



Math – Eighth Grade

First Quarter 2024-2025

Week 1... Aug. 5-9...Establish Routines and Procedures

Mathematical Practices (MP1-MP8)–Begin to set up classroom and problem-solving routines(ongoing)

8.EE.C.7 Solve linear equations in one variable.

Week 2... Aug. 12-16... Equations and Inequalities

8.EE.C.7a Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).

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

Week 3... Aug. 19-23... Equations and Inequalities

8.EE.C.7a, 8.EE.C.7b cont.

8.EE.C.9 By graphing on the coordinate plane or by analyzing a given graph, determine the solution set of a linear inequality in one or two variables.

Week 4... Aug. 26-30...Finish Equations and Inequalities/Start Transformations

8.EE.C.9 cont.

8.G.A.1 Describe the effect of translations, rotations, reflections, and dilations on two-dimensional figures using coordinates.

8.G.A.1.a Verify informally that lines are taken to lines, and determine when line segments are taken to line segments of the same length.

8.G.A.1.b Verify informally that angles are taken to angles of the same measure.

8.G.A.1.c Verify informally that parallel lines are taken to parallel lines.

Week 5... Sept. 2-6... Transformations

8.G.A.1a, 8.G.A.1b, 8.G.A.1.c cont.

8.G.A.1d Make connections between dilations and scale factors.

Week 6... Sept. 9-13...Finish Transformations/Start Angles and Triangles

8.G.A.1d cont.

8.G.A.2 Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles.

Week 7... Sept. 16-20... Angles and Triangles

8.G.A.2 cont.

Week 8... Sept. 23-27... Angles and Triangles

8.G.A.2 cont.

Week 9... Sept. 30- Oct. 4...Review

8.G.A.2 cont.



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Second Quarter 2024-2025

Week 1... Oct. 14-18... Graphing and Writing Linear Equations and Inequalities

8.EE.B.5 Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways.

8.EE.B.6 Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; know and apply 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 .

Week 2... Oct. 21-25...Graphing and Writing Linear Equations and Inequalities

8.EE.B.5, 8.EE.B.6 cont.

Week 3... Oct. 28-Nov. 1...Graphing and Writing Linear Equations and Inequalities

8.EE.B.6 cont.

8.F.B.4 Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.

Week 4... Nov. 4-8... Graphing and Writing Linear Equations and Inequalities

8.EE.C.9 By graphing on the coordinate plane or by analyzing a given graph, determine the solution set of a linear inequality in one or two variables.

Week 5... Nov.11-15 ... Probability, Data Analysis, and Displays

8.EE.C.8 Analyze and solve systems of two linear equations graphically.

8.EE.C.8a Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.

8.EE.C.8b Estimate solutions by graphing a system of two linear equations in two variables. Identify solutions by inspecting graphs of a system of linear equations in two variables.

Week 6... Nov. 18-22...Probability, Data Analysis, and Displays

8.SP.B.4a Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.

8.SP.B.4b Represent sample spaces for compound events using methods such as organized lists, tables, and tree diagrams. For an event described in everyday language (e.g., "rolling double sixes"), identify the outcomes in the sample space which compose the event.

Week 7... Nov. 25-29... Probability, Data Analysis, and Displays

Thanksgiving Week

8.SP.B.4a, 8.SP.B.4b cont.

Week 8... Dec. 2-6... Probability, Data Analysis, and Displays

8.SP.A.1 Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.

8.SP.A.2 Know that straight lines are widely used to model linear relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.

8.SP.A.3 Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept.

Week 9... Dec. 9-13... Functions

8.F.A.1 Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.

8.F.B.4 Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models and in terms of its graph or a table of values.

Week 10... Dec. 16-20...Functions

8.F.A.1, 8.F.B.4 cont.



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Third Quarter 2024-2025

Week 1... Jan. 7-10...Functions

8.F.A.1, 8.F.B.4 cont.

8.F.A.2 Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).

Week 2... Jan 13-17...Functions

8.F.A.2 cont.

8.F.A.3 Know and interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear.

8.F.B.5 Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.

Week 3... Jan. 20-24...Exponents and Scientific Notation

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

Week 4... Jan. 27-31 ...Exponents and Scientific Notation

8.EE.A.1 cont.

Week 5... Feb. 3-7... Exponents and Scientific Notation

8.EE.A.3 Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities and to express how many times as much one is than the other.

Week 6... Feb. 10-14...Exponents and Scientific Notation

8.EE.A.4 Using technology, solve real-world problems with numbers expressed in decimal and scientific notation. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities.

Week 7... Feb.17-21...Real Numbers and the Pythagorean Theorem

8.EE.A.2 Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes.

Week 8... Feb. 24-28... Real Numbers and the Pythagorean Theorem

8.EE.A.2 cont.

8.NS.A.1 Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually or terminates, and convert a decimal expansion which repeats eventually or terminates into a rational number.

Week 9... Mar. 3-7... Real Numbers and the Pythagorean Theorem

8.EE.A.2, 8.NS.A.1 cont.



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Fourth Quarter 2024-2025

Week 1... Mar 10-14...Real Numbers and the Pythagorean Theorem

8.NS.A.1. 8.EE.A.2 cont.

8.NS.A.2 Use rational approximations of irrational numbers to compare the size of irrational numbers by locating them approximately on a number line diagram. Estimate the value of irrational expressions.

Week 2... Mar. 24-28... Real Numbers and the Pythagorean Theorem

8.G.B.3 Explain a model of the Pythagorean Theorem and its converse.

8.G.B.4 Know and apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.

8.G.B.5 Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.

Week 3... Apr. 1-5... Volume and Similar Solids

8.G.C.6 Apply the formulas for the volumes of cones, cylinders, and spheres to solve real-world and mathematical problems.

Week 4... Apr. 7-11... Volume and Similar Solids

8.G.C.6 cont.

Week 5... Apr. 14-18... Strengthen and Target Lowest Performing Standards

(TCAP Window Open)

Week 6... Apr. 21-25... Strengthen and Target Lowest Performing Standards

(TCAP Window Open)

Week 7... Apr. 28-May 2... Solving Linear Systems Using Substitution

A1.A.CED.A.3 Create individual and systems of equations and/or inequalities to represent constraints in a contextual situation, and interpret solutions as viable or non-viable.

A1.A.REI.C.4 Write and solve a system of linear equations in real-world context.

Week 8... May 5-9... Solving Linear Systems Using Linear Combinations

A1.A.CED.A.3 Create individual and systems of equations and/or inequalities to represent constraints in a contextual situation, and interpret solutions as viable or non-viable.

A1.A.REI.C.4 Write and solve a system of linear equations in real-world context.

Week 9... May 12-16... Solving Systems of Linear Inequalities

A1.A.REI.D.7 Graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.

Week 10... May 19-23... Solving Systems of Linear Inequalities

A1.A.REI.D.7 cont.