Contents

1. The Properties of Real Numbers

- 1.1 Use the Language of Algebra
- 1.2 Integers
- 1.3 Fractions
- 1.4 Decimals
- 1.5 Properties of Real Numbers

2. Solving Linear Equations

- 2.1 Use a General Strategy to Solve Linear Equations
- 2.2 Use a Problem Solving Strategy
- 2.3 Solve a Formula for a Specific Variable
- 2.4 Solve Mixture and Uniform Motion Applications
- 2.5 Solve Linear Inequalities
- 2.6 Solve Compound Inequalities
- 2.7 Solve Absolute Value Inequalities

3. Graphs and Functions

- 3.1 Graph Linear Equations in Two Variables
- 3.2 Slope of a Line
- 3.3 Find the Equation of a Line
- 3.4 Graph Linear Inequalities in Two Variables
- 3.5 Relations and Functions
- 3.6 Graphs of Functions

4. Systems of Linear Equations

- 4.1 Solve Systems of Linear Equations With Two Variables
- 4.2 Solve Applications With Systems of Equations
- 4.3 Solve Mixture Applications With Systems of Equations
- 4.4 Solve Systems of Equations With Three Variables
- 4.5 Solve Systems of Equations Using Matrices
- 4.6 Solve Systems of Equations Using Determinants
- 4.7 Graphing Systems of Linear Inequalities

5. Polynomials and Polynomial Functions

- 5.1 Add and Subtract Polynomials
- 5.2 Properties of Exponents and Scientific Notation
- 5.3 Multiply Polynomials
- 5.4 Dividing Polynomials

6. Factoring

- 6.1 Greatest Common Factor and Factor by Grouping
- 6.2 Factor Trinomials
- 6.3 Factor Special Products
- 6.4 General Strategy for Factoring Polynomials
- 6.5 Polynomial Equations



7. Rational Expressions and Functions

- 7.1 Multiply and Divide Rational Expressions
- 7.2 Add and Subtract Rational Expressions
- 7.3 Simplify Complex Rational Expressions
- 7.4 Solve Rational Equations
- 7.5 Solve Applications With Rational Equations
- 7.6 Solve Rational Inequalities

8. Roots and Radicals

- 8.1 Simplify Expressions With Roots
- 8.2 Simplify Radical Expressions
- 8.3 Simplify Rational Exponents
- 8.4 Add, Subtract, and Multiply Radical Expressions
- 8.5 Divide Radical Expressions
- 8.6 Solve Radical Equations
- 8.7 Use Radicals in Functions
- 8.8 Use the Complex Number System

9. Quadratic Equations and Functions

- 9.1 Solve Quadratic Equations Using the Square Root Property
- 9.2 Solve Quadratic Equations by Completing the Square
- 9.3 Solve Quadratic Equations Using the Quadratic Formula
- 9.4 Solve Quadratic Equations in Quadratic Form
- 9.5 Solve Applications of Quadratic Equations
- 9.6 Graph Quadratic Functions Using Properties
- 9.7 Graph Quadratic Functions Using Transformations
- 9.8 Solve Quadratic Inequalities

10. Exponential and Logarithmic Functions

- 10.1 Finding Composite and Inverse Functions
- 10.2 Evaluate and Graph Exponential Functions
- 10.3 Evaluate and Graph Logarithmic Functions
- 10.4 Use the Properties of Logarithms
- 10.5 Solve Exponential and Logarithmic Equations

11. Conics

- 11.1 Distance and Midpoint Formulas; Circles
- 11.2 Parabolas
- 11.3 Ellipses
- 11.4 Hyperbolas
- 11.5 Solve Systems of Nonlinear Equations

12. Sequences, Series and Binomial Theorem

- 12.1 Sequences
- 12.2 Arithmetic Sequences
- 12.3 Geometric Sequences and Series
- 12.4 Binomial Theorem

