Intermediate Algebra builds students' command of linear, quadratic, polynomial, and exponential relationships. Students learn through discovery and application, developing the skills they need to break down complex challenges and demonstrate their knowledge in new situations.

Course topics include problem solving with basic equations and formulas; functions and problem solving; exponents and exponential functions; sequences, polynomials and factoring; quadratic equations and functions; and transformations of functions.

This course supports all students as they develop computational fluency, deepen conceptual understanding, and apply South Carolina College and Career Ready (SCCCR) Mathematical Process Standards. Students begin each lesson by discovering new concepts through guided instruction, and then confirm their understanding in an interactive, feedback-rich environment. Modeling activities equip students with tools for analyzing a variety of real-world scenarios and mathematical ideas. Journaling activities allow students to reason abstractly and quantitatively, construct arguments, critique reasoning, and communicate precisely. Performance tasks prepare students to synthesize their knowledge in novel, real-world scenarios and require that they make sense of multifaceted problems and persevere in solving them. Throughout the course, students are evaluated through a diversity of assessments specifically designed to prepare them for the content, form, and depth of the South Carolina End-of-Course Examination Program.

Length: Two semesters

UNIT 1: FOUNDATIONS OF ALGEBRA

LESSON 1: ALGEBRAIC PROPERTIES AND EXPRESSIONS

Study: Algebraic Properties and Expressions
Translate verbal descriptions to mathematical expressions, write expressions to model real-world situations, and evaluate expressions using algebraic properties.
Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems
Check your understanding of the lesson.
Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Algebraic Properties and Expressions
Take a quiz to check your understanding of what you have learned.
Duration: 0 hrs 25 mins Scoring: 20 points

Journal: Algebraic Properties and Expressions
Construct arguments and critique the reasoning of others as you write about topics in algebra.
Duration: 0 hrs 45 mins Scoring: 20 points

LESSON 2: SOLVING LINEAR EQUATIONS

Study: Solving Linear Equations
Review how to isolate the variable and solve simple equations with addition, subtraction, multiplication and division.
Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems
Check your understanding of the lesson.
Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Solving Linear Equations
Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

Practice: Modeling: Solving Linear Equations
Model and solve a real-world problem.
Duration: 0 hrs 45 mins Scoring: 20 points

LESSON 3: SOLVING MULTISTEP LINEAR EQUATIONS

Study: Solving Multistep Linear Equations
Solve multistep equations, including equations that have no solutions, one solution, or an infinite number of solutions. Write and solve equations that model real-world situations.
Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems
Check your understanding of the lesson.
Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Solving Multistep Linear Equations
Take a quiz to check your understanding of what you have learned.
Duration: 0 hrs 25 mins Scoring: 20 points

Practice: Modeling: Multistep Linear Equations
Model and solve a real-world problem.
Duration: 0 hrs 45 mins Scoring: 20 points

LESSON 4: SOLVING LINEAR INEQUALITIES

Study: Solving Linear Inequalities
Solve multistep inequalities, including those that involve collecting like terms.
Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems
Check your understanding of the lesson.
Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Solving Linear Inequalities
Take a quiz to check your understanding of what you have learned.
Duration: 0 hrs 25 mins Scoring: 20 points

LESSON 5: LITERAL EQUATIONS

Study: Literal Equations
Learn how to solve literal equations, including formulas, for a particular variable.
Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems
Check your understanding of the lesson.
Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Literal Equations
Take a quiz to check your understanding of what you have learned.
Duration: 0 hrs 25 mins Scoring: 20 points

LESSON 6: PERFORMANCE TASK: PROBLEM SOLVING WITH INEQUALITIES

Study: Problem Solving with Inequalities
Learn strategies for solving a variety of application problems related to topics in this unit.
Duration: 0 hrs 45 mins

Project: Performance Task: A Trade Show Booth
Use your knowledge, skills, and resources to make sense of and persevere in solving a real-world problem.
Duration: 2 hrs Scoring: 80 points

LESSON 7: SOLVING EQUATIONS AND INEQUALITIES WRAP-UP

Review: Solving Equations and Inequalities Practice Problems
Check your understanding of the topics in this unit.
Duration: 0 hrs 30 mins Scoring: 0 points

Discuss: In Your Own Words
Join a three- to five-question discussion to practice methods learned in this unit.
Duration: 0 hrs 40 mins Scoring: 20 points

Test (CS): Solving Equations and Inequalities
Take a computer-scored test to check what you have learned in this unit.
Duration: 0 hrs 50 mins Scoring: 50 points

Test (TS): Solving Equations and Inequalities
Take a teacher-scored test to check what you have learned in this unit.
Duration: 0 hrs 50 mins Scoring: 50 points

UNIT 2: FUNCTIONS

LESSON 1: WHAT IS A FUNCTION?

Study: Relating to Functions
Learn about functions, their graphs, and some special functions.
Duration: 0 hrs 45 mins

Checkup: Practice Problems
Complete a set of practice problems on functions.
Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: What Is a Function?
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 20 mins Scoring: 20 points

LESSON 2: GRAPHS OF FUNCTIONS

Study: Graphs of Functions
Determine the domain and range of a function from its graph. Identify sections where a graph is increasing, decreasing, or remaining constant.
Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems
Check your understanding of the lesson.
Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Graphs of Functions
Take a quiz to check your understanding of what you have learned.
Duration: 0 hrs 25 mins Scoring: 20 points

Practice: Modeling: Graphs of Functions
Model and solve a real-world problem.
Duration: 0 hrs 45 mins Scoring: 20 points

LESSON 3: ADDING AND SUBTRACTING FUNCTIONS

Study: Adding and Subtracting Functions
Learn how to add and subtract functions.
Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems
Check your understanding of the lesson.
Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Adding and Subtracting Functions
Take a quiz to check your understanding of what you have learned.
Duration: 0 hrs 25 mins Scoring: 20 points

LESSON 4: FUNCTIONS WRAP-UP

Review: Functions Practice Problems
Check your understanding of the topics in this unit.
Duration: 0 hrs 30 mins Scoring: 0 points

Discuss: Relating to Functions
Join a three- to five-question discussion to practice methods learned in this unit.
Duration: 0 hrs 40 mins Scoring: 20 points

Test (CS): Functions
Take a computer-scored test to check what you have learned in this unit.
Duration: 0 hrs 50 mins Scoring: 50 points

Test (TS): Functions
Take a teacher-scored test to check what you have learned in this unit.
Duration: 0 hrs 50 mins Scoring: 50 points

UNIT 3: EXPONENTS AND EXPONENTIAL FUNCTIONS

LESSON 1: EXPONENTS

Study: Exponents
Evaluate exponential expressions. Use properties to rewrite exponential expressions, including those with rational exponents, and to rewrite radicals using fractional exponents.
Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems
Check your understanding of the lesson.
Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Exponents
Take a quiz to check your understanding of what you have learned.
Duration: 0 hrs 25 mins Scoring: 20 points

LESSON 2: EXPONENTIAL FUNCTIONS

Study: Exponential Functions
Define an exponential function and explore applications of exponential functions, such as exponential growth and decay. Interpret the parts of an exponential expression that represents a real-world context.
Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems
Check your understanding of the lesson.
Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Exponential Functions
Take a quiz to check your understanding of what you have learned.
Duration: 0 hrs 25 mins Scoring: 20 points

Practice: Modeling: Exponential Functions
Model and solve a real-world problem.
Duration: 0 hrs 45 mins Scoring: 20 points

LESSON 3: GRAPHS OF EXPONENTIAL FUNCTIONS

Study: Graphs of Exponential Functions
Learn about graphs of exponential functions with different bases. Identify the domain, range and *y*-intercept of an exponential function from its equation and from its graph. Use graphs to evaluate exponential functions for given

x-values.

Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Graphs of Exponential Functions

Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

Journal: Graphs of Exponential Functions

Construct arguments and critique the reasoning of others as you write about topics in algebra.

Duration: 0 hrs 45 mins Scoring: 20 points

LESSON 4: EXPONENTS AND EXPONENTIAL FUNCTIONS WRAP-UP

Review: Exponents and Exponential Functions Practice Problems

Check your understanding of the topics in this unit.

Duration: 0 hrs 30 mins Scoring: 0 points

Discuss: Exponential Potential

Join a three- to five-question discussion to practice methods learned in this unit.

Duration: 0 hrs 40 mins Scoring: 20 points

Test (CS): Exponents and Exponential Functions

Take a computer-scored test to check what you have learned in this unit.

Duration: 0 hrs 50 mins Scoring: 50 points

Test (TS): Exponents and Exponential Functions

Take a teacher-scored test to check what you have learned in this unit.

Duration: 0 hrs 50 mins Scoring: 50 points

UNIT 4: SEQUENCES AND FUNCTIONS

LESSON 1: ARITHMETIC SEQUENCES

Study: Arithmetic Sequences

Learn about arithmetic sequences, explicit and recursive formulas, and finding the next term in a sequence.

Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Arithmetic Sequences

Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

Journal: Arithmetic Sequences

Construct arguments and critique the reasoning of others as you write about topics in algebra.

Duration: 0 hrs 45 mins Scoring: 20 points

LESSON 2: GEOMETRIC SEQUENCES

Study: Geometric Sequences

Explore geometric sequences as sets of numbers in which the ratio between any two consecutive numbers is a constant. Compare how the recursive formula and the explicit formula allow you to find the value of any term in a geometric sequence.

Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Geometric Sequences

Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

Practice: Modeling: Geometric Sequences

Model and solve a real-world problem.

Duration: 0 hrs 45 mins Scoring: 20 points

LESSON 3: UNDERSTANDING NUMBER SEQUENCES

Study: Understanding Number Sequences

Learn about applications and models of arithmetic, geometric, and special sequences.

Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Understanding Number Sequences

Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

LESSON 4: EXPONENTIAL AND LINEAR GROWTH

Study: Exponential and Linear Growth

Learn about the connections between linear and exponential functions and arithmetic and geometric sequences.

Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Exponential and Linear Growth

Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

LESSON 5: SEQUENCES AND FUNCTIONS WRAP-UP

Review: Sequences and Functions Practice Problems

Check your understanding of the topics in this unit.

Duration: 0 hrs 30 mins Scoring: 0 points

Discuss: What's the Difference?

Join a three- to five-question discussion to practice methods learned in this unit.

Duration: 0 hrs 40 mins Scoring: 20 points

Test (CS): Sequences and Functions

Take a computer-scored test to check what you have learned in this unit.

Duration: 0 hrs 50 mins Scoring: 50 points

Test (TS): Sequences and Functions

Take a teacher-scored test to check what you have learned in this unit.

Duration: 0 hrs 50 mins Scoring: 50 points

UNIT 5: SEMESTER 1 EXAM

LESSON 1: SEMESTER 1 EXAM

Review: Semester 1 Review

Prepare for the final exam by reviewing key concepts and skills.

Duration: 0 hrs 20 mins Scoring: 0 points

Exam: Semester 1 Exam
Take a computer-scored exam to demonstrate your mastery of concepts and skills covered in Semester 1.
Duration: 0 hrs 50 mins Scoring: 80 points

UNIT 6: POLYNOMIALS

LESSON 1: WHAT IS A POLYNOMIAL?

Study: What Is a Polynomial?
Learn the definitions for monomials, polynomials, constants, terms, coefficients, binomials, trinomials, and degree. Learn how to find the degree of polynomials.
Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems
Check your understanding of the lesson.
Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: What Is a Polynomial?
Take a quiz to check your understanding of what you have learned.
Duration: 0 hrs 25 mins Scoring: 20 points

LESSON 2: ADDING AND SUBTRACTING POLYNOMIALS

Study: Adding and Subtracting Polynomials
Learn how to add and subtract polynomials by collecting like terms. Practice adding and subtracting polynomials both vertically and horizontally.
Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems
Check your understanding of the lesson.
Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Adding and Subtracting Polynomials
Take a quiz to check your understanding of what you have learned.
Duration: 0 hrs 25 mins Scoring: 20 points

LESSON 3: MULTIPLYING BINOMIALS

Study: Multiplying Binomials
Learn how to multiply binomials using the distributive property. Use the FOIL mnemonic to help you multiply binomials.
Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems
Check your understanding of the lesson.
Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Multiplying Binomials
Take a quiz to check your understanding of what you have learned.
Duration: 0 hrs 25 mins Scoring: 20 points

Practice: Modeling: Multiplying Binomials
Model and solve a real-world problem.
Duration: 0 hrs 45 mins Scoring: 20 points

LESSON 4: MULTIPLYING POLYNOMIALS

Study: Multiplying Polynomials
Extend the use of the distributive property to multiply polynomials with more than two terms. Use a table to organize the multiplication of polynomials. Practice multiplying polynomials horizontally and vertically.
Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems
Check your understanding of the lesson.
Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Multiplying Polynomials
Take a quiz to check your understanding of what you have learned.
Duration: 0 hrs 25 mins Scoring: 20 points

Journal: Multiplying Polynomials
Construct arguments and critique the reasoning of others as you write about topics in algebra.
Duration: 0 hrs 45 mins Scoring: 20 points

LESSON 5: POLYNOMIALS WRAP-UP

Review: Polynomials Practice Problems
Check your understanding of the topics in this unit.
Duration: 0 hrs 30 mins Scoring: 0 points

Discuss: FOILed Again
Join a three- to five-question discussion to practice methods learned in this unit.
Duration: 0 hrs 40 mins Scoring: 20 points

Test (CS): Polynomials
Take a computer-scored test to check what you have learned in this unit.
Duration: 0 hrs 40 mins Scoring: 50 points

Test (TS): Polynomials
Take a teacher-scored test to check what you have learned in this unit.
Duration: 0 hrs 50 mins Scoring: 50 points

UNIT 7: FACTORING POLYNOMIALS

LESSON 1: GCF AND FACTORING BY GROUPING

Study: GCF and Factoring by Grouping
Explore the similarities between factoring numbers and polynomials. Learn how to identify the greatest common factor (GCF) of the terms of a polynomial, and how to use grouping to factor polynomials.
Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems
Check your understanding of the lesson.
Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: GCF and Factoring by Grouping
Take a quiz to check your understanding of what you have learned.
Duration: 0 hrs 25 mins Scoring: 20 points

LESSON 2: FACTORING $X^2 + BX + C$

Study: Factoring $x^2 + bx + c$
Learn the definition of a quadratic trinomial. Learn how to factor quadratic trinomials when the coefficient of the *x*-squared term is 1.
Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems
Check your understanding of the lesson.
Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Factoring $x^2 + bx + c$
Take a quiz to check your understanding of what you have learned.
Duration: 0 hrs 25 mins Scoring: 20 points

LESSON 3: FACTORING $AX^2 + BX + C$

Study: Factoring $ax^2 + bx + c$

Learn how to factor quadratic trinomials with leading coefficients other than 1.

Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Factoring $ax^2 + bx + c$

Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

Practice: Modeling: Factoring $ax^2 + bx + c$

Model and solve a real-world problem.

Duration: 0 hrs 45 mins Scoring: 20 points

LESSON 4: SPECIAL CASES

Study: Special Cases

Learn how to work with special cases of factoring. Learn definitions for a perfect square trinomial and a difference of two squares. Practice using strategies that will help you factor each of these special cases.

Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Special Cases

Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

LESSON 5: FACTORING AND GRAPHING

Study: Factoring and Graphing

Compare *x*-intercepts, zeros, roots, and linear factors. Identify the roots of a polynomial. Use the intercepts of the graph of a function to identify the roots and factors of a related equation and vice versa. Understand that a quadratic function may have 0, 1, or 2 real zeros.

Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Factoring and Graphing

Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

Journal: Factoring and Graphing

Construct arguments and critique the reasoning of others as you write about topics in algebra.

Duration: 0 hrs 45 mins Scoring: 20 points

LESSON 6: FACTORING POLYNOMIALS WRAP-UP

Review: Factoring Polynomials Practice Problems

Check your understanding of the topics in this unit.

Duration: 0 hrs 30 mins Scoring: 0 points

Discuss: Just the Factors

Join a three- to five-question discussion to practice methods learned in this unit.

Duration: 0 hrs 40 mins Scoring: 20 points

Test (CS): Factoring Polynomials

Take a computer-scored test to check what you have learned in this unit.

Duration: 0 hrs 40 mins Scoring: 50 points

Test (TS): Factoring Polynomials

Take a teacher-scored test to check what you have learned in this unit.

Duration: 0 hrs 50 mins Scoring: 50 points

UNIT 8: QUADRATIC EQUATIONS AND FUNCTIONS

LESSON 1: SOLVING QUADRATIC EQUATIONS

Study: Solving Quadratic Equations

Learn to solve quadratics in the form $x^2 = b$ by taking square roots. Use the zero product property to solve quadratic equations by factoring. Learn about standard form and rewrite quadratic equations in that form.

Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Solving Quadratic Equations

Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

LESSON 2: COMPLETING THE SQUARE

Study: Completing the Square

Learn the definition for a special case of factoring called completing the square. Explore the steps to complete a square and practice solving quadratic equations by using this way of factoring.

Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Completing the Square

Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

Journal: Completing the Square

Construct arguments and critique the reasoning of others as you write about topics in algebra.

Duration: 0 hrs 45 mins Scoring: 20 points

LESSON 3: THE QUADRATIC FORMULA

Study: The Quadratic Formula

Learn about types of equations that can be solved with the quadratic formula; complex numbers; discriminants; and finding roots (including complex roots) using the quadratic formula.

Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Complex Numbers and Discriminants

Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

LESSON 4: GRAPHS OF QUADRATIC FUNCTIONS

Study: Graphs of Quadratic Functions

Relate factors of a quadratic function to the graph of a parabola and its corresponding x-intercepts. Locate the vertex of

a quadratic function graphically and algebraically. Understand vertex form and use it to identify the vertex of a quadratic function.

Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Graphs of Quadratic Functions

Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

LESSON 5: NONLINEAR SYSTEMS OF EQUATIONS

Study: Nonlinear Systems of Equations

Learn about solution sets for nonlinear systems of equations. Practice solving nonlinear systems of equations by graphing and by using the substitution method. Explore a human-cannonball case study.

Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Nonlinear Systems of Equations

Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

LESSON 6: LINEAR, QUADRATIC, AND EXPONENTIAL FUNCTIONS

Study: Linear, Quadratic, and Exponential Functions

Identify and compare linear, quadratic, and exponential functions and write functions that model real-world situations.

Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Linear, Quadratic, and Exponential Functions

Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

Practice: Modeling: Linear, Quadratic, and Exponential Functions

Model and solve a real-world problem.

Duration: 0 hrs 45 mins Scoring: 20 points

LESSON 7: PERFORMANCE TASK: PRICING FOR PROFIT

Study: The Headphones Problem

Use what you have learned about graphing polynomials to solve a real-world business problem.

Duration: 0 hrs 45 mins Scoring: 0 points

Project: Your Dog-Walking Business

Use your knowledge, skills, and resources to make sense of and persevere in solving a real-world problem.

Duration: 2 hrs Scoring: 80 points

LESSON 8: QUADRATIC EQUATIONS AND FUNCTIONS WRAP-UP

Review: Quadratic Equations and Functions Practice Problems

Check your understanding of the topics in this unit.

Duration: 0 hrs 30 mins Scoring: 0 points

Discuss: All Squared Away

Join a three- to five-question discussion to practice methods learned in this unit.

Duration: 0 hrs 40 mins Scoring: 20 points

Test (CS): Quadratic Equations and Functions

Take a computer-scored test to check what you have learned in this unit.

Duration: 0 hrs 40 mins Scoring: 50 points

Test (TS): Quadratic Equations and Functions

Take a teacher-scored test to check what you have learned in this unit.

Duration: 0 hrs 50 mins Scoring: 50 points

UNIT 9: UNDOING FUNCTIONS AND MOVING THEM AROUND

LESSON 1: PARENT FUNCTIONS

Study: Parent Functions

Learn about the properties and graphs of linear parent functions, quadratic parent functions, absolute value parent functions, and step functions.

Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Parent Functions

Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

LESSON 2: SHIFTING FUNCTIONS

Study: Shifting Functions

Learn about shifting graphs of functions up/down and left/right by changing the coordinates of each ordered pair. Learn about changing the equation of a function to shift its graph vertically or horizontally and about combining vertical and horizontal shifts.

Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Shifting Functions

Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

Journal: Shifting Functions

Construct arguments and critique the reasoning of others as you write about topics in algebra.

Duration: 0 hrs 45 mins Scoring: 20 points

LESSON 3: STRETCHING AND COMPRESSING FUNCTIONS

Study: Stretching and Compressing Functions

Learn about stretching or compressing a function's graph by multiplying by a constant, flipping the graph by multiplying by a negative constant, and combining stretches with shifts.

Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Stretching and Compressing Functions

Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

Practice: Modeling: Stretching and Compressing Functions

Model and solve a real-world problem.

Duration: 0 hrs 45 mins Scoring: 20 points

LESSON 4: TRANSFORMATIONS OF PARENT FUNCTIONS

Study: Transformations of Parent Functions

Learn how to perform vertical and horizontal shifts, stretches, and compressions, and any combination of these transformations, on parent functions.

Duration: 0 hrs 45 mins Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

Quiz: Transformations of Parent Functions

Take a quiz to check your understanding of what you have learned.

Duration: 0 hrs 25 mins Scoring: 20 points

LESSON 5: UNDOING FUNCTIONS AND MOVING THEM AROUND WRAP-UP

Review: Undoing Functions and Moving Them Around Practice Problems

Check your understanding of the topics in this unit.

Duration: 0 hrs 30 mins Scoring: 0 points

Discuss: Transformation Station

Join a three- to five-question discussion to practice methods learned in this unit.

Duration: 0 hrs 40 mins Scoring: 20 points

Test (CS): Undoing Functions and Moving Them Around

Take a computer-scored test to check what you have learned in this unit.

Duration: 0 hrs 40 mins Scoring: 50 points

Test (TS): Undoing Functions and Moving Them Around

Take a teacher-scored test to check what you have learned in this unit.

Duration: 0 hrs 50 mins Scoring: 50 points

UNIT 10: SEMESTER 2 EXAM

LESSON 1: SEMESTER 2 EXAM

Review: Semester 2 Review

Prepare for the final exam by reviewing key concepts and skills.

Duration: 0 hrs 20 mins Scoring: 0 points

Exam: Semester 2 Exam

Take a computer-scored exam to demonstrate your mastery of concepts and skills covered in Semester 2.

Duration: 0 hrs 50 mins Scoring: 80 points