Mathematics: Grade 7

Ratios and Proportional Relationships RP

- **1a** Find unit rates given a ratio. LC.7.RP.A.1A
- **1b** Determine unit rates associated with ratios of lengths, areas, and other quantities measured in like units. LC.7.RP.A.1B
- **1c** Solve one step problems involving unit rates associated with ratios of fractions. LC.7.RP.A.1C
- **2a** Identify the proportional relationship between two quantities. LC.7.RP.A.2A
- **2b** Determine if two quantities are in a proportional relationship using a table of equivalent ratios or points graphed on a coordinate plane. LC.7.RP.A.2B
- **2c** Use a rate of change or proportional relationship to determine the points on a coordinate plane. LC.7.RP.A.2C
- **2d** Represent proportional relationships on a line graph. LC.7.RP.A.2D
- **3a** Find percents in real world contexts. LC.7.RP.A.3A
- **3b** Solve one step percentage increase and decrease problems. LC.7.RP.A.3B
- **3c** Use proportions to solve ratio problems. LC.7.RP.A.3C
- **3d** Solve word problems involving ratios. LC.7.RP.A.3D
- **3e** Use proportional relationships to solve multistep percent problems. LC.7.RP.A.3E

The Number System NS

- **1a** Identify the additive inverse of a number (e.g., -3 and +3). LC.7.NS.A.1b Identify the difference between two given numbers on a number line using absolute value. LC.7.NS.A.1A
- **1c** Identify a representation of addition on a horizontal or vertical number line. LC.7.NS.A.1C
- **1d** Solve problems requiring addition or subtraction of positive/negative numbers. LC.7.NS.A.1D
- Solve multiplication problems with positive/negative numbers. LC.7.NS.A.2A

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	2b	**Solve division problems with positive/negative numbers.** LC.7.NS.A.2B
	3a	**Solve one step addition, subtraction, multiplication, division problems with fractions, decimals, and positive/negative numbers.** LC.7.NS.A.3A
	3b	**Solve two step addition, subtraction, multiplication, and division problems with fractions, decimals, or positive/negative numbers.** LC.7.NS.A.3B
Expressions and Equations EE	**1a**	**Add and subtract linear expressions.** LC.7.EE.A.1A
	1b	**Factor and expand linear expressions.** LC.7.EE.A.1B
	3a	**Identify an equivalent fraction, decimal and percent when given one of the three numbers.** LC.7.EE.B.3A
	3b	**Solve real-world multi-step problems using whole numbers.** LC.7.EE.B.3B
	4a	**Solve equations with 1 variable based on real-world problems. LC.7.EE.B.4b Set up equations with 1 variable based on real-world problems.** LC.7.EE.B.4A
	4c	**Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.** LC.7.EE.B.4C
	4d	**Use a calculator to solve word problems leading to inequalities of the form px + q > r, px + q ≥ r, px + q < r, or px + q ≤ r where p, q, and r are specific rational numbers.** LC.7.EE.B.4D
Geometry G	**1a**	**Solve problems that use proportional reasoning with ratios of length and area.** LC.7.G.A.1A
	1b	**Solve one step real world problems related to scaling.** LC.7.G.A.1B
	2	**Construct or draw plane figures using properties.** LC.7.G.A.2
	3	**Describe the two-dimensional figures that result from a decomposed three-dimensional figure.** LC.7.G.A.3
	4	**Apply formula to measure area and circumference of circles.** LC.7.G.B.4
	5a	**Identify supplementary angles.** LC.7.G.B.5A
	5b	**Identify complimentary angles.** LC.7.G.B.5B
	5c	**Identify adjacent angles.** LC.7.G.B.5C
	5d	**Use angle relationships to find the value of a missing angle.** LC.7.G.B.5D

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6a Add the area of each face of a prism to find surface area of three dimensional objects. LC.7.G.B.6A

6b Find the surface area of three-dimensional figures using nets of rectangles or triangles. LC.7.G.B.6B

6c Find area of plane figures and surface area of solid figures (quadrilaterals). LC.7.G.B.6C

6d Solve one step real world measurement problems involving area, volume, or surface area of two and three-dimensional objects. LC.7.G.B.6D

Statistics and Probability SP

1 Determine sample size to answer a given question. LC.7.SP.A.1

2 Analyze graphs to determine or select appropriate comparative inferences about two samples or populations. LC.7.SP.A.2

3 Make or select a statement to compare the distribution of 2 data sets. LC.7.SP.B.3

4a Identify the range (high/low), median(middle), mean, or mode of a given data set. LC.7.SP.B.4A

4b Analyze graphs to determine or select appropriate comparative inferences about two samples or populations. LC.7.SP.B.4B

4c Make or select an appropriate statements based upon two unequal data sets using measure of central tendency and shape. LC.7.SP.B.4C

5a Describe the probability of events as being certain or impossible, likely, less likely or equally likely. LC.7.SP.C.5A

5b State the theoretical probability of events occurring in terms of ratios (words, percentages, decimals). LC.7.SP.C.5B

6 Make a prediction regarding the probability of an event occurring; conduct simple probability experiments. LC.7.SP.C.6

7 Compare actual results of simple experiment with theoretical probabilities. LC.7.SP.C.7

8a Determine the theoretical probability of multistage probability experiments (2 coins, 2 dice). LC.7.SP.C.8A

8b Collect data from multistage probability experiments (2 coins, 2 dice). LC.7.SP.C.8B

8c Compare actual results of multistage experiment with theoretical probabilities. LC.7.SP.C.8C