Florida's Algebra 1-A and 1-B courses address the need for an expanded, two-year treatment of traditional high school Algebra 1 curriculum. Focusing on review of pre-algebra skills and introductory algebra content, Algebra 1-A allows students to deepen their understanding of real numbers in their various forms and then extend their knowledge to linear equations in one and two variables. Course topics include problem solving; integers; the language of algebra; fractions and decimals; exponents; solving equations with four basic operations; solving equations with roots, powers, or multiple steps; functions; introduction to set theory; and linear equations.

Algebra 1-A features ample opportunity for students to hone their computational skills by working through practice problem sets before moving on to formal assessment.

Algebra 1-A meets Florida's Next Generation Sunshine State Standards and Benchmarks.

Unit 1: Introduction to Problem Solving

- Building Basic Word Problems
- A Four-Step Approach
- Too Much or Too Little Information
- Draw a Diagram
- Use a Model or Act it Out
- Make a List
- Build a Chart and Find a Pattern
- Guess and Check
- Work Backward
- Introduction to Problem Solving Wrap-Up

Unit 2: The Language of Algebra

- What is a Variable?
- Finding and Naming Variables
- Measurement and Units
- Graphs, Tables, and Equations
- Solving Problems with Tables and Graphs
- Variable Expressions
- Simplifying and Evaluating Expressions
- Mathematical Sentences
- Solving Mathematical Sentences
- Some Guidelines for Problem Solving
- The Language of Algebra Wrap-Up

Unit 3: Solving Equations with Four Basic Operations

- Solving Equations Graphically
- Solving Equations with Larger Numbers

Copyright© Edmentum Inc. All Rights Reserved.

- Solving x + a = b
- Solving with a Number Line
- Solving Inequalities
- Solving ax = b
- Solving x/a = b
- Inequalities
- Variations of Equations and Inequalities
- Solving Multistep Linear Equations
- Literal Equations
- Solving Equations with Four Basic Operations Wrap-Up

Unit 4: Functions

- Domain and Range
- Identifying Functions
- Graphs of Functions
- Adding and Subtracting Functions
- Functions Wrap-Up

Unit 5: Semester 1 Exam

Unit 6: Using Logic to Solve Problems

- Building Equations
- Deductive Reasoning
- Inductive Reasoning
- Logic Puzzles
- Problem Solving
- Using Logic to Solve Problems Wrap-Up

Unit 7: Linear Equations

- Slope
- Slope-Intercept Equation of a Line
- Point-Slope Equation of a Line
- Parallel and Perpendicular Lines
- Linear Inequalities
- Linear Equations Wrap-Up

Unit 8: Systems of Linear Equations

- Two-Variable Systems: Graphing
- Two-Variable Systems: Substitution
- Two-Variable Systems: Elimination
- Two-Variable Systems of Inequalities
- Systems of Linear Equations Wrap-Up

Unit 9: Exponents and Exponential Functions

- Definitions and Examples of Exponents
- Exponents and the Order of Operations

Copyright© Edmentum Inc. All Rights Reserved.

edmentum

- Laws of Exponents
- Square Roots
- Radical Notation
- Exponential Functions
- Graphs of Exponential Functions
- Exponents and Exponential Functions Wrap-Up

Unit 10: Undoing Functions and Moving Them Around

- Parent Functions
- Shifting Functions
- Stretching and Compressing Functions
- Transformations of Parent Functions
- Undoing Functions and Moving Them Around Wrap-Up

Unit 11: Sequences and Functions

- Arithmetic Sequences
- Geometric Sequences
- Understanding Number Sequences
- Exponential and Linear Growth
- Sequences and Functions Wrap-Up

Unit 12: Semester 2 Exam

Copyright© Edmentum Inc. All Rights Reserved.