

PROGRAM OVERVIEW

Table of Contents for Instructional Units

Unit 1: Introduction to Functions and Equations

Unit 1 Resources

- Lesson 1.1: Identifying Terms, Factors, and Coefficients (A–SSE.1a*)
- Lesson 1.2: Creating Linear Equations in One Variable (A–CED.1*)
- Lesson 1.3: Rearranging Formulas (A–CED.4*)
- Lesson 1.4: Properties of Equality (A–REI.1)
- Lesson 1.5: Solving Linear Equations (A–REI.3)
- Lesson 1.6: Solving Linear Inequalities (A–REI.3)
- Lesson 1.7: Creating Linear Inequalities in One Variable (A–CED.1*)
- Lesson 1.8: Domain and Range (F–IF.1)
- Lesson 1.9: Function Notation and Evaluating Functions (F–IF.2)
- Lesson 1.10: Identifying Key Features of Linear and Exponential Graphs (F–IF.4*, F–IF.5*)

Conceptual Tasks

- A Wing of a Deal, Parts 1 and 2 (A–CED.1*, N–Q.2*, N–Q.3*)
- Infectious Dilemma, Parts 1 and 2 (F–IF.4*)

Station Activities

- Set 1: Ratios and Proportions (A–CED.1*)
- Set 2: Solving Inequalities (A–CED.1*)
- Set 3: Solving Equations (A–CED.1*)

Mid-Unit Assessment

End-of-Unit Assessment

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Unit 2: Linear Functions

Unit 2 Resources

- Lesson 2.1: Parts of Expressions (A–SSE.1a*)
- Lesson 2.2: Interpreting Linear Expressions (A–SSE.1b*)
- Lesson 2.3: Connecting Graphs and Equations of Linear Functions (F–IF.6*)
- Lesson 2.4: Finding the Slope or Rate of Change of Linear Functions (F–IF.6*)
- Lesson 2.5: Calculate and Interpret the Average Rate of Change (F–IF.6*)
- Lesson 2.6: Interpreting Parameters (F–LE.5*)
- Lesson 2.7: Graphing the Set of All Solutions (A–REI.10)
- Lesson 2.8: Graphing Linear Equations in Two Variables (A–CED.2*)
- Lesson 2.9: Solving Linear Inequalities in Two Variables (A–REI.12)
- Lesson 2.10: Key Features of Linear Functions (F–IF.4*)
- Lesson 2.11: Graphing Linear Functions (F–IF.7*)
- Lesson 2.12: Comparing Linear Functions (F–IF.9)
- Lesson 2.13: Building Functions from Context (F–BF.1a*)
- Lesson 2.14: Arithmetic Sequences (F–BF.2*)

Conceptual Tasks

- Weighing Job Offers, Parts 1 and 2 (A–CED.2*)
- Book Cover Hustle, Parts 1 and 2 (A–REI.12)
- Jumping Jamal, Parts 1 and 2 (F–BF.1a*)

Station Activities

- Set 1: Comparing Linear Models (A–CED.2*, A–REI.10, F–IF.7*)
- Set 2: Relations Versus Functions/Domain and Range (F–BF.1a*, F–IF.1, F–IF.2)

Mid-Unit Assessment

End-of-Unit Assessment

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Unit 3: Modeling with Linear Functions

Unit 3 Resources

- Lesson 3.1: Solving Problems Given Functions Fitted to Data (S-ID.6a*)
- Lesson 3.2: Calculating and Interpreting the Correlation Coefficient (S-ID.8*)
- Lesson 3.3: Analyzing the Slope and y-intercept of Linear Graphs from Data (S-ID.7*)
- Lesson 3.4: Analyzing Residuals (S-ID.6b*)
- Lesson 3.5: Distinguishing Between Correlation and Causation (S-ID.9*)

Conceptual Tasks

- Time to Print in 3D, Parts 1 and 2 (S-ID.6a*)
- Smartphone Surge, Parts 1 and 2 (S-ID.7*)

Station Activities

- Set 1: Line of Best Fit (S-ID.6a*, S-ID.6b*, S-ID.7*)

Mid-Unit Assessment

End-of-Unit Assessment

Unit 4: Connecting Algebra and Geometry on the Coordinate Plane

Unit 4 Resources

- Lesson 4.1: Working with Parallel and Perpendicular Lines (G-GPE.5)
- Lesson 4.2: Finding Midpoints and Endpoints of Line Segments (G-GPE.6)
- Lesson 4.3: Calculating Perimeter and Area (G-GPE.4)
- Lesson 4.4: Using Coordinates to Prove Geometric Theorems with Slope and Distance (G-GPE.4, G-GPE.5)

Conceptual Task

- The Town Square, Parts 1 and 2 (G-GPE.5)

Station Activities

- Set 1: Parallel Lines, Slopes, and Equations (G-GPE.4, G-GPE.5)
- Set 2: Perpendicular Lines (G-GPE.4, G-GPE.5)
- Set 3: Coordinate Proof with Quadrilaterals (G-GPE.4, G-GPE.5)

Mid-Unit Assessment

End-of-Unit Assessment

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Table of Contents for Instructional Units

Unit 5: Systems of Equations and Inequalities

Unit 5 Resources

- Lesson 5.1: Intersecting Graphs (A–REI.11*)
- Lesson 5.2: Representing Constraints (A–CED.3*)
- Lesson 5.3: Solving Systems of Linear Inequalities (A–REI.12)
- Lesson 5.4: Solving Systems of Linear Equations by Graphing (A–REI.5, A–REI.6)
- Lesson 5.5: Solving Systems of Linear Equations by Substitution and Elimination (A–REI.5)

Conceptual Task

- All or Nothing, Parts 1 and 2 (A–REI.5, A–REI.6)

Station Activities

- Set 1: Solving Systems by Substitution and Elimination (A–REI.5)
- Set 2: Solving Systems by Graphing (A–REI.6)
- Set 3: Using Systems in Applications (A–CED.3*, A–REI.5, A–REI.6)

Mid-Unit Assessment

End-of-Unit Assessment

Unit 6: Exponential Functions

Unit 6 Resources

- Lesson 6.1: Creating Exponential Equations (A–CED.1*)
- Lesson 6.2: Graphing Exponential Equations in Context (F–IF.4*, F–IF.5*)
- Lesson 6.3: Exponential Rate of Change (F–IF.6*)
- Lesson 6.4: Interpreting Linear and Exponential Functions (A–SSE.1a*, A–SSE.1b*)
- Lesson 6.5: Creating and Graphing Exponential Equations (A–CED.2*)
- Lesson 6.6: Graphing Exponential Functions (F–IF.7*)
- Lesson 6.7: Analyzing Exponential Functions (F–IF.7*)
- Lesson 6.8: Comparing Exponential Functions (F–IF.9)
- Lesson 6.9: Building Functions Including Parameters (F–BF.1a*, F–LE.5*)
- Lesson 6.10: Domain and Range of Exponential Functions (F–IF.2)
- Lesson 6.11: Geometric Sequences (F–BF.2*)
- Lesson 6.12: Fitting Exponential Functions to Data (S–ID.6c*)
- Lesson 6.13: Comparing Linear to Exponential Functions (F–LE.3*)
- Lesson 6.14: Applying the Properties of Integer Exponents (N–RN.2)
- Lesson 6.15: Solving Exponential Equations (A–REI.1)

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Conceptual Tasks

- Sanjay's Salary, Parts 1 and 2 (F–BF.1a*, F–LE.5*)
- Saving for a Boat, Parts 1 and 2 (F–LE.3*)

Station Activities

- Set 1: Comparing Exponential Models (F–IF.7*)
- Set 2: Interpreting Exponential Functions (F–IF.2, F–IF.7*)

Mid-Unit Assessment

End-of-Unit Assessment

Unit 7: Polynomial Operations and Quadratic Functions

Unit 7 Resources

- Lesson 7.1: Adding and Subtracting Polynomials (A–APR.1)
- Lesson 7.2: Multiplying Polynomials (A–APR.1)
- Lesson 7.3: Factoring Expressions by the Greatest Common Factor (A–SSE.3*)
- Lesson 7.4: Factoring Expressions with $a = 1$ (A–SSE.3*)
- Lesson 7.5: Factoring Expressions with $a > 1$ (A–SSE.3*)
- Lesson 7.6: Zero Product Property (A–CED.1*, A–REI.4)
- Lesson 7.7: Taking the Square Root of Both Sides (A–CED.1*, A–REI.4)
- Lesson 7.8: Solving Quadratic Equations by Factoring (A–SSE.3*, A–CED.1*, A–REI.4)
- Lesson 7.9: Interpreting Various Forms of Quadratic Functions (F–IF.7*, F–IF.8a)
- Lesson 7.10: Identifying the Average Rate of Change (F–IF.6*)
- Lesson 7.11: Creating and Graphing Equations Using Standard Form (A–APR.3, A–SSE.1*)
- Lesson 7.12: Creating and Graphing Equations Using the x -intercepts (A–SSE.3*, A–CED.2*)
- Lesson 7.13: Comparing Models (F–IF.9)

Conceptual Tasks

- Pondering Patterns, Parts 1 and 2 (F–IF.9)
- Solution Squabble, Parts 1 and 2 (A–CED.1*, A–REI.4)
- Desmos: Writing Rules (A–CED.2*)
- Mathematics Vision Project: Quadratic Quandaries, Parts 1 and 2 (A–CED.1*, A–SSE.1a*)

Station Activities

- Set 1: Graphing Quadratic Equations (F–IF.7*)

Mid-Unit Assessment

End-of-Unit Assessment

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Table of Contents for Instructional Units

Unit 8: Statistics

Unit 8 Resources

Lesson 8.1: Representing Data Sets (S-ID.1*)

Lesson 8.2: Comparing Data Sets (S-ID.2*)

Lesson 8.3: Interpreting Data Sets (S-ID.3*)

Conceptual Task

What Does the Real Data Show?, Parts 1 and 2 (S-ID.3*)

Station Activity

Set 1: Displaying and Interpreting Data (S-ID.1*, S-ID.2*, S-ID.3*)

Mid-Unit Assessment

End-of-Unit Assessment