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## Grade 4 | Georgia's K–12 Mathematics Standards (2021) 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.

Standards for Mathematical Practice	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<p><b>MP.1</b> 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> 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> 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> 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> 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> 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> 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> 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>

## Numerical Reasoning

**4.NR.1 Recognize patterns within the base ten place value system with quantities presented in real-life situations to compare and round multi-digit whole numbers through the hundred-thousands place.**

### Georgia’s K–12 Mathematics Standards

### Aligned Components of *Eureka Math*<sup>2</sup>

<p><b>4.NR.1.1</b></p> <p>Read and write multi-digit whole numbers to the hundred-thousands place using base-ten numerals and expanded form.</p>	<p>4 M1 Lesson 5: Organize, count, and represent a collection of objects.</p> <p>4 M1 Lesson 6: Demonstrate that a digit represents 10 times the value of what it represents in the place to its right.</p> <p>4 M1 Lesson 7: Write numbers to 1,000,000 in unit form and expanded form by using place value structure.</p> <p>4 M1 Lesson 8: Write numbers to 1,000,000 in standard form and word form.</p> <p>4 M1 Lesson 9: Compare numbers within 1,000,000 by using <math>&gt;</math>, <math>=</math>, and <math>&lt;</math>.</p> <p>4 M1 Lesson 10: Name numbers by using place value understanding.</p> <p>4 M1 Lesson 11: Find 1, 10, and 100 thousand more than and less than a given number.</p>
<p><b>4.NR.1.2</b></p> <p>Recognize and show that a digit in one place has a value ten times greater than what it represents in the place to its right and extend this understanding to determine the value of a digit when it is shifted to the left or right, based on the relationship between multiplication and division.</p>	<p>4 M1 Lesson 6: Demonstrate that a digit represents 10 times the value of what it represents in the place to its right.</p> <p><i>Choral Response fluencies and Sprints for 10 times as much are found in 4 Module 1 and 4 Module 2.</i></p>
<p><b>4.NR.1.3</b></p> <p>Use place value reasoning to represent, compare, and order multi-digit numbers, using <math>&gt;</math>, <math>=</math>, and <math>&lt;</math> symbols to record the results of comparisons.</p>	<p>4 M1 Lesson 5: Organize, count, and represent a collection of objects.</p> <p>4 M1 Lesson 9: Compare numbers within 1,000,000 by using <math>&gt;</math>, <math>=</math>, and <math>&lt;</math>.</p>

**Georgia's K–12  
Mathematics Standards**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>4.NR.1.4</b></p> <p>Use place value understanding to round multi-digit whole numbers.</p>	<p>4 M1 Lesson 10: Name numbers by using place value understanding.</p> <p>4 M1 Lesson 11: Find 1, 10, and 100 thousand more than and less than a given number.</p> <p>4 M1 Lesson 12: Round to the nearest thousand.</p> <p>4 M1 Lesson 13: Round to the nearest ten thousand and hundred thousand.</p> <p>4 M1 Lesson 14: Round multi-digit numbers to any place.</p> <p>4 M1 Lesson 15: Apply estimation to real-world situations by using rounding.</p>
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**Numerical Reasoning**

**4.NR.2 Using part-whole strategies, solve problems involving addition and subtraction through the hundred-thousands place, as well as multiplication and division of multi-digit whole numbers presented in real-life, mathematical situations.**

**Georgia's K–12  
Mathematics Standards**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>4.NR.2.1</b></p> <p>Fluently add and subtract multi-digit numbers to solve practical, mathematical problems using place value understanding, properties of operations, and relationships between operations.</p>	<p>4 M1 Lesson 16: Add by using the standard algorithm.</p> <p>4 M1 Lesson 17: Solve multi-step addition word problems by using the standard algorithm.</p> <p>4 M1 Lesson 18: Subtract by using the standard algorithm, decomposing larger units once.</p> <p>4 M1 Lesson 19: Subtract by using the standard algorithm, decomposing larger units up to 3 times.</p> <p>4 M1 Lesson 20: Subtract by using the standard algorithm, decomposing larger units multiple times.</p> <p>4 M1 Lesson 21: Solve two-step word problems by using addition and subtraction.</p> <p>4 M1 Lesson 22: Solve multi-step word problems by using addition and subtraction.</p>
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**Georgia's K–12  
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**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>4.NR.2.2</b></p> <p>Interpret, model, and solve problems involving multiplicative comparison.</p>	<p>4 M1 Lesson 1: Interpret multiplication as multiplicative comparison.</p> <p>4 M1 Lesson 2: Solve multiplicative comparison problems with unknowns in various positions.</p> <p>4 M1 Lesson 3: Describe relationships between measurements by using multiplicative comparison.</p> <p>4 M1 Lesson 4: Represent the composition of larger units of money by using multiplicative comparison.</p> <p>4 M1 Lesson 6: Demonstrate that a digit represents 10 times the value of what it represents in the place to its right.</p> <p>4 M2 Lesson 9: Solve multiplication word problems.</p> <p>4 M2 Lesson 20: Solve word problems involving additive and multiplicative comparisons.</p>
<p><b>4.NR.2.3</b></p> <p>Solve relevant problems involving multiplication of a number with up to four digits by a 1-digit whole number or involving multiplication of two two-digit numbers using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p>	<p>4 M2 Lesson 1: Multiply multiples of 10 by one-digit numbers by using the associative property of multiplication.</p> <p>4 M2 Lesson 4: Multiply by using familiar strategies.</p> <p>4 M2 Lesson 4: Multiply by using familiar strategies.</p> <p>4 M2 Lesson 5: Multiply by using place value strategies and the distributive property.</p> <p>4 M2 Lesson 6: Multiply with regrouping by using place value strategies and the distributive property.</p> <p>4 M2 Lesson 7: Multiply by using an area model and the distributive property.</p> <p>4 M2 Lesson 8: Multiply by applying the distributive property and write equations.</p> <p>4 M2 Lesson 9: Solve multiplication word problems.</p> <p>4 M2 Lesson 10: Multiply by applying simplifying strategies.</p> <p>4 M3 Lesson 1: Divide multiples of 100 and 1,000.</p> <p>4 M3 Lesson 2: Multiply by multiples of 100 and 1,000.</p> <p>4 M3 Lesson 3: Multiply a two-digit multiple of 10 by a two-digit multiple of 10.</p> <p>4 M3 Lesson 4: Apply place value strategies to divide hundreds, tens, and ones.</p> <p>4 M3 Lesson 5: Apply place value strategies to divide thousands, hundreds, tens, and ones.</p>

**Georgia's K–12  
Mathematics Standards**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>4.NR.2.3 <i>continued</i></b></p>	<p>4 M3 Lesson 6: Connect pictorial representations of division to long division.</p> <p>4 M3 Lesson 7: Represent division by using partial quotients.</p> <p>4 M3 Lesson 8: Choose and apply a method to divide multi-digit numbers.</p> <p>4 M3 Lesson 9: Apply place value strategies to multiply three-digit numbers by one-digit numbers.</p> <p>4 M3 Lesson 10: Apply place value strategies to multiply four-digit numbers by one-digit numbers.</p> <p>4 M3 Lesson 11: Represent multiplication by using partial products.</p> <p>4 M3 Lesson 12: Multiply by using various recording methods in vertical form.</p> <p>4 M3 Lesson 13: Multiply two-digit numbers by two-digit multiples of 10.</p> <p>4 M3 Lesson 14: Apply place value strategies to multiply two-digit numbers by two-digit numbers.</p> <p>4 M3 Lesson 15: Multiply with four partial products.</p> <p>4 M3 Lesson 16: Multiply with two partial products.</p> <p>4 M3 Lesson 17: Apply the distributive property to multiply.</p> <p>4 M3 Lesson 18: Express units of time in terms of smaller units.</p> <p>4 M3 Lesson 19: Express customary measurements of weight in terms of smaller units.</p> <p>4 M3 Lesson 20: Express customary measurements of liquid volume in terms of smaller units.</p> <p>4 M3 Lesson 21: Find whole-number quotients and remainders.</p> <p>4 M3 Lesson 22: Represent, estimate, and solve division word problems.</p> <p>4 M3 Lesson 23: Solve multi-step word problems and interpret remainders.</p> <p>4 M3 Lesson 24: Solve multi-step word problems and assess the reasonableness of solutions.</p>
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**Georgia's K–12  
Mathematics Standards**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>4.NR.2.4</b></p> <p>Solve authentic division problems involving up to 4-digit dividends and 1-digit divisors (including whole number quotients with remainders) using strategies based on place-value understanding, properties of operations, and the relationships between operations.</p>	<p>4 M2 Lesson 2: Divide two- and three-digit multiples of 10 by one-digit numbers.</p> <p>4 M2 Lesson 11: Divide by using familiar strategies.</p> <p>4 M2 Lesson 12: Divide two-digit numbers by one-digit numbers by using an area model.</p> <p>4 M2 Lesson 13: Divide three-digit numbers by one-digit numbers by using an area model.</p> <p>4 M2 Lesson 14: Divide two-digit numbers by one-digit numbers by using place value strategies.</p> <p>4 M2 Lesson 15: Divide three-digit numbers by one-digit numbers by using place value strategies.</p> <p>4 M2 Lesson 16: Divide by using the break apart and distribute strategy.</p> <p>4 M3 Lesson 1: Divide multiples of 100 and 1,000.</p> <p>4 M3 Lesson 4: Apply place value strategies to divide hundreds, tens, and ones.</p> <p>4 M3 Lesson 5: Apply place value strategies to divide thousands, hundreds, tens, and ones.</p> <p>4 M3 Lesson 6: Connect pictorial representations of division to long division.</p> <p>4 M3 Lesson 7: Represent division by using partial quotients.</p> <p>4 M3 Lesson 8: Choose and apply a method to divide multi-digit numbers.</p> <p>4 M3 Lesson 21: Find whole-number quotients and remainders.</p> <p>4 M3 Lesson 22: Represent, estimate, and solve division word problems.</p> <p>4 M3 Lesson 23: Solve multi-step word problems and interpret remainders.</p> <p>4 M3 Lesson 24: Solve multi-step word problems and assess the reasonableness of solutions.</p>
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**Georgia’s K–12  
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**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>4.NR.2.5</b></p> <p>Solve multi-step problems using addition, subtraction, multiplication, and division involving whole numbers. Use mental computation and estimation strategies to justify the reasonableness of solutions.</p>	<p>4 M1 Lesson 15: Apply estimation to real-world situations by using rounding.</p> <p>4 M1 Lesson 16: Add by using the standard algorithm.</p> <p>4 M1 Lesson 17: Solve multi-step addition word problems by using the standard algorithm.</p> <p>4 M1 Lesson 18: Subtract by using the standard algorithm, decomposing larger units once.</p> <p>4 M1 Lesson 19: Subtract by using the standard algorithm, decomposing larger units up to 3 times.</p> <p>4 M1 Lesson 20: Subtract by using the standard algorithm, decomposing larger units multiple times.</p> <p>4 M1 Lesson 21: Solve two-step word problems by using addition and subtraction.</p> <p>4 M1 Lesson 22: Solve multi-step word problems by using addition and subtraction.</p> <p>4 M3 Lesson 21: Find whole-number quotients and remainders.</p> <p>4 M3 Lesson 22: Represent, estimate, and solve division word problems.</p> <p>4 M3 Lesson 23: Solve multi-step word problems and interpret remainders.</p> <p>4 M3 Lesson 24: Solve multi-step word problems and assess the reasonableness of solutions.</p>
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## Patterning and Algebraic Reasoning

**4.PAR.3** Generate and analyze patterns, including those involving shapes, input/output diagrams, factors, multiples, prime numbers, and composite numbers.

### Georgia's K–12 Mathematics Standards

### Aligned Components of *Eureka Math*<sup>2</sup>

<p><b>4.PAR.3.1</b></p> <p>Generate both number and shape patterns that follow a provided rule.</p>	<p>4 M2 Lesson 21: Find factor pairs for numbers up to 100 and use factors to identify numbers as prime or composite.</p> <p>4 M2 Lesson 22: Use division and the associative property of multiplication to find factors.</p> <p>4 M2 Lesson 23: Determine whether a whole number is a multiple of another number.</p> <p>4 M2 Lesson 24: Recognize that a number is a multiple of each of its factors.</p> <p>4 M2 Lesson 25: Explore properties of prime and composite numbers up to 100 by using multiples.</p> <p>4 M2 Lesson 26: Use relationships within a pattern to find an unknown term in the sequence.</p>
<p><b>4.PAR.3.2</b></p> <p>Use input-output rules, tables, and charts to represent and describe patterns, find relationships, and solve problems.</p>	<p>3 M3 Lesson 17: Identify and complete patterns with input–output tables.</p> <p>4 M2 Lesson 21: Find factor pairs for numbers up to 100 and use factors to identify numbers as prime or composite.</p> <p>4 M2 Lesson 22: Use division and the associative property of multiplication to find factors.</p> <p>4 M2 Lesson 23: Determine whether a whole number is a multiple of another number.</p> <p>4 M2 Lesson 24: Recognize that a number is a multiple of each of its factors.</p> <p>4 M2 Lesson 25: Explore properties of prime and composite numbers up to 100 by using multiples.</p> <p>4 M2 Lesson 26: Use relationships within a pattern to find an unknown term in the sequence.</p>
<p><b>4.PAR.3.3</b></p> <p>Find factor pairs in the range 1–100 and find multiples of single-digit numbers up to 100.</p>	<p>4 M2 Lesson 21: Find factor pairs for numbers up to 100 and use factors to identify numbers as prime or composite.</p> <p>4 M2 Lesson 22: Use division and the associative property of multiplication to find factors.</p> <p>4 M2 Lesson 23: Determine whether a whole number is a multiple of another number.</p> <p>4 M2 Lesson 24: Recognize that a number is a multiple of each of its factors.</p> <p>4 M2 Lesson 25: Explore properties of prime and composite numbers up to 100 by using multiples.</p> <p>4 M2 Lesson 26: Use relationships within a pattern to find an unknown term in the sequence.</p>

**Georgia's K–12  
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**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>4.PAR.3.4</b></p> <p>Identify composite numbers and prime numbers and explain the relationship with the factor pairs.</p>	<p>4 M2 Lesson 21: Find factor pairs for numbers up to 100 and use factors to identify numbers as prime or composite.</p> <p>4 M2 Lesson 22: Use division and the associative property of multiplication to find factors.</p> <p>4 M2 Lesson 23: Determine whether a whole number is a multiple of another number.</p> <p>4 M2 Lesson 24: Recognize that a number is a multiple of each of its factors.</p> <p>4 M2 Lesson 25: Explore properties of prime and composite numbers up to 100 by using multiples.</p> <p>4 M2 Lesson 26: Use relationships within a pattern to find an unknown term in the sequence.</p> <p>5 M1 Lesson 21: Express a composite number to 50 as a product of its prime factors.</p>
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**Numerical Reasoning**

**4.NR.4 Solve real-life problems involving addition, subtraction, equivalence, and comparison of fractions with denominators of 2, 3, 4, 5, 6, 8, 10, 12, and 100 using part-whole strategies and visual models.**

**Georgia's K–12  
Mathematics Standards**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>4.NR.4.1</b></p> <p>Using concrete materials, drawings, and number lines, demonstrate and explain the relationship between equivalent fractions, including fractions greater than one, and explain the identity property of multiplication as it relates to equivalent fractions. Generate equivalent fractions using these relationships.</p>	<p>4 M4 Lesson 7: Rename fractions as a sum of equivalent smaller unit fractions.</p> <p>4 M4 Lesson 8: Generate equivalent fractions with smaller units for unit fractions.</p> <p>4 M4 Lesson 9: Generate equivalent fractions with smaller units for non-unit fractions.</p> <p>4 M4 Lesson 10: Generate equivalent fractions with larger units.</p> <p>4 M4 Lesson 11: Represent equivalent fractions by using tape diagrams, number lines, and multiplication or division.</p> <p>4 M4 Lesson 12: Generate equivalent fractions for fractions greater than 1 and generate equivalent mixed numbers.</p>
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**Georgia’s K–12  
Mathematics Standards**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>4.NR.4.2</b></p> <p>Compare two fractions with the same numerator or the same denominator by reasoning about their size and recognize that comparisons are valid only when the two fractions refer to the same whole.</p>	<p>3 M5 Lesson 10: Compare non-unit fractions less than 1 with the same numerator by using tape diagrams.</p> <p>3 M5 Lesson 17: Represent fractions greater than 1 on a number line and identify fractions equivalent to whole numbers.</p> <p>3 M5 Lesson 18: Compare fractions with like units by using a number line.</p> <p>3 M5 Lesson 19: Compare fractions with unlike units but the same numerator by using number lines.</p> <p>3 M5 Lesson 20: Compare fractions with related units by using a number line.</p> <p>3 M5 Lesson 21: Compare various fractions by representing them on number lines.</p> <p>3 M5 Lesson 27: Apply fraction concepts to complete a multi-part task.</p>
<p><b>4.NR.4.3</b></p> <p>Compare two fractions with different numerators and/or different denominators by flexibly using a variety of tools and strategies and recognize that comparisons are valid only when the two fractions refer to the same whole.</p>	<p>4 M4 Lesson 13: Compare fractions by using the benchmarks, 0, <math>\frac{1}{2}</math>, and 1.</p> <p>4 M4 Lesson 14: Compare fractions with related denominators.</p> <p>4 M4 Lesson 15: Compare fractions with related numerators.</p> <p>4 M4 Lesson 16: Generate a common numerator or denominator to compare fractions.</p> <p>4 M4 Lesson 17: Apply fraction comparison strategies to compare fractions greater than 1.</p>

**Georgia's K–12  
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**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>4.NR.4.4</b></p> <p>Represent whole numbers and fractions as the sum of unit fractions.</p>	<p>4 M4 Lesson 1: Decompose whole numbers into a sum of unit fractions.</p> <p>4 M4 Lesson 2: Decompose fractions into a sum of unit fractions.</p> <p>4 M4 Lesson 3: Decompose fractions into a sum of fractions.</p> <p>4 M4 Lesson 4: Represent fractions by using various fraction models.</p> <p>4 M4 Lesson 5: Rename fractions greater than 1 as mixed numbers.</p> <p>4 M4 Lesson 6: Rename mixed numbers as fractions greater than 1.</p> <p>4 M4 Lesson 7: Rename fractions as a sum of equivalent smaller unit fractions.</p> <p>4 M4 Lesson 18: Estimate sums and differences of fractions by using benchmarks.</p> <p>4 M4 Lesson 19: Add and subtract fractions with like units.</p> <p>4 M4 Lesson 20: Subtract a fraction from a whole number.</p> <p>4 M4 Lesson 21: Solve addition and subtraction word problems and estimate the reasonableness of the answers.</p> <p>4 M4 Lesson 22: Add two fractions with related units.</p>
<p><b>4.NR.4.5</b></p> <p>Represent a fraction as a sum of fractions with the same denominator in more than one way, recording with an equation.</p>	<p>4 M4 Lesson 1: Decompose whole numbers into a sum of unit fractions.</p> <p>4 M4 Lesson 2: Decompose fractions into a sum of unit fractions.</p> <p>4 M4 Lesson 3: Decompose fractions into a sum of fractions.</p> <p>4 M4 Lesson 4: Represent fractions by using various fraction models.</p> <p>4 M4 Lesson 5: Rename fractions greater than 1 as mixed numbers.</p> <p>4 M4 Lesson 6: Rename mixed numbers as fractions greater than 1.</p> <p>4 M4 Lesson 7: Rename fractions as a sum of equivalent smaller unit fractions.</p> <p>4 M4 Lesson 18: Estimate sums and differences of fractions by using benchmarks.</p> <p>4 M4 Lesson 19: Add and subtract fractions with like units.</p> <p>4 M4 Lesson 20: Subtract a fraction from a whole number.</p>

**Georgia’s K–12  
Mathematics Standards**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>4.NR.4.5 <i>continued</i></b></p>	<p>4 M4 Lesson 21: Solve addition and subtraction word problems and estimate the reasonableness of the answers.</p> <p>4 M4 Lesson 22: Add two fractions with related units.</p>
<p><b>4.NR.4.6</b></p> <p>Add and subtract fractions and mixed numbers with like denominators using a variety of tools.</p>	<p>4 M4 Lesson 18: Estimate sums and differences of fractions by using benchmarks.</p> <p>4 M4 Lesson 19: Add and subtract fractions with like units.</p> <p>4 M4 Lesson 20: Subtract a fraction from a whole number.</p> <p>4 M4 Lesson 21: Solve addition and subtraction word problems and estimate the reasonableness of the answers.</p> <p>4 M4 Lesson 22: Add two fractions with related units.</p> <p>4 M4 Lesson 23: Add a fraction to a mixed number.</p> <p>4 M4 Lesson 24: Add a mixed number to a mixed number.</p> <p>4 M4 Lesson 25: Subtract a fraction from a mixed number, part 1.</p> <p>4 M4 Lesson 26: Subtract a fraction from a mixed number, part 2.</p> <p>4 M4 Lesson 27: Subtract a mixed number from a mixed number.</p> <p>4 M4 Lesson 28: Represent and solve word problems with mixed numbers by using drawings and equations.</p> <p>4 M4 Lesson 29: Solve problems by using data from a line plot.</p> <p>4 M4 Lesson 30: Represent data on a line plot.</p>

## Numerical Reasoning

**4.NR.5 Solve real-life problems involving addition, equivalence, comparison of fractions with denominators of 10 and 100, and comparison of decimal numbers as tenths and hundredths using part-whole strategies and visual models.**

### Georgia's K–12 Mathematics Standards

### Aligned Components of *Eureka Math*<sup>2</sup>

Georgia's K–12 Mathematics Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<b>4.NR.5.1</b> Demonstrate and explain the concept of equivalent fractions with denominators of 10 and 100, using concrete materials and visual models. Add two fractions with denominators of 10 and 100.	<p>4 M5 Lesson 1: Organize, count, and represent a collection of money.</p> <p>4 M5 Lesson 2: Decompose 1 one and express tenths in fraction form and decimal form.</p> <p>4 M5 Lesson 3: Represent tenths as a place value unit.</p> <p>4 M5 Lesson 4: Write mixed numbers in decimal form with tenths.</p> <p>4 M5 Lesson 5: Decompose 1 one and express hundredths in fraction form and decimal form.</p> <p>4 M5 Lesson 6: Represent hundredths as a place value unit.</p> <p>4 M5 Lesson 7: Write mixed numbers in decimal form with hundredths.</p> <p>4 M5 Lesson 8: Represent decimal numbers in expanded form.</p> <p>4 M5 Lesson 9: Compare measurements expressed as decimal numbers.</p> <p>4 M5 Lesson 10: Use pictorial representations to compare decimal numbers.</p> <p>4 M5 Lesson 11: Compare and order decimal numbers.</p> <p>4 M5 Lesson 12: Apply fraction equivalence to add tenths and hundredths.</p> <p>4 M5 Lesson 13: Apply fraction equivalence to add mixed numbers with tenths and hundredths.</p> <p>4 M5 Lesson 14: Solve word problems with tenths and hundredths.</p>

**Georgia’s K–12  
Mathematics Standards**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>4.NR.5.2</b></p> <p>Represent, read, and write fractions with denominators of 10 or 100 using decimal notation, and decimal numbers to the hundredths place as fractions, using concrete materials and drawings.</p>	<p>4 M5 Lesson 1: Organize, count, and represent a collection of money.</p> <p>4 M5 Lesson 2: Decompose 1 one and express tenths in fraction form and decimal form.</p> <p>4 M5 Lesson 3: Represent tenths as a place value unit.</p> <p>4 M5 Lesson 4: Write mixed numbers in decimal form with tenths.</p> <p>4 M5 Lesson 5: Decompose 1 one and express hundredths in fraction form and decimal form.</p> <p>4 M5 Lesson 6: Represent hundredths as a place value unit.</p> <p>4 M5 Lesson 7: Write mixed numbers in decimal form with hundredths.</p> <p>4 M5 Lesson 8: Represent decimal numbers in expanded form.</p> <p>4 M5 Lesson 9: Compare measurements expressed as decimal numbers.</p> <p>4 M5 Lesson 10: Use pictorial representations to compare decimal numbers.</p> <p>4 M5 Lesson 11: Compare and order decimal numbers.</p> <p>4 M5 Lesson 12: Apply fraction equivalence to add tenths and hundredths.</p> <p>4 M5 Lesson 13: Apply fraction equivalence to add mixed numbers with tenths and hundredths.</p> <p>4 M5 Lesson 14: Solve word problems with tenths and hundredths.</p>
<p><b>4.NR.5.3</b></p> <p>Compare two decimal numbers to the hundredths place by reasoning about their size. Record the results of comparisons with the symbols <math>&gt;</math>, <math>=</math>, or <math>&lt;</math>, and justify the conclusions.</p>	<p>4 M5 Lesson 9: Compare measurements expressed as decimal numbers.</p> <p>4 M5 Lesson 10: Use pictorial representations to compare decimal numbers.</p> <p>4 M5 Lesson 11: Compare and order decimal numbers.</p>

## Measurement and Data Reasoning

**4.MDR.6 Measure time and objects that exist in the world to solve real-life, mathematical problems and analyze graphical displays of data to answer relevant questions.**

### Georgia’s K–12 Mathematics Standards

### Aligned Components of *Eureka Math*<sup>2</sup>

<p><b>4.MDR.6.1</b></p> <p>Use the four operations to solve problems involving elapsed time to the nearest minute, intervals of time, metric measurements of liquid volumes, lengths, distances, and masses of objects, including problems involving fractions with like denominators, and also problems that require expressing measurements given in a larger unit in terms of a smaller unit, and expressing a smaller unit in terms of a larger unit based on the idea of equivalence.</p>	<p>4 M1 Lesson 23: Express metric measurements of length in terms of smaller units.</p> <p>4 M1 Lesson 24: Express metric measurements of mass and liquid volume in terms of smaller units.</p> <p>4 M2 Lesson 17: Express measurements of length in terms of smaller units.</p> <p>4 M3 Lesson 18: Express units of time in terms of smaller units.</p> <p>4 M3 Lesson 19: Express customary measurements of weight in terms of smaller units.</p> <p>4 M3 Lesson 20: Express customary measurements of liquid volume in terms of smaller units.</p> <p>4 M4 Lesson 20: Subtract a fraction from a whole number.</p> <p>4 M4 Lesson 21: Solve addition and subtraction word problems and estimate the reasonableness of the answers.</p> <p>4 M4 Lesson 27: Subtract a mixed number from a mixed number.</p> <p>4 M4 Lesson 28: Represent and solve word problems with mixed numbers by using drawings and equations.</p> <p>4 M4 Lesson 33: Solve word problems involving multiplication of a fraction by a whole number.</p> <p>4 M5 Lesson 14: Solve word problems with tenths and hundredths.</p> <p><i>Supplemental material is needed to address expressing smaller units in terms of a larger unit within the same measurement system.</i></p>
<p><b>4.MDR.6.2</b></p> <p>Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.</p>	<p>4 M4 Lesson 29: Solve problems by using data from a line plot.</p> <p>4 M4 Lesson 30: Represent data on a line plot.</p>

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<p><b>4.MDR.6.3</b></p> <p>Create dot plots to display a distribution of numerical (quantitative) measurement data.</p>	<p>4 M4 Lesson 29: Solve problems by using data from a line plot.</p> <p>4 M4 Lesson 30: Represent data on a line plot.</p>
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**Geometric and Spatial Reasoning**

**4.GSR.7 Investigate the concepts of angles and angle measurement to estimate and measure angles.**

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<p><b>4.GSR.7.1</b></p> <p>Recognize angles as geometric shapes formed when two rays share a common endpoint. Draw right, acute, and obtuse angles based on the relationship of the angle measure to 90 degrees.</p>	<p>4 M6 Lesson 7: Explore angles as fractional turns through a circle.</p> <p>4 M6 Lesson 7: Explore angles as fractional turns through a circle.</p> <p>4 M6 Lesson 8: Use a circular protractor to recognize a <math>1^\circ</math> angle as a turn through <math>\frac{1}{360}</math> of a circle.</p> <p>4 M6 Lesson 9: Identify and measure angles as turns and recognize them in various contexts.</p> <p>4 M6 Lesson 10: Use <math>180^\circ</math> protractors to measure angles.</p> <p>4 M6 Lesson 11: Estimate and measure angles with a <math>180^\circ</math> protractor.</p> <p>4 M6 Lesson 12: Use a protractor to draw angles up to <math>180^\circ</math>.</p>
<p><b>4.GSR.7.2</b></p> <p>Measure angles in reference to a circle with the center at the common endpoint of two rays. Determine an angle's measure in relation to the 360 degrees in a circle through division or as a missing factor problem.</p>	<p>4 M6 Lesson 7: Explore angles as fractional turns through a circle.</p> <p>4 M6 Lesson 13: Decompose angles by using pattern blocks.</p> <p>4 M6 Lesson 14: Find unknown angle measures within right and straight angles.</p> <p>4 M6 Lesson 15: Find unknown angle measures within a decomposed angle of up to <math>180^\circ</math>.</p> <p>4 M6 Lesson 16: Find unknown angle measures around a point.</p>

## Geometric and Spatial Reasoning

**4.GSR.8 Identify and draw geometric objects, classify polygons based on properties, and solve problems involving area and perimeter of rectangular figures.**

### Georgia's K–12 Mathematics Standards

### Aligned Components of *Eureka Math*<sup>2</sup>

<p><b>4.GSR.8.1</b></p> <p>Explore, investigate, and draw points, lines, line segments, rays, angles (right, acute, obtuse), perpendicular lines, parallel lines, and lines of symmetry. Identify these in two-dimensional figures.</p>	<p>4 M6 Lesson 1: Identify and draw points, lines, line segments, rays, and angles.</p> <p>4 M6 Lesson 2: Identify right, acute, obtuse, and straight angles.</p> <p>4 M6 Lesson 3: Draw right, acute, obtuse, and straight angles.</p> <p>4 M6 Lesson 4: Identify, define, and draw perpendicular lines.</p> <p>4 M6 Lesson 5: Identify, define, and draw parallel lines.</p> <p>4 M6 Lesson 6: Relate geometric figures to a real-world context.</p> <p>4 M6 Lesson 7: Explore angles as fractional turns through a circle.</p> <p>4 M6 Lesson 8: Use a circular protractor to recognize a <math>1^\circ</math> angle as a turn through <math>\frac{1}{360}</math> of a circle.</p> <p>4 M6 Lesson 9: Identify and measure angles as turns and recognize them in various contexts.</p> <p>4 M6 Lesson 10: Use <math>180^\circ</math> protractors to measure angles.</p> <p>4 M6 Lesson 11: Estimate and measure angles with a <math>180^\circ</math> protractor.</p> <p>4 M6 Lesson 12: Use a protractor to draw angles up to <math>180^\circ</math>.</p> <p>4 M6 Lesson 13: Decompose angles by using pattern blocks.</p> <p>4 M6 Lesson 14: Find unknown angle measures within right and straight angles.</p> <p>4 M6 Lesson 15: Find unknown angle measures within a decomposed angle of up to <math>180^\circ</math>.</p> <p>4 M6 Lesson 16: Find unknown angle measures around a point.</p> <p>4 M6 Lesson 17: Recognize, identify, and draw lines of symmetry.</p> <p>4 M6 Lesson 18: Analyze and classify triangles based on side length, angle measures, or both.</p> <p>4 M6 Lesson 19: Construct and classify triangles based on given attributes.</p> <p>4 M6 Lesson 20: Sort polygons based on a given rule.</p>

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<p><b>4.GSR.8.2</b></p> <p>Classify, compare, and contrast polygons based on lines of symmetry, the presence or absence of parallel or perpendicular line segments, or the presence or absence of angles of a specified size and based on side lengths.</p>	<p>4 M6 Lesson 17: Recognize, identify, and draw lines of symmetry.</p> <p>4 M6 Lesson 18: Analyze and classify triangles based on side length, angle measures, or both.</p> <p>4 M6 Lesson 19: Construct and classify triangles based on given attributes.</p> <p>4 M6 Lesson 20: Sort polygons based on a given rule.</p>
<p><b>4.GSR.8.3</b></p> <p>Solve problems involving area and perimeter of composite rectangles involving whole numbers with known side lengths.</p>	<p>4 M2 Lesson 3: Investigate and use a formula for the area of a rectangle.</p> <p>4 M2 Lesson 7: Multiply by using an area model and the distributive property.</p> <p>4 M2 Lesson 17: Express measurements of length in terms of smaller units.</p> <p>4 M2 Lesson 18: Investigate and use formulas for the perimeter of a rectangle.</p> <p>4 M2 Lesson 19: Apply area and perimeter formulas to solve problems.</p> <p>4 M2 Lesson 20: Solve word problems involving additive and multiplicative comparisons.</p>