

Grade 7 | Georgia's K-12 Mathematics Standards Correlation to Eureka Math®

About Eureka Math

Created by Great Minds[®], a mission-driven Public Benefit Corporation, *Eureka Math*[®] helps teachers deliver unparalleled math instruction that provides students with a deep understanding and fluency in math. Crafted by teachers and math scholars, the curriculum carefully sequences the mathematical progressions to maximize coherence from Prekindergarten through Precalculus–a principle tested and proven to be essential in students' mastery of math.

Teachers and students using *Eureka Math* find the trademark "Aha!" moments in *Eureka Math* to be a source of joy and inspiration, lesson after lesson, year after year.

Aligned

Great Minds offers detailed analyses that demonstrate how each grade of *Eureka Math* aligns with specific state standards. Access these free alignment studies at <u>greatminds.org/state-studies</u>.

Data

Schools and districts nationwide are experiencing student growth and impressive test scores after using *Eureka Math*. See their stories and data at greatminds.org/data.

Full Suite of Resources

Great Minds offers the *Eureka Math* curriculum as PDF downloads for free, noncommercial use. Access the free PDFs at <u>greatminds.org/</u><u>math/curriculum</u>.

The teacher-writers who created the curriculum have also developed essential resources, available only from Great Minds, including the following:

- Printed material in English and Spanish
- Digital resources
- Professional development
- Classroom tools and manipulatives
- Teacher support materials
- Parent resources

| Standards for Mathematical Practice | Aligned Components of Eureka Math |
|---|---|
| MP.1 Make sense of problems and persevere in solving them. MP.2 | Lessons in every module engage students in mathematical practices. These are designated in the Module Overview and labeled in lessons. For example: |
| Reason abstractly and quantitatively. | A STORY OF RATIOS Lesson 13 7•3 |
| MP.3 | Questions leading to finding a solution: • What is a solution set of an inequality? |
| Construct viable arguments and critique the reasoning of others. | A solution set contains more than one number that makes the inequality a true statement. Is -3 a solution to our inequality in part (a)? |
| MP.4 | Yes. When the value of -3 is substituted into the inequality, the resulting statement is true. Could -4 be a solution to our inequality in part (a)? Substituting -4 does not result in a true statement because -12 is equal to, but not greater than -12. |
| Model with mathematics. | We have found that x = -3 is a solution to the inequality in part (a) where x = -4 and x = -5 are not. What is meant by the minimum value in this inequality? Explain. |
| MP.5 | MP.2 • The minimum value is the smallest value that makes the inequality true. -3 is not the minimum value because there are rational numbers that are smaller than -3 but greater than -4 . For example, $-3\frac{1}{2}$ |
| Use appropriate tools strategically. | is smaller than -3 but still creates a true statement. How is solving an inequality similar to solving an equation? How is it different? Solving an equation and an inequality are similar in the sequencing of steps taken to solve for the |
| MP.6 | variable. The same if-then moves are used to solve for the variable. They are different because in an equation, you get one solution, but in an inequality, there are an |
| Attend to precision. | infinite number of solutions. |
| MP.7 | |
| Look for and make use of structure. | |
| MP.8 | |
| Look for and express regularity in repeated reasoning. | |

| Mathematical Modeling Framework | Aligned Components of Eureka Math |
|--|---|
| MF.1 | Lessons in every module engage students in mathematical modeling. |
| Explore and describe real-life, mathematical situations or problems. | |
| MF.2 | |
| Gather information, make assumptions, and define variables related to the problem. | |
| MF.3 | |
| Create a model and arrive at a solution to explain the problem presented. | |
| MF.4 | |
| Analyze and revise models, as necessary. | |
| MF.5 | - |
| Evaluate the model and interpret solutions generated from other models. Draw and validate conclusions. | |

| Framework for Statistical Reasoning | Aligned Components of Eureka Math | |
|--|--|--|
| SR | Lessons in Module 5 engage students in statistical reasoning | |
| Create statistical investigative questions that can be answered using quantitative data, collect data through random sampling to make inferences about population distributions using data distributions, and interpret data to answer statistical investigative questions. | | |
| SR.1 | | |
| Ask: Create a statistical investigative question that can be answered by gathering data from real situations and determine strategies for gathering data to answer the statistical investigative question. | | |
| SR.2 | | |
| Collect: Use statistical reasoning and methods to predict characteristics of a population by examining the characteristics of a representative sample. Recognize the potential limitations and scope of the sample to the population. | | |
| SR.3 | | |
| Collect: Analyze sampling methods and conclude that random sampling produces and supports valid inferences. | | |
| SR.4 | | |
| Analyze: Use data from repeated random samples to evaluate how much a sample mean is expected to vary from a population mean. Simulate multiple samples of the same size. | | |
| SR.5 | | |
| Interpret: Use appropriate graphical displays and numerical summaries from data distributions with categorical or quantitative (numerical) variables to draw informal inferences about two samples or populations. | | |

Numerical Reasoning-integers, percentages, fractions, decimal numbers

7.NR.1 Solve relevant, mathematical problems, including multi-step problems, involving the four operations with rational numbers and quantities in any form (integers, percentages, fractions, and decimal numbers).

| Mathematics Standards | Aligned Components of Eureka Math |
|---|--|
| 7.NR.1.1 | G7 M2 Lesson 1: Opposite Quantities Combine to Make Zero |
| Show that a number and its opposite have a sum of 0 (are additive inverses). Describe situations in which opposite quantities combine to make 0. | |
| 7.NR.1.2 | G7 M2 Lesson 1: Opposite Quantities Combine to Make Zero |
| Show and explain $p + q$ as the number | G7 M2 Lesson 2: Using the Number Line to Model the Addition of Integers |
| located a distance $ q $ from p , in the | G7 M2 Lesson 3: Understanding Addition of Integers |
| positive or negative direction, depending on whether <i>q</i> is positive or negative. | G7 M2 Lesson 4: Efficiently Adding Integers and Other Rational Numbers |
| Interpret sums of rational numbers by describing applicable situations. | G7 M2 Lesson 7: Addition and Subtraction of Rational Numbers |
| | G7 M2 Lesson 8: Applying the Properties of Operations to Add and Subtract Rational Numbers |
| | G7 M2 Lesson 9: Applying the Properties of Operations to Add and Subtract Rational Numbers |
| 7.NR.1.3 | G7 M2 Topic A: Addition and Subtraction of Integers and Rational Numbers |
| Represent addition and subtraction with rational numbers on a horizontal or a vertical number line diagram to solve authentic problems. | |

| Mathematics Standards | Aligned Components of Eureka Math |
|--|--|
| 7.NR.1.4 | G7 M2 Lesson 5: Understanding Subtraction of Integers and Other Rational Numbers |
| Show and explain subtraction of rational | G7 M2 Lesson 6: The Distance Between Two Rational Numbers |
| numbers as adding the additive inverse, p-q = p + (-q). Show that the distance | G7 M2 Lesson 7: Addition and Subtraction of Rational Numbers |
| between two rational numbers on the | G7 M2 Lesson 8: Applying the Properties of Operations to Add and Subtract Rational Numbers |
| number line is the absolute value of their difference and apply this principle in contextual situations. | G7 M2 Lesson 9: Applying the Properties of Operations to Add and Subtract Rational Numbers |
| 7.NR.1.5 | G7 M2 Lesson 8: Applying the Properties of Operations to Add and Subtract Rational Numbers |
| Apply properties of operations, including part-whole reasoning, as strategies to add and subtract rational numbers. | G7 M2 Lesson 9: Applying the Properties of Operations to Add and Subtract Rational Numbers |
| 7.NR.1.6 | G7 M2 Topic B: Multiplication and Division of Integers and Rational Numbers |
| Make sense of multiplication of rational numbers using realistic applications. | |
| 7.NR.1.7 | G7 M2 Lesson 12: Division of Integers |
| Show and explain that integers can be divided, assuming the divisor is not zero, and every quotient of integers is a rational number. | G7 M2 Lesson 15: Multiplication and Division of Rational Numbers |
| 7.NR.1.8 | G7 M2 Topic B: Multiplication and Division of Integers and Rational Numbers |
| Represent the multiplication and division of integers using a variety of strategies and interpret products and quotients of rational numbers by describing them based on the relevant situation. | |

| Mathematics Standards | Aligned Components of Eureka Math |
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| 7.NR.1.9 | G7 M2 Lesson 16: Applying the Properties of Operations to Multiply and Divide Rational Numbers |
| Apply properties of operations as strategies to solve multiplication and division problems involving rational numbers represented in an applicable scenario. | |
| 7.NR.1.10 | G7 M2 Lesson 13: Converting Between Fractions and Decimals Using Equivalent Fractions |
| Convert rational numbers between forms to include fractions, decimal numbers and percentages, using understanding of the part divided by the whole. Know that the decimal form of a rational number terminates in 0s or eventually repeats. | G7 M2 Lesson 14: Converting Rational Numbers to Decimals Using Long Division |
| 7.NR.1.11 | G7 M2 Lesson 18: Writing, Evaluating, and Finding Equivalent Expressions with Rational Numbers |
| Solve multi-step, contextual problems involving rational numbers, converting between forms as appropriate, and assessing the reasonableness of answers using mental computation and estimation strategies. | G7 M2 Lesson 19: Writing, Evaluating, and Finding Equivalent Expressions with Rational Numbers G7 M2 Lesson 20: Investments–Performing Operations with Rational Numbers G7 M2 Lesson 21: If-Then Moves with Integer Number Cards |

Patterning & Algebraic Reasoning–linear expressions with rational coefficients, complex unit rates, proportional relationships

7.PAR.2 Use properties of operations, generate equivalent expressions and interpret the expressions to explain relevant situations.

| Georgia's K–12 Mathematics Standards | Aligned Components of Eureka Math |
|---|--|
| 7.PAR.2.1 | G7 M3 Topic A: Use Properties of Operations to Generate Equivalent Expressions |
| Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients. | |
| 7.PAR.2.2 | G7 M2 Lesson 18: Writing, Evaluating, and Finding Equivalent Expressions with Rational Numbers |
| Rewrite an expression in different forms | G7 M2 Lesson 19: Writing, Evaluating, and Finding Equivalent Expressions with Rational Numbers |
| from a contextual problem to clarify the problem and show how the quantities in it are related. | G7 M2 Lesson 21: If-Then Moves with Integer Number Cards |
| | G7 M3 Lesson 3: Writing Products as Sums and Sums as Products |
| | G7 M3 Lesson 4: Writing Products as Sums and Sums as Products |

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Patterning & Algebraic Reasoning–linear expressions with rational coefficients, complex unit rates, proportional relationships

7.PAR.3 Represent authentic situations using equations and inequalities with variables; solve equations and inequalities symbolically, using the properties of equality.

| Georgia's K–12 Mathematics Standards | Aligned Components of Eureka Math |
|---|--|
| 7.PAR.3.1 | G7 M2 Lesson 17: Comparing Tape Diagram Solutions to Algebraic Solutions |
| Construct algebraic equations to solve | G7 M2 Lesson 21: If-Then Moves with Integer Number Cards |
| practical problems leading to equations | G7 M2 Lesson 22: Solving Equations Using Algebra |
| of the form $px + q = r$ and $p(x + q) = r$, where p , q , and r are specific rational | G7 M2 Lesson 23: Solving Equations Using Algebra |
| numbers. Interpret the solution based | G7 M3 Lesson 7: Understanding Equations |
| on the situation. | G7 M3 Lesson 8: Using If-Then Moves in Solving Equations |
| | G7 M3 Lesson 9: Using If-Then Moves in Solving Equations |
| | G7 M3 Lesson 10: Angle Problems and Solving Equations |
| | G7 M3 Lesson 11: Angle Problems and Solving Equations |
| | G7 M4 Lesson 10: Simple Interest |
| | G7 M4 Lesson 11: Tax, Commissions, Fees, and Other Real-World Percent Applications |
| | G7 M4 Lesson 17: Mixture Problems |
| 7.PAR.3.2 | G7 M3 Lesson 12: Properties of Inequalities |
| Construct algebraic inequalities to solve | G7 M3 Lesson 13: Inequalities |
| problems, leading to inequalities of the form $px \pm q > r$, $px \pm q < r$, $px \pm q \le r$, or $px \pm q \ge r$, where p, q , | G7 M3 Lesson 14: Solving Inequalities |
| | G7 M3 Lesson 15: Graphing Solutions to Inequalities |
| and <i>r</i> are specific rational numbers. | |
| Graph and interpret the solution based on the realistic situation that the | |
| inequalities represent. | |
| · | |

Patterning & Algebraic Reasoning-linear expressions with rational coefficients, complex unit rates, proportional relationships

7.PAR.4 Recognize proportional relationships in relevant, mathematical problems; represent, solve, and explain these relationships with tables, graphs, and equations.

| Georgia's K–12 Mathematics Standards | Aligned Components of Eureka Math |
|---|--|
| 7.PAR.4.1 | G7 M1 Lesson 11: Ratios of Fractions and Their Unit Rates |
| Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units presented in realistic problems. | G7 M1 Lesson 12: Ratios of Fractions and Their Unit Rates G7 M1 Lesson 13: Finding Equivalent Ratios Given the Total Quantity G7 M1 Lesson 15: Equations of Graphs of Proportional Relationships Involving Fractions |
| 7.PAR.4.2 | G7 M1 Topic B: Unit Rate and Constant of Proportionality |
| Determine the unit rate (constant of proportionality) in tables, graphs (1, r), equations, diagrams, and verbal descriptions of proportional relationships to solve realistic problems. | G7 M1 Lesson 16: Relating Scale Drawings to Ratios and Rates G7 M1 Lesson 17: The Unit Rate as the Scale Factor G7 M4 Lesson 12: The Scale Factor as a Percent for a Scale Drawing |
| 7.PAR.4.3 Determine whether two quantities presented in authentic problems are in a proportional relationship. | G7 M1 Topic A: Proportional Relationships G7 M1 Topic B: Unit Rate and Constant of Proportionality G7 M1 Lesson 15: Equations of Graphs of Proportional Relationships Involving Fractions G7 M1 Lesson 16: Relating Scale Drawings to Ratios and Rates G7 M1 Lesson 17: The Unit Rate as the Scale Factor G7 M4 Lesson 1: Percent G7 M4 Lesson 2: Part of a Whole as Percent G7 M4 Lesson 3: Comparing Quantities with Percent G7 M4 Lesson 4: Percent Increase and Decrease |

| Mathematics Standards | Aligned Components of Eureka Math |
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| 7.PAR.4.3 continued | G7 M4 Lesson 6: Fluency with Percents |
| | G7 M4 Lesson 7: Markup and Markdown Problems |
| | G7 M4 Lesson 9: Problem Solving When the Percent Changes |
| | G7 M4 Lesson 10: Simple Interest |
| | G7 M4 Lesson 11: Tax, Commissions, Fees, and Other Real-World Percent Applications |
| | G7 M4 Lesson 12: The Scale Factor as a Percent for a Scale Drawing |
| 7.PAR.4.4 | G7 M1 Topic A: Proportional Relationships |
| Identify, represent, and use proportional | G7 M1 Topic B: Unit Rate and Constant of Proportionality |
| relationships. | G7 M1 Lesson 15: Equations of Graphs of Proportional Relationships Involving Fractions |
| | G7 M1 Lesson 16: Relating Scale Drawings to Ratios and Rates |
| | G7 M1 Lesson 17: The Unit Rate as the Scale Factor |
| | G7 M4 Lesson 1: Percent |
| | G7 M4 Lesson 2: Part of a Whole as Percent |
| | G7 M4 Lesson 3: Comparing Quantities with Percent |
| | G7 M4 Lesson 4: Percent Increase and Decrease |
| | G7 M4 Lesson 6: Fluency with Percents |
| | G7 M4 Lesson 7: Markup and Markdown Problems |
| | G7 M4 Lesson 9: Problem Solving When the Percent Changes |
| | G7 M4 Lesson 10: Simple Interest |
| | G7 M4 Lesson 11: Tax, Commissions, Fees, and Other Real-World Percent Applications |
| | G7 M4 Lesson 12: The Scale Factor as a Percent for a Scale Drawing |

G7 M1 Lesson 10: Interpreting Graphs of Proportional Relationships 7.PAR.4.5 Use context to explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, r) where r is the unit rate. G7 M1 Lesson 17: The Unit Rate as the Scale Factor 7.PAR.4.6 Solve everyday problems involving scale G7 M1 Lesson 18: Computing Actual Lengths from a Scale Drawing drawings of geometric figures, including G7 M1 Lesson 19: Computing Actual Areas from a Scale Drawing computing actual lengths and areas G7 M1 Lesson 20: An Exercise in Creating a Scale Drawing from a scale drawing and reproducing a scale drawing at a different scale. G7 M1 Lesson 21: An Exercise in Changing Scales G7 M1 Lesson 22: An Exercise in Changing Scales G7 M4 Topic C: Scale Drawings 7.PAR.4.7 G8 M4 Lesson 16: The Computation of the Slope of a Non-Vertical Line Use similar triangles to explain why the G8 M4 Lesson 17: The Line Joining Two Distinct Points of the Graph y = mx + b has Slope m slope, m, is the same between any two G8 M4 Lesson 18: There Is Only One Line Passing Through a Given Point with a Given Slope distinct points on a nonvertical line in the G8 M4 Lesson 19: The Graph of a Linear Equation in Two Variables is a Line coordinate plane. G8 M4 Lesson 20: Every Line is a Graph of a Linear Equation G8 M4 Lesson 21: Some Facts About Graphs of a Linear Equation in Two Variables G8 M4 Lesson 22: Constant Rates Revisited G8 M4 Lesson 23: The Defining Equation of a Line

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

Aligned Components of Eureka Math

| Georgia's K–12 Mathematics Standards | Aligned Components of Eureka Math |
|---|---|
| 7.PAR.4.8 | G8 M4 Topic B: Linear Equations in Two Variables and Their Graphs |
| Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. | G8 M4 Lesson 15: The Slope of a Non-Vertical Line |
| | G8 M4 Lesson 22: Constant Rates Revisited |
| | G8 M4 Lesson 24: Introduction to Simultaneous Equations |
| 7.PAR.4.9 | G7 M1 Lesson 14: Multi-Step Ratio Problems |
| Use proportional relationships to solve | G7 M4 Lesson 1: Percent |
| multi-step ratio and percent problems presented in applicable situations. | G7 M4 Lesson 3: Comparing Quantities with Percent |
| presented in applicable situations. | G7 M4 Lesson 4: Percent Increase and Decrease |
| | G7 M4 Lesson 5: Find One Hundred Percent Given Another Percent |
| | G7 M4 Lesson 6: Fluency with Percents |
| | G7 M4 Topic B: Percent Problems Including More than One Whole |
| | G7 M4 Topic D: Population, Mixture, and Counting Problems Involving Percents |
| 7.PAR.4.10 | G7 M5 Lesson 13: Populations, Samples, and Generalizing from a Sample to a Population |
| Predict characteristics of a population | G7 M5 Lesson 14: Selecting a Sample |
| by examining the characteristics of a | G7 M5 Lesson 15: Random Sampling |
| representative sample. Recognize the potential limitations and scope of the | G7 M5 Lesson 18: Sampling Variability and the Effect of Sample Size |
| sample to the population. | G7 M5 Lesson 19: Understanding Variability When Estimating a Population Proportion |
| 7.PAR.4.11 | G7 M5 Lesson 14: Selecting a Sample |
| Analyze sampling methods and conclude | G7 M5 Lesson 15: Random Sampling |
| that random sampling produces and supports valid inferences. | G7 M5 Lesson 16: Methods for Selecting a Random Sample |

| Mathematics Standards | Aligned Components of Eureka Math |
|---|--|
| 7.PAR.4.12 | G7 M5 Lesson 14: Selecting a Sample |
| Use data from repeated random samples to evaluate how much a sample mean | G7 M5 Lesson 15: Random Sampling |
| | G7 M5 Lesson 16: Methods for Selecting a Random Sample |
| is expected to vary from a population mean. Simulate multiple samples of the | G7 M5 Lesson 17: Sampling Variability |
| same size. | G7 M5 Lesson 18: Sampling Variability and the Effect of Sample Size |
| | G7 M5 Lesson 19: Understanding Variability When Estimating a Population Proportion |
| | G7 M5 Lesson 20: Estimating a Population Proportion |
| | |

Geometric & Spatial Reasoning-vertical, adjacent, complementary, and supplementary angles, circumference and area of circles, area and surface area, volume of cubes, right prisms, and cylinders

7.GSR.5 Solve practical problems involving angle measurement, circles, area of circles, surface area of prisms and cylinders, and volume of cylinders and prisms composed of cubes and right prisms.

| Georgia's K–12 Mathematics Standards | Aligned Components of Eureka Math |
|---|--|
| 7.GSR.5.1 Measure angles in whole nonstandard units. | Supplemental material is necessary to address this standard. |
| 7.GSR.5.2 Measure angles in whole number degrees using a protractor. | Supplemental material is necessary to address this standard. |

| Mathematics Standards | Aligned Components of Eureka Math |
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| 7.GSR.5.3 | G7 M3 Lesson 10: Angle Problems and Solving Equations |
| Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve equations for an unknown angle in a figure. | G7 M3 Lesson 11: Angle Problems and Solving Equations |
| | G7 M6 Topic A: Unknown Angles |
| 7.GSR.5.4 | G7 M3 Lesson 16: The Most Famous Ratio of All |
| Explore and describe the | G7 M3 Lesson 17: The Area of a Circle |
| relationship between pi, radius, diameter, circumference, and area | G7 M3 Lesson 18: More Problems on Area and Circumference |
| diameter, circumference, and area of a circle to derive the formulas for the circumference and area of a circle. | G7 M3 Lesson 20: Composite Area Problems |
| 7.GSR.5.5 | G7 M3 Lesson 16: The Most Famous Ratio of All |
| Given the formula for the area and | G7 M3 Lesson 17: The Area of a Circle |
| circumference of a circle, solve problems that exist in everyday life. | G7 M3 Lesson 18: More Problems on Area and Circumference |
| | G7 M3 Lesson 20: Composite Area Problems |
| 7.GSR.5.6 | G7 M3 Lesson 19: Unknown Area Problems on the Coordinate Plane |
| Solve realistic problems involving surface area of right prisms and cylinders. | G7 M3 Lesson 20: Composite Area Problems |
| | G7 M3 Lesson 21: Surface Area |
| | G7 M3 Lesson 22: Surface Area |
| | G7 M3 Lesson 23: The Volume of a Right Prism |
| | G7 M3 Lesson 24: The Volume of a Right Prism |
| | G7 M3 Lesson 25: Volume and Surface Area |
| | G7 M3 Lesson 26: Volume and Surface Area |

Georgia's K–12 Mathematics Standard

| Mathematics Standards | Aligned Components of Eureka Math |
|---|---|
| 7.GSR.5.6 continued | G7 M6 Topic D: Problems Involving Area and Surface Area G7 M6 Topic E: Problems Involving Volume |
| 7.GSR.5.7 Describe the two-dimensional figures | G7 M6 Topic C: Slicing Solids |
| (cross sections) that result from slicing three-dimensional figures, as in the plane sections of right rectangular prisms, right rectangular pyramids, cones, cylinders, and spheres. | |
| 7.GSR.5.8 | G7 M3 Lesson 23: The Volume of a Right Prism |
| Explore volume as a measurable attribute of cylinders and right prisms. Find the volume of these geometric figures using concrete problems. | G7 M3 Lesson 24: The Volume of a Right Prism |
| | G7 M3 Lesson 25: Volume and Surface Area |
| | G7 M3 Lesson 26: Volume and Surface Area |
| | G7 M6 Topic D: Problems Involving Area and Surface Area |
| | G7 M6 Topic E: Problems Involving Volume |

Georgia's K–12 Mathematics Standards

Probability Reasoning-likelihood, theoretical and experimental probability

7.PR.6 Using mathematical reasoning, investigate chance processes and develop, evaluate, and use probability models to find probabilities of simple events presented in authentic situations.

| Georgia's K–12 Mathematics Standards | Aligned Components of Eureka Math |
|---|---|
| 7.PR.6.1 | G7 M5 Lesson 1: Chance Experiments |
| Represent the probability of a chance event as a number between 0 and 1 that expresses the likelihood of the event occurring. Describe that a probability near 0 indicates an unlikely event, a probability around $\frac{1}{2}$ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event. | |
| 7.PR.6.2 | G7 M5 Lesson 2: Estimating Probabilities by Collecting Data |
| Approximate the probability of a chance | G7 M5 Lesson 3: Chance Experiments with Equally Likely Outcomes |
| event by collecting data on an event and observing its long-run relative frequency | G7 M5 Lesson 4: Calculating Probabilities for Chance Experiments with Equally Likely Outcomes |
| will approach the theoretical probability. | G7 M5 Lesson 5: Chance Experiments with Outcomes That Are Not Equally Likely |
| | G7 M5 Lesson 8: The Difference Between Theoretical Probabilities and Estimated Probabilities |
| | G7 M5 Lesson 12: Applying Probability to Make Informed Decisions |
| 7.PR.6.3 | G7 M5 Lesson 4: Calculating Probabilities for Chance Experiments with Equally Likely Outcomes |
| Develop a probability model and use it to find probabilities of simple events. Compare experimental and theoretical probabilities of events. If the probabilities are not close, explain possible sources of the discrepancy. | G7 M5 Lesson 5: Chance Experiments with Outcomes That Are Not Equally Likely |
| | G7 M5 Lesson 8: The Difference Between Theoretical Probabilities and Estimated Probabilities |
| | G7 M5 Lesson 9: Comparing Estimated Probabilities to Probabilities Predicted by a Model |
| | G7 M5 Lesson 12: Applying Probability to Make Informed Decisions |

| Mathematics Standards | Aligned Components of Eureka Math |
|---|---|
| 7.PR.6.4 | G7 M5 Lesson 4: Calculating Probabilities for Chance Experiments with Equally Likely Outcomes |
| Develop a uniform probability model by assigning equal probability to all outcomes and use the model to determine probabilities of events. | |
| 7.PR.6.5 | G7 M5 Lesson 5: Chance Experiments with Outcomes That Are Not Equally Likely |
| Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. | G7 M5 Lesson 12: Applying Probability to Make Informed Decisions |
| 7.PR.6.6 | G6 M6 Lesson 7: The Mean as a Balance Point |
| Use appropriate graphical displays and numerical summaries from data distributions with categorical or quantitative (numerical) variables as probability models to draw informal inferences about two samples or populations. | G6 M6 Lesson 8: Variability in a Data Distribution |
| | G6 M6 Lesson 9: The Mean Absolute Deviation (MAD) |
| | G6 M6 Lesson 10: Describing Distributions Using the Mean and MAD |
| | G6 M6 Lesson 11: Describing Distributions Using the Mean and MAD |
| | G6 M6 Topic C: Summarizing a Distribution that is Skewed Using the Median and the Interquartile Range |
| | G6 M6 Topic D: Summarizing and Describing Distributions |
| | G7 M5 Topic D: Comparing Populations |