



Mathematical Practices Grades K - 8

- 1. Make sense of problems and persevere in solving them.**
- 2. Reason abstractly and quantitatively.**
- 3. Construct viable arguments and critique the reasoning of others.**
- 4. Model with mathematics.**
- 5. Use appropriate tools strategically.**
- 6. Attend to precision.**
- 7. Look for and make use of structure.**
- 8. Look for and express regularity in repeated reasoning.**



	Functions	8.F.1 8.F.2 8.F.3 8.F.4 8.F.5	MP7 MP8	<ul style="list-style-type: none"> whether a relation is a function Representing functions as equations, input-output tables, and graphs Writing a linear function from a graph or a table of values Comparing linear and nonlinear functions Using graphs without numbers to show the relationship between quantities
3	Real Numbers and the Pythagorean Theorem Exponents and Scientific Notation	8.EE.2 8.G.6 8.G.7 8.G.8 8.NS.1 8.NS.2 8.EE.1 8.EE.3 8.EE.4	MP1 MP2 MP3 MP4 MP5 MP6 MP7 MP8	<ul style="list-style-type: none"> Finding square roots Finding cube roots Using the Pythagorean Theorem to solve for side lengths of right triangles Approximating square roots Writing repeating decimals as fractions Using the converse of the Pythagorean Theorem and the distance formula Writing and evaluating powers Using the Product of Powers Property, the Power of a Power Property, and the Power of a Product Property to simplify expressions Using the Quotient of Powers Property to simplify expressions Evaluating and simplifying expressions with negative and zero exponents Reading numbers in scientific notation and writing them in standard form Writing numbers in scientific notation Adding, subtracting, multiplying and dividing numbers in scientific notation
4	Angles and Triangles	8.G.5	MP1 MP2 MP3 MP4 MP5 MP6	<ul style="list-style-type: none"> Finding measures of angles formed by parallel lines and a transversal Finding interior and exterior angle measures of triangles Finding the interior and exterior angle measures of a polygon



	Transformations	8.G.1 8.G.2 8.G.3 8.G.4	MP7 MP8	<ul style="list-style-type: none"> • Using similar triangles • Defining congruent figures • Determining if two figures are congruent • Identify and draw translations • Identify and draw reflections • Identify and draw rotations • Using proportions to determine if two figures are similar • Finding ratios of perimeters and areas of similar figures • Drawing dilations in the coordinate plane
Honors	Volume and Similar Solids Data Analysis and Displays	8.G.9 8.SP.1 8.SP.2 8.SP.3 8.SP.4	MP1 MP2 MP3 MP4 MP6 MP7 MP8	<ul style="list-style-type: none"> • Finding the volumes of cylinders • Finding the volume of a cone • Finding the volumes of spheres • Finding the surface areas and volumes of similar solids • Making a scatter plot and describing the relationship between the data • Identifying a line of fit for a scatter plot • Constructing and analyzing two-way tables • Choosing and constructing an appropriate data display