

ALGEBRA ESSENTIAL CONCEPTS

<p>September Compare and plot rational numbers Simplify numeric rational expressions Perfect squares and square roots Classify numbers as rational or irrational Relate properties and operations to rational and irrational numbers Write Algebra expressions</p>	<p>October Write multi-step equations Solve multi-step equations Write inequalities to represent situations Solve multi-step one variable inequalities Write equations to represent linear relationships</p>	<p>November Solve problems involving constant rates of change Review slope as a rate of change Identify the slope of a line Identify horizontal and vertical lines given equations Determine and explain the meaning of intercepts</p>
<p>December Represent equations in slope-intercept form Graph linear functions Represent linear equations in standard form Determine X and Y intercepts Graph linear functions using intercepts</p>	<p>January Identify the domain and range. Write the equation of a line given graph, slope and point, and ordered pairs. Distinguish between linear and non-linear functions Solve linear formulas and literal equations.</p>	<p>February Explore how changing the value of m and b effects the graphs of linear relations Determine whether two lines are parallel, perpendicular or neither given the equations Graph linear inequalities and identify the boundary line and solution area Collect, record, organize and display various sets of linear and non-linear data. Determine if the pattern of the data is linear or nonlinear</p>
<p>March Interpret the correlation between two variables as being positive, negative or having no correlation Find the line of best fit, explore meaning of slope and intercept and make predictions using the line of best fit Find midpoint Find the distance between two points Solve problems using Pythagorean Theorem Solve problems using the distance formula Simplify irrational numeric expression</p>	<p>April Find missing parts of geometric figures using proportional reasoning and geometric relationships Solve systems of two linear equations Solve systems of two inequalities Illustrate multiplication of polynomials using area models Use area models to factor polynomials</p>	<p>May Determine if a game or process is fair Determine and express the probability of an event Identify the probability of an event as being between 0 and 1 Recognize the sum of probability of an event and its complement is equal to 1. Use multiples of pi</p>