

# Table of Contents

## Introductory Mathematics: Early Integers

### R. WHOLE NUMBERS

- R.1 Place Value and Names for Numbers
- R.2 Addition with Whole Numbers, and Perimeter
- R.3 Rounding Numbers, Estimating Answers and Displaying Information
- R.4 Subtraction with Whole Numbers
- R.5 Multiplication with Whole Numbers, and Area
- R.6 Division with Whole Numbers
- R.7 Exponents, Order of Operations, and Averages

### 1. INTRODUCTION TO ALGEBRA

- 1.1 Positive and Negative Numbers
- 1.2 Addition with Negative Numbers
- 1.3 Subtraction with Negative Numbers
- 1.4 Multiplication with Negative Numbers
- 1.5 Division with Negative Numbers
- 1.6 Simplifying Algebraic Expressions

### 2. FRACTIONS 1: MULTIPLICATION AND DIVISION

- 2.1 The Meaning and Properties of Fractions
- 2.2 Prime Numbers, Factors and Reducing to Lowest Terms
- 2.3 Multiplication with Fractions
- 2.4 Division with Fractions

### 3. FRACTIONS 2: ADDITION AND SUBTRACTION

- 3.1 Addition and Subtraction with Fractions
- 3.2 Mixed-Number Notation
- 3.3 Multiplication and Division with Mixed Numbers
- 3.4 Addition and Subtraction with Mixed Numbers
- 3.5 Combinations of Operations and Complex Fractions

### 4. DECIMALS

- 4.1 Decimal Notation and Place Value
- 4.2 Addition and Subtraction with Decimals
- 4.3 Multiplication with Decimals
- 4.4 Division with Decimals
- 4.5 Fractions and Decimals
- 4.6 Square Roots and the Pythagorean Theorem

### 5. RATIO AND PROPORTION

- 5.1 Ratios
- 5.2 Rates and Unit Pricing
- 5.3 Solving Equations by Division
- 5.4 Proportions
- 5.5 Applications of Proportions
- 5.6 Similar Figures

## 6. PERCENT

6.1 Percents, Decimals, and Fractions

6.2 Basic Percent Problems

6.3 General Applications of Percent

6.4 Sales Tax and Commission

6.5 Percent Increase or Decrease, and Discount

6.6 Interest

## 7. MEASUREMENT

7.1 Unit Analysis I: Length

7.2 Unit Analysis II: Area and Volume

7.3 Unit Analysis III: Weight

7.4 Converting Between the Two Systems and Temperature

7.5 Operations with Time and Mixed Units

## 8. GEOMETRY

8.1 Perimeter and Circumference

8.2 Area

8.3 Surface Area

8.4 Volume

## 9. SOLVING EQUATIONS

9.1 The Distributive Property and Algebraic Expressions

9.2 The Addition Property of Equality

9.3 The Multiplication Property of Equality

9.4 Linear Equations in One Variable

9.5 Applications

9.6 Evaluating Formulas