



In *Mastering Algebra I: Course I*, students focus on the symbols and rules of algebra and how they are used to represent relationships. They use these concepts to solve linear equations in one variable and apply these skills to real-life problems. Students progress through the course by graphing linear functions and systems, solving the latter both graphically and algebraically. A study of linear inequalities in one and two variables parallels the study of linear equalities with an exploration of absolute value. Practice problems and interactions within every tutorial provide ample opportunities for students to master the skills and concepts presented.

# Destination Math<sup>®</sup>

## Mastering Algebra I: Course I grades 9-12

### Scope and Sequence

#### 1 THE LANGUAGE OF ALGEBRA

- 1.1 Variables, Expressions, and Equations
  - Translating Words into Expressions
  - Applying Properties of Real Numbers
  - Evaluating and Simplifying Expressions
- 1.2 Linear Equations in One Variable
  - Applying Inverse Operations
  - Transforming Equations using Multiple Operations
  - Solving Absolute Value Equations

#### 2 LINEAR FUNCTIONS AND EQUATIONS

- 2.1 The Rectangular Coordinate Plane
  - Graphing Ordered Pairs
  - Defining Slope
  - Finding x- and y-Intercepts
- 2.2 Introduction to Functions
  - Exploring the Slope-Intercept Equation of a Line
  - Exploring the Point-Slope Equation of a Line
  - Relations and Functions

#### 3 SYSTEMS OF LINEAR EQUATIONS

- 3.1 Graphic Solutions of Linear Systems
  - Finding the Point of Intersection
  - Graphing Parallel and Perpendicular Lines
- 3.2 Algebraic Solutions of Linear Systems
  - Using Substitution to Eliminate a Variable
  - Using Addition or Subtraction to Eliminate a Variable

#### 4 LINEAR INEQUALITIES

- 4.1 Inequalities in One Variable
  - Applying Inverse Operations
  - Graphing Solutions on a Number Line
  - Solving Absolute Value Inequalities
- 4.2 Inequalities in Two Variables
  - Graphing Solutions on a Rectangular Coordinate Plane
  - Solving Systems by Graphing