

8th Grade Mathematics

Month	Content	Skills	Assessment
September	<ul style="list-style-type: none"> • Number Sense • Number Sense • Variables and Expressions 	<ul style="list-style-type: none"> • Read, Write, and Identify percents less than 1% and greater than 100% • Apply Percents to: tax, increase/decrease, simple interest, sale price, commission, interest rates, gratuities • Estimate quantity of a given application • Justifying the reasonableness of answers • Translating verbal sentences into algebra. • Matching a given mathematical expression to a written verbal expression 	<ul style="list-style-type: none"> • Common Assessment 1

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October	<ul style="list-style-type: none"> • Variables and Expressions (Continued) 	<ul style="list-style-type: none"> • Describe a situation involving relationships that match a given graph • Create a graph given a description or an expression for a situation involving a linear or nonlinear relationship • Find a set of ordered pairs to satisfy a given linear numerical pattern (expressed algebraically); then plot the ordered pairs and draw the line • Develop and apply the laws of exponents for multiplication and division • Evaluate expressions with integral exponents 	<ul style="list-style-type: none"> • Common Assessment 2
November	<ul style="list-style-type: none"> • Variables and Expressions (Continued) 	<ul style="list-style-type: none"> • Multiply and divide monomials • Add and subtract polynomials (integer coefficients) • Multiply a binomial by a monomial or a binomial (integer coefficients) • Divide a polynomial by a monomial (integer coefficients) 	<ul style="list-style-type: none"> • Common Assessment 3

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December	<ul style="list-style-type: none"> • Variables and Expressions (Continued) • Geometric Relationships 	<ul style="list-style-type: none"> • Factor algebraic expressions using the GCF • Factor a trinomial in the form $ax^2 + bx + c$; $a=1$ and c having no more than three sets of factors • Identify pairs of vertical angles as congruent • Identify pairs of supplementary and complementary angles • Calculate the missing angle in a supplementary or complementary pair • Determine angle pair relationships when given two parallel lines cut by a transversal • Calculate the missing angle measurements when given two parallel lines cut by a transversal 	<ul style="list-style-type: none"> • Common Assessment 4

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February	<ul style="list-style-type: none"> • Equations and Inequalities • Coordinate Geometry 	<ul style="list-style-type: none"> • Solve multi-step inequalities and graph the solution set on a number line • Solve linear inequalities by combining like terms, using the distributive property, or moving variables to one side of the inequality (include multiplication or division of inequalities by a negative number) • Determine the slope of a line from a graph and explain the meaning of slope as a constant rate of change • Determine the y-intercept of a line from a graph and be able to explain the y-intercept • Graph a line using a table of values • Determine the equation of a line given the slope and the y-intercept • Graph a line from an equation in slope intercept form ($y = mx + b$) • Solve systems of equations graphically (only linear, integral solutions, $y = mx + b$ format, no vertical/horizontal lines) 	<ul style="list-style-type: none"> • Common Assessment 7

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May	<ul style="list-style-type: none"> • 8th Grade Test • Equations and Inequalities (Continued) • Constructions 	<ul style="list-style-type: none"> • Define and use correct terminology when referring to function (domain and range) • Determine if a relation is a function • Interpret multiple representations using equation, table of values, and graph • Construct the following, using a straight edge and compass: segment congruent to a segment; angle congruent to an angle; perpendicular bisector; and angle bisector 	<ul style="list-style-type: none"> • Common Assessment 9
June	<ul style="list-style-type: none"> • Assortment of mathematical skills 		<ul style="list-style-type: none"> • Various Forms of Assessments