



ALLEN ACADEMY

Algebra I 2017-2018		
First Trimester Objectives:	Second Trimester Objectives:	Third Trimester Objectives:
<ul style="list-style-type: none">- To be able to represent simple functions as verbal rules, equations, tables, and graphs- To learn the properties of real numbers and of operations, as well as the basics of logical reasoning- To have all the tools necessary to solve equations- To solve equations in one variable using properties of numbers and operations- To graph linear equations and functions- To be able to use slopes and y-intercepts to compare graphs of families of linear functions	<ul style="list-style-type: none">- To be able to write linear functions, including those that model real-world data- To be able to write and graph linear inequalities as well as absolute value equations and inequalities- To apply previous knowledge in order to write and solve systems of equations and inequalities	<ul style="list-style-type: none">- To be able to study nonlinear relationships- To be able to use properties of exponents, and write rules for and graph exponential functions- To learn to add, subtract, multiply, and factor polynomials- To find roots of polynomial equations and zeros of polynomial functions- To graph, write, and solve quadratic equations- To be able to write quadratic models for data and compare them with linear and exponential models
Topics Covered:	Topics Covered:	Topics Covered:
<ul style="list-style-type: none">- Writing and evaluating algebraic expressions- Using expressions to write equations and inequalities- Representing functions as verbal rules, equations, tables, and graphs- Performing operations with real numbers- Applying properties of real numbers- Classifying and reasoning with real numbers- Solving equations in one variable- Solving proportion and percent problems- Rewriting equations in two or more variables- Graphing linear equations and	<ul style="list-style-type: none">- Writing linear equations in a variety of forms- Using linear models to solve problems- Modeling data with a line of fit- Applying properties of inequality- Using statements with and or or- Graphing inequalities- Solving linear systems by graphing- Solving systems using algebra- Solving systems of linear inequalities	<ul style="list-style-type: none">- Applying properties of exponents to simplify expressions- Working with numbers in scientific notation- Writing and graphing exponential functions- Adding, subtracting, and multiplying polynomials- Factoring polynomials- Writing and solving polynomial equations to solve problems- Graphing quadratic functions- Solving quadratic equations- Comparing linear, exponential, and quadratic models



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functions using a variety of methods - Recognizing how changes in linear equations and functions affect their graphs - Using graphs of linear equations and functions to solve real-world problems		
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Instructional Resources:		
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| <ul style="list-style-type: none">• Online Learning Platform: Khan Academy• Textbook: <i>Big Ideas Math, A Bridge to Success</i> by Ron Larson & Laurie Boswell | | |
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