
Grade 6 | Arkansas Academic Standards – Mathematics Correlation to *Eureka Math*^{2™}

When the original *Eureka Math*[®] curriculum was released, it quickly became the most widely used K–5 mathematics curriculum in the country. Now, the Great Minds[®] teacher–writers have created *Eureka Math*^{2™}, a groundbreaking new curriculum that helps teachers deliver exponentially better math instruction while still providing students with the same deep understanding of and fluency in math. *Eureka Math*² carefully sequences mathematical content to maximize vertical alignment—a principle tested and proven to be essential in students’ mastery of math—from kindergarten through high school.

While this innovative new curriculum includes all the trademark *Eureka Math* aha moments that have been delighting students and teachers for years, it also boasts these exciting new features:

Teachability

*Eureka Math*² 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 right into the teacher materials.

Accessibility

*Eureka Math*² incorporates Universal Design for Learning principles so all learners can access the mathematics and take on challenging math concepts. Student supports are built into the instructional design and are clearly identified in the *Teach* book. Further, the curriculum carries a focus on readability. By eliminating unnecessary words and using simple, clear sentences, the *Eureka Math*² 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.

Digital Engagement

The digital elements of *Eureka Math*² add to students’ engagement with the math. The curriculum provides teachers with digital slides for each lesson. In addition, each grade level includes wordless videos that spark students’ interest and curiosity. Students at all levels work through mathematical explorations that help lead to their own mathematical discoveries. Digital lessons and videos provide opportunities for students to wonder, explore, and make sense of mathematics, which contributes to the development of a strong, positive mathematical identity.

Standards for Mathematical Practice**Aligned Components of *Eureka Math*²**

<p>MP.1 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>MP.2 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>MP.3 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>MP.4 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>MP.5 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>MP.6 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>MP.7 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>MP.8 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

AR.Math.Content.6.RP.A Understand ratio concepts and use ratio reasoning to solve problems.

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<p>AR.Math.Content.6.RP.A.1</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>AR.Math.Content.6.RP.A.2</p> <p>Understand the concept of a unit rate $\frac{a}{b}$ associated with a ratio $a:b$ with $b \neq 0$, 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>

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<p>AR.Math.Content.6.RP.A.3</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). Use and create tables to compare equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Solve unit rate problems including those involving unit pricing and constant speed. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means $\frac{30}{100}$ times the quantity). Solve problems involving finding the whole, given a part and the percent. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.</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 Topic B: Collections of Equivalent Ratios</p> <p>6 M1 Topic C: Comparing Ratio Relationships</p> <p>6 M1 Topic D: Rates</p> <p>6 M1 Topic E: Percents</p> <p>6 M4 Lesson 22: Relationship Between Two Variables</p> <p>6 M4 Lesson 23: Graphs of Ratio Relationships</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>
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The Number System

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

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<p>AR.Math.Content.6.NS.A.1</p> <p>Interpret and compute quotients of fractions. Solve word problems involving division of fractions by fractions (e.g., by using various strategies, including but not limited to, visual fraction models and equations to represent the problem).</p>	<p>6 M2 Topic B: Dividing Fractions</p> <p>6 M2 Topic C: Dividing Fractions Fluently</p>

The Number System

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

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<p>AR.Math.Content.6.NS.B.2</p> <p>Use computational fluency to divide multi-digit numbers using a 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>AR.Math.Content.6.NS.B.3</p> <p>Use computational fluency to add, subtract, multiply, and divide multi-digit decimals and fractions using a 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 Topic F: Decimal Division</p>

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<p>AR.Math.Content.6.NS.B.4</p> <p>Find the greatest common factor of two whole numbers less than or equal to 100 using prime factorization as well as other methods. Find the least common multiple of two whole numbers less than or equal to 12 using prime factorization as well as other methods. 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>6 M2 Topic A: Factors, Multiples, and Divisibility</p> <p>6 M4 Lesson 13: The Distributive Property</p> <p>6 M4 Lesson 14: Using the Distributive Property to Factor Expressions</p>
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The Number System

AR.Math.Content.6.NS.C Apply and extend previous understandings of numbers to the system of rational numbers.

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Aligned Components of *Eureka Math*²

<p>AR.Math.Content.6.NS.C.5</p> <p>Understand that positive and negative numbers are used together to describe quantities having opposite directions or values, explaining the meaning of 0 (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge).</p>	<p>6 M3 Lesson 1: Positive and Negative Numbers</p> <p>6 M3 Lesson 4: Rational Numbers in Real-World Situations</p>
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<p>AR.Math.Content.6.NS.C.6</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. 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., $-(-3) = 3$, and that 0 is its own opposite. 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. 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 2: Integers</p> <p>6 M3 Lesson 3: Rational Numbers</p> <p>6 M3 Lesson 4: Rational Numbers in Real-World Situations</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>6 M3 Topic D: Solving Problems in the Coordinate Plane</p>
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<p>AR.Math.Content.6.NS.C.7</p> <p>Understand ordering and absolute value of rational numbers. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. Write, interpret, and explain statements of order for rational numbers in real-world contexts. 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. Distinguish comparisons of absolute value from statements about order.</p>	<p>6 M3 Topic B: Ordering and Magnitude</p>
<p>AR.Math.Content.6.NS.C.8</p> <p>Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Use 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 Topic D: Solving Problems in the Coordinate Plane</p> <p>6 M5 Lesson 5: Perimeter and Area in the Coordinate Plane</p>

Expressions and Equations

AR.Math.Content.6.EE.A Apply and extend previous understandings of arithmetic to algebraic expressions.

Arkansas Academic Standards – Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>AR.Math.Content.6.EE.A.1</p> <p>Write and evaluate numerical expressions involving whole-number exponents.</p>	<p>6 M4 Topic A: Numerical Expressions</p>
<p>AR.Math.Content.6.EE.A.2</p> <p>Write, read, and evaluate expressions in which letters (variables) stand for numbers. Write expressions that record operations with numbers and with letters standing for numbers. 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. 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 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>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>
<p>AR.Math.Content.6.EE.A.3</p> <p>Apply the properties of operations to generate equivalent expressions.</p>	<p>6 M4 Topic C: Equivalent Expressions Using the Properties of Operations</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>

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<p>AR.Math.Content.6.EE.A.4</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 Topic C: Equivalent Expressions Using the Properties of Operations</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>
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Expressions and Equations

AR.Math.Content.6.EE.B Reason about and solve one-variable equations and inequalities.

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<p>AR.Math.Content.6.EE.B.5</p> <p>Understand solving an equation or inequality as a process of answering a question: Using substitution, which values from a specified set, if any, make the 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>AR.Math.Content.6.EE.B.6</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 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>

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<p>AR.Math.Content.6.EE.B.7</p> <p>Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x 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>
<p>AR.Math.Content.6.EE.B.8</p> <p>For real-world or mathematical problems: write an inequality of the form $x > c$, $x \geq c$, $x < c$, or $x \leq c$ to represent a constraint or condition; recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.</p>	<p>6 M4 Lesson 18: Inequalities and Solutions</p>

Expressions and Equations

AR.Math.Content.6.EE.C Represent and analyze quantitative relationships between dependent and independent variables.

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<p>AR.Math.Content.6.EE.C.9</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 Topic E: Relating Variables by Using Tables, Graphs, and Equations</p>
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Geometry

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

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<p>AR.Math.Content.6.G.A.1</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 Topic A: Areas of Polygons</p> <p>6 M5 Topic B: Problem Solving with Area</p>
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<p>AR.Math.Content.6.G.A.2</p> <p>Find the volume of a right rectangular prism including whole number and 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 $V = lwh$ and $V = Bh$ to find volumes of right rectangular prisms including fractional edge lengths in the context of solving real-world and mathematical problems.</p>	<p>6 M5 Topic D: Volumes of Right Rectangular Prisms</p>
<p>AR.Math.Content.6.G.A.3</p> <p>Apply the following techniques in the context of solving real-world and mathematical problems: 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.</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>

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<p>AR.Math.Content.6.G.A.4</p> <p>Apply the following techniques in the context of solving real-world and mathematical problems: represent three-dimensional figures using nets made up of rectangles and triangles; use the nets to find the surface area of these figures.</p>	<p>6 M5 Topic C: Nets and Surface Area</p> <p>6 M5 Lesson 19: Volume and Surface Area in Real-World Situations</p>
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Statistics and Probability

AR.Math.Content.6.SP.A Develop understanding of statistical variability.

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<p>AR.Math.Content.6.SP.A.1</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>
<p>AR.Math.Content.6.SP.A.2</p> <p>Determine center, spread, and overall shape from a set of data.</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>

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<p>AR.Math.Content.6.SP.A.3</p> <p>Recognize that a measure of center for a numerical data set summarizes all of its values with a single number (mean, median, mode), while a measure of variation (interquartile range, mean absolute deviation) describes how its values vary with a single number.</p>	<p>6 M6 Topic B: 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>
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Statistics and Probability

AR.Math.Content.6.SP.B Summarize and describe distributions.

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<p>AR.Math.Content.6.SP.B.4</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>
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<p>AR.Math.Content.6.SP.B.5</p> <p>Summarize numerical data sets in relation to their context, such as by: reporting the number of observations; describing the nature of the attribute under investigation, including how it was measured and its units of measurement; calculating quantitative measures of center (including but not limited to median and/or mean) and variability (including but not limited to interquartile range and/or mean absolute deviation); using the calculations to describe any overall pattern and any striking deviations (outliers) from the overall pattern with reference to the context in which the data were gathered; 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 1: Posing Statistical Questions</p> <p>6 M6 Lesson 2: Describing a Data Distribution</p> <p>6 M6 Lesson 5: Comparing Data Displays</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 17: Developing a Statistical Project</p> <p>6 M6 Lesson 18: Connecting Graphical Representations and Summary Measures</p> <p>6 M6 Lesson 20: Choosing a Measure of Center</p> <p>6 M6 Lesson 21: Comparing Measures of Variability</p>
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