

The Algebra II curriculum builds on the concepts covered in Algebra I. Through a "Discovery-Confirmation-Practice"-based exploration of intermediate algebra, students are challenged to work toward a mastery of computational skills, to deepen their understanding of key ideas and solution strategies, and to extend their knowledge through a variety of problem-solving applications.

Course topics include systems of linear equations and inequalities, functions, relations, and their graphs; quadratic functions; parent functions, domain and range, inverse functions, composition of functions, and function transformations; and advanced polynomial functions. Students also cover topics relating to rational, radical, exponential, and logarithmic functions and their transformations; and data analysis.

This course supports all students as they develop computational fluency, deepen conceptual understanding, and apply 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.

The course is built to the TEKS Algebra II Standards.

Length: Two semesters

## UNIT 1: SYSTEMS OF LINEAR EQUATIONS

### LESSON 1: FORMULATING SYSTEMS OF EQUATIONS

#### Study: Formulating Systems of Equations

Learn how to formulate mathematical equations from word problems that are described by a system of two equations or inequalities.

Duration: 0 hrs 40 mins Scoring: 0 points

#### Checkpoint: Practice Problems

Complete a set of practice problems to hone your calculation skills.

Duration: 0 hrs 30 mins Scoring: 0 points

#### Quiz: Formulating Systems of Equations

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 20 points

### LESSON 2: TWO-VARIABLE SYSTEMS: MATRICES

#### Study: Two-Variable Systems: Matrices

Learn how to set up and use a matrix to solve two-variable systems of linear equations.

Duration: 0 hrs 35 mins Scoring: 0 points

#### Checkpoint: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

#### Quiz: Reading and Using Matrices

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

Duration: 0 hrs 20 mins Scoring: 20 points

#### Quiz: Solving with a Matrix

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

Duration: 0 hrs 20 mins Scoring: 20 points

### LESSON 3: TWO-VARIABLE SYSTEMS OF INEQUALITIES

#### Study: Two-Variable Systems of Inequalities

Learn how to use graphing to solve two-variable systems of linear inequalities. Use what you know about solving systems of inequalities to solve a real-world farming problem.

Duration: 0 hrs 35 mins Scoring: 0 points

#### Checkpoint: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

#### Quiz: Solving Systems of Inequalities

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

Duration: 0 hrs 20 mins Scoring: 20 points

#### Quiz: Solving Systems with More Than Two Inequalities

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

Duration: 0 hrs 20 mins Scoring: 20 points

#### Practice: Modeling: Solving Systems with More Than Two Inequalities

Use tools to model and solve a real-world problem.

Duration: 0 hrs 30 mins Scoring: 20 points

### LESSON 4: THREE-VARIABLE SYSTEMS OF EQUATIONS

#### Study: Three-Variable Systems of Equations

Learn about using the elimination and substitution methods to solve systems of three linear equations in three variables.

Duration: 0 hrs 40 mins

#### Checkpoint: Practice Problems

Complete a set of practice problems to hone your calculation skills.

Duration: 0 hrs 30 mins

#### Quiz: Solving Three-Variable Systems of Equations

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 26 points

### LESSON 5: THREE-VARIABLE SYSTEMS: MATRICES

#### Study: Three-Variable Systems: Matrices

Learn about representing a system of three linear equations in three variables with a matrix; using row arithmetic to put a matrix in reduced form; and using matrices to solve systems of equations.

Duration: 0 hrs 40 mins Scoring: 0 points

#### Checkpoint: Practice Problems

Complete a set of practice problems to hone your calculation skills.

Duration: 0 hrs 30 mins

#### Quiz: Solving Three-Variable Systems with Matrices

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 20 points

### LESSON 6: SYSTEMS OF LINEAR EQUATIONS WRAP-UP

#### Checkpoint: Practice Problems

Complete a set of practice problems to hone your calculation skills.

Duration: 0 hrs 30 mins Scoring: 0 points

#### Review: Review Exercise

Take part in interactive games to review unit material in preparation for upcoming assessments.

Duration: 0 hrs 50 mins

### **Test (CS): Systems of Linear Equations**

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

Duration: 0 hrs 40 mins Scoring: 36 points

### **Test (TS): Systems of Linear Equations**

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

Duration: 0 hrs 30 mins Scoring: 39 points

## **UNIT 2: FUNCTIONS, RELATIONS, & THEIR GRAPHS**

### **LESSON 1: WHAT IS A FUNCTION?**

#### **Study: Relating to Functions**

Learn about functions, their graphs, and some special functions.

Duration: 0 hrs 35 mins

#### **Checkpoint: 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: GRAPHING FUNCTIONS**

#### **Study: Graphing Functions**

Learn the vertical line and horizontal line tests for evaluating a function. Evaluate a function for given values and explore special functions.

Duration: 0 hrs 35 mins

#### **Checkpoint: Practice Problems**

Complete a set of practice problems on graphing functions.

Duration: 0 hrs 25 mins

#### **Quiz: Graphing Functions**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 14 points

### **LESSON 3: DOMAIN AND RANGE**

#### **Study: Domain and Range**

Learn about mapping diagrams, locating domain and range on mapping diagram and estimating the domain and range of functions.

Duration: 0 hrs 35 mins Scoring: 0 points

#### **Checkpoint: Practice Problems**

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

#### **Quiz: Domain and Range**

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

Duration: 0 hrs 20 mins Scoring: 20 points

#### **Journal: Domain and Range**

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

Duration: 0 hrs 30 mins Scoring: 20 points

### **LESSON 4: SOLVING ABSOLUTE VALUE EQUATIONS AND INEQUALITIES**

#### **Study: Solving Absolute Value Equations and Inequalities**

Identify problems which require the use of absolute value. Transform absolute value problems into a simpler set of inequalities. Learn how to solve absolute value equations and inequalities.

Duration: 0 hrs 35 mins Scoring: 0 points

### **Checkpoint: Practice Problems**

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

### **Quiz: Solving Absolute Value Equations and Inequalities**

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

Duration: 0 hrs 20 mins Scoring: 20 points

### **Practice: Modeling: Solving Inequalities**

Use a number line to represent the possible answers that exist for a given problem.

Duration: 0 hrs 30 mins Scoring: 20 points

## **LESSON 5: DISCRETE AND CONTINUOUS DATA**

### **Study: Discrete and Continuous Data**

Learn the differences between discrete and continuous data sets, as well as finite and infinite discrete data sets.

Describe discrete data sets using set notation, and describe continuous data sets using interval notation. Identify the domain and range of discrete functions and their function mapping diagrams. Describe the domain and range of continuous functions, such as linear and quadratic functions.

Duration: 0 hrs 40 mins Scoring: 0 points

### **Checkpoint: Practice Problems**

Complete a set of practice problems to hone your calculation skills.

Duration: 0 hrs 30 mins Scoring: 0 points

### **Quiz: Discrete and Continuous Data**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 20 points

## **LESSON 6: COMPOSITION OF FUNCTIONS**

### **Study: Composition of Functions**

Explore and evaluate the composition of functions by tracking what happens to the output of one function as it becomes the input of another. Write the names of compositions in function notation.

Duration: 0 hrs 50 mins

### **Checkpoint: Practice Problems**

Complete a set of practice problems to hone your calculation skills.

Duration: 0 hrs 30 mins

### **Quiz: Composition of Functions**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 20 points

## **LESSON 7: FUNCTIONS, RELATIONS, & THEIR GRAPHS WRAP-UP**

### **Checkpoint: Practice Problems**

Complete a set of practice problems to hone your calculation skills.

Duration: 0 hrs 30 mins Scoring: 0 points

### **Review: Review Exercises**

Take part in interactive games to review unit material in preparation for upcoming assessments.

Duration: 1 hr

### **Test (CS): Functions Relations & Their Graphs**

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

Duration: 0 hrs 40 mins Scoring: 40 points

### **Test (TS): Functions Relations & Their Graphs**

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

## UNIT 3: QUADRATIC FUNCTIONS

### LESSON 1: SPECIAL CASES

#### Study: Special Cases

Identify and factor differences of squares and perfect-square trinomials.

Duration: 0 hrs 35 mins Scoring: 0 points

#### Checkpoint: Practice Problems

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

Duration: 0 hrs 25 mins Scoring: 0 points

#### Quiz: Sum or Difference of Two Cubes

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 20 points

### LESSON 2: SOLVING QUADRATIC EQUATIONS

#### Study: Solving Quadratic Equations

Learn about solving quadratic equations using factoring and the zero product rule, manipulating a quadratic equation into standard form, and solving quadratic equations with perfect-square trinomials.

Duration: 0 hrs 35 mins Scoring: 0 points

#### Checkpoint: Practice Problems

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

Duration: 0 hrs 25 mins Scoring: 0 points

#### Quiz: Factoring with the Zero Product Rule

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

Duration: 0 hrs 20 mins Scoring: 20 points

#### Quiz: Converting Quadratics to Standard Form

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

Duration: 0 hrs 20 mins Scoring: 20 points

#### Quiz: Quadratics with Perfect Square Trinomials

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

Duration: 0 hrs 20 mins Scoring: 20 points

### LESSON 3: COMPLETING THE SQUARE

#### Study: Completing the Square

Learn the "completing the square" method of solving quadratic equations. Practice adding a strategic number to both sides of an equation to make one side a perfect-square trinomial. Then solve the equation by taking the square root of both sides and simplifying. Use algebra tiles to determine the number needed to complete the square.

Duration: 0 hrs 35 mins Scoring: 0 points

#### Checkpoint: Practice Problems

Complete a set of practice problems to 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 20 mins Scoring: 20 points

#### Quiz: Completing the Square (Advanced)

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

Duration: 0 hrs 20 mins Scoring: 20 points

### LESSON 4: 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 35 mins Scoring: 0 points

### **Checkpoint: 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 20 mins Scoring: 20 points

### **Quiz: The Quadratic Formula**

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

Duration: 0 hrs 20 mins Scoring: 20 points

## **LESSON 5: GRAPHS OF QUADRATIC FUNCTIONS AND INEQUALITIES**

### **Study: Graphs of Quadratic Functions and Inequalities**

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. Use the discriminant of the quadratic formula to identify the number and types of solutions to a given quadratic equation, as well as to visualize its corresponding graph.

Duration: 0 hrs 50 mins

### **Checkpoint: Practice Problems**

Complete a set of practice problems to hone your calculation skills.

Duration: 0 hrs 30 mins

### **Quiz: Graphs of Quadratic Functions and Inequalities**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 30 points

### **Quiz: Working with the Discriminant**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 20 points

## **LESSON 6: WORKING WITH QUADRATIC EQUATIONS AND FUNCTIONS**

### **Study: Working with Quadratic Equations and Functions**

Learn the parts of a parabola, how to derive the equation of a parabola, how to graph a parabola, and how to move and shift a parabola.

Duration: 0 hrs 35 mins Scoring: 0 points

### **Checkpoint: Practice Problems**

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

Duration: 0 hrs 25 mins Scoring: 0 points

### **Quiz: Working with Quadratic Equations and Functions**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 20 points

## **LESSON 7: WORKING WITH COMPLEX NUMBERS**

### **Study: Working with Complex Numbers**

Learn about imaginary and complex numbers, perform basic arithmetic operations on complex numbers, and solve equations with imaginary and complex numbers.

Duration: 0 hrs 35 mins Scoring: 0 points

### **Checkpoint: Practice Problems**

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

Duration: 0 hrs 25 mins Scoring: 0 points

### Quiz: Imaginary Numbers

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

Duration: 0 hrs 20 mins Scoring: 20 points

### Quiz: Operations on Complex Numbers

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

Duration: 0 hrs 20 mins Scoring: 20 points

### Quiz: Quadratics With Complex Solutions

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

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 8: NONLINEAR SYSTEMS OF EQUATIONS

### Study: Nonlinear Systems of Equations

Learn about solution sets for nonlinear systems of equations, solving nonlinear systems of equations using the substitution method, choosing which variable to isolate, substituting a squared variable, and determining the number of solutions. Explore a human-cannonball case study.

Duration: 0 hrs 35 mins Scoring: 0 points

### Checkpoint: Practice Problems

Complete a set of practice problems to 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 20 mins Scoring: 20 points

## LESSON 9: QUADRATIC FUNCTIONS WRAP-UP

### Checkpoint: Practice Problems

Submit your work for a set of 20 practice problems.

Duration: 0 hrs 25 mins Scoring: 0 points

### Review: Quadratic Functions

Get ready for the unit test by reviewing important ideas and skills.

Duration: 0 hrs 20 mins Scoring: 0 points

### Test (CS): Quadratic Functions

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

Duration: 0 hrs 40 mins Scoring: 40 points

### Test (TS): Quadratic Functions

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

Duration: 0 hrs 30 mins Scoring: 50 points

## UNIT 4: TRANSFORMING FUNCTIONS

### LESSON 1: INVERSES

#### Study: Inverses

Learn about undoing functions, mapping diagrams of inverse functions, and finding the equations for inverse functions.

Duration: 0 hrs 35 mins Scoring: 0 points

#### Checkpoint: Practice Problems

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

Duration: 0 hrs 25 mins Scoring: 0 points

#### Quiz: Inverses with Variables $x$ and $y$

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

Duration: 0 hrs 20 mins Scoring: 20 points

### Quiz: Inverses with Other Variables

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

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 2: GRAPHS OF INVERSES

### Study: Graphs of Inverses

Learn how to convert the graph of a given function to the graph of its inverse by swapping coordinates of all ordered pairs. Use mapping diagrams, horizontal line tests, and the concept of symmetry across the line  $y = x$  to determine if the inverse of a given function is also a function.

Duration: 0 hrs 35 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: Graphs of Inverses

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

Duration: 0 hrs 20 mins Scoring: 20 points

### Journal: Inverting Time and Temperature

Model the rate of melting ice using a graph, and experiment with inverting the axes.

Duration: 0 hrs 30 mins Scoring: 20 points

## LESSON 3: PARENT FUNCTIONS

### Study: Parent Functions

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

Duration: 0 hrs 35 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: Parent Functions

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

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 4: 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 35 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: Shifting Functions Vertically

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

Duration: 0 hrs 20 mins Scoring: 20 points

### Quiz: Shifting Functions Horizontally

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

Duration: 0 hrs 20 mins Scoring: 20 points

### Quiz: Shifting Functions Vertically and Horizontally



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

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 5: STRETCHING FUNCTIONS

### Study: Stretching Functions

Learn about vertically and horizontally stretching or compressing a function's graph by multiplying by a constant; reflecting the graph by multiplying by a negative constant; and combining stretches and compressions with vertical or horizontal shifts.

Duration: 0 hrs 35 mins Scoring: 0 points

### Checkpoint: Practice Problems

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

Duration: 0 hrs 25 mins Scoring: 0 points

### Quiz: Stretching Functions Vertically

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

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 6: TRANSFORMATION OF PARENT FUNCTIONS

### Study: Transformation of Parent Functions

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

Duration: 0 hrs 35 mins Scoring: 0 points

### Checkpoint: Practice Problems

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

Duration: 0 hrs 25 mins Scoring: 0 points

### Quiz: Transformation of Parent Functions

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

Duration: 0 hrs 20 mins Scoring: 20 points

### Practice: Modeling: Transformations of Parent Functions

Use the modeling tool to transform a function.

Duration: 0 hrs 30 mins Scoring: 20 points

## LESSON 7: TRANSFORMING FUNCTIONS WRAP-UP

### Checkpoint: Practice Problems

Submit your work for a set of 20 practice problems.

Duration: 0 hrs 25 mins Scoring: 0 points

### Review: Transforming Functions

Get ready for the unit test by reviewing important ideas and skills.

Duration: 0 hrs 20 mins Scoring: 0 points

### Test (CS): Transforming Functions

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

Duration: 0 hrs 40 mins Scoring: 34 points

### Test (TS): Transforming Functions

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

Duration: 0 hrs 30 mins Scoring: 65 points

## UNIT 5: POLYNOMIAL FUNCTIONS

### LESSON 1: POLYNOMIAL BASICS

#### Study: Polynomial Basics

Learn that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.

Duration: 0 hrs 35 mins Scoring: 0 points

### **Checkpoint: Practice Problems**

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

### **Quiz: Polynomial Basics**

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

Duration: 0 hrs 20 mins Scoring: 20 points

### **Practice: Modeling: Multiplying Polynomials**

Use tiles to model the multiplication of binomials and solve a real-world problem.

Duration: 0 hrs 30 mins Scoring: 20 points

## **LESSON 2: POLYNOMIAL FUNCTIONS**

### **Study: Polynomial Functions**

Learn to identify, classify, evaluate, and graph polynomial functions and expressions. Practice writing polynomials in descending order, as well as using the degree of a given polynomial function to predict the general shape of its graph.

Duration: 0 hrs 35 mins Scoring: 0 points

### **Checkpoint: Practice Problems**

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

Duration: 0 hrs 25 mins Scoring: 0 points

### **Quiz: Polynomial Functions**

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

Duration: 0 hrs 20 mins Scoring: 20 points

## **LESSON 3: SYNTHETIC DIVISION**

### **Study: Synthetic Division**

Learn two methods for dividing polynomials — long division and synthetic division. Use synthetic division to expedite the process of finding factors and roots of polynomial expressions.

Duration: 0 hrs 35 mins Scoring: 0 points

### **Checkpoint: Practice Problems**

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

Duration: 0 hrs 25 mins Scoring: 0 points

### **Quiz: Synthetic Division**

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

Duration: 0 hrs 20 mins Scoring: 20 points

## **LESSON 4: FACTORING POLYNOMIALS COMPLETELY**

### **Study: Factoring Polynomials Completely**

Learn about the remainder-factor theorem, rational-roots theorem, complex-conjugate theorem, and conjugate-radical theorem. Learn to use synthetic division to factor higher-order polynomials.

Duration: 0 hrs 35 mins Scoring: 0 points

### **Checkpoint: Practice Problems**

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

Duration: 0 hrs 25 mins Scoring: 0 points

### **Quiz: Remainder and Factor Theorems**

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

Duration: 0 hrs 20 mins Scoring: 20 points

### **Quiz: Factoring Polynomials Completely**

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

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 5: POLYNOMIAL IDENTITIES

### Study: Polynomial Identities

Prove polynomial identities and use them to describe numerical relationships.

Duration: 0 hrs 35 mins Scoring: 0 points

### Checkpoint: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

### Quiz: Polynomial Identities

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

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 6: POLYNOMIAL FUNCTIONS WRAP-UP

### Checkpoint: Practice Problems

Check your understanding of the unit.

Duration: 0 hrs 25 mins Scoring: 0 points

### Review: Polynomial Functions

Get ready for the unit test by reviewing important ideas and skills.

Duration: 0 hrs 20 mins Scoring: 0 points

### Test (CS): Polynomial Functions

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

Duration: 0 hrs 40 mins Scoring: 34 points

### Test (TS): Polynomial Functions

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

Duration: 0 hrs 30 mins Scoring: 33 points

## UNIT 6: SEMESTER 1 REVIEW AND EXAM

### LESSON 1: SEMESTER 1 REVIEW AND EXAM

#### Review: Semester 1 Review

Get ready for the semester exam by reviewing important ideas 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: 185 points

## UNIT 7: RATIONAL EXPRESSIONS AND FUNCTIONS

### LESSON 1: RATIONAL EXPRESSIONS

#### Study: Rational Expressions

Learn about finding the value of a rational expression and about undefined rational expressions.

Duration: 0 hrs 35 mins Scoring: 0 points

#### Checkpoint: Practice Problems

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

Duration: 0 hrs 25 mins Scoring: 0 points

#### Quiz: Rational Expressions

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

Duration: 0 hrs 20 mins Scoring: 20 points

### LESSON 2: SIMPLIFYING RATIONAL EXPRESSIONS

#### Study: Simplifying Rational Expressions

Practice finding and dividing out common factors in numerators and denominators of rational expressions. Explore the

crucial difference between common factors and terms.

Duration: 0 hrs 35 mins Scoring: 0 points

### **Checkpoint: Practice Problems**

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

Duration: 0 hrs 25 mins Scoring: 0 points

### **Quiz: Simplifying Rational Expressions**

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

Duration: 0 hrs 20 mins Scoring: 20 points

## **LESSON 3: MULTIPLYING AND DIVIDING RATIONAL EXPRESSIONS**

### **Study: Multiplying and Dividing Rational Expressions**

Review multiplying and dividing numerical fractions, multiplying rational expressions, dividing rational expressions, and simplifying the results.

Duration: 0 hrs 35 mins Scoring: 0 points

### **Checkpoint: Practice Problems**

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

Duration: 0 hrs 25 mins Scoring: 0 points

### **Quiz: Multiplying Rational Expressions**

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

Duration: 0 hrs 20 mins Scoring: 20 points

### **Quiz: Dividing Rational Expressions**

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

Duration: 0 hrs 20 mins Scoring: 20 points

## **LESSON 4: ADDING AND SUBTRACTING RATIONAL EXPRESSIONS**

### **Study: Adding and Subtracting Rational Expressions**

Review adding and subtracting numerical fractions, adding and subtracting rational expressions with like denominators, finding least common denominators, finding multiples of rational expressions, and adding and subtracting rational expressions with unlike denominators.

Duration: 0 hrs 35 mins Scoring: 0 points

### **Checkpoint: Practice Problems**

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

Duration: 0 hrs 25 mins Scoring: 0 points

### **Quiz: Adding and Subtracting Rational Expressions**

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

Duration: 0 hrs 20 mins Scoring: 20 points

## **LESSON 5: INVERSE VARIATION**

### **Study: Inverse Variation**

Review direct variation and how increasing input leads to proportionally increasing output. Review inverse variation and how increasing input leads to proportionally decreasing output. Review finding the constant of variation.

Duration: 0 hrs 35 mins Scoring: 0 points

### **Checkpoint: Practice Problems**

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

Duration: 0 hrs 25 mins Scoring: 0 points

### **Quiz: Inverse Variation**

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

Duration: 0 hrs 20 mins Scoring: 20 points

### **Practice: Modeling: Finding the Constant in Inverse Variation**

Create a graph using a table of inverse variation data, and determine a constant value to create an approximate functional model.

Duration: 0 hrs 30 mins Scoring: 20 points

## LESSON 6: WRITING RATIONAL FUNCTIONS

### Study: Writing Rational Functions

Learn the definition of a rational function and how to find the domain of a given function. Explore the horizontal and vertical asymptotes of rational functions.

Duration: 0 hrs 35 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: Writing Rational Functions

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

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 7: SOLVING RATIONAL EQUATIONS

### Study: Solving Rational Equations

Learn how to identify domain restrictions, determine the least common denominator, and identify extraneous solutions to rational equations.

Duration: 0 hrs 35 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: Solving Rational Equations

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

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 8: VERTICAL ASYMPTOTES

### Study: Vertical Asymptotes

Learn about graphs of rational functions, about finding vertical asymptotes, and about graphing rational functions with more than one vertical asymptote.

Duration: 0 hrs 35 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: Finding Vertical Asymptotes

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

Duration: 0 hrs 20 mins Scoring: 20 points

### Quiz: More Than One Vertical Asymptote

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

Duration: 0 hrs 20 mins Scoring: 20 points

### Journal: Rural Wireless Internet

Formulate and evaluate an approach to increasing rural internet access, and discuss conclusions with a peer.

Duration: 0 hrs 30 mins Scoring: 20 points

## LESSON 9: GRAPHING RATIONAL FUNCTIONS

### Study: Graphing Rational Functions

Learn about graphing rational functions with variables in the numerator, constructing a sign chart, and picking test numbers. Learn about rational functions with a singular point.

Duration: 0 hrs 35 mins Scoring: 0 points

### **Checkpoint: Practice Problems**

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

Duration: 0 hrs 25 mins Scoring: 0 points

### **Quiz: Graphing Rational Functions**

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

Duration: 0 hrs 20 mins Scoring: 20 points

## **LESSON 10: RATIONAL EXPRESSIONS AND FUNCTIONS WRAP-UP**

### **Checkpoint: Practice Problems**

Submit your work for a set of 20 practice problems.

Duration: 0 hrs 25 mins Scoring: 0 points

### **Review: Rational Expressions and Functions**

Get ready for the unit test by reviewing important ideas and skills.

Duration: 0 hrs 20 mins Scoring: 0 points

### **Test (CS): Rational Expressions and Functions**

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

Duration: 0 hrs 40 mins Scoring: 40 points

### **Test (TS): Rational Expressions and Functions**

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

Duration: 0 hrs 30 mins Scoring: 54 points

## **UNIT 8: RADICAL EXPRESSIONS AND FUNCTIONS**

### **LESSON 1: BASICS OF RADICALS**

#### **Study: Basics of Radicals**

Learn the definition of radical expression. Explore simplifying the product and quotient of radicals and simplifying individual radicals.

Duration: 0 hrs 35 mins Scoring: 0 points

#### **Checkpoint: Practice Problems**

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

Duration: 0 hrs 25 mins Scoring: 0 points

#### **Quiz: Simplifying Products of Radicals**

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

Duration: 0 hrs 20 mins Scoring: 20 points

#### **Quiz: Simplifying Quotients of Radicals**

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

Duration: 0 hrs 20 mins Scoring: 20 points

### **LESSON 2: MULTIPLYING AND DIVIDING RADICALS**

#### **Study: Multiplying and Dividing Radicals**

Learn about multiplying and dividing radical expressions that include variables and about using the FOIL (first inner outer last) method to simplify radical expressions.

Duration: 0 hrs 35 mins Scoring: 0 points

#### **Checkpoint: Practice Problems**

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

Duration: 0 hrs 25 mins Scoring: 0 points

#### **Quiz: Multiplying Radicals**

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

Duration: 0 hrs 20 mins Scoring: 20 points

### Quiz: Dividing Radicals

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

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 3: ADDING AND SUBTRACTING RADICALS

### Study: Adding and Subtracting Radicals

Learn about adding and subtracting radical expressions by combining like terms and about simplifying terms to get the same radicand.

Duration: 0 hrs 35 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: Adding and Subtracting Radicals

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

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 4: RATIONALIZING DENOMINATORS

### Study: Rationalizing Denominators

Learn about rationalizing a denominator in order to simplify a fraction with a radical expression in the denominator. Learn about multiplying by the conjugate of a denominator.

Duration: 0 hrs 35 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: Rationalizing Denominators

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

Duration: 0 hrs 20 mins Scoring: 20 points

### Journal: Rationalizing Denominators

Discuss rationalizing denominators with a peer.

Duration: 0 hrs 30 mins Scoring: 20 points

## LESSON 5: SOLVING RADICAL EQUATIONS AND INEQUALITIES

### Study: Solving Radical Equations and Inequalities

Learn how to solve equations and inequalities with radical expressions by isolating the radical and squaring both sides.

Duration: 0 hrs 40 mins

### Checkup: Practice Problems

Complete a set of practice problems to hone your calculation skills.

Duration: 0 hrs 25 mins

### Quiz: Solving Radical Equations

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 20 points

### Study: Applications of Radical Equations

Explore case studies in order to practice methods of solving radical equations in applied settings.

Duration: 0 hrs 40 mins

## LESSON 6: SQUARE ROOT FUNCTIONS

### Study: Square Root Functions

Learn about the properties and graph of the square root parent function, its inverse relationship to a quadratic parent function with a limited domain, and how to perform vertical shifts, horizontal shifts, vertical stretches and compressions,

horizontal stretches and compressions, and any combination of these transformations on square root parent functions.

Duration: 0 hrs 40 mins Scoring: 0 points

### **Checkpoint: Practice Problems**

Complete a set of practice problems to hone your calculation skills.

Duration: 0 hrs 30 mins Scoring: 0 points

### **Quiz: Square Root Functions**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 30 points

## **LESSON 7: RATIONAL EXPONENTS**

### **Study: Rational Exponents**

Learn about fractional exponents and  $n$ th roots, odd and even indices of radicals, the method of notation for writing an  $n$ th root, the use of fractional exponents, and exponential expressions with decimal powers.

Duration: 0 hrs 35 mins Scoring: 0 points

### **Checkpoint: Practice Problems**

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

Duration: 0 hrs 25 mins Scoring: 0 points

### **Quiz: Fractional Exponents — Part 1**

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

Duration: 0 hrs 20 mins Scoring: 20 points

### **Quiz: Fractional Exponents — Part 2**

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

Duration: 0 hrs 20 mins Scoring: 20 points

## **LESSON 8: REVIEW OF COMPLEX NUMBERS**

### **Study: Review of Complex Numbers**

Learn about square roots of negative numbers; imaginary units; parts of a complex number; adding and subtracting complex numbers by collecting like terms and simplifying; multiplying two complex numbers using the FOIL method; and dividing complex numbers using complex conjugates.

Duration: 0 hrs 35 mins Scoring: 0 points

### **Checkpoint: Practice Problems**

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

Duration: 0 hrs 25 mins Scoring: 0 points

### **Quiz: Adding and Subtracting Complex Numbers**

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

Duration: 0 hrs 20 mins Scoring: 20 points

### **Quiz: Multiplying and Dividing Complex Numbers**

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

Duration: 0 hrs 20 mins Scoring: 20 points

## **LESSON 9: PERFORMANCE TASK: THE SKID DISTANCE PROBLEM**

### **Study: The Skid Distance Problem**

Learn how the length of skid marks left by a vehicle is an application of square root functions. Use the skid distance equation to solve for drag factor of various road surfaces, as well as skid mark lengths and original speed of a variety of vehicles.

Duration: 0 hrs 35 mins Scoring: 0 points

### **Project: Solving the Skid Distance Problem**

Assume the role of investigator and take on a skid distance problem.

Duration: 2 hrs Scoring: 120 points



## LESSON 10: RADICAL EXPRESSIONS AND FUNCTIONS WRAP-UP

### Checkpoint: Practice Problems

Submit your work for a set of 20 practice problems.

Duration: 0 hrs 25 mins Scoring: 0 points

### Review: Radical Expressions and Functions

Get ready for the unit test by reviewing important ideas and skills.

Duration: 0 hrs 20 mins Scoring: 0 points

### Test (CS): Radical Expressions and Functions

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

Duration: 0 hrs 40 mins Scoring: 40 points

### Test (TS): Radical Expressions and Functions

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

Duration: 0 hrs 30 mins Scoring: 50 points

## UNIT 9: EXPONENTS, LOGARITHMS, & THEIR GRAPHS

### LESSON 1: EXPONENTS AND RADICALS

#### Study: Rational Exponents and Radical Expressions

Learn the rules of exponents and how to express radicals.

Duration: 0 hrs 40 mins

#### Checkpoint: Practice Problems

Complete a set of practice problems on exponents and radicals.

Duration: 0 hrs 25 mins

#### Quiz: Exponents and Radicals

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 20 points

### LESSON 2: EXPONENTIAL FUNCTIONS

#### Study: Exponential Functions

Define the standard form of an exponential function and explore a variety of its applications, such as exponential growth and decay (in the forms of doubling time and half-life), as well as compound interest. Compare compound interest to continuously compounded interest using the irrational number  $e$ .

Duration: 0 hrs 35 mins Scoring: 0 points

#### Checkpoint: Practice Problems

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

Duration: 0 hrs 25 mins Scoring: 0 points

#### Quiz: Evaluating Exponential Functions

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

Duration: 0 hrs 20 mins Scoring: 20 points

#### Quiz: Calculating Exponential Growth

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

Duration: 0 hrs 20 mins Scoring: 20 points

### LESSON 3: EXAMPLES AND APPLICATIONS OF EXPONENTIAL FUNCTIONS

#### Study: Examples and Applications of Exponential Functions

Explore case studies in exponential growth and decay and logarithmic growth.

Duration: 0 hrs 35 mins Scoring: 0 points

#### Checkpoint: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

## LESSON 4: GRAPHS OF EXPONENTIAL FUNCTIONS

### Study: Graphs of Exponential Functions

Learn about the shape of graphs of exponential functions with various bases and about finding the domain and range of exponential functions.

Duration: 0 hrs 35 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: Graphs of Exponential Functions

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

Duration: 0 hrs 20 mins Scoring: 20 points

### Journal: Exponential vs. Quadratic

Interpret a table of cell growth data, and discuss with a peer.

Duration: 0 hrs 30 mins Scoring: 20 points

## LESSON 5: LOGARITHMIC FUNCTIONS

### Study: Logarithmic Functions

Learn about undoing exponential functions, graphing the inverse of an exponential or logarithmic function, and using the common and natural logarithm.

Duration: 0 hrs 35 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: Logarithmic Functions

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

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 6: GRAPHS OF LOGARITHMIC FUNCTIONS

### Study: Graphs of Logarithmic Functions

Learn about the shape of graphs of logarithmic functions with various bases and about the domain and range of logarithmic functions.

Duration: 0 hrs 35 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: Graphs of Logarithmic Functions

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

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 7: MORE ON GRAPHS OF LOGARITHMIC FUNCTIONS

### Study: More on Graphs of Logarithmic Functions

Learn the graphs of key logarithmic functions.

Duration: 0 hrs 40 mins

### Checkup: Practice Problems

Complete a set of practice problems on graphs of logarithmic functions.

Duration: 0 hrs 25 mins

### Quiz: More on Graphs of Logarithmic Functions

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 8: PROPERTIES OF EXPONENTS AND LOGARITHMS

### Study: Properties of Exponents and Logarithms

Learn about product, quotient, and power laws of exponents; rewriting the log of a product as the sum of two logs; rewriting the log of a quotient as the difference of two logs; simplifying the log of a power; and using the change-of-base formula to rewrite logarithms.

Duration: 0 hrs 35 mins Scoring: 0 points

### Checkpoint: Practice Problems

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

Duration: 0 hrs 25 mins Scoring: 0 points

### Quiz: Equivalent Exponential Expressions

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

Duration: 0 hrs 20 mins Scoring: 20 points

### Quiz: Equivalent Logarithmic Expressions

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

Duration: 0 hrs 20 mins Scoring: 20 points

### Quiz: Evaluating Logarithms

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

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 9: SOLVING EXPONENTIAL EQUATIONS

### Study: Solving Exponential Equations

Learn about using ordinary algebra and the properties of logarithms to solve exponential equations. Answer questions inspired by the classic chessboard problem.

Duration: 0 hrs 35 mins Scoring: 0 points

### Checkpoint: Practice Problems

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

Duration: 0 hrs 25 mins Scoring: 0 points

### Quiz: Solving Exponential Equations

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

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 10: SOLVING LOGARITHMIC EQUATIONS

### Study: Solving Logarithmic Equations

Learn about using ordinary algebra and the definition of a logarithm to solve logarithmic equations. Answer questions about energy in earthquakes.

Duration: 0 hrs 35 mins Scoring: 0 points

### Checkpoint: Practice Problems

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

Duration: 0 hrs 25 mins Scoring: 0 points

### Quiz: Solving Logarithmic Equations

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

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 11: APPLICATIONS OF LOGARITHMS

### Study: Applications of Logarithms

Solve application problems involving exponential and logarithmic expressions.

Duration: 0 hrs 35 mins

### Checkpoint: Practice Problems

Complete a set of practice problems on applications of logarithms.

Duration: 0 hrs 25 mins

### Quiz: Applications of Logarithms

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

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 12: COMPARING AND ANALYZING FUNCTION TYPES

### Study: Comparing and Analyzing Function Types

Apply transformations to a variety of function families.

Duration: 0 hrs 35 mins Scoring: 0 points

### Checkpoint: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 25 mins Scoring: 0 points

### Quiz: Comparing and Analyzing Function Types

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

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 13: EXPONENTS, LOGARITHMS, & THEIR GRAPHS WRAP-UP

### Checkpoint: Practice Problems

Submit your work for a set of 20 practice problems.

Duration: 0 hrs 25 mins

### Review: Exponents, Logarithms, & Their Graphs

Get ready for the unit test by reviewing important ideas and skills.

Duration: 0 hrs 20 mins Scoring: 0 points

### Test (CS): Exponents, Logarithms, & Their Graphs

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

Duration: 0 hrs 40 mins Scoring: 40 points

### Test (TS): Exponents, Logarithms, & Their Graphs

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

Duration: 0 hrs 30 mins Scoring: 50 points

## UNIT 10: BIVARIATE DATA

### LESSON 1: CORRELATION COEFFICIENTS

#### Study: Correlation Coefficients

Learn how to calculate and interpret Pearson's sample correlation coefficient.

Duration: 0 hrs 40 mins Scoring: 0 points

#### Checkpoint: Practice Problems

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

Duration: 0 hrs 25 mins Scoring: 0 points

#### Quiz: Correlation Coefficients

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 20 points

### LESSON 2: LINEAR REGRESSION

#### Study: Linear Regression

Learn how to calculate a linear regression equation, interpret the slope and intercept in context, and identify influential points (compared to large residuals).

Duration: 0 hrs 40 mins Scoring: 0 points

#### Checkpoint: Practice Problems

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

Duration: 0 hrs 25 mins Scoring: 0 points

### Quiz: Linear Regression

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 3: ASSESSING LINEAR REGRESSION

### Study: Assessing Linear Regression

Learn how to interpret correlation coefficients ( $r$ -values), coefficients of determination ( $r^2$ -values), and residual plots.

Duration: 0 hrs 40 mins Scoring: 0 points

### Checkpoint: Practice Problems

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

Duration: 0 hrs 25 mins Scoring: 0 points

### Quiz: Assessing Linear Regression

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 4: NONLINEAR REGRESSION

### Study: Nonlinear Regression

Learn how to apply nonlinear regression.

Duration: 0 hrs 40 mins Scoring: 0 points

### Checkpoint: Practice Problems

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

Duration: 0 hrs 25 mins Scoring: 0 points

### Quiz: Nonlinear Regression

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 20 points

## LESSON 5: BIVARIATE DATA WRAP-UP

### Checkpoint: Practice Problems

Submit your work for a set of 20 practice problems.

Duration: 0 hrs 25 mins Scoring: 0 points

### Review: Bivariate Data

Prepare for the unit test by reviewing key concepts and skills.

Duration: 0 hrs 30 mins Scoring: 0 points

### Test (CS): Bivariate Data

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

Duration: 0 hrs 40 mins Scoring: 40 points

### Test (TS): Bivariate Data

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

Duration: 0 hrs 30 mins Scoring: 50 points

## UNIT 11: SEMESTER 2 REVIEW AND EXAM

### LESSON 1: SEMESTER 2 REVIEW AND EXAM

#### Review: Semester 2 Review

Get ready for the semester exam by reviewing important ideas 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: 175 points

