
Grade 8 | Montana PK–12 Mathematics Content Standards (2026) Correlation to *Eureka Math*²® (2027)

*Eureka Math*² 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*² 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*² 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*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 into the teacher materials.

Accessibility

*Eureka Math*² 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*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.

Math Confidence

*Eureka Math*² 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.

Mathematical Practice Standards	Aligned Components of <i>Eureka Math</i> ²
<p>Standard 1 Problem Solve and Persevere</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>
<p>Standard 2 Abstract and Generalize</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>
<p>Standard 3 Justify and Prove</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>
<p>Standard 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>Standard 5 Represent</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>
<p>Standard 6 Collaborate Mathematically</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>
<p>Standard 7 Culturally Connect</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p> <p><i>Supplemental material is necessary to address cultural contexts relating to Montana Indigenous Peoples and local communities.</i></p>

The Number System (NS)

Montana PK–12 Mathematics Content Standards	Aligned Components of <i>Eureka Math</i> ²
<p>MT.8.NS.1</p> <p>Know real numbers are made up of rational and irrational numbers, understand informally that every number has a decimal expansion, and convert a decimal expansion which repeats eventually into a rational number.</p>	<p>8 M1 Lesson 22: Familiar and Not So Familiar Numbers</p> <p>8 M4 Lesson 5: An Interesting Application of Linear Equations, Part 1</p> <p>8 M4 Lesson 6: An Interesting Application of Linear Equations, Part 2</p>
<p>MT.8.NS.2</p> <p>Use rational approximations of irrational numbers to compare the value of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions.</p>	<p>8 M1 Lesson 21: Approximating Values of Roots and π^2</p> <p>8 M1 Lesson 23: Ordering Irrational Numbers</p>

Expressions and Equations (EE)

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<p>MT.8.EE.1</p> <p>Know and apply the properties of integer exponents to generate equivalent numerical expressions.</p>	<p>8 M1 Lesson 5: Products of Exponential Expressions with Whole-Number Exponents</p> <p>8 M1 Lesson 6: More Properties of Exponents</p> <p>8 M1 Lesson 7: Making Sense of the Exponent of 0</p> <p>8 M1 Lesson 8: Making Sense of Integer Exponents</p> <p>8 M1 Lesson 9: Writing Equivalent Expressions</p> <p>8 M1 Lesson 10: Evaluating Numerical Expressions by Using Properties of Exponents</p>

Montana PK–12 Mathematics Content Standards	Aligned Components of <i>Eureka Math</i> ²
<p>MT.8.EE.2</p> <p>Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number and evaluate square roots of small perfect squares and cube roots of small perfect cubes.</p>	<p>8 M1 Lesson 16: Perfect Squares and Perfect Cubes</p> <p>8 M1 Lesson 17: Solving Equations with Squares and Cubes</p> <p>8 M1 Lesson 20: Square Roots</p> <p>8 M1 Lesson 22: Familiar and Not So Familiar Numbers</p> <p>8 M1 Lesson 24: Revisiting Equations with Squares and Cubes</p>
<p>MT.8.EE.3</p> <p>Represent very large or very small quantities using scientific notation, limited to a single digit times an integer power of ten.</p>	<p>8 M1 Lesson 1: Large and Small Positive Numbers</p> <p>8 M1 Lesson 3: Time to Be More Precise—Scientific Notation</p> <p>8 M1 Lesson 7: Making Sense of the Exponent of 0</p> <p>8 M1 Lesson 11: Small Positive Numbers in Scientific Notation</p>
<p>MT.8.EE.4</p> <p>Perform operations with numbers expressed in scientific notation.</p>	<p>8 M1 Lesson 2: Comparing Large Numbers</p> <p>8 M1 Lesson 4: Adding and Subtracting Numbers Written in Scientific Notation</p> <p>8 M1 Lesson 12: Operations with Numbers in Scientific Notation</p> <p>8 M1 Lesson 13: Applications with Numbers in Scientific Notation</p> <p>8 M1 Lesson 15: Get to the Point</p>
<p>MT.8.EE.5</p> <p>Graph proportional relationships, interpret the unit rate as the slope of the graph, and compare two different proportional relationships as tables, graphs, and equations.</p>	<p>8 M4 Lesson 15: Comparing Proportional Relationships</p> <p>8 M4 Lesson 16: Proportional Relationships and Slope</p>

Montana PK–12 Mathematics Content Standards

Aligned Components of *Eureka Math*²

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<p>MT.8.EE.6</p> <p>Use similar triangles to explain why the slope m is the same between any two distinct points on a nonvertical line in the coordinate plane and derive the equation $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b.</p>	<p>8 M3 Lesson 17: Similar Triangles on a Line</p> <p>8 M4 Lesson 12: Solutions to Linear Equations in Two Variables</p> <p>8 M4 Lesson 13: The Graph of a Linear Equation in Two Variables</p> <p>8 M4 Lesson 14: Lines with Special Characteristics</p> <p>8 M4 Lesson 16: Proportional Relationships and Slope</p> <p>8 M4 Lesson 17: Slopes of Rising Lines</p> <p>8 M4 Lesson 18: Slopes of Falling Lines</p> <p>8 M4 Lesson 19: Using Coordinates to Find Slope</p> <p>8 M4 Lesson 20: Slope-Intercept Form of the Equation of a Line</p> <p>8 M4 Lesson 21: Slope and Parallel Lines</p> <p>8 M4 Lesson 22: Point-Slope Form of the Equation of a Line</p> <p>8 M4 Lesson 23: Comparing Equations in Different Forms</p> <p>8 M4 Lesson 24: The Patterns, the Pops, and the Pastries</p> <p>8 M4 Lesson 25: Lines, Lines, and More Lines</p> <p>8 M4 Lesson 26: Linear Equations from Word Problems</p> <p>8 M4 Lesson 27: Get to Work</p>

Montana PK–12 Mathematics Content Standards

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<p>MT.8.EE.7</p> <p>Solve linear equations in one variable.</p> <ul style="list-style-type: none"> Giving examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions and showing which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers), and Solving linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms. 	<p>8 M4 Lesson 1: Equations</p> <p>8 M4 Lesson 2: Solving Linear Equations</p> <p>8 M4 Lesson 3: Solving Linear Equations with Rational Coefficients</p> <p>8 M4 Lesson 4: Using Linear Equations to Solve Problems</p> <p>8 M4 Lesson 5: An Interesting Application of Linear Equations, Part 1</p> <p>8 M4 Lesson 6: An Interesting Application of Linear Equations, Part 2</p> <p>8 M4 Lesson 7: Linear Equations with More Than One Solution</p> <p>8 M4 Lesson 8: Another Possible Number of Solutions</p> <p>8 M4 Lesson 9: Writing Linear Equations</p> <p>8 M4 Lesson 10: Using Linear Equations to Solve Real-World Problems</p> <p>8 M4 Lesson 11: Planning a Trip</p>

**Montana PK–12 Mathematics
Content Standards**

Aligned Components of *Eureka Math*²

<p>MT.8.EE.8</p> <p>Analyze and solve pairs of simultaneous linear equations by:</p> <ul style="list-style-type: none"> • Understanding that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously, • Solving systems of two linear equations in two variables algebraically, estimating solutions by graphing the equations, and solving simple cases by inspection, and • Solving problems in context that lead to two linear equations in two variables. This standard should incorporate cultural context relating to Montana Indigenous Peoples and local communities. 	<p>8 M5 Lesson 1: Solving Problems with Equations and Their Graphs</p> <p>8 M5 Lesson 2: Introduction to Systems of Linear Equations</p> <p>8 M5 Lesson 3: Identifying Solutions</p> <p>8 M5 Lesson 4: More Than One Solution</p> <p>8 M5 Lesson 5: Estimating Solutions</p> <p>8 M5 Lesson 6: Solving Systems of Linear Equations without Graphing</p> <p>8 M5 Lesson 7: The Substitution Method</p> <p>8 M5 Lesson 8: Using Tape Diagrams to Solve Systems of Equations</p> <p>8 M5 Lesson 9: Rewriting Equations to Solve a System of Equations</p> <p>8 M5 Lesson 10: Choosing a Solution Method</p> <p>8 M5 Lesson 11: Writing and Solving Systems of Equations for Mathematical Problems</p> <p>8 M5 Lesson 12: Solving Historical Problems with Systems of Equations</p> <p>8 M5 Lesson 13: Writing and Solving Systems of Equations for Real-World Problems</p> <p>8 M5 Lesson 14: Back to the Coordinate Plane</p> <p><i>Supplemental material is necessary to address cultural contexts relating to Montana Indigenous Peoples and local communities.</i></p>
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Functions (F)

Montana PK–12 Mathematics Content Standards	Aligned Components of <i>Eureka Math</i> ²
<p>MT.8.F.1</p> <p>Understand that a function is a rule that assigns to each input exactly one output and the graph of a function is the set of ordered pairs (x, y) each consisting of an input, x, and the corresponding output, y.</p>	<p>8 M6 Lesson 1: Motion and Speed</p> <p>8 M6 Lesson 2: Definition of a Function</p> <p>8 M6 Lesson 4: More Examples of Functions</p> <p>8 M6 Lesson 5: Graphs of Functions and Equations</p>
<p>MT.8.F.2</p> <p>Compare properties of two functions using tables, graphs, and equations.</p>	<p>8 M6 Lesson 7: Interpreting Rate of Change and Initial Value</p> <p>8 M6 Lesson 8: Comparing Functions</p>
<p>MT.8.F.3</p> <p>Interpret the equation $y = mx + b$ as defining a linear function whose graph is a straight line with slope m passing through the point $(0, b)$.</p>	<p>8 M6 Lesson 3: Linear Functions and Proportionality</p> <p>8 M6 Lesson 6: Linear Functions and Rate of Change</p>
<p>MT.8.F.4</p> <p>Given linear data relating two quantities, construct a linear function that models the data and interpret the rate of change and initial value of a linear function in terms of the situation it models.</p>	<p>8 M6 Lesson 6: Linear Functions and Rate of Change</p> <p>8 M6 Lesson 7: Interpreting Rate of Change and Initial Value</p> <p>8 M6 Lesson 25: Applications of Volume</p>

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<p>MT.8.F.5</p> <p>Given the graph of a function, describe qualitatively the functional relationship between quantities, and given a verbal description of a functional relationship, sketch a graph that exhibits the qualitative features of a function.</p>	<p>8 M6 Lesson 9: Increasing and Decreasing Functions</p> <p>8 M6 Lesson 10: Graphs of Nonlinear Functions</p>

Geometry (G)

<p>Montana PK–12 Mathematics Content Standards</p>	<p>Aligned Components of <i>Eureka Math</i>²</p>
<p>MT.8.G.1</p> <p>Verify experimentally the properties of rotations, reflections, and translations and understand that these are rigid transformations, lines are taken to lines, line segments to line segments of the same length, angles are taken to angles of the same measure, and parallel lines are taken to parallel lines. This standard should incorporate cultural context relating to Montana Indigenous Peoples and local communities.</p>	<p>8 M2 Lesson 1: Motions of the Plane</p> <p>8 M2 Lesson 2: Translations</p> <p>8 M2 Lesson 3: Reflections</p> <p>8 M2 Lesson 5: Rotations</p> <p>8 M2 Lesson 7: Working Backward</p> <p>8 M2 Lesson 8: Sequencing the Rigid Motions</p> <p><i>Supplemental material is necessary to address cultural contexts relating to Montana Indigenous Peoples and local communities.</i></p>

Montana PK–12 Mathematics Content Standards

Aligned Components of *Eureka Math*²

<p>MT.8.G.2</p> <p>Understand that a two-dimensional figure is congruent to another if the second can be obtained by a sequence of rigid transformations, and, given two congruent figures, describe a sequence that exhibits the congruence between them.</p>	<p>8 M2 Lesson 7: Working Backward</p> <p>8 M2 Lesson 8: Sequencing the Rigid Motions</p> <p>8 M2 Lesson 9: Ordering Sequences of Rigid Motions</p> <p>8 M2 Lesson 10: Congruent Figures</p> <p>8 M2 Lesson 11: Showing Figures Are Congruent</p> <p>8 M2 Lesson 12: Lines Cut by a Transversal</p>
<p>MT.8.G.3</p> <p>Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates. This standard should incorporate cultural context relating to Montana Indigenous Peoples and local communities.</p>	<p>8 M2 Lesson 4: Translations and Reflections on the Coordinate Plane</p> <p>8 M2 Lesson 6: Rotations on the Coordinate Plane</p> <p>8 M2 Lesson 9: Ordering Sequences of Rigid Motions</p> <p>8 M3 Lesson 1: Exploring Dilations</p> <p>8 M3 Lesson 2: Enlargements</p> <p>8 M3 Lesson 3: Reductions and More Enlargements</p> <p>8 M3 Lesson 4: Using Lined Paper to Explore Dilations</p> <p>8 M3 Lesson 5: Figures and Dilations</p> <p>8 M3 Lesson 6: The Shadowy Hand</p> <p>8 M3 Lesson 7: Dilations on a Grid</p> <p>8 M3 Lesson 8: Dilations on the Coordinate Plane</p> <p>8 M3 Lesson 9: Describing Dilations</p> <p>8 M3 Lesson 10: Sequencing Transformations</p> <p>8 M3 Lesson 16: Similar Right Triangles</p> <p><i>Supplemental material is necessary to address cultural contexts relating to Montana Indigenous Peoples and local communities.</i></p>

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<p>MT.8.G.4</p> <p>Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations, and, given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.</p>	<p>8 M3 Lesson 11: Similar Figures</p> <p>8 M3 Lesson 12: Exploring Angles in Similar Triangles</p> <p>8 M3 Lesson 13: Similar Triangles</p> <p>8 M3 Lesson 17: Similar Triangles on a Line</p>
<p>MT.8.G.5</p> <p>Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles.</p>	<p>8 M2 Lesson 12: Lines Cut by a Transversal</p> <p>8 M2 Lesson 13: Angle Sum of a Triangle</p> <p>8 M2 Lesson 14: Showing Lines Are Parallel</p> <p>8 M2 Lesson 15: Exterior Angles of Triangles</p> <p>8 M2 Lesson 16: Find Unknown Angle Measures</p> <p>8 M3 Lesson 12: Exploring Angles in Similar Triangles</p> <p>8 M3 Lesson 13: Similar Triangles</p> <p>8 M3 Lesson 14: Using Similar Figures to Find Unknown Side Lengths</p> <p>8 M3 Lesson 15: Applications of Similar Figures</p> <p>8 M3 Lesson 16: Similar Right Triangles</p>
<p>MT.8.G.6</p> <p>Explain a proof of the Pythagorean Theorem and its converse.</p>	<p>8 M2 Lesson 17: Proving the Pythagorean Theorem</p> <p>8 M2 Lesson 18: Proving the Converse of the Pythagorean Theorem</p> <p>8 M2 Lesson 19: Using the Pythagorean Theorem and Its Converse</p>

**Montana PK–12 Mathematics
Content Standards**

Aligned Components of *Eureka Math*²

<p>MT.8.G.7</p> <p>Apply the Pythagorean Theorem to determine unknown side lengths in right triangle problems, including problems in context in two and three dimensions. This standard should incorporate cultural context relating to Montana Indigenous Peoples and local communities.</p>	<p>8 M1 Lesson 18: The Pythagorean Theorem</p> <p>8 M1 Lesson 19: Using the Pythagorean Theorem</p> <p>8 M1 Lesson 20: Square Roots</p> <p>8 M2 Lesson 19: Using the Pythagorean Theorem and Its Converse</p> <p>8 M2 Lesson 21: Applying the Pythagorean Theorem</p> <p>8 M2 Lesson 22: On the Right Path</p> <p>8 M3 Lesson 16: Similar Right Triangles</p> <p><i>Supplemental material is necessary to address cultural contexts relating to Montana Indigenous Peoples and local communities.</i></p>
<p>MT.8.G.8</p> <p>Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.</p>	<p>8 M2 Lesson 20: Distance in the Coordinate Plane</p> <p>8 M2 Lesson 22: On the Right Path</p>
<p>MT.8.G.9</p> <p>Know, use, and apply the formulas for the volumes of cones, cylinders, and spheres to solve problems, including problems in context.</p>	<p>8 M6 Lesson 21: Volumes of Prisms and Pyramids</p> <p>8 M6 Lesson 22: Volume of Cylinders</p> <p>8 M6 Lesson 23: Volume of Cones</p> <p>8 M6 Lesson 24: Volume of Spheres</p> <p>8 M6 Lesson 25: Applications of Volume</p>

Statistics and Probability (SP)**Montana PK–12 Mathematics
Content Standards****Aligned Components of *Eureka Math*²**

<p>MT.8.SP.1</p> <p>Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities and describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.</p>	<p>8 M6 Lesson 11: Scatter Plots</p> <p>8 M6 Lesson 12: Patterns in Scatter Plots</p> <p>8 Data Talk: Alaskan Sled Dog Racing</p> <p>8 Data Investigation: Crash Impact</p>
<p>MT.8.SP.2</p> <p>Know that straight lines are widely used to model relationships between two quantitative variables and for scatter plots that suggest a linear association, informally fit a straight line and informally assess the model fit by judging the closeness of the data points to the line.</p>	<p>8 M6 Lesson 13: Informally Fitting a Line to Data</p> <p>8 M6 Lesson 15: Linear Models</p> <p>8 M6 Lesson 16: Using the Investigative Process</p> <p>8 M6 Lesson 17: Analyzing the Model</p> <p>8 Data Investigation: Crash Impact</p>
<p>MT.8.SP.3</p> <p>Use the equation of a linear model to solve problems in the context of bivariate measurement data, and interpret the slope and intercept.</p>	<p>8 M6 Lesson 6: Linear Functions and Rate of Change</p> <p>8 M6 Lesson 7: Interpreting Rate of Change and Initial Value</p> <p>8 M6 Lesson 14: Determining an Equation of a Line Fit to Data</p> <p>8 M6 Lesson 15: Linear Models</p> <p>8 M6 Lesson 16: Using the Investigative Process</p> <p>8 M6 Lesson 17: Analyzing the Model</p>

**Montana PK–12 Mathematics
Content Standards**

Aligned Components of *Eureka Math*²

<p>MT.8.SP.4</p> <p>Construct and interpret frequencies and relative frequencies for bivariate categorical data in a two-way table to investigate patterns of association. This standard should incorporate cultural context relating to Montana Indigenous Peoples and local communities.</p>	<p>8 M6 Lesson 18: Bivariate Categorical Data</p> <p>8 M6 Lesson 19: Association in Bivariate Categorical Data</p> <p>8 M6 Lesson 20: Analyzing Bivariate Categorical Data</p> <p><i>Supplemental material is necessary to address cultural contexts relating to Montana Indigenous Peoples and local communities.</i></p>
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