

Curriculum Plan

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075, Pre-Algebra
Section: 9974

BASED ON: 0. Prealgebra: Standard Topics

Getting Started

Getting Started

F1. Whole Numbers

F1.1 Whole Numbers I

Adding and Subtracting

Multiplying and Dividing

Rounding and Divisibility

F1.2 Whole Numbers II

Exponential Notation

Order of Operations

F2. Proportional Reasoning I

F2.1 Fractions I

Equivalent Fractions

Multiplying and Dividing

F2.2 Fractions II

Common Denominators

Adding and Subtracting

F2.3 Decimals I

Notation

Converting

F2.4 Decimals II

Adding and Subtracting

Multiplying and Dividing

F3. Proportional Reasoning II

F3.1 Ratio and Proportion

Ratios

Proportions

F3.2 Percent

Definition

Converting

Solving Percent Problems

F4. Signed Numbers

F4.1 Signed Numbers I

Adding

Subtracting

F4.2 Signed Numbers II

Multiplying and Dividing

Combining Operations

F5. Geometry

F5.1 Geometry I

Geometric Figures

F5.2 Geometry II

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Perimeter and Area

Surface Area and Volume

F5.3 Geometry III

Triangles and Parallelograms

Similar Polygons

F6. Interpreting Data

F6.1 Units of Measurement

US/English Units

The Metric System

F6.2 Interpreting Graphs

Data and Graphs

F6.3 Introduction to Statistics

Statistical Measures

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085, Beginning Algebra
Section: 9984

BASED ON: 1. Elementary Algebra: Standard Topics

Getting Started

Getting Started

1. Real Numbers

1.0 The School of Pythagoras

1.1 The Real Numbers

Number Line and Notation

1.2 Factoring and Fractions

The GCF and LCM

Fractions

1.3 Arithmetic of Numbers

Operations on Numbers

2. Solving Linear Equations

2.0 Old Number Trick

2.1 Algebraic Expressions

Simplifying Expressions

2.2 Solving Linear Equations

Solving Equations I

Solving Equations II

2.3 Problem Solving

Number and Age

Geometry

2.4 Linear Inequalities

Solving Inequalities

3. Introduction to Graphing

3.0 Story of Descartes

3.1 Introduction to Graphing

Plotting Points

Rise and Run

The Distance Formula

4. Graphing Linear Equations

4.0 The Classroom

4.1 Graphing Equations

Graphing Lines I

Graphing Lines II

Slope of a Line

4.2 The Equation of a Line

Finding the Equation I

Finding the Equation II

4.3 Graphing Inequalities

Linear Inequalities

5. Solving Linear Systems

5.0 The Great Train Rescue

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- 5.1 Solving Linear Systems
 - Solution by Graphing
 - Solution by Algebra
- 5.2 Problem Solving
 - Using Linear Systems
- 5.3 Systems of Inequalities
 - Solving Linear Systems

6. Exponents and Polynomials

- 6.0 King of Persia
- 6.1 Exponents
 - Properties of Exponents
- 6.2 Polynomial Operations I
 - Adding and Subtracting
 - Multiplying and Dividing
- 6.3 Polynomial Operations II
 - Multiplying Binomials
 - Multiplying and Dividing

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095, Intermediate Algebra
Section: 6901

BASED ON: 2. Intermediate Algebra: Standard Topics

Getting Started

Getting Started

EII. Essentials of Algebra

EII.B Polynomials

Polynomial Operations

Factoring Polynomials

EII.E Graphing Lines

Graphing Lines

Finding Equations

7. Factoring

7.0 The Factor Gallery

7.1 Factoring Polynomials I

Greatest Common Factor

Grouping

7.2 Factoring Polynomials II

Trinomials I

Trinomials II

7.3 Factoring by Patterns

Recognizing Patterns

8. Rational Expressions

8.0 The Golden Ratio

8.1 Rational Expressions I

Multiplying and Dividing

Adding and Subtracting

8.2 Rational Expressions II

Negative Exponents

Multiplying and Dividing

Adding and Subtracting

8.3 Equations with Fractions

Solving Equations

8.4 Problem Solving

Rational Expressions

9. Rational Exponents with Radicals

9.0 Fishing for Roots

9.1 Roots and Radicals

Square Roots and Cube Roots

Radical Expressions

9.2 Rational Exponents

Roots and Exponents

Simplifying Radicals

Operations with Radicals

10. Quadratic Equations

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- 10.0 Formula Machines
- 10.1 Quadratic Equations I
 - Solving by Factoring
 - Solving by Square Root
- 10.2 Quadratic Equations II
 - Completing the Square
 - The Quadratic Formula
- 10.3 Complex Numbers
 - Complex Number System

- 11. Functions and Graphing
 - 11.0 Office Functions
 - 11.1 Functions
 - Functions and Graphs
 - Linear Functions
 - Quadratic Functions
 - 11.2 The Algebra of Functions
 - The Algebra of Functions
 - Inverse Functions