

Algebra 1 Units of Study

1. Unit 1: Equations and Inequalities

- a. Investigating Patterns
- b. Solving Equations
- c. Solving Inequalities
- d. Absolute Value Equations and Inequalities

2. Unit 2: Functions

- a. Functions and Function Notation
- b. Interpreting Graphs of Functions
- c. Graphs of Functions
- d. Transformations of Functions
- e. Rates of Change
- f. Linear Models
- g. Arithmetic Sequences
- h. Forms of Linear Functions
- i. Equations from Data

3. Unit 3: Extensions of Linear Concepts

- a. Piecewise-Defined Linear Functions
- b. Comparing Equations
- c. Inequalities in Two Variables
- d. Solving Systems of Linear Equations
- e. Solving Systems of Linear Inequalities

4. Unit 4: Exponents, Radicals, and Polynomials

- a. Exponent Rules
- b. Operations with Radicals
- c. Geometric Sequences
- d. Exponential Functions
- e. Modeling with Exponential Functions
- f. Adding and Subtracting Polynomials
- g. Multiplying Polynomials
- h. Factoring
- i. Factoring Trinomials
- j. Simplifying Rational Expressions

5. Unit 5: Quadratic Functions

- a. Introduction to Quadratic Functions
- b. Graphing Quadratic Functions
- c. Solving Quadratic Equations
- d. Applying Quadratic Equations
- e. Modeling with Functions
- f. Systems of Equations

6. Unit 6: Probability and Statistics

- a. Measures of Center and Spread
- b. Dot and Box Plots and the Normal Distribution
- c. Correlation
- d. The Best-Fit Line
- e. Bivariate Data