

# Mathematics: Grade 6

## Ratios and Proportional Relationships RP

- 1a** Write or select a ratio to match a given statement and representation. LC.6.RP.A.1A

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- 1b** Select or make a statement to interpret a given ratio. **LC.6.RP.A.1c** Describe the ratio relationship between two quantities for a given situation. LC.6.RP.A.1B

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- 1d** Complete a statement that describes the ratio relationship between two quantities. LC.6.RP.A.1D

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- 1e** Write or select a ratio to match a given statement and representation. LC.6.RP.A.1E

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- 2** Determine the unit rate in a variety of contextual situations. LC.6.RP.A.2

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- 3a** Use ratios and reasoning to solve real-world mathematical problems (e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations). LC.6.RP.A.3A

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- 3b** Find a missing value (representations, whole numbers, common fractions, decimals to hundredths place, percent) for a given ratio. LC.6.RP.A.3B

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- 3c** Solve unit rate problems involving unit pricing. LC.6.RP.A.3C

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- 3d** Solve one step real world measurement problems involving unit rates with ratios of whole numbers when given the unit rate (3 inches of snow falls per hour, how much in 6 hours). LC.6.RP.A.3D

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- 3e** Calculate a percent of a quantity as rate per 100. LC.6.RP.A.3E

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- 3f** Complete a conversion table for length, mass, time, volume. LC.6.RP.A.3F

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- 3g** Analyze a table of equivalent ratios to answer questions. LC.6.RP.A.3G

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- 3h** Solve word problems involving ratios. LC.6.RP.A.3H

## The Number System NS

- 1** Solve one step problems involving division of fractions by fractions. LC.6.NS.A.1

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- 2** Divide multi-digit whole numbers. LC.6.NS.B.2

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- 3** Solve one step, addition, subtraction, multiplication, or division problems with fractions or decimals. LC.6.NS.B.3

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**4** Find the greatest common multiple of two whole numbers less than or equal 25 and the least common multiple of two whole numbers less than or equal to 8. LC.6.NS.B.4

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**5** Select the appropriate meaning of a negative number in a real world situation. LC.6.NS.C.5

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**6a** Find given points between -10 and 10 on both axes of a coordinate plane. LC.6.NS.C.6A

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**6b** Label points between -10 and 10 on both axes of a coordinate plane. LC.6.NS.C.6B

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**6c** Identify numbers as positive or negative. LC.6.NS.C.6C

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**6d** Locate positive and negative numbers on a number line. LC.6.NS.C.6D

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**6e** Plot positive and negative numbers on a number line. LC.6.NS.C.6E

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**7a** Compare two numbers on a number line (e.g.,  $-2 > -9$ ). LC.6.NS.C.7A

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**7b** Determine the meaning of absolute value. LC.6.NS.C.7B

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**8** Use coordinates and absolute value to find the distance between two coordinates with the same first coordinate or the same second coordinate. LC.6.NS.C.8

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## Expressions and Equations EE

**1a** Identify what an exponent represents (e.g.,  $8^3 = 8 \times 8 \times 8$ ). LC.6.EE.A.1A

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**1b** Solve numerical expressions involving whole number exponents. LC.6.EE.A.1B

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**2** Evaluate expressions from formulas containing exponents for specific values of their variables. LC.6.EE.A.2

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**3** Use properties to produce equivalent expressions. LC.6.EE.A.3

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**4** Evaluate whether or not both sides of an equation are equal. LC.6.EE.A.4

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**5** Use substitute to determine which values from a specified set make an equation or inequality true. LC.6.EE.B.5

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**6** Use variable to represent numbers and write expressions when solving real world problems. LC.6.EE.B.6

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**7a** Solve problems or word problems using up to three digit numbers and any of the four operations. LC.6.EE.B.7A

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**7b** Solve real world, single step linear equations. LC.6.EE.B.7B

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**8** Given a real world problem, write an inequality. LC.6.EE.B.8

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**9a** Use variables to represent two quantities in a real-world problem that change in relationship to one another. LC.6.EE.C.9A

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**9b** Analyze the relationships between the dependent and independent variables using graphs and tables, and relate to the equation. LC.6.EE.C.9B

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## Geometry **G**

**1a** Apply the formula to find the area of triangles. LC.6.G.A.1A

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**1b** Decompose complex shapes (polygon, trapezoid, pentagon) into simple shapes (rectangles, squares, triangles) to measure area. LC.6.G.A.1B

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**1c** Find area of quadrilaterals. LC.6.G.A.1C

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**1d** Find area of triangles LC.6.G.A.1D

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**2** Identify the appropriate formula (i.e., perimeter, area, volume) to use when measuring for different purposes in a real life context. LC.6.G.A.2

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**3a** Use coordinate points to draw polygons. LC.6.G.A.3A

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**3b** Use coordinate points to find the side lengths of polygons that are horizontal or vertical. LC.6.G.A.3B

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**4** Find the surface area of three dimensional figures using nets of rectangles or triangles. LC.6.G.A.4

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## Statistics and Probability **SP**

**1** Identify statistical questions and make a plan for data collection. LC.6.SP.A.1

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**2a** Find the range of a given data set. LC.6.SP.A.2A

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**2b** Explain or identify what the mode represents in a set of data. LC.6.SP.A.2B

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**3** Explain or identify what the mean represents in a set of data. LC.6.SP.A.3

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**4** Collect and graph data: bar graph, line plots, dot plots, histograms. LC.6.SP.B.4

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**5a** Select an appropriate statement about the range of the data for a given graph (bar graph, line plot) (i.e., range of data) up to 10 points. LC.6.SP.B.5b Use measures of central tendency to interpret data including overall patterns in the data. LC.6.SP.B.5A

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**5c** Solve for mean of a given data set. LC.6.SP.B.5C

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**5d** Select statement that matches mean, mode, and spread of data for 1 measure of central tendency for a given data set. LC.6.SP.B.5D

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**5e** Explain or identify what the median represents in a set of data. LC.6.SP.B.5f Use measures of central tendency to interpret data including overall patterns in the data. LC.6.SP.B.5E

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**5g** Solve for the median of a given data set. LC.6.SP.B.5G

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**5h** Identify outliers, range, mean, median, and mode. LC.6.SP.B.5H