

Grade 7 (AAS)

Proportional Reasoning

Analyze proportional relationships and use them to solve realworld and mathematical problems.

- 1 Calculate a unit rate (limited to whole numbers under 100). [M.AAS.7.1](#)

Analyze proportional relationships and use them to solve realworld and mathematical problems.

- 2 Use a ratio to model or describe a real-world relationship. [M.AAS.7.2](#)

Analyze proportional relationships and use them to solve realworld and mathematical problems.

- 3 Calculate 10%, 20%, 25%, and 50% of a number up to 100. [M.AAS.7.3](#)

Number Systems and Operations

Apply and extend prior knowledge of addition, subtraction, multiplication, and division to operations with rational numbers.

- 4 Solve multiplication problems up to fifteen with whole number factors. [M.AAS.7.5](#)

Algebra and Functions

Create equivalent expressions using the properties of operations.

- 5 Match equivalent expressions using the properties of operations. [M.AAS.7.7](#)
- 6 Identify a pattern in a sequence of whole numbers with a whole number common difference (e.g. when skip counting by 5, the whole number common difference is 5). [M.AAS.7.7A](#)

Solve realworld and mathematical problems using numerical and algebraic expressions, equations, and inequalities.

- 7 Add and subtract integers in a realworld situation. [M.AAS.7.8](#)

Solve realworld and mathematical problems using numerical and algebraic expressions, equations, and inequalities.

- 8 Use the properties of operations to solve one-step equations and inequalities from real-world and mathematical problems. [M.AAS.7.9](#)

Data Analysis, Statistics, and Probability

Make inferences about a population using random sampling.

- 9 Find the range and median (when given an odd number of data points), and mean (involving one- or twodigit numbers) in real-world situations. [M.AAS.7.10](#)

Make inferences from an informal comparison of two populations.

- 10 Make inferences from graphical representations of a data set (e.g., line plots, dot plots, histograms, bar graphs, stem and leaf plots, or line graphs). [M.AAS.7.11](#)
- 11 Compare two sets of data within a single data display such as a picture graph, line plot, or bar graph. [M.AAS.7.12](#)

Investigate probability models.

- 12 Describe the probability of events occurring as possible or impossible. [M.AAS.7.14](#)
- 13 Given a data set that represents a series of events, identify the event most likely to occur. [M.AAS.7.15](#)

**Geometry and
Measurement**

Construct and describe geometric figures, analyzing relationships among them.

- 14 Construct and analyze a geometric figure using manipulatives. [M.AAS.7.18](#)
- 15 Match two similar geometric shapes that are proportional in size and orientation. [M.AAS.7.19](#)

Solve realworld and mathematical problems involving angle measure, circumference, area, surface area, and volume.

- 16 Identify the radius, diameter, and circumference of a circle. [M.AAS.7.20](#)

Solve realworld and mathematical problems involving angle measure, circumference, area, surface area, and volume.

- 17 Classify angles as acute, obtuse, right, or straight. [M.AAS.7.21](#)

Solve realworld and mathematical problems involving angle measure, circumference, area, surface area, and volume.

- 18 Determine the area of regular, twodimensional figures. Determine the volume of rectangular prisms, limited to whole numbers. [M.AAS.7.22](#)