

## Algebra 1 Pacing Guide

### Marking Period 1

	Cluster 1	Cluster 2	Cluster 3
<i>September - November (50 days)</i>	<ul style="list-style-type: none"> <li>● Reason about operations on real numbers.</li> <li>● Create and solve linear equations with one variable.</li> <li>● Write and solve equations with a variable on both sides to solve problems.</li> <li>● Rewrite and use literal equations to solve problems.</li> <li>● Solve and graph inequalities.</li> <li>● Write and solve compound inequalities.</li> <li>● Write and solve absolute value equations and inequalities.</li> </ul>	<ul style="list-style-type: none"> <li>● Write and graph linear equations using slope-intercept form.</li> <li>● Write and graph linear equations in point-slope form.</li> <li>● Write and graph linear equations in standard form.</li> <li>● Write equations of parallel lines and perpendicular lines.</li> </ul>	<ul style="list-style-type: none"> <li>● Determine whether a relation is a function.</li> <li>● Identify, evaluate, graph, and write linear equations.</li> <li>● Transform linear functions.</li> <li>● Identify and describe arithmetic sequences.</li> <li>● Use a scatter plot to describe the relationship between two data sets.</li> <li>● Find the line of best fit for a data set and evaluate its goodness of fit.</li> </ul>

### Marking Period 2

	Cluster 1	Cluster 2	Cluster 3
<i>November - February (41 days)</i>	<ul style="list-style-type: none"> <li>● Use graphs to find approximate solutions to systems of equations.</li> <li>● Solve a system of equations using the substitution method.</li> <li>● Solve systems of linear equations using the elimination method.</li> <li>● Graph solutions to linear inequalities in two variables.</li> <li>● Graph and solve a system of linear inequalities.</li> </ul>	<p><i>Optional topics for enrichment</i></p> <ul style="list-style-type: none"> <li>● Analyze functions that include absolute value expressions.</li> <li>● Graph and apply piecewise-defined functions.</li> <li>● Graph and apply step functions.</li> <li>● Graph and analyze transformations of the piecewise-defined functions.</li> </ul>	<ul style="list-style-type: none"> <li>● Use properties of exponents to solve equations with rational exponents.</li> <li>● Describe and graph exponential functions.</li> <li>● Use exponential functions to model situations and make predictions.</li> <li>● Identify and describe geometric sequences.</li> <li>● Perform, analyze, and use transformations of exponential functions.</li> </ul>

### Marking Period 3

	Cluster 1	Cluster 2	Cluster 3
<i>February - April (40 days)</i>	<ul style="list-style-type: none"> <li>Combine like terms to simplify polynomials.</li> <li>Multiply two polynomials.</li> <li>Use patterns to multiply binomials.</li> <li>Factor a polynomial.</li> <li>Factor a quadratic trinomial.</li> <li>Factor a quadratic trinomial when <math>a \neq 1</math>.</li> <li>Factor special trinomials.</li> </ul>	<ul style="list-style-type: none"> <li>Identify key features of the graph of the quadratic parent function.</li> <li>Graph quadratic functions using the vertex form.</li> <li>Graph quadratic functions using standard form.</li> <li>Use quadratic functions to model real-world situations.</li> <li>Determine whether a linear, exponential, or quadratic function best models a data set.</li> </ul>	<ul style="list-style-type: none"> <li>Use graphs and tables to find solutions of quadratic equations.</li> <li>Find the solution of a quadratic equation by factoring.</li> <li>Write equivalent radical expressions.</li> <li>Solve quadratic equations by taking square roots.</li> <li>Use completing the square to solve quadratic equations.</li> <li>Use the quadratic formula to solve quadratic equations.</li> <li>Solve a system with linear and quadratic equations.</li> </ul>

### Marking Period 4

	Cluster 1	Cluster 2
<i>April - June (49 days)</i>	<ul style="list-style-type: none"> <li>Describe the key features of the square root function.</li> <li>Identify the key features of the cube root function.</li> <li>Identify the common features of a function when given an equation or graph.</li> <li>Graph and analyze transformations of functions.</li> <li>Change functions to compress or stretch their graphs.</li> <li>Add, subtract, and multiply functions.</li> <li>Use inverse functions to solve problems.</li> </ul>	<ul style="list-style-type: none"> <li>Organize and understand data using dot plots, histograms, and box plots.</li> <li>Use measures of center and spread to compare data sets.</li> <li>Interpret shapes of data displays representing different types of data distributions.</li> <li>Quantify and analyze the spread of data.</li> <li>Organize data in two-way frequency tables and use them to make inferences.</li> </ul>