Scope and Sequence for Extra Support Materials for Algebra 1

Unit 1: Extra Support Materials for Algebra 1, Unit 1 "One-Variable Statistics"

Section A: Getting to Know You (Alg1+)

- Lesson 1: Human Box Plot
- Lesson 2: Human Dot Plot
- Lesson 3: Which One?

Section B: Distribution Shapes (Alg1+)

- Lesson 4: The Shape of Data Distributions
- Lesson 5: Watch Your Calculations

Section C: How to Use Spreadsheets (Alg1+)

Section D: Manipulating Data (Alg1+)

- Lesson 9: Using Technology for Statistics
- Lesson 10: Measures of Center
- Lesson 11: Decisions, Decisions
- Lesson 12: Variability
- Lesson 13: Standard Deviation in Real-World Contexts
- Lesson 14: Outliers and Means
- Lesson 15: Where Are We Eating?

Section E: Let's Put It to Work (Alg1+)

- Lesson 16: Compare and Contrast

Unit 2: Extra Support Materials for Algebra 1, Unit 2 "Linear Equations and Systems"

Section A: Writing and Modeling with Equations (Alg1+)

- Lesson 1: Expressing Mathematics
- Lesson 2: Words and Symbols
- Lesson 3: Setting the Table
- Lesson 4: Solutions in Context
- Lesson 5: Graphs, Tables, and Equations

Section B: Manipulating Equations and Understanding Their Structure (Alg1+)

- Lesson 6: Equality Diagrams

- Lesson 7: Why Is That Okay?
- Lesson 8: Reasoning about Equations
- Lesson 9: Same Situation, Different Symbols
- Lesson 10: Equations and Relationships
- Lesson 11: Slopes and Intercepts

Section C: Systems of Linear Equations in Two Variables (Alg1+)

- Lesson 12: Connecting Situations and Graphs
- Lesson 13: Making New, True Equations
- Lesson 14: Making More New, True Equations
- Lesson 15: Off the Line
- Lesson 16: Elimination
- Lesson 17: Number of Solutions in One-Variable Equations

Section D: Let's Put It to Work (Alg1+)

- Lesson 18: Putting the Pieces Together
- Lesson 19: Graphic Design

Unit 3: Extra Support Materials for Algebra 1, Unit 3 “Two-Variable Statistics”

Section A: Two-Way Tables (Alg1+)

- Lesson 1: Human Frequency Table
- Lesson 2: Talking Percents
- Lesson 3: Associations and Relative Frequency Tables

Section B: Scatter Plots (Alg1+)

- Lesson 4: Interpret This, Interpret That
- Lesson 5: Goodness of Fit
- Lesson 6: Actual Data vs. Predicted Data

Section C: Correlation Coefficients (Alg1+)

- Lesson 7: Confident Models
- Lesson 8: Correlations
- Lesson 9: What’s the Correlation?

Section D: Let's Put It to Work (Alg1+)

- Lesson 10: Putting It All Together

Unit 4: Extra Support Materials for Algebra 1, Unit 4 "Linear Inequalities and Systems"

Section A: Linear Inequalities in One Variable (Alg1+)

- Lesson 1: Inequalities in Context
- Lesson 2: Queuing on the Number Line
- Lesson 3: Interpreting Inequalities

Section B: Linear Inequalities in Two Variables (Alg1+)

- Lesson 4: From One- to Two-Variable Inequalities
- Lesson 5: Situations with Constraints
- Lesson 6: Modeling Constraints

Section C: Systems of Linear Inequalities in Two Variables (Alg1+)

- Lesson 7: Reasoning with Graphs of Inequalities
- Lesson 8: Representing Systems of Inequalities
- Lesson 9: Testing Points to Solve Inequalities

Unit 5: Extra Support Materials for Algebra 1, Unit 5 "Functions"

Section A: Functions and Their Representations (Alg1+)

- Lesson 1: Describing Graphs
- Lesson 2: Understanding Points in Situations
- Lesson 3: Using Function Notation
- Lesson 4: Interpreting Functions
- Lesson 5: Function Representations

Section B: Analyzing and Creating Graphs of Functions (Alg1+)

- Lesson 6: Finding Interesting Points on a Graph
- Lesson 7: Slopes of Segments
- Lesson 8: Interpreting and Drawing Graphs for Situations
- Lesson 9: Increasing and Decreasing Functions

Section C: A Closer Look at Inputs and Outputs (Alg1+)

- Lesson 10: Interpreting Inputs and Outputs
- Lesson 11: Examining Domains and Ranges
- Lesson 12: Functions with Multiple Parts
- Lesson 13: Number Line Distances
- Lesson 14: Absolute Value Meaning

Section D: Inverse Functions (Alg1+)

- Lesson 15: Finding Input Values and Function Values
- Lesson 16: Rewriting Equations for Perspectives
- Lesson 17: Interpreting Function Parts in Situations

Section E: Let's Put It to Work (Alg1+)

- Lesson 18: Modeling Price Information

Unit 6: Extra Support Materials for Algebra 1, Unit 6 "Introduction to Exponential Functions"

Section A: Looking at Growth (Alg1+)

- Lesson 1: Reviewing Exponents
- Lesson 2: Growth Patterns

Section B: A New Kind of Relationship (Alg1+)

- Lesson 3: Properties of Exponents
- Lesson 4: Connections between Representations
- Lesson 5: Working with Fractions
- Lesson 6: Find That Factor
- Lesson 7: Negative Exponents

Section C: Exponential Functions (Alg1+)

- Lesson 8: Representing Functions
- Lesson 9: Interpreting Functions
- Lesson 10: Rate of Change
- Lesson 11: Skills for Modeling with Mathematics
- Lesson 12: Connections between Graphs and Equations
- Lesson 13: Representations of Exponential Functions

Section D: Percent Growth and Decay (Alg1+)

- Lesson 14: Percentage Increase and Decrease
- Lesson 15: Changing the Score
- Lesson 16: Over and Over
- Lesson 17: Annually, Quarterly, or Monthly?
- Lesson 18: Bases and Exponents

Section E: Comparing Linear and Exponential Functions (Alg1+)

- Lesson 19: Adjusting Windows
- Lesson 20: Evaluating Functions over Equal Intervals

Section F: Let's Put It to Work (Alg1+)

- Lesson 21: Skills for Mathematical Modeling

Unit 7: Extra Support Materials for Algebra 1, Unit 7 "Introduction to Quadratic Functions"

Section A: A Different Kind of Change (Alg1+)

- Lesson 1: Accessing Areas and Pondering Perimeters
- Lesson 2: Describing Patterns

Section B: Quadratic Functions (Alg1+)

- Lesson 3: Lots of Rectangles
- Lesson 4: Evaluating Quadratic and Exponential Functions
- Lesson 5: Distance to and Distance From
- Lesson 6: Graphs of Situations That Change
- Lesson 7: Accurate Representations

Section C: Working with Quadratic Expressions (Alg1+)

- Lesson 8: Areas and Equivalent Expressions
- Lesson 9: Working with Signed Numbers
- Lesson 10: Relating Linear Equations and Their Graphs

Section D: Features of Graphs of Quadratic Functions (Alg1+)

- Lesson 11: Zeros of Functions and Intercepts of Graphs
- Lesson 12: Changing the Equation
- Lesson 14: Interpreting Representations
- Lesson 15: Preparing for Vertex Form
- Lesson 16: Graphing from the Vertex Form
- Lesson 17: Parameters and Graphs

Unit 8: Extra Support Materials for Algebra 1, Unit 8 "Quadratic Equations"

Section A: Finding Unknown Inputs (Alg1+)

- Lesson 1: Areas Around Areas
- Lesson 2: Equations and Graphs

Section B: Solving Quadratic Equations (Alg1+)

- Lesson 3: Squares and Equations
- Lesson 4: Equations and Their Zeros
- Lesson 5: Steps in Solving Equations

- Lesson 6: Sums and Products
- Lesson 7: Integers of Quadratics
- Lesson 8: Multiplying Expressions
- Lesson 9: Equivalent Equations and Functions
- Lesson 10: Quadratic Zeros

Section C: Completing the Square (Alg1+)

- Lesson 11: Finding Perfect Squares
- Lesson 12: Forms of Quadratic Equations
- Lesson 13: Constants in Quadratic Equations
- Lesson 14: Rewriting Quadratic Expressions
- Lesson 15: Irrational Numbers

Section D: The Quadratic Formula (Alg1+)

- Lesson 16: Working with Quadratics
- Lesson 17: Quadratic Meanings
- Lesson 18: Solving Quadratics
- Lesson 19: Quadratic Steps
- Lesson 20: Quadratics and Irrationals
- Lesson 21: Odd and Even Numbers

Section E: Vertex Form Revisited (Alg1+)

- Lesson 22: Features of Parabolas
- Lesson 23: Comparing Functions

Section F: Let's Put It to Work (Alg1+)

- Lesson 24: Quadratic Situations