

Math 8 delivers instruction, practice, and review designed to develop computational fluency, deepen conceptual understanding, and apply mathematical practices. In this course, students focus on understanding functions — what they are, how to represent them in different ways, and how to write them to model mathematical and real-world situations. In particular, students investigate linear functions by learning about slope and slope-intercept form. Students' understanding of linear functions is extended to statistics, where they make scatter plots and use linear functions to model data. They solve linear equations and equations involving roots, and explore systems of linear equations. Additional topics include exponents, powers of ten, scientific notation, and irrational numbers. Students learn about transformations, and extend that understanding to an investigation of congruence and similarity. Other geometric concepts explored include the Pythagorean theorem, angle relationships, and volumes of cylinders, cones, and spheres.

The two-semester course is arranged in themed units, each with three to five lessons. Each lesson includes a variety of activities such as direct instruction, application of skills, performance tasks, and formative and summative assessments. Students engage with the subject matter in an interactive, feedback-rich environment as they progress through standards-aligned content and demonstrate their learning through computer- and teacher-scored assignments. By constantly honing the ability to apply their knowledge in abstract and real-world scenarios, students build the depth of knowledge and higher-order skills required to demonstrate their mastery when put to the test.

This course is built to state standards.

Length: Two semesters

## UNIT 1: THE NUMBER SYSTEM

### LESSON 1: RATIONAL AND IRRATIONAL NUMBERS

#### Study: Rational and Irrational Numbers

Learn how to distinguish irrational and rational numbers. Rewrite terminating and repeating decimals as fractions. Rewrite fractions, including mixed numbers, as decimals.

Duration: 1 hr Scoring: 0 points

#### Checkup: Rational and Irrational Numbers

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

#### Review: Rational and Irrational Numbers

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

#### Practice: Rational and Irrational Numbers

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

#### Quiz: Rational and Irrational Numbers

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

### LESSON 2: APPROXIMATING IRRATIONAL NUMBERS

#### Study: Approximating Irrational Numbers

Work with approximations of decimal numbers, including pi and square roots of non-perfect squares. Place irrational numbers in order using a number line.

Duration: 1 hr Scoring: 0 points

**Checkpoint: Approximating Irrational Numbers**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Approximating Irrational Numbers**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**Practice: Approximating Irrational Numbers**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

**Quiz: Approximating Irrational Numbers**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

**LESSON 3: PROPERTIES OF EXPONENTS****Study: Properties of Exponents**

Learn important properties of exponents. Explore negative exponents and zero exponents. Simplify expressions with exponents.

Duration: 1 hr Scoring: 0 points

**Checkpoint: Properties of Exponents**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Properties of Exponents**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**Practice: Properties of Exponents**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

**Quiz: Properties of Exponents**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

**LESSON 4: POWERS OF 10****Study: Powers of 10**

Practice multiplying or dividing a number by a power of ten. Use powers of ten to estimate very large and very small numbers.

Duration: 1 hr Scoring: 0 points

**Checkpoint: Powers of 10**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Powers of 10**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**Practice: Powers of 10**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

**Quiz: Powers of 10**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

## LESSON 5: SCIENTIFIC NOTATION

### Study: Scientific Notation

Use scientific notation to represent very large and very small numbers. Convert numbers from scientific to standard notation and vice-versa. Solve real-world problems by multiplying and dividing numbers in scientific notation.

Duration: 1 hr Scoring: 0 points

### Checkup: Scientific Notation

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### Review: Scientific Notation

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### Practice: Scientific Notation

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

### Quiz: Scientific Notation

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

## LESSON 6: WRAP-UP: THE NUMBER SYSTEM

### Review: The Number System

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

Duration: 0 hrs 30 mins Scoring: 0 points

### Test (CS): The Number System

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

Duration: 0 hrs 45 mins Scoring: 30 points

## UNIT 2: FUNCTIONS

### LESSON 1: FUNCTIONS AND RELATIONS

#### Study: Functions and Relations

Learn definitions of relations and functions. Use the vertical line test and other methods to tell whether a relation is a function.

Duration: 1 hr Scoring: 0 points

#### Checkup: Functions and Relations

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

#### Review: Functions and Relations

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

#### Practice: Functions and Relations

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

#### Quiz: Functions and Relations

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

### LESSON 2: SLOPE

#### Study: Slope

Explore the slopes of lines. Use the slope formula to calculate the slope of a line. Write equations for lines using  $y = mx + b$  form.

Duration: 1 hr Scoring: 0 points

### **Checkpoint: Slope**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### **Review: Slope**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### **Practice: Slope**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

### **Quiz: Slope**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

## **LESSON 3: SLOPE AND UNIT RATE**

### **Study: Slope and Unit Rate**

Represent proportions in different ways. Learn how to identify the graph of a proportional relationship and to use a graph to find the unit rate.

Duration: 1 hr Scoring: 0 points

### **Checkpoint: Slope and Unit Rate**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### **Review: Slope and Unit Rate**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### **Practice: Slope and Unit Rate**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

### **Quiz: Slope and Unit Rate**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

## **LESSON 4: GRAPHS OF FUNCTIONS**

### **Study: Graphs of Functions**

Show how graphs can be used to represent real-world situations. Interpret increasing, decreasing, flat, and curved sections of graphs.

Duration: 1 hr Scoring: 0 points

### **Checkpoint: Graphs of Functions**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### **Review: Graphs of Functions**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### **Practice: Graphs of Functions**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

### **Quiz: Graphs of Functions**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

## LESSON 5: WRAP-UP: FUNCTIONS

### Review: Functions

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

Duration: 0 hrs 30 mins Scoring: 0 points

### Test (CS): Functions

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

Duration: 0 hrs 45 mins Scoring: 30 points

## UNIT 3: LINEAR FUNCTIONS

### LESSON 1: SLOPE-INTERCEPT FORM

#### Study: Slope-Intercept Form

Identify the slope and y-intercept from a linear equation in slope-intercept form. Determine whether the equation or formula modeling a real-world situation would be linear or nonlinear.

Duration: 1 hr Scoring: 0 points

#### Checkup: Slope-Intercept Form

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

#### Review: Slope-Intercept Form

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

#### Practice: Slope-Intercept Form

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

#### Quiz: Slope-Intercept Form

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

### LESSON 2: SLOPE AND RATE OF CHANGE

#### Study: Slope and Rate of Change

Given two points on a line, write an equation for the line. Write linear equations to model real-world situations. Interpret the slope and y-intercept of a linear equation that represents a real-world context.

Duration: 1 hr Scoring: 0 points

#### Checkup: Slope and Rate of Change

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

#### Practice: Slope and Rate of Change

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

#### Quiz: Slope and Rate of Change

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

### LESSON 3: COMPARING FUNCTIONS

#### Study: Comparing Functions

Compare properties of functions, including starting values and rates of change, for functions that are represented in different ways. Representations include tables, graphs, and equations.

Duration: 1 hr Scoring: 0 points

**Checkpoint: Comparing Functions**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Comparing Functions**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**Practice: Comparing Functions**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

**Quiz: Comparing Functions**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

**LESSON 4: WRITING LINEAR FUNCTIONS****Study: Writing Linear Functions**

Write equations to represent linear relationships given different representations: (a) a graph, (b) a table, (c) a verbal statement, and (d) a numerical representation.

Duration: 1 hr Scoring: 0 points

**Checkpoint: Writing Linear Functions**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Writing Linear Functions**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**Practice: Writing Linear Functions**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

**Quiz: Writing Linear Functions**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

**LESSON 5: WRAP-UP: LINEAR FUNCTIONS****Review: Linear Functions**

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

Duration: 0 hrs 30 mins Scoring: 0 points

**Test (CS): Linear Functions**

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

Duration: 0 hrs 45 mins Scoring: 30 points

**UNIT 4: SOLVING EQUATIONS****LESSON 1: SOLVING LINEAR EQUATIONS****Study: Solving Linear Equations**

Review methods for solving linear equations. Solve equations, including ones with variables on both sides. Determine whether an equation has 0, 1, or infinitely many solutions.

Duration: 1 hr Scoring: 0 points

**Checkpoint: Solving Linear Equations**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Solving Linear Equations**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**Practice: Solving Linear Equations**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

**Quiz: Solving Linear Equations**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

**LESSON 2: SOLVING SYSTEMS OF LINEAR EQUATIONS BY GRAPHING****Study: Solving Systems of Linear Equations by Graphing**

Learn what makes up a system of linear equations. Explore different ways to solve a system, including graphing, elimination, and substitution.

Duration: 1 hr Scoring: 0 points

**Checkpoint: Solving Systems of Linear Equations by Graphing**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Practice: Solving Systems of Linear Equations by Graphing**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

**Quiz: Solving Systems of Linear Equations by Graphing**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

**LESSON 3: SOLVING SYSTEMS OF LINEAR EQUATIONS BY SUBSTITUTION****Study: Solving Systems of Linear Equations by Substitution**

Learn what makes up a system of linear equations. Explore different ways to solve a system, including graphing, elimination, and substitution.

Duration: 1 hr Scoring: 0 points

**Checkpoint: Solving Systems of Linear Equations by Substitution**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Solving Systems of Linear Equations by Substitution**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**Practice: Solving Systems of Linear Equations by Substitution**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

**Quiz: Solving Systems of Linear Equations by Substitution**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

**LESSON 4: SOLVING SYSTEMS OF LINEAR EQUATIONS BY ELIMINATION****Study: Solving Systems of Linear Equations by Elimination**

Learn what makes up a system of linear equations. Explore different ways to solve a system, including graphing, elimination, and substitution.

Duration: 1 hr Scoring: 0 points

**Checkpoint: Solving Systems of Linear Equations by Elimination**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### **Practice: Solving Systems of Linear Equations by Elimination**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

### **Quiz: Solving Systems of Linear Equations by Elimination**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

## **LESSON 5: SOLVING EQUATIONS USING ROOTS**

### **Study: Solving Equations Using Roots**

See how to use square roots and cube roots to solve equations. Use roots to solve real-world problems.

Duration: 1 hr Scoring: 0 points

### **Checkup: Solving Equations Using Roots**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### **Review: Solving Equations Using Roots**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### **Practice: Solving Equations Using Roots**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

### **Quiz: Solving Equations Using Roots**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

## **LESSON 6: WRAP-UP: SOLVING EQUATIONS**

### **Review: Solving Equations**

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

Duration: 0 hrs 30 mins Scoring: 0 points

### **Test (CS): Solving Equations**

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

Duration: 0 hrs 45 mins Scoring: 30 points

## **UNIT 5: SEMESTER WRAP-UP**

### **LESSON 1: SEMESTER WRAP-UP**

#### **Review: Semester Review**

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

Duration: 0 hrs 30 mins Scoring: 0 points

#### **Exam: Semester Exam**

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

Duration: 1 hr 15 mins Scoring: 50 points

## **UNIT 6: GEOMETRY AND MEASUREMENT**

### **LESSON 1: THE PYTHAGOREAN THEOREM**

#### **Study: The Pythagorean Theorem**

Learn the Pythagorean theorem and see different proofs that justify it. Given two side lengths in a right triangle, use the Pythagorean theorem to solve for the length of the third side.

Duration: 1 hr Scoring: 0 points

**Checkup: The Pythagorean Theorem**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: The Pythagorean Theorem**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**Practice: The Pythagorean Theorem**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

**Quiz: The Pythagorean Theorem**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

**LESSON 2: THE CONVERSE OF THE PYTHAGOREAN THEOREM****Study: The Converse of the Pythagorean Theorem**

See that the converse of the Pythagorean theorem is also true, and is used to test whether a triangle is a right triangle. Use the converse to test for right triangles. Investigate Pythagorean triples.

Duration: 1 hr Scoring: 0 points

**Checkup: The Converse of the Pythagorean Theorem**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: The Converse of the Pythagorean Theorem**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**Practice: The Converse of the Pythagorean Theorem**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

**Quiz: The Converse of the Pythagorean Theorem**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

**LESSON 3: DISTANCE ON THE COORDINATE PLANE****Study: Distance on the Coordinate Plane**

Review how to find distances between horizontally- and vertically-aligned points on a coordinate plane. Use the Pythagorean theorem to find distances between points that are not aligned.

Duration: 1 hr Scoring: 0 points

**Checkup: Distance on the Coordinate Plane**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Distance on the Coordinate Plane**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**Practice: Distance on the Coordinate Plane**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

**Quiz: Distance on the Coordinate Plane**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

## LESSON 4: VOLUME OF CYLINDERS

### Study: Volume of Cylinders

Explore the volume formulas for cylinders. Find volumes to solve mathematical and real-world problems. Compare volumes of cylinders with similar dimensions.

Duration: 1 hr Scoring: 0 points

### Checkup: Volume of Cylinders

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### Practice: Volume of Cylinders

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

### Quiz: Volume of Cylinders

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

## LESSON 5: VOLUME OF CONES

### Study: Volume of Cones

Explore the relationship between the volume of a cylinder and the volume of a cone. Find volumes to solve mathematical and real-world problems involving cones and composite solids.

Duration: 1 hr Scoring: 0 points

### Checkup: Volume of Cones

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### Review: Volume of Cones

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### Practice: Volume of Cones

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

### Quiz: Volume of Cones

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

## LESSON 6: VOLUME OF SPHERES

### Study: Volume of Spheres

Learn the volume formula for a sphere. Find the volume of a sphere given its radius and vice-versa. Solve problems involving volumes of planets and moons.

Duration: 1 hr Scoring: 0 points

### Checkup: Volume of Spheres

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### Review: Volume of Spheres

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### Practice: Volume of Spheres

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

### Quiz: Volume of Spheres

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

## LESSON 7: WRAP-UP: THREE-DIMENSIONAL GEOMETRY

### Review: Geometry and Measurement

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

Duration: 0 hrs 30 mins Scoring: 0 points

### Test (CS): Geometry and Measurement

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

Duration: 0 hrs 45 mins Scoring: 30 points

## UNIT 7: TRANSFORMATIONS, CONGRUENCE, AND SIMILARITIES, PART 1

### LESSON 1: BASICS OF TRANSFORMATIONS

#### Study: Basics of Transformations

Learn about three transformations: translations, reflections, and rotations. Investigate transformations of line segments, lines, and parallel lines.

Duration: 1 hr Scoring: 0 points

#### Checkup: Basics of Transformations

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

#### Review: Basics of Transformations

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

#### Practice: Basics of Transformations

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

#### Quiz: Basics of Transformations

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

### LESSON 2: TRANSFORMATIONS AND CONGRUENCE

#### Study: Transformations and Congruence

Discover that figures are congruent if there is a series of translations, rotations, and reflections that moves one onto the other. Write congruence statements that show the correspondence between vertices of congruent figures.

Duration: 1 hr Scoring: 0 points

#### Checkup: Transformations and Congruence

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

#### Review: Transformations and Congruence

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

#### Practice: Transformations and Congruence

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

#### Quiz: Transformations and Congruence

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

### LESSON 3: TRANSLATIONS AND REFLECTIONS ON THE COORDINATE PLANE

### **Study: Translations and Reflections on the Coordinate Plane**

Investigate transformations using coordinates. Learn and apply mathematical rules to describe translations and reflections.

Duration: 1 hr Scoring: 0 points

### **Checkup: Translations and Reflections on the Coordinate Plane**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### **Practice: Translations and Reflections on the Coordinate Plane**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

### **Quiz: Translations and Reflections on the Coordinate Plane**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

## **LESSON 4: ROTATIONS ON THE COORDINATE PLANE**

### **Study: Rotations on the Coordinate Plane**

Investigate transformations using coordinates. Learn and apply mathematical rules to describe rotations.

Duration: 1 hr Scoring: 0 points

### **Checkup: Rotations on the Coordinate Plane**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### **Review: Rotations on the Coordinate Plane**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### **Practice: Rotations on the Coordinate Plane**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

### **Quiz: Rotations on the Coordinate Plane**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

## **LESSON 5: WRAP-UP: TRANSFORMATIONS, CONGRUENCE, AND SIMILARITY, PART 1**

### **Review: Transformations, Congruence, and Similarity, Part 1**

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

Duration: 0 hrs 30 mins Scoring: 0 points

### **Test (CS): Transformations, Congruence, and Similarity, Part 1**

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

Duration: 0 hrs 45 mins Scoring: 30 points

## **UNIT 8: TRANSFORMATIONS, CONGRUENCE, AND SIMILARITIES, PART 2**

### **LESSON 1: SIMILARITY AND DILATIONS**

#### **Study: Similarity and Dilations**

Learn about what makes figures similar, and the relationship between similar figures and dilations. Find the coordinates of the vertices of the dilation of a figure. Explore movements of figures under multiple transformations.

Duration: 1 hr Scoring: 0 points

#### **Checkup: Similarity and Dilations**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Similarity and Dilations**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**Practice: Similarity and Dilations**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

**Quiz: Similarity and Dilations**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

**LESSON 2: PARALLEL LINES AND ANGLE RELATIONSHIPS****Study: Parallel Lines and Angle Relationships**

Investigate the angles formed when lines are cut by a transversal. Use angle relationships to decide whether lines are parallel and to find unknown angle measures.

Duration: 1 hr Scoring: 0 points

**Checkup: Parallel Lines and Angle Relationships**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Parallel Lines and Angle Relationships**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**Practice: Parallel Lines and Angle Relationships**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

**Quiz: Parallel Lines and Angle Relationships**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

**LESSON 3: ANGLE RELATIONSHIPS IN TRIANGLES****Study: Angle Relationships in Triangles**

Discover that the sum of the angle measures in a triangle is always the same. Find the relationship between the measures of an exterior angle of a triangle and its remote interior angles. Use these properties to find unknown angle measures.

Duration: 1 hr Scoring: 0 points

**Checkup: Angle Relationships in Triangles**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Angle Relationships in Triangles**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**Practice: Angle Relationships in Triangles**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

**Quiz: Angle Relationships in Triangles**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

**LESSON 4: WRAP-UP: TRANSFORMATIONS, CONGRUENCE, AND SIMILARITIES, PART 2****Review: Transformations, Congruence, and Similarities, Part 2**

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

Duration: 0 hrs 30 mins Scoring: 0 points

### **Test (CS): Transformations, Congruence, and Similarities, Part 2**

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

Duration: 0 hrs 45 mins Scoring: 30 points

## **UNIT 9: INTRODUCTION TO STATISTICS**

### **LESSON 1: SCATTERPLOTS**

#### **Study: Scatterplots**

See how scatterplots are used to show paired data. Look for patterns and relationships in scatterplots, and identify the association, if any, shown in the data.

Duration: 1 hr Scoring: 0 points

#### **Checkpoint: Scatterplots**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

#### **Review: Scatterplots**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

#### **Practice: Scatterplots**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

#### **Quiz: Scatterplots**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

### **LESSON 2: LINEAR MODELS IN DATA**

#### **Study: Linear Models in Data**

Draw trend lines to approximate data on scatterplots. Write equations for trend lines and use those equations to make predictions.

Duration: 1 hr Scoring: 0 points

#### **Checkpoint: Linear Models in Data**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

#### **Review: Linear Models in Data**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

#### **Practice: Linear Models in Data**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

#### **Quiz: Linear Models in Data**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

### **LESSON 3: FREQUENCY TABLES**

#### **Study: Frequency Tables**

Build two-way frequency tables and relative frequency tables. Interpret the data in tables and compare relative frequencies.

Duration: 1 hr Scoring: 0 points

**Checkpoint: Frequency Tables**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Frequency Tables**

Review important ideas and skills from this lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**Practice: Frequency Tables**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 10 points

**Quiz: Frequency Tables**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 15 mins Scoring: 10 points

**LESSON 4: WRAP-UP: INTRODUCTION TO STATISTICS****Review: Introduction to Statistics**

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

Duration: 0 hrs 30 mins Scoring: 0 points

**Test (CS): Introduction to Statistics**

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

Duration: 0 hrs 45 mins Scoring: 30 points

**UNIT 10: SEMESTER 2 EXAM****LESSON 1: SEMESTER WRAP UP****Review: Semester Review**

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

Duration: 0 hrs 30 mins Scoring: 0 points

**Exam: Semester Exam**

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

Duration: 1 hr 15 mins Scoring: 50 points