
Grade 7 | Pennsylvania Core Standards Mathematics (2014) 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.

Standards for Mathematical Practice	Aligned Components of <i>Eureka Math</i> 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>

Numbers and Operations

CC.2.1.7.D Ratios and Proportional Relationships

Pennsylvania Core Standards Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>CC.2.1.7.D.1</p> <p>Analyze proportional relationships and use them to model and solve real-world and mathematical problems.</p>	<p>7 M1 Lesson 1: An Experiment with Ratios and Rates</p> <p>7 M1 Lesson 2: Exploring Tables of Proportional Relationships</p> <p>7 M1 Lesson 3: Identifying Proportional Relationships in Tables</p> <p>7 M1 Lesson 4: Exploring Graphs of Proportional Relationships</p> <p>7 M1 Lesson 5: Analyzing Graphs of Proportional Relationships</p> <p>7 M1 Lesson 6: Identifying Proportional Relationships in Written Descriptions</p> <p>7 M1 Lesson 7: Handstand Contemplate Then Calculate</p> <p>7 M1 Lesson 8: Relating Representations of Proportional Relationships</p> <p>7 M1 Lesson 9: Comparing Proportional Relationships</p> <p>7 M1 Lesson 10: Applying Proportional Reasoning</p> <p>7 M1 Lesson 11: Constant Rates</p> <p>7 M1 Lesson 12: Multi-Step Ratio Problems, Part 1</p> <p>7 M1 Lesson 13: Multi-Step Ratio Problems, Part 2</p> <p>7 M1 Lesson 14: Extreme Bicycles</p> <p>7 M1 Lesson 16: Using a Scale Factor</p> <p>7 M1 Lesson 18: Relating Areas of Scale Drawings</p> <p>7 M5 Lesson 1: Proportionality and Scale Factor</p> <p>7 M5 Lesson 2: Racing for Percents</p> <p>7 M5 Lesson 3: Percent as a Rate per 100</p> <p>7 M5 Lesson 4: Proportion and Percent</p> <p>7 M5 Lesson 5: Common Denominators or Common Numerators</p>

**Pennsylvania Core Standards
Mathematics****Aligned Components of *Eureka Math*²**

CC.2.1.7.D.1 <i>continued</i>	7 M5 Lesson 6: Finding Commission 7 M5 Lesson 7: Finding Discounts 7 M5 Lesson 8: Determining Fees 7 M5 Lesson 9: Tax as a Fee 7 M5 Lesson 10: Percent Increase 7 M5 Lesson 11: Percent Decrease 7 M5 Lesson 12: More Discounts 7 M5 Lesson 13: What Is the Best Deal? 7 M5 Lesson 15: Tips and Taxes 7 M5 Lesson 16: Markups and Discounts 7 M5 Lesson 17: Simple Interest and Proportionality 7 M5 Lesson 18: Simple Interest—Solving for Unknown Values 7 M5 Lesson 19: Applying Percent Error 7 M5 Lesson 20: Making Money, Day 1 7 M5 Lesson 21: Making Money, Day 2 7 M5 Lesson 22: Making Mixtures 7 M5 Lesson 23: Percents of Percents
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Numbers and Operations

CC.2.1.7.E The Number System

Pennsylvania Core Standards Mathematics

Aligned Components of *Eureka Math*²

<p>CC.2.1.7.E.1</p> <p>Apply and extend previous understandings of operations with fractions to operations with rational numbers.</p>	<p>7 M2 Lesson 1: Combining Opposites</p> <p>7 M2 Lesson 2: Adding Integers</p> <p>7 M2 Lesson 3: Adding Integers Efficiently</p> <p>7 M2 Lesson 4: KAKOOMA[®]</p> <p>7 M2 Lesson 5: Decomposing Rational Numbers to Make Addition More Efficient</p> <p>7 M2 Lesson 6: Adding Rational Numbers</p> <p>7 M2 Lesson 7: What Subtraction Means</p> <p>7 M2 Lesson 8: Subtracting Integers, Part 1</p> <p>7 M2 Lesson 9: Subtracting Integers, Part 2</p> <p>7 M2 Lesson 10: Subtracting Rational Numbers, Part 1</p> <p>7 M2 Lesson 11: Subtracting Rational Numbers, Part 2</p> <p>7 M2 Lesson 12: The Integer Game</p> <p>7 M2 Lesson 13: Understanding Multiples of Negative Numbers</p> <p>7 M2 Lesson 14: Understanding the Product of Two Negative Numbers</p> <p>7 M2 Lesson 15: Multiplying Rational Numbers</p> <p>7 M2 Lesson 16: Exponential Expressions with Rational Numbers</p> <p>7 M2 Lesson 17: Understanding Negative Dividends</p> <p>7 M2 Lesson 18: Understanding Negative Divisors</p> <p>7 M2 Lesson 19: Rational Numbers as Decimals, Part 1</p> <p>7 M2 Lesson 20: Rational Numbers as Decimals, Part 2</p> <p>7 M2 Lesson 21: Comparing and Ordering Rational Numbers</p> <p>7 M2 Lesson 22: Multiplication and Division Expressions</p>

**Pennsylvania Core Standards
Mathematics**

Aligned Components of *Eureka Math*²

<p>CC.2.1.7.E.1 <i>continued</i></p>	<p>7 M2 Lesson 24: Order of Operations with Rational Numbers</p> <p>7 M2 Lesson 25: Writing and Evaluating Expressions with Rational Numbers, Part 1</p> <p>7 M2 Lesson 26: Writing and Evaluating Expressions with Rational Numbers, Part 2</p>
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Algebraic Concepts

CC.2.2.7.B Expressions and Equations

**Pennsylvania Core Standards
Mathematics**

Aligned Components of *Eureka Math*²

<p>CC.2.2.7.B.1</p> <p>Apply properties of operations to generate equivalent expressions.</p>	<p>7 M3 Lesson 1: Equivalent Expressions</p> <p>7 M3 Lesson 2: The Distributive Property and the Tabular Model</p> <p>7 M3 Lesson 3: The Distributive Property and Combining Like Terms</p> <p>7 M3 Lesson 4: Adding and Subtracting Expressions</p> <p>7 M3 Lesson 5: Factoring Expressions</p> <p>7 M3 Lesson 6: Comparing Expressions</p> <p>7 M3 Lesson 9: Solving Equations to Determine Unknown Angle Measures</p> <p>7 M5 Lesson 10: Percent Increase</p> <p>7 M5 Lesson 11: Percent Decrease</p> <p>7 M5 Lesson 12: More Discounts</p> <p>7 M5 Lesson 14: Scale Factor—Percent Increase and Decrease</p> <p>7 M5 Lesson 15: Tips and Taxes</p> <p>7 M5 Lesson 16: Markups and Discounts</p> <p>7 M5 Lesson 23: Percents of Percents</p>
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**Pennsylvania Core Standards
Mathematics**

Aligned Components of *Eureka Math*²

<p>CC.2.2.7.B.3</p> <p>Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations.</p>	<p>7 M2 Lesson 25: Writing and Evaluating Expressions with Rational Numbers, Part 1</p> <p>7 M2 Lesson 26: Writing and Evaluating Expressions with Rational Numbers, Part 2</p> <p>7 M3 Lesson 7: Angle Relationships and Unknown Angle Measures</p> <p>7 M3 Lesson 8: Strategies to Determine Unknown Angle Measures</p> <p>7 M3 Lesson 9: Solving Equations to Determine Unknown Angle Measures</p> <p>7 M3 Lesson 10: Problem Solving with Unknown Angle Measures</p> <p>7 M3 Lesson 11: Dominoes and Dominoes</p> <p>7 M3 Lesson 12: Solving Problems Algebraically and Arithmetically</p> <p>7 M3 Lesson 13: Solving Equations—Puzzles</p> <p>7 M3 Lesson 14: Solving Equations—Scavenger Hunt</p> <p>7 M3 Lesson 15: Solving Equations Fluently</p> <p>7 M3 Lesson 16: Using Equations to Solve Rate Problems</p> <p>7 M3 Lesson 17: Using Equations to Solve Problems</p> <p>7 M3 Lesson 18: Understanding Inequalities and Their Solutions</p> <p>7 M3 Lesson 19: Using Equations to Solve Inequalities</p> <p>7 M3 Lesson 20: Preserving and Reversing</p> <p>7 M3 Lesson 21: Solving Two-Step Inequalities</p> <p>7 M3 Lesson 22: Solving Problems Involving Inequalities</p> <p>7 M3 Lesson 23: Inequalities vs. Equations</p>
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Geometry**CC.2.3.7.A Geometry****Pennsylvania Core Standards
Mathematics****Aligned Components of *Eureka Math*²**

Pennsylvania Core Standards Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>CC.2.3.7.A.1</p> <p>Solve real-world and mathematical problems involving angle measure, area, surface area, circumference, and volume.</p>	<p>7 M3 Lesson 7: Angle Relationships and Unknown Angle Measures</p> <p>7 M3 Lesson 8: Strategies to Determine Unknown Angle Measures</p> <p>7 M3 Lesson 10: Problem Solving with Unknown Angle Measures</p> <p>7 M4 Lesson 10: The Outside of a Circle</p> <p>7 M4 Lesson 11: The Inside of a Circle</p> <p>7 M4 Lesson 12: Exploring the Area and Circumference of a Circle</p> <p>7 M4 Lesson 13: Finding Areas of Circular Regions</p> <p>7 M4 Lesson 14: Composite Figures with Circular Regions</p> <p>7 M4 Lesson 15: Watering a Lawn</p> <p>7 M4 Lesson 16: Solving Area Problems by Composition and Decomposition</p> <p>7 M4 Lesson 17: Surface Area of Right Rectangular and Right Triangular Prisms</p> <p>7 M4 Lesson 18: Surface Area of Right Prisms</p> <p>7 M4 Lesson 20: Surface Area of Right Pyramids</p> <p>7 M4 Lesson 21: Surface Area of Other Solids</p> <p>7 M4 Lesson 24: Volume of Prisms</p> <p>7 M4 Lesson 25: Volume of Composite Solids</p> <p>7 M4 Lesson 26: Designing a Fish Tank</p>

**Pennsylvania Core Standards
Mathematics**

Aligned Components of *Eureka Math*²

<p>CC.2.3.7.A.2</p> <p>Visualize and represent geometric figures and describe the relationships between them.</p>	<p>7 M1 Lesson 15: Scale Drawings</p> <p>7 M1 Lesson 16: Using a Scale Factor</p> <p>7 M1 Lesson 17: Finding Actual Distances from a Scale Drawing</p> <p>7 M1 Lesson 18: Relating Areas of Scale Drawings</p> <p>7 M1 Lesson 19: Scale and Scale Factor</p> <p>7 M1 Lesson 20: Creating Multiple Scale Drawings</p> <p>7 M4 Lesson 1: Sketching, Drawing, and Constructing Geometric Figures</p> <p>7 M4 Lesson 2: Constructing Parallelograms and Other Quadrilaterals</p> <p>7 M4 Lesson 3: Side Lengths of a Triangle</p> <p>7 M4 Lesson 4: Angles of a Triangle</p> <p>7 M4 Lesson 5: Constructing Quadrilaterals and Triangles</p> <p>7 M4 Lesson 6: Unique Triangles</p> <p>7 M4 Lesson 7: Two Angles and One Side</p> <p>7 M4 Lesson 8: Two Sides and One Angle</p> <p>7 M4 Lesson 9: Constructing a Circle</p> <p>7 M5 Lesson 1: Proportionality and Scale Factor</p> <p>7 M5 Lesson 14: Scale Factor—Percent Increase and Decrease</p>
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Measurement, Data, and Probability**CC.2.4.7.B Statistics and Probability**

Pennsylvania Core Standards Mathematics	Aligned Components of <i>Eureka Math</i>²
<p>CC.2.4.7.B.1</p> <p>Draw inferences about populations based on random sampling concepts.</p>	<p>7 M6 Lesson 11: Populations and Samples</p> <p>7 M6 Lesson 12: Selecting a Sample</p> <p>7 M6 Lesson 13: Variability Between Samples</p> <p>7 M6 Lesson 14: Sampling Variability When Estimating a Population Mean</p> <p>7 M6 Lesson 15: Sampling Variability and the Effect of Sample Size</p> <p>7 M6 Lesson 16: Sampling Variability When Estimating a Population Proportion</p>
<p>CC.2.4.7.B.2</p> <p>Draw informal comparative inferences about two populations.</p>	<p>7 M6 Lesson 17: Comparing Sample Means</p> <p>7 M6 Lesson 18: Comparing Population Means</p> <p>7 M6 Lesson 19: Memory Games</p>
<p>CC.2.4.7.B.3</p> <p>Investigate chance processes and develop, use, and evaluate probability models.</p>	<p>7 M6 Lesson 1: What is Probability?</p> <p>7 M6 Lesson 2: Empirical Probability</p> <p>7 M6 Lesson 3: Outcomes of Chance Experiments</p> <p>7 M6 Lesson 4: Theoretical Probability</p> <p>7 M6 Lesson 5: Multistage Experiments</p> <p>7 M6 Lesson 6: Outcomes That Are Not Equally Likely</p> <p>7 M6 Lesson 7: The Law of Large Numbers</p> <p>7 M6 Lesson 8: Picking Blue</p> <p>7 M6 Lesson 9: Probability Simulations</p> <p>7 M6 Lesson 10: Simulations with Random Number Tables</p>