

Conceptual Algebra Scope & Sequence

★ Unit 1 | Modeling & Intro to Functions

- Topic 1.1: Modeling with Variables
- Topic 1.2: Using Equations to Model Problems
- Topic 1.3: Scatter Plots
- Topic 1.4: Linear Modeling
- Topic 1.5: Working with Functions

★ Unit 2 | Linear Functions

- Topic 2.1: Rate of Change (Proportional Relationships)
- Topic 2.2: Rate of Change (Non-proportional Relationships)
- Topic 2.3: Slope-Intercept form ($y = mx + b$)
- Topic 2.4: The Algebra of Writing Linear Equations
- Topic 2.5: Standard Form ($Ax + By = C$)
- Topic 2.6: Linear vs. Non-linear Relationships
- Topic 2.7: Interpreting a Qualitative Graph

★ Unit 3 | Linear Systems

- Topic 3.1: Solving Systems of Equations by Graphing
- Topic 3.2: Linear Inequalities in Two Variables
- Topic 3.3: Systems of Linear Inequalities
- Topic 3.4: Solving Systems of Equations by Substitution
- Topic 3.5: Solving Systems of Equations by Elimination

★ Unit 4 | Exponential Functions

- Topic 4.1: Properties of Integer Exponents
- Topic 4.2: Exponential Functions
- Topic 4.3: Exponential Growth & Decay
- Topic 4.4: Comparing Exponential and Linear Functions

★ Unit 5 | Geometry Applications

- Topic 5.1: Square Roots and Cube Roots
- Topic 5.2: The Pythagorean Theorem
- Topic 5.3: The Distance Formula in the Coordinate Plane
- Topic 5.4: 2D Formulas Area, Perimeter, and Circumference
- Topic 5.5: Surface Area of Solids
- Topic 5.6: Volume of Solids
- Topic 5.7: Literal Equations