Missouri Mathematics Priority Standards

Grade 7

Ratios and Proportional Relationships

A Analyze proportional relationships and use them to solve problems. 7.RP.A

- 2a Determine when two quantities are in a proportional relationship. 7.RP.A.2A
- 2c Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation. 7.RP.A.2C
- 3 Solve problems involving ratios, rates, percentages and proportional relationships. 7.RP.A.3

Number Sense and Operations

A Apply and extend previous understandings of operations to add, subtract, multiply and divide rational numbers. 7.NS.A

- 1c Describe situations and show that a number and its opposite have a sum of 0 (additive inverses). 7.NS.A.1C
- 1f Interpret sums and differences of rational numbers. 7.NS.A.1F
- 2b Determine that a number and its reciprocal have a product of 1 (multiplicative inverse). 7.NS.A.2B
- 2f Interpret products and quotients of rational numbers by describing real-world contexts. 7.NS.A.2F
- 3 Solve problems involving the four arithmetic operations with rational numbers. 7.NS.A.3

Expressions, Equations and Inequalities

A Use properties of operations to generate equivalent expressions. 7.EEI.A

- 1 Apply properties of operations to simplify and to factor linear algebraic expressions with rational coefficients. 7.EEI.A.1
- 2 Understand how to use equivalent expressions to clarify quantities in a problem. 7.EEI.A.2

B Solve problems using numerical and algebraic expressions and equations. 7.EEI.B

- 3b Assess the reasonableness of answers using mental computation and estimation strategies. 7.EEI.B.3B
- 4b Write and/or solve two-step equations of the form $px + q = r$ and $p(x + q) = r$, where p, q and r are rational numbers, and interpret the meaning of the solution in the context of the problem. 7.EEI.B.4B
- 4c Write, solve and/or graph inequalities of the form $px + q > r$ or $px + q < r$, where p, q and r are rational numbers. 7.EEI.B.4C

Geometry and Measurement

A Draw and describe geometric figures and describe the relationships between them. 7.GM.A

- 1 Solve problems involving scale drawings of real objects and geometric figures, including computing actual lengths and areas from a scale drawing and reproducing the drawing at a different scale. 7.GM.A.1
- 4a Analyze the relationships among the circumference, the radius, the diameter, the area and Pi in a circle. 7.GM.A.4A
- 4b Know and apply the formulas for circumference and area of circles to solve problems. 7.GM.A.4B

B Apply and extend previous understanding of angle measure, area and volume. 7.GM.B

- 6a Find the area of triangles, quadrilaterals and other polygons composed of triangles and rectangles. 7.GM.B.6A
- 6b Find the volume and surface area of prisms, pyramids and cylinders. 7.GM.B.6B

Data, Statistics and Probability

A Use random sampling to draw inferences about a population. 7.DSP.A

- 1b Understand that generalizations from a sample are valid only if the sample is representative of the population. 7.DSP.A.1B

B Draw informal comparative inferences about two populations. 7.DSP.B

- 3 Analyze different data distributions using statistical measures. 7.DSP.B.3

C Develop, use and evaluate probability models. 7.DSP.C

- 5a Determine probabilities of simple events 7.DSP.C.5A
- 5b Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. 7.DSP.C.5B