Missouri Mathematics Priority Standards

Grade 8

Expressions, Equations and Inequalities

A Work with radicals and integer exponents. 8.EEI.A

1 Know and apply the properties of integer exponents to generate equivalent expressions. 8.EEI.A.1

B Understand the connections between proportional relationships, lines and linear equations. 8.EEI.B

6a Explain why the slope (m) is the same between any two distinct points on a nonvertical line in the Cartesian coordinate plane. 8.EEI.B.6A

6b Derive the equation y = mx for a line through the origin and the equation y = mx + b for a line intercepting the vertical axis at b. 8.EEI.B.6B

C Analyze and solve linear equations and inequalities and pairs of simultaneous linear equations. 8.EEI.C

7a Create and identify linear equations with one solution, infinitely many solutions or no solutions. 8.EEI.C.7A

7b Solve linear equations and inequalities with rational number coefficients, including equations and inequalities whose solutions require expanding expressions using the distributive property and combining like terms. 8.EEI.C.7B

8a Graph systems of linear equations and recognize the intersection as the solution to the system. 8.EEI.C.8A

8b Explain why solution(s) to a system of two linear equations in two variables correspond to point(s) of intersection of the graphs. 8.EEI.C.8B

8c Explain why systems of linear equations can have one solution, no solution or infinitely many solutions. 8.EEI.C.8C

8d Solve systems of two linear equations. 8.EEI.C.8D

Geometry and Measurement

A Understand congruence and similarity using physical models, transparencies or geometry software. 8.GM.A

3 Describe the effect of dilations, translations, rotations and reflections on two-dimensional figures using coordinates. 8.GM.A.3

B Understand and apply the Pythagorean Theorem. 8.GM.B

6 Use models to demonstrate a proof of the Pythagorean Theorem and its converse. 8.GM.B.6

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C Solve problems involving volume of cones, pyramids and spheres. 8.GM.C

9a Understand the concept of surface area and find surface area of pyramids. 8.GM.C.9A

9b Understand the concepts of volume and find the volume of pyramids, cones and spheres. 8.GM.C.9B

Functions

A Define, evaluate and compare functions. 8.F.A

1b Determine if a relation is a function. 8.F.A.1B

2 Compare characteristics of two functions each represented in a different way. 8.F.A.2

B Use functions to model relationships between quantities. 8.F.B

4a Explain the parameters of a linear function based on the context of a problem. 8.F.B.4A

5 Describe the functional relationship between two quantities from a graph or a verbal description. 8.F.B.5

Data, Statistics and Probability

A Investigate patterns of association in bivariate data. 8.DSP.A

3 Interpret the parameters of a linear model of bivariate measurement data to solve problems. 8.DSP.A.3

4a Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. 8.DSP.A.4A