities.**

| Common Core State Standards   | Aligned Components of <i>Eureka Math</i> <sup>2</sup>  |
|---|--|
| <p><b>6.EE.B.5</b></p> <p>Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.</p> | <p>6 M4 Lesson 17: Equations and Solutions</p> <p>6 M4 Lesson 18: Inequalities and Solutions</p> <p>6 M4 Lesson 19: Solving Equations with Addition and Subtraction</p> <p>6 M4 Lesson 20: Solving Equations with Multiplication and Division</p>  |
| <p><b>6.EE.B.6</b></p> <p>Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.</p>                                      | <p>6 M4 Lesson 9: Addition and Subtraction Expressions from Real-World Situations</p> <p>6 M4 Lesson 10: Multiplication and Division Expressions from Real-World Situations</p> <p>6 M4 Lesson 11: Modeling Real-World Situations with Expressions</p> <p>6 M4 Lesson 16: Equivalent Algebraic Expressions</p> |
| <p><b>6.EE.B.7</b></p> <p>Solve real-world and mathematical problems by writing and solving equations of the form <math>x + p = q</math> and <math>px = q</math> for cases in which <math>p</math>, <math>q</math> and <math>x</math> are all nonnegative rational numbers.</p>                                 | <p>6 M4 Lesson 17: Equations and Solutions</p> <p>6 M4 Lesson 19: Solving Equations with Addition and Subtraction</p> <p>6 M4 Lesson 20: Solving Equations with Multiplication and Division</p> <p>6 M4 Lesson 21: Solving Problems with Equations</p> <p>6 M5 Lesson 2: The Area of a Right Triangle</p>      |

| Common Core State Standards   | Aligned Components of <i>Eureka Math</i> <sup>2</sup> |
|---|---|
| <p><b>6.EE.B.8</b></p> <p>Write an inequality of the form <math>x &gt; c</math> or <math>x &lt; c</math> to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form <math>x &gt; c</math> or <math>x &lt; c</math> have infinitely many solutions; represent solutions of such inequalities on number line diagrams.</p> | 6 M4 Lesson 18: Inequalities and Solutions            |

## Expressions and Equations

**6.EE.C** Represent and analyze quantitative relationships between dependent and independent variables.

| Common Core State Standards  | Aligned Components of <i>Eureka Math</i> <sup>2</sup>  |
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| <p><b>6.EE.C.9</b></p> <p>Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.</p> | <p>6 M4 Lesson 22: Relationship Between Two Variables</p> <p>6 M4 Lesson 23: Graphs of Ratio Relationships</p> <p>6 M4 Lesson 24: Graphs of Non-Ratio Relationships</p> <p>6 M4 Lesson 25: The Statue of Liberty</p> |

## Geometry

### 6.G.A Solve real-world and mathematical problems involving area, surface area, and volume.

| Common Core State Standards   | Aligned Components of <i>Eureka Math</i> <sup>2</sup>   |
|---|---|
| <p><b>6.G.A.1</b></p> <p>Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.</p>  | <p>6 M5 Lesson 1: The Area of a Parallelogram</p> <p>6 M5 Lesson 2: The Area of a Right Triangle</p> <p>6 M5 Lesson 3: The Area of a Triangle</p> <p>6 M5 Lesson 4: Areas of Triangles in Real-World Situations</p> <p>6 M5 Lesson 5: Perimeter and Area in the Coordinate Plane</p> <p>6 M5 Lesson 6: Problem Solving with Area in the Coordinate Plane</p> <p>6 M5 Lesson 7: Areas of Trapezoids and Other Polygons</p> <p>6 M5 Lesson 8: Areas of Composite Figures in Real-World Situations</p> |
| <p><b>6.G.A.2</b></p> <p>Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas <math>V = lwh</math> and <math>V = bh</math> to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.</p> | <p>6 M5 Lesson 15: Exploring Volume</p> <p>6 M5 Lesson 16: Applying Volume Formulas</p> <p>6 M5 Lesson 17: Problem Solving with Volume</p> <p>6 M5 Lesson 18: Volumes of Composite Solids</p> <p>6 M5 Lesson 19: Volume and Surface Area in Real-World Situations</p>   |

| Common Core State Standards   | Aligned Components of <i>Eureka Math</i> <sup>2</sup>  |
|---|--|
| <p><b>6.G.A.3</b></p> <p>Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.</p> | <p>6 M5 Lesson 5: Perimeter and Area in the Coordinate Plane</p> <p>6 M5 Lesson 6: Problem Solving with Area in the Coordinate Plane</p>   |
| <p><b>6.G.A.4</b></p> <p>Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.</p>   | <p>6 M5 Lesson 9: Properties of Solids</p> <p>6 M5 Lesson 10: Discovering Nets of Solids</p> <p>6 M5 Lesson 11: Constructing Nets of Solids</p> <p>6 M5 Lesson 12: From Nets to Surface Area</p> <p>6 M5 Lesson 13: Surface Area in Real-World Situations</p> <p>6 M5 Lesson 14: Designing a Box</p> <p>6 M5 Lesson 19: Volume and Surface Area in Real-World Situations</p> |

## Statistics and Probability

### 6.SP.A Develop understanding of statistical variability.

| Common Core State Standards  | Aligned Components of <i>Eureka Math</i> <sup>2</sup>   |
|--|---|
| <p><b>6.SP.A.1</b></p> <p>Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers.</p> | <p>6 M6 Lesson 1: Posing Statistical Questions</p> <p>6 M6 Lesson 6: Selecting a Data Display</p> <p>6 M6 Lesson 17: Developing a Statistical Project</p> |

| Common Core State Standards   | Aligned Components of <i>Eureka Math</i> <sup>2</sup>  |
|---|--|
| <p><b>6.SP.A.2</b></p> <p>Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.</p>                                    | <p>6 M6 Lesson 2: Describing a Data Distribution</p> <p>6 M6 Lesson 3: Creating a Dot Plot</p> <p>6 M6 Lesson 4: Creating a Histogram</p> <p>6 M6 Lesson 9: Variability in a Data Distribution</p> <p>6 M6 Lesson 14: Using a Box Plot to Summarize a Distribution</p> <p>6 M6 Lesson 18: Connecting Graphical Representations and Summary Measures</p>  |
| <p><b>6.SP.A.3</b></p> <p>Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.</p> | <p>6 M6 Lesson 7: Using the Mean to Describe the Center</p> <p>6 M6 Lesson 8: The Mean as a Balance Point</p> <p>6 M6 Lesson 9: Variability in a Data Distribution</p> <p>6 M6 Lesson 10: The Mean Absolute Deviation</p> <p>6 M6 Lesson 11: Using the Mean and Mean Absolute Deviation</p> <p>6 M6 Lesson 12: Using the Median to Describe the Center</p> <p>6 M6 Lesson 13: Using the Interquartile Range to Describe Variability</p> <p>6 M6 Lesson 15: More Practice with Box Plots</p> <p>6 M6 Lesson 16: Interpreting Box Plots</p> <p>6 M6 Lesson 19: Comparing Data Distributions</p> <p>6 M6 Lesson 22: Presenting Statistical Projects</p> |

## Statistics and Probability

### 6.SP.B Summarize and describe distributions.

| Common Core State Standards   | Aligned Components of <i>Eureka Math</i> <sup>2</sup>  |
|---|--|
| <p><b>6.SP.B.4</b></p> <p>Display numerical data in plots on a number line, including dot plots, histograms, and box plots.</p>                         | <p>6 M6 Lesson 3: Creating a Dot Plot</p> <p>6 M6 Lesson 4: Creating a Histogram</p> <p>6 M6 Lesson 5: Comparing Data Displays</p> <p>6 M6 Lesson 6: Selecting a Data Display</p> <p>6 M6 Lesson 14: Using a Box Plot to Summarize a Distribution</p> <p>6 M6 Lesson 15: More Practice with Box Plots</p> <p>6 M6 Lesson 16: Interpreting Box Plots</p> <p>6 M6 Lesson 19: Comparing Data Distributions</p> <p>6 M6 Lesson 22: Presenting Statistical Projects</p> |
| <p><b>6.SP.B.5</b></p> <p>Summarize numerical data sets in relation to their context, such as by:</p>   | <p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p>  |
| <p><b>6.SP.B.5.a</b></p> <p>Reporting the number of observations.</p>   | <p>6 M6 Lesson 2: Describing a Data Distribution</p>   |
| <p><b>6.SP.B.5.b</b></p> <p>Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.</p> | <p>6 M6 Lesson 1: Posing Statistical Questions</p> <p>6 M6 Lesson 5: Comparing Data Displays</p> <p>6 M6 Lesson 17: Developing a Statistical Project</p> <p>6 M6 Lesson 21: Comparing Measures of Variability</p>  |

| Common Core State Standards   | Aligned Components of <i>Eureka Math</i> <sup>2</sup>  |
|---|--|
| <p><b>6.SP.B.5.c</b></p> <p>Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.</p> | <p>6 M6 Lesson 7: Using the Mean to Describe the Center</p> <p>6 M6 Lesson 8: The Mean as a Balance Point</p> <p>6 M6 Lesson 10: The Mean Absolute Deviation</p> <p>6 M6 Lesson 11: Using the Mean and Mean Absolute Deviation</p> <p>6 M6 Lesson 12: Using the Median to Describe the Center</p> <p>6 M6 Lesson 13: Using the Interquartile Range to Describe Variability</p> <p>6 M6 Lesson 18: Connecting Graphical Representations and Summary Measures</p> <p>6 M6 Lesson 21: Comparing Measures of Variability</p> |
| <p><b>6.SP.B.5.d</b></p> <p>Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.</p>  | <p>6 M6 Lesson 20: Choosing a Measure of Center</p>  |