



## Algebra I

### Course Outline

Topics	Overview & Purpose	Education Standard
Literal Equations	Rearrange linear formulas to highlight a quantity of interest, using the same reasoning as in solving equations. For example, rearrange Ohm's law $V = IR$ to highlight resistance $R$ .	A-CED.A.1
Inequalities and Their Graphs	Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	A-REI.3
Solving Inequalities Using Addition or Subtraction	Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	A-REI.3
Solving Inequalities Using Multiplication or Division	Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	A-REI.3
Solving Multi-Step Inequalities	Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	A-REI.3
Compound Inequalities	Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	A-REI.3
Creating equations and inequalities word problems	Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	A-REI.3
Using graphs to relate quantities,	For a function that models a relationship between two quantities, interpret key	F-IF.B.4

	<p>features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.</p>	
<p><b>Patterns and Linear Functions</b></p>	<p>For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.</p>	<p>F-IF.B.4</p>
<p><b>Graphing a Function Rule</b></p>	<p>Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. For example, if the function <math>h(n)</math> gives the number of person-hours it takes to assemble <math>n</math> engines in a factory, then the positive integers would be an appropriate domain for the function.</p>	<p>F-IF.B.5</p>

