

# Algebra 1 Table of Contents

1

## Unit 1A Numbers and Expressions

### Module 1 Relationships Between Quantities

- 1.1 Precision and Significant Digits
- 1.2 Dimensional Analysis

### Module 2 Exponents and Real Numbers

- 2.1 Radicals and Rational Exponents
- 2.2 Real Numbers

### Module 3 Expressions

- 3.1 Evaluating Expressions
- 3.2 Simplifying Expressions
- 3.3 Writing Expressions

## Unit 1B Equations and Functions

### Module 4 Equations and Inequalities in One Variable

- 4.1 Equations in One Variable
- 4.2 Inequalities in One Variable
- 4.3 Solving for a Variable

### Module 5 Equations in Two Variables and Functions

- 5.1 Equations in Two Variables
- 5.2 Representing Functions
- 5.3 Sequences

## Unit 2A Linear Relationships

### Module 6 Linear Functions

- 6.1 Linear Functions
- 6.2 Using Intercepts
- 6.3 Using Slope
- 6.4 Slope-Intercept Form
- 6.5 Comparing Linear Functions
- 6.6 Transforming Linear Functions
- 6.7 Writing Linear Functions

### Module 7 Building Linear Functions

- 7.1 Arithmetic Sequences
- 7.2 Operations with Linear Functions
- 7.3 Linear Functions and Their Inverses
- 7.4 Linear Inequalities in Two Variables

### Module 8 Modeling with Linear Functions

- 8.1 Correlation
- 8.2 Fitting Lines to Data
- 8.3 Linear Regression

### Module 9 Systems of Equations and Inequalities

- 9.1 Solving Linear Systems by Graphing
- 9.2 Solving Linear Systems by Substitution
- 9.3 Solving Linear Systems by Adding or Subtracting
- 9.4 Solving Linear Systems by Multiplying
- 9.5 Solving Systems of Linear Inequalities

## **Unit 2B Exponential Relationships**

### **Module 10 Exponential Functions and Equations**

- 10.1 Exponential Functions
- 10.2 Exponential Growth and Decay
- 10.3 Geometric Sequences
- 10.4 Transforming Exponential Functions
- 10.5 Equations Involving Exponents

### **Module 11 Modeling with Exponential Functions**

- 11.1 Exponential Regression
- 11.2 Comparing Linear and Exponential Models

## **Unit 3 Statistics and Data**

### **Module 12 Descriptive Statistics**

- 12.1 Two-Way Frequency Tables
- 12.2 Relative Frequency

### **Module 13 Data Displays**

- 13.1 Measures of Center and Spread
- 13.2 Data Distributions and Outliers
- 13.3 Histograms
- 13.4 Box Plots
- 13.5 Normal Distributions

## **Unit 4 Polynomial Expressions and Equations**

### **Module 14 Polynomials and Operations**

- 14.1 Understanding Polynomials
- 14.2 Adding and Subtracting Polynomials
- 14.3 Multiplying Polynomials by Monomials
- 14.4 Multiplying Polynomials

### **Module 15 Factoring Polynomials**

- 15.1 Factoring Polynomials
- 15.2 Factoring  $x^2 + bx + c$
- 15.3 Factoring  $ax^2 + bx + c$
- 15.4 Factoring Special Products

### **Module 16 Solving Quadratic Equations**

- 16.1 Solving Quadratic Equations Using Square Roots
- 16.2 Solving  $x^2 + bx + c = 0$  by Factoring
- 16.3 Solving  $ax^2 + bx + c = 0$  by Factoring
- 16.4 Solving  $x^2 + bx + c = 0$  by Completing the Square
- 16.5 Solving  $ax^2 + bx + c = 0$  by Completing the Square
- 16.6 The Quadratic Formula

## **Unit 5 Functions and Modeling**

### **Module 17 Quadratic Functions**

- 17.1 Translating Quadratic Functions
- 17.2 Stretching, Shrinking, and Reflecting Quadratic Functions
- 17.3 Combining Transformations of Quadratic Functions
- 17.4 Characteristics of Quadratic Functions
- 17.5 Solving Quadratic Equations Graphically
- 17.6 Solving Systems of Linear and Quadratic Equations
- 17.8 Comparing Linear, Exponential, and Quadratic Models

### **Module 18 Piecewise and Absolute Value Functions**

- 18.1 Piecewise Functions
- 18.2 Absolute Value Functions
- 18.3 Transforming Absolute Value Functions

**Module 19 Square Root and Cube Root Functions**

- 19.1 Square Root Functions
- 19.2 Transforming Square Root Functions
- 19.3 Cube Root Functions
- 19.4 Transforming Cube Root Functions