

Table of Contents for Instructional Units

Unit 1: Introduction to Functions and Equations

Lesson 1.1: Support Skill: Creating and Evaluating Inputs and Outputs of Equations (8.F.1)

Lesson 1.2: Domain and Range (F–IF.1)

Lesson 1.3: Support Skill: Verifying Whether Inequalities Are True or False (6.EE.5)

Lesson 1.4: Function Notation and Evaluating Functions (F–IF.2)

Lesson 1.5: Support Skill: Analyzing Situations Involving Linear Equations (8.F.5)

Lesson 1.6: Identifying Key Features of Linear and Exponential Graphs (F–IF.4★, F–IF.5)

Lesson 1.7: Support Skill: Using the Distributive Property (6.EE.3)

Lesson 1.8: Support Skill: Solving Simple Inequalities (7.EE.4b)

Lesson 1.9: Support Skill: Using Properties of Equality to Solve Equations* (8.EE.7b)

Lesson 1.10: Properties of Equality (A–REI.1)

Lesson 1.11: Support Skill: Solving Multi-Step Equations* (8.EE.7b)

Lesson 1.12: Solving Linear Equations (A–REI.3)

Lesson 1.13: Solving Linear Inequalities (A–REI.3)

Lesson 1.14: Solving Linear Inequalities in Two Variables (A–REI.12)

Lesson 1.15: Identifying Terms, Factors and Coefficients (A–SSE.1a★)

Lesson 1.16: Creating Linear Equations in One Variable (A–CED.1★)

Lesson 1.17: Rearranging Formulas (A–CED.4★)

Conceptual Tasks

A Wing of a Deal (A–CED.1★, N–Q.2★, N–Q.3★)

Infectious Dilemma (F–IF.4★)

Station Activities

Ratios and Proportions (A–CED.1★)

Solving Inequalities (A–CED.1★)

Solving Equations (A–CED.1★)

Mid-Unit Assessment and Answer Key

End-of-Unit Assessment and Answer Key

PROGRAM OVERVIEW

Table of Contents for Instructional Units

Unit 2: Linear Functions

- Lesson 2.1: Support Skill: Identifying Parts of an Expression (6.EE.2b)
- Lesson 2.2: Support Skill: Identifying Linear Relationships* (8.F.4)
- Lesson 2.3 (ONLINE ONLY): Parts of Expressions (A–SSE.1a★)
- Lesson 2.4: Interpreting Linear Expressions (A–SSE.1b★)
- Lesson 2.5: Support Skill: Determining the Intercepts of Linear Functions (8.EE.6)
- Lesson 2.6: Support Skill: Determining the Slope and y -intercept of a Linear Function (8.F.4)
- Lesson 2.7: Support Skill: Graphing Linear Functions from Tables or Equations* (A–CED.2★)
- Lesson 2.8: Support Skill: Understanding Slope as a Rate of Change (8.EE.5)
- Lesson 2.9: Support Skill: Identifying y -intercepts of Graphs of Functions* (8.EE.6)
- Lesson 2.10: Support Skill: Creating Linear Equations to Solve Problems* (A–CED.2★)
- Lesson 2.11: Support Skill: Creating and Evaluating Inputs and Outputs of Equations (8.F.1)
- Lesson 2.12: Support Skill: Connecting Graphs and Equations of Linear Functions (8.F.3)
- Lesson 2.13: Creating Equations from Context (A–CED.2★)
- Lesson 2.14: Intersecting Graphs (A–REI.11★)
- Lesson 2.15: Solving Systems of Linear Inequalities (A–REI.12)
- Lesson 2.16: Support Skill: Verifying Whether Inequalities Are True or False (6.EE.5)
- Lesson 2.17: Function Notation and Evaluating Functions (F–IF.2)
- Lesson 2.18: Support Skill: Analyzing Situations Involving Linear Equations (8.F.5)
- Lesson 2.19: Key Features of Linear Functions (F–IF.4★)
- Lesson 2.20: Identifying Key Features of Linear and Exponential Graphs (F–IF.4★, F–IF.5)
- Lesson 2.21: Support Skill: Writing Linear Equations* (8.F.4)
- Lesson 2.22: Connecting Graphs and Equations of Linear Functions (F–IF.6★)
- Lesson 2.23: Finding the Slope or Rate of Change of Linear Functions (F–IF.6★)
- Lesson 2.24: Calculate and Interpret the Average Rate of Change (F–IF.6★)
- Lesson 2.25: Comparing Linear Functions (F–IF.9)
- Lesson 2.26: Building Functions from Context (F–BF.1a★)
- Lesson 2.27: Arithmetic Sequences (F–BF.2★)
- Lesson 2.28: Interpreting Parameters (F–LE.5★)

Conceptual Tasks

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

Station Activities

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

Mid-Unit Assessment and Answer Key

End-of-Unit Assessment and Answer Key

PROGRAM OVERVIEW

Table of Contents for Instructional Units

Unit 3: Modeling with Linear Functions

Lesson 3.1: Support Skill: Writing Linear Equations* (8.F.4)

Lesson 3.2: Recognizing Average Rate of Change (F–LE.1)

Lesson 3.3: Support Skill: Creating a Scatter Plot Given Data in a Table (8.SP.1)

Lesson 3.4: Solving Problems Given Functions Fitted to Data (S–ID.6a★)

Lesson 3.5: Analyzing Residuals (S–ID.6b★)

Lesson 3.6: Support Skill: Identifying Linear Correlations Graphically (8.SP.3)

Lesson 3.7: Analyzing the Slope and y -intercept of Linear Graphs from Data (S–ID.7★)

Lesson 3.8: Support Skill: Creating a Scatter Plot Given Data in a Table (8.SP.1)

Lesson 3.9: Calculating and Interpreting the Correlation Coefficient (S–ID.8★)

Lesson 3.10: Support Skill: Creating a Scatter Plot Given Data in a Table (8.SP.1)

Lesson 3.11: Distinguishing Between Correlation and Causation (S–ID.9★)

Conceptual Tasks

Time to Print in 3D (S–ID.6a★)

Smartphone Surge (S–ID.7★)

Station Activity

Line of Best Fit (S–ID.6a★, S–ID.6b★, S–ID.6c★, S–ID.7★)

Mid-Unit Assessment and Answer Key

End-of-Unit Assessment and Answer Key

Unit 4: Connecting Algebra and Geometry on the Coordinate Plane

Lesson 4.1: Support Skill: Using the Distance Formula with Two Points on the Coordinate Plane (8.G.8)

Lesson 4.2: Support Skill: Calculating Slope* (8.EE.5)

Lesson 4.3: Calculating Perimeter and Area (G–GPE.4)

Lesson 4.4: Working with Parallel and Perpendicular Lines (G–GPE.5)

Lesson 4.5: Finding Midpoints and Endpoints of Line Segments (G–GPE.6)

Conceptual Task

The Town Square (G–GPE.5)

Station Activities

Parallel Lines, Slopes, and Equations (G–GPE.4, G–GPE.5)

Perpendicular Lines (G–GPE.4, G–GPE.5)

Coordinate Proof with Quadrilaterals (G–GPE.4, G–GPE.5)

Mid-Unit Assessment and Answer Key

End-of-Unit Assessment and Answer Key

PROGRAM OVERVIEW

Table of Contents for Instructional Units

Unit 5: Exponential Functions

- Lesson 5.1: Support Skill: Understanding the Rules of Exponents, Including Negative Exponents* (8.EE.1)
- Lesson 5.2: Applying the Properties of Integer Exponents (N–RN.2)
- Lesson 5.3: Interpreting Linear and Exponential Expressions (A–SSE.1a*, A–SSE.1b*)
- Lesson 5.4: Creating Exponential Equations (A–CED.1)
- Lesson 5.5: Creating and Graphing Exponential Equations (A–CED.2*)
- Lesson 5.6: Graphing the Set of All Solutions (A–REI.10)
- Lesson 5.7: Intersecting Graphs (A–REI.11*)
- Lesson 5.8: Support Skill: Understanding Function Notation, Domain, and Independent and Dependent Variables** (F–IF.1)
- Lesson 5.9: Domain and Range of Exponential Functions (F–IF.2)
- Lesson 5.10: Sequences As Functions (F–IF.3)
- Lesson 5.11: Graphing Exponential Equations in Context (F–IF.4*, F–IF.5*)
- Lesson 5.12: Exponential Rate of Change (F–IF.6*)
- Lesson 5.13: Graphing Exponential Functions (F–IF.7*)
- Lesson 5.14: Analyzing Exponential Functions (F–IF.7*)
- Lesson 5.15: Comparing Exponential Functions (F–IF.9)
- Lesson 5.16: Building Functions Including Parameters (F–BF.1.1a*, F–LE.5*)
- Lesson 5.17: Geometric Sequences (F–BF.2*)
- Lesson 5.18: Comparing Linear to Exponential Functions (F–LE.3*)
- Lesson 5.19: Fitting Exponential Functions to Data (S–ID.6c*)

Conceptual Tasks

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

Station Activities

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

Mid-Unit Assessment and Answer Key

End-of-Unit Assessment and Answer Key

PROGRAM OVERVIEW

Table of Contents for Instructional Units

Unit 6: Quadratic Functions

Lesson 6.1: Factoring Expressions by the Greatest Common Factor (A–SSE.3★)

Lesson 6.2: Factoring Expressions with $a = 1$ (A–SSE.3★)

Lesson 6.3: Factoring Expressions with $a > 1$ (A–SSE.3★)

Lesson 6.4 (ONLINE ONLY): Polynomial Operations (7.EE.1, 7.EE.2)

Lesson 6.5: Adding and Subtracting Polynomials (A–APR.1)

Lesson 6.6: Multiplying Polynomials (A–APR.1)

Lesson 6.7 (ONLINE ONLY): Zero Product Property (A–REI.1)

Lesson 6.8: Creating and Graphing Equations Using Standard Form (A–APR.3, A–SSE.1★)

Lesson 6.9: Creating and Graphing Equations Using the x -intercepts (A–SSE.3★, A–CED.2★)

Lesson 6.10: Solving Quadratic Equations by Factoring (A–SSE.3★, A–CED.1★, A–REI.4)

Lesson 6.11: Taking the Square Root of Both Sides (A–CED.1★, A–REI.4)

Lesson 6.12: Interpreting Various Forms of Quadratic Functions (F–IF.7★, F–IF.8a)

Lesson 6.13: Identifying the Average Rate of Change (F–IF.6★)

Lesson 6.14: Comparing Models (F–IF.9)

Conceptual Tasks

Pondering Patterns (F–IF.9)

Solution Squabble (A–CED.1★, A–REI.4)

Station Activities

Graphing Quadratic Equations (F–IF.7★)

Mid-Unit Assessment and Answer Key

End-of-Unit Assessment and Answer Key

PROGRAM OVERVIEW

Table of Contents for Instructional Units

Unit 7: Systems of Equations and Inequalities

Lesson 7.1: Support Skill: Solving Systems of Linear Equations by Algebraic Methods (8.EE.8)

Lesson 7.2: Representing Constraints (A–CED.3★)

Lesson 7.3: Solving Systems of Linear Equations by Graphing (A–REI.5, A–REI.6)

Lesson 7.4: Solving Systems of Linear Equations by Substitution and Elimination (A–REI.5)

Lesson 7.5: Solving Linear Inequalities in Two Variables (A–REI.12)

Lesson 7.6: Solving Systems of Linear Inequalities (A–REI.12)

Conceptual Task

All or Nothing (A–REI.5, A–REI.6)

Station Activities

Solving Systems by Substitution and Elimination (A–REI.5)

Solving Systems by Graphing (A–REI.6)

Using Systems in Applications (A–CED.3★, A–REI.5, A–REI.6)

Mid-Unit Assessment and Answer Key

End-of-Unit Assessment and Answer Key

Unit 8: Statistics

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? (S–ID.3★)

Station Activity

Displaying and Interpreting Data (S–ID.1★, S–ID.2★, S–ID.3★)

Mid-Unit Assessment and Answer Key

End-of-Unit Assessment and Answer Key