

Algebra I

Scope & Sequence

★ Unit 1 | Solving Equations & Inequalities

Topic 1: Analysis of Real Numbers

Topic 2: Solving Linear Equations

Topic 3: Solving Equations with Variables on Both Sides

Topic 4: Literal Equations and Formulas

Topic 5: Solving Inequalities in One Variable

★ Unit 2 | Linear Functions

Topic 1: Functions & Function Notation

Topic 2: Slope-Intercept Form

Topic 3: Point-Slope & Standard Forms

Topic 4: Piecewise-Defined Functions

Topic 5: Scatter Plots & Analyzing Lines of Best Fit

Topic 6: Arithmetic Sequences

★ Unit 3 | Systems of Linear Equations & Inequalities

Topic 1: Solving Systems of Equations by Graphing

Topic 2: Solving Systems of Equations Algebraically

Topic 3: Solving Systems of Linear Inequalities

★ Unit 4 | Exponential Functions

Topic 1: Exponential Functions & Their Graphs

Topic 2: Exponential Growth & Decay

Topic 3: Geometric Sequences

★ Unit 5 | Polynomials & Factoring

Topic 1: Introduction and Adding & Subtracting Polynomials

Topic 2: Multiplying Polynomials

Topic 3: Factoring by GCF & Grouping

Topic 4: Factoring Trinomials

Topic 5: Factoring Special Cases

Topic 6: Recognizing Equivalence

★ Unit 6 | Quadratic Functions

Topic 1: Graphs of Quadratic Functions

Topic 2: Quadratic Functions in Vertex Form

Topic 3: Quadratic Functions in Factored & Standard Form

Topic 4: Modeling with Quadratic Functions

Topic 5: Square Root Functions

Topic 6: Comparing Linear, Exponential, and Quadratic Models

★ Unit 7 | Solving Quadratic Equations

Topic 1: Solving Quadratic Equations Using Graphs & Tables

Topic 2: Solving Quadratic Equations by Factoring

Topic 3: Solving Quadratic Equations Using Square Roots

Topic 4: Solving Quadratic Equations by Completing the Square

Topic 5: The Quadratic Formula & the Discriminant