

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

Colorado Academic Standards in Mathematics Correlation to *Eureka Math*[™]

GRADE 4 MATHEMATICS

The majority of the Grade 4 Colorado Academic Standards in Mathematics are fully covered by the Grade 4 *Eureka Math* curriculum. The areas where the Grade 4 Colorado Academic Standards in Mathematics and Grade 4 *Eureka Math* do not align will require the use of *Eureka Math* content from another grade level 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 Colorado Academic Standards in Mathematics while still benefiting from the coherence and rigor of *Eureka Math*.

INDICATORS

-  Green indicates that the Colorado standard is fully addressed in *Eureka Math*.
-  Yellow indicates that the Colorado standard may not be completely addressed in *Eureka Math*.
-  Red indicates that the Colorado 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 Colorado standards and in *Eureka Math*.

Standards for Mathematical Practice

Aligned Components of *Eureka Math*

1: Make sense of problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, “Does this make sense?” They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

Lessons in every module engage students in making sense of problems and persevering in solving them as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 1, which is specifically addressed in the following modules:

G4 M1: Place Value, Rounding, and Algorithms for Addition and Subtraction

G4 M2: Unit Conversions and Problem Solving with Metric Measurement

Standards for Mathematical Practice

Aligned Components of *Eureka Math*

2: Reason abstractly and quantitatively.

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

Lessons in every module engage students in reasoning abstractly and quantitatively as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 2, which is specifically addressed in the following modules:

G4 M1: Place Value, Rounding, and Algorithms for Addition and Subtraction

G4 M3: Multi-Digit Multiplication and Division

G4 M4: Angle Measure and Plane Figures

G4 M5: Fraction Equivalence, Ordering, and Operations

G4 M6: Decimal Fractions

G4 M7: Exploring Measurement with Multiplication

Standards for Mathematical Practice

3: Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

Aligned Components of *Eureka Math*

Lessons in every module engage students in constructing viable arguments and critiquing the reasoning of others as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 3, which is specifically addressed in the following modules:

G4 M1: Place Value, Rounding, and Algorithms for Addition and Subtraction

G4 M4: Angle Measure and Plane Figures

G4 M5: Fraction Equivalence, Ordering, and Operations

G4 M7: Exploring Measurement with Multiplication

Standards for Mathematical Practice

Aligned Components of *Eureka Math*

4: Model with mathematics.

Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts, and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

Lessons in every module engage students in modeling with mathematics as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 4, which is specifically addressed in the following modules:

G4 M3: Multi-Digit Multiplication and Division

G4 M5: Fraction Equivalence, Ordering, and Operations

G4 M6: Decimal Fractions

Standards for Mathematical Practice

Aligned Components of *Eureka Math*

5: Use appropriate tools strategically.

Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

Lessons in every module engage students in using appropriate tools strategically as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 5, which is specifically addressed in the following modules:

G4 M1: Place Value, Rounding, and Algorithms for Addition and Subtraction

G4 M3: Multi-Digit Multiplication and Division

G4 M4: Angle Measure and Plane Figures

Standards for Mathematical Practice

Aligned Components of *Eureka Math*

6: Attend to precision.

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

Lessons in every module engage students in attending to precision as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 6, which is specifically addressed in the following modules:

G4 M1: Place Value, Rounding, and Algorithms for Addition and Subtraction

G4 M4: Angle Measure and Plane Figures

G4 M6: Decimal Fractions

Standards for Mathematical Practice

7: Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as $2 + 7$. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y .

Aligned Components of *Eureka Math*

Lessons in every module engage students in looking for and making use of structure as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 7, which is specifically addressed in the following modules:

G4 M2: Unit Conversions and Problem Solving with Metric Measurement

G4 M5: Fraction Equivalence, Ordering, and Operations

G4 M7: Exploring Measurement with Multiplication

Standards for Mathematical Practice

Aligned Components of *Eureka Math*

8: Look for and express regularity in repeated reasoning.

Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x^2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

Lessons in every module engage students in looking for and expressing regularity in repeated reasoning as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 8, which is specifically addressed in the following modules:

G4 M2: Unit Conversions and Problem Solving with Metric Measurement

G4 M3: Multi-Digit Multiplication and Division

G4 M6: Decimal Fractions

G4 M7: Exploring Measurement with Multiplication

Standard	Evidence Outcomes	Aligned Components of <i>Eureka Math</i>
Number Sense, Properties, and Operation	Prepared Graduates: Understand the structure and properties of our number system. At their most basic level numbers are abstract symbols that represent real-world quantities	
	Grade Level Expectation: The decimal number system to the hundredths place describes place value patterns and relationships that are repeated in large and small numbers and forms the foundation for efficient algorithms	
	1.1.a Generalize place value understanding for multi-digit whole numbers.	
	i. Explain that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.	G4 M1 Topic A: Place Value of Multi-Digit Whole Numbers G4 M3 Topic B: Multiplication by 10, 100, and 1,000 G4 M6 Lesson 8: Use understanding of fraction equivalence to investigate decimal numbers on the place value chart expressed in different units.
	ii. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form.	G4 M1 Topic A: Place Value of Multi-Digit Whole Numbers
	iii. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.	G4 M1 Topic B: Comparing Multi-Digit Whole Numbers
iv. Use place value understanding to round multi-digit whole numbers to any place.	G4 M1 Topic C: Rounding Multi-Digit Whole Numbers	

Standard	Evidence Outcomes	Aligned Components of <i>Eureka Math</i>
	<p>1.1.b Use decimal notation to express fractions, and compare decimal fractions.</p>	
	<p>i. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.</p>	<p>G4 M6 Topic B: Tenths and Hundredths G4 M6 Topic D: Addition with Tenths and Hundredths G4 M6 Topic E: Money Amounts as Decimal Numbers</p>
	<p>ii. Use decimal notation for fractions with denominators 10 or 100.</p>	<p>G4 M6: Decimal Fractions</p>
	<p>iii. Compare two decimals to hundredths by reasoning about their size.</p>	<p>G4 M6 Topic C: Decimal Comparison</p>
<p>Prepared Graduates: Understand that equivalence is a foundation of mathematics represented in numbers, shapes, measures, expressions, and equations</p>		
<p>Grade Level Expectation: Different models and representations can be used to compare fractional parts</p>		
	<p>1.2.a Use ideas of fraction equivalence and ordering to:</p>	
	<p>i. Explain equivalence of fractions using drawings and models.</p>	<p>G4 M5: Fraction Equivalence, Ordering, and Operations</p>
	<p>ii. Use the principle of fraction equivalence to recognize and generate equivalent fractions.</p>	<p>G4 M5: Fraction Equivalence, Ordering, and Operations</p>

Standard	Evidence Outcomes	Aligned Components of <i>Eureka Math</i>
	iii. Compare two fractions with different numerators and different denominators, and justify the conclusions.	G4 M5 Topic C: Fraction Comparison G4 M5 Lesson 26: Compare fractions greater than 1 by reasoning using benchmark fractions. G4 M5 Lesson 27: Compare fractions greater than 1 by creating common numerators or denominators. G4 M5 Lesson 28: Solve word problems with line plots.
	1.2.b Build fractions from unit fractions by applying understandings of operations on whole numbers.	
	i. Apply previous understandings of addition and subtraction to add and subtract fractions.	
	1. Compose and decompose fractions as sums and differences of fractions with the same denominator in more than one way and justify with visual models.	G4 M5 Topic A: Decomposition and Fraction Equivalence G4 M5 Lesson 25: Decompose and compose fractions greater than 1 to express them in various forms.
	2. Add and subtract mixed numbers with like denominators.	G4 M5 Lesson 24: Decompose and compose fractions greater than 1 to express them in various forms. G4 M5 Topic F: Addition and Subtraction of Fractions by Decomposition

Standard	Evidence Outcomes	Aligned Components of <i>Eureka Math</i>
	3. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators.	G4 M5 Lesson 19: Solve word problems involving addition and subtraction of fractions. G4 M5 Lesson 28: Solve word problems with line plots.
	ii. Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.	
	1. Express a fraction a/b as a multiple of $1/b$.	G4 M5 Topic A: Decomposition and Fraction Equivalence G4 M5 Lesson 35: Represent the multiplication of n times a/b as $(n \times a)/b$ using the associative property and visual models.
	2. Use a visual fraction model to express a/b as a multiple of $1/b$, and apply to multiplication of whole number by a fraction.	G4 M5 Lesson 23: Add and multiply unit fractions to build fractions greater than 1 using visual models. G4 M5 Topic G: Repeated Addition of Fractions as Multiplication
	3. Solve word problems involving multiplication of a fraction by a whole number.	G4 M5 Topic G: Repeated Addition of Fractions as Multiplication

Standard

Evidence Outcomes

Aligned Components of *Eureka Math*

	<p>Prepared Graduates: Are fluent with basic numerical, symbolic facts and algorithms, and are able to select and use appropriate (mental math, paper and pencil, and technology) methods based on an understanding of their efficiency, precision, and transparency</p>	
	<p>Grade Level Expectation: Formulate, represent, and use algorithms to compute with flexibility, accuracy, and efficiency</p>	
	<p>1.3.a Use place value understanding and properties of operations to perform multi-digit arithmetic.</p>	
	<p>i. Fluently add and subtract multi-digit whole numbers using standard algorithms.</p>	<p>G4 M1 Topic D: Multi-Digit Whole Number Addition G4 M1 Topic E: Multi-Digit Whole Number Subtraction</p>
	<p>ii. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations.</p>	<p>G4 M3: Multi-Digit Multiplication and Division</p>
	<p>iii. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division.</p>	<p>G4 M3 Topic E: Division of Tens and Ones with Successive Remainders G4 M3 Topic G: Division of Thousands, Hundreds, Tens, and Ones</p>
	<p>iv. Illustrate and explain multiplication and division calculation by using equations, rectangular arrays, and/or area models.</p>	<p>G4 M3: Multi-Digit Multiplication and Division</p>

Standard	Evidence Outcomes	Aligned Components of <i>Eureka Math</i>
	<p>1.3.b Use the four operations with whole numbers to solve problems.</p>	
	<p>i. Interpret a multiplication equation as a comparison.</p>	<p>G4 M1 Topic A: Place Value of Multi-Digit Whole Numbers</p> <p>G4 M3 Lesson 2: Solve multiplicative comparison word problems by applying the area and perimeter formulas.</p> <p>G4 M3 Topic D: Multiplication Word Problems</p> <p>G4 M7 Lesson 4: Solve multiplicative comparison word problems using measurement conversion tables.</p>
	<p>ii. Represent verbal statements of multiplicative comparisons as multiplication equations.</p>	<p>G4 M1 Topic A: Place Value of Multi-Digit Whole Numbers</p> <p>G4 M3 Lesson 2: Solve multiplicative comparison word problems by applying the area and perimeter formulas.</p> <p>G4 M3 Topic D: Multiplication Word Problems</p> <p>G4 M7 Lesson 4: Solve multiplicative comparison word problems using measurement conversion tables.</p>

Standard	Evidence Outcomes	Aligned Components of <i>Eureka Math</i>
	<p>iii. Multiply or divide to solve word problems involving multiplicative comparison.</p>	<p>G4 M3 Topic A: Multiplicative Comparison Word Problems</p> <p>G4 M3 Lesson 11: Connect the area model and the partial products method to the standard algorithm.</p> <p>G4 M3 Topic D: Multiplication Word Problems</p> <p>G4 M3 Lesson 26: Divide multiples of 10, 100, and 1,000 by single-digit numbers.</p> <p>G4 M7 Lesson 4: Solve multiplicative comparison word problems using measurement conversion tables.</p> <p>G4 M7 Lesson 5: Share and critique peer strategies.</p> <p>G4 M7 Lesson 8: Solve problems involving mixed units of weight.</p> <p>G4 M7 Lesson 10: Solve multi-step measurement word problems.</p>

Standard	Evidence Outcomes	Aligned Components of <i>Eureka Math</i>
	<p>iv. Solve multi-step word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted.</p>	<p>G4 M1: Place Value, Rounding, and Algorithms for Addition and Subtraction</p> <p>G4 M3 Topic D: Multiplication Word Problems</p> <p>G4 M3 Lesson 29: Represent numerically four-digit dividend division with divisors of 2, 3, 4, and 5, decomposing a remainder up to three times.</p> <p>G4 M3 Lesson 31: Interpret division word problems as either <i>number of groups unknown</i> or <i>group size unknown</i>.</p> <p>G4 M7 Topic B: Problem Solving with Measurement</p> <p>G4 M7 Lesson 14: Solve multi-step word problems involving converting mixed number measurements to a single unit.</p>
	<p>v. Represent multi-step word problems with equations using a variable to represent the unknown quantity.</p>	<p>G4 M1: Place Value, Rounding, and Algorithms for Addition and Subtraction</p> <p>G4 M3 Topic D: Multiplication Word Problems</p> <p>G4 M3 Lesson 29: Represent numerically four-digit dividend division with divisors of 2, 3, 4, and 5, decomposing a remainder up to three times.</p> <p>G4 M3 Lesson 31: Interpret division word problems as either <i>number of groups unknown</i> or <i>group size unknown</i>.</p> <p>G4 M7 Topic B: Problem Solving with Measurement</p> <p>G4 M7 Lesson 14: Solve multi-step word problems involving converting mixed number measurements to a single unit.</p>

Standard	Evidence Outcomes	Aligned Components of <i>Eureka Math</i>
	vi. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	<p>G4 M1: Place Value, Rounding, and Algorithms for Addition and Subtraction</p> <p>G4 M3 Topic D: Multiplication Word Problems</p> <p>G4 M3 Lesson 29: Represent numerically four-digit dividend division with divisors of 2, 3, 4, and 5, decomposing a remainder up to three times.</p> <p>G4 M3 Lesson 31: Interpret division word problems as either <i>number of groups unknown</i> or <i>group size unknown</i>.</p> <p>G4 M7 Topic B: Problem Solving with Measurement</p> <p>G4 M7 Lesson 14: Solve multi-step word problems involving converting mixed number measurements to a single unit.</p>
	vii. Using the four operations analyze the relationship between choice and opportunity cost.	<i>Eureka Math</i> does not address opportunity cost.

Standard	Evidence Outcomes	Aligned Components of <i>Eureka Math</i>
Patterns, Functions, and Algebraic Structures	Prepared Graduates: Make sound predictions and generalizations based on patterns and relationships that arise from numbers, shapes, symbols, and data Make claims about relationships among numbers, shapes, symbols, and data and defend those claims by relying on the properties that are the structure of mathematics	
	Grade Level Expectation: Number patterns and relationships can be represented by symbols	
	2.1.a Generate and analyze patterns and identify apparent features of the pattern that were not explicit in the rule itself.	
	i. Use number relationships to find the missing number in a sequence.	G4 M3 Topic F: Reasoning with Divisibility G4 M5 Topic H: Exploring a Fraction Pattern Note: Supplemental material is necessary to completely address this standard.

Standard	Evidence Outcomes	Aligned Components of <i>Eureka Math</i>
	ii. Use a symbol to represent and find an unknown quantity in a problem situation.	<p>G4 M1: Place Value, Rounding, and Algorithms for Addition and Subtraction</p> <p>G4 M2: Unit Conversions and Problem Solving with Metric Measurement</p> <p>G4 M3: Multi-Digit Multiplication and Division</p> <p>G4 M4: Angle Measure and Plane Figures</p> <p>G4 M5: Fraction, Equivalence, Ordering, and Operations</p> <p>G4 M6: Decimal Fractions</p> <p>G4 M7: Exploring Measurement with Multiplication</p>
	iii. Complete input/output tables.	<p>G5 M6 Topic B: Patterns in the Coordinate Plane and Graphing Number Patterns from Rules</p> <p>G5 M6 Lesson 18: Draw symmetric figures on the coordinate plane.</p> <p>Note: Supplemental material is necessary to address the formal terminology of input/output.</p>
	iv. Find the unknown in simple equations.	<p>G4 M4 Lesson 10: Use the addition of adjacent angle measures to solve problems using a symbol for the unknown angle measure.</p>

Standard	Evidence Outcomes	Aligned Components of <i>Eureka Math</i>
	<p>2.1.b Apply concepts of squares, primes, composites, factors, and multiples to solve problems.</p>	
	<p>i. Find all factor pairs for a whole number in the range 1–100.</p>	<p>G4 M3 Lesson 22: Find factor pairs for numbers to 100, and use understanding of factors to define prime and composite.</p> <p>G4 M3 Lesson 23: Use division and the associative property to test for factors and observe patterns.</p>
	<p>ii. Recognize that a whole number is a multiple of each of its factors.</p>	<p>G4 M3 Topic F: Reasoning with Divisibility</p>
	<p>iii. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number.</p>	<p>G4 M3 Lesson 24: Determine if a whole number is a multiple of another number.</p>
	<p>iv. Determine whether a given whole number in the range 1–100 is prime or composite.</p>	<p>G4 M3 Topic F: Reasoning with Divisibility</p>

Standard	Evidence Outcomes	Aligned Components of <i>Eureka Math</i>
Data Analysis, Statistics, and Probability	Prepared Graduates: Solve problems and make decisions that depend on understanding, explaining, and quantifying the variability in data	
	Grade Level Expectation: Visual displays are used to represent data	
	3.1.a Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$).	G4 M5 Lesson 28: Solve word problems with line plots. G4 M5 Lesson 40: Solve word problems involving the multiplication of a whole number and a fraction including those involving line plots.
	3.1.b Solve problems involving addition and subtraction of fractions by using information presented in line plots.	G4 M5 Lesson 28: Solve word problems with line plots. G4 M5 Lesson 40: Solve word problems involving the multiplication of a whole number and a fraction including those involving line plots.

Standard	Evidence Outcomes	Aligned Components of <i>Eureka Math</i>
Shape, Dimension, and Geometric Relationships	Prepared Graduates: Understand quantity through estimation, precision, order of magnitude, and comparison. The reasonableness of answers relies on the ability to judge appropriateness, compare, estimate, and analyze error	
	Grade Level Expectation: Appropriate measurement tools, units, and systems are used to measure different attributes of objects and time	
	4.1.a Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	
	i. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec.	G4 M2: Unit Conversions and Problem Solving with Metric Measurement G4 M5 Lesson 40: Solve word problems involving the multiplication of a whole number and a fraction including those involving line plots. G4 M7: Exploring Measurement with Multiplication
ii. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.	G4 M2: Unit Conversions and Problem Solving with Metric Measurement G4 M5 Lesson 40: Solve word problems involving the multiplication of a whole number and a fraction including those involving line plots. G4 M7: Exploring Measurement with Multiplication	

Standard	Evidence Outcomes	Aligned Components of <i>Eureka Math</i>
	iii. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit.	G4 M2: Unit Conversions and Problem Solving with Metric Measurement G4 M6 Lesson 14: Solve word problems involving the addition of measurements in decimal form. G4 M6 Topic E: Money Amounts as Decimal Numbers G4 M7 Topic B: Problem Solving with Measurement G4 M7 Lesson 14: Solve multi-step word problems involving converting mixed number measurements to a single unit.
	iv. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.	G4 M2: Unit Conversions and Problem Solving with Metric Measurement
	v. Apply the area and perimeter formulas for rectangles in real-world and mathematical problems.	G4 M3 Topic A: Multiplicative Comparison Word Problems
	4.1.b Use concepts of angle and measure angles.	
	i. Describe angles as geometric shapes that are formed wherever two rays share a common endpoint, and explain concepts of angle measurement.	G4 M4 Lesson 1: Identify and draw points, lines, line segments, rays, and angles. Recognize them in various contexts and familiar figures. G4 M4 Lesson 8: Identify and measure angles as turns and recognize them in various contexts. G4 M4 Lesson 9: Decompose angles using pattern blocks.

Standard	Evidence Outcomes	Aligned Components of <i>Eureka Math</i>
	ii. Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.	G4 M4 Topic B: Angle Measurement
	iii. Demonstrate that angle measure as additive.	G4 M4 Topic C: Problem Solving with the Addition of Angle Measures
	iv. Solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical problems.	G4 M4 Topic C: Problem Solving with the Addition of Angle Measures
	Prepared Graduates: Make claims about relationships among numbers, shapes, symbols, and data and defend those claims by relying on the properties that are the structure of mathematics	
	Grade Level Expectation: Geometric figures in the plane and in space are described and analyzed by their attributes	
	4.2.a Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines.	G4 M4: Angle Measure and Plane Figures
	4.2.b Identify points, line segments, angles, and perpendicular and parallel lines in two-dimensional figures.	G4 M4: Angle Measure and Plane Figures

Standard	Evidence Outcomes	Aligned Components of <i>Eureka Math</i>
	<p>4.2.c Classify and identify two-dimensional figures according to attributes of line relationships or angle size.</p>	G4 M4 Topic D: Two-Dimensional Figures and Symmetry
	<p>4.2.d Identify a line of symmetry for a two-dimensional figure.</p>	G4 M4 Topic D: Two-Dimensional Figures and Symmetry