Scope and Sequence

Chapter 1: Basic Concepts of Algebra

- 1-1: Real Numbers and Their Graphs
- **1-2:** Simplifying Expressions
- 1-3: Basic Properties of Real Numbers
- 1-4: Sums and Differences
- 1-5: Products
- 1-6: Quotients
- 1-7: Solving Equations in One Variable
- **1-8:** Words into Symbols
- **1-9:** Problem Solving with Equations

Chapter 2: Inequalities and Proof

- 2-1: Solving Inequalities in One Variable
- 2-2: Solving Combined Inequalities
- **2-3:** Problem Solving Using Inequalities
- **2-4:** Absolute Value in Open Sentences
- 2-5: Solving Absolute Value Sentences Graphically

Chapter 3: Linear Equations and Functions

- **3-1:** Open Sentences in Two Variables
- **3-2:** Graphs of Linear Equations in Two Variables
- **3-3:** The Slope of a Line
- **3-4:** Finding an Equation of a Line
- **3-5:** Systems of Linear Equations in Two Variables
- 9-9: Systems if Linear Equations in Three Variables
- **3-6:** Problem Solving: Using Systems
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- **3-8:** Functions
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4-2: Using Laws of Exponents
4-3: Multiplying Polynomials
8-3: Dividing Polynomials
8-4: Synthetic Division
4-4: Using Prime Factorization
4-5: Factoring Polynomials
4-6: Factoring Quadratic Polynomials

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4-8: Problem Solving Using Polynomials Equations

4-9: Solving Polynomial Inequalities

Chapter 5: Rational Expressions

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5-2: Zero and Negative Exponents

5-3: Scientific Notation and Significant Digits

5-4: Rational Algebraic Expressions

5-5: Products and Quotients of Rational Expressions

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5-7: Complex Fractions

5-8: Fractional Coefficients

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Chapter 6: Irrational and Complex Numbers

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6-2: Properties of Radicals
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Chapter 7: Variations, Quadratics Equations and Functions

7-1: Completing the Square 7-2: The Quadratic Formula 7-3: The Discriminant 7-4: Equations in Quadratic Form 7-5: Graphing $y - k = a(x - h)^2$ 7-6: Quadratic Functions 7-7: Writing Quadratic Equations and Functions 8-1: Direct Variation and Proportion 8-2: Inverse and Join Variation

Chapter 11: Sequences and Series

11-1: Types of Sequences11-2: Arithmetic Sequences11-3: Geometric Sequences11-4: Series and Sigma Notation

11-5: Sums of Arithmetic Series

11-6: Infinite Geometric

Chapter 15: Statistics and Probability

- 15-1: Presenting Statistical Data
- **15-2:** Analyzing Statistical Data
- **15.3:** The Normal Distribution
- 15-4: Correlation
- 15-5: Fundamental Counting Principles
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- 16-1: Definition of Terms
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