

Math 7 delivers instruction, practice, and review designed to develop computational fluency, deepen conceptual understanding, and apply mathematical practices. Throughout the course, students gain a deep understanding of proportions and their use in solving problems. They extend their fluency with operations on rational numbers and translate among different forms of rational numbers. Algebra topics include simplifying and rewriting algebraic expressions and solving more complex equations and inequalities. Students also sketch geometric figures and explore scale drawings, investigate circle properties and angle relationships, and deepen their understanding of area, volume, and surface area. They see how statistics uses sample data to make predictions about populations and compare data from different data sets. Students gain a fundamental understanding of probability and explore different ways to find or estimate probabilities.

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: RATE, RATIO, AND PROPORTION

### LESSON 1: UNIT RATES

#### Study: Unit Rates

Compute unit rates and use them to solve problems.

Duration: 0 hrs 40 mins Scoring: 0 points

#### Checkpoint: Unit Rates

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

#### Review: Unit Rates

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

#### Practice: Unit Rates

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

#### Quiz: Unit Rates

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

### LESSON 2: IDENTIFYING PROPORTIONAL RELATIONSHIPS

#### Study: Identifying Proportional Relationships

Know how to identify proportional quantities by looking for constant ratios and by graphing.

Duration: 0 hrs 40 mins Scoring: 0 points

#### Checkpoint: Identifying Proportional Relationships

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Identifying Proportional Relationships**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

**Practice: Identifying Proportional Relationships**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

**Quiz: Identifying Proportional Relationships**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

**LESSON 3: ANALYZING PROPORTIONAL RELATIONSHIPS****Study: Analyzing Proportional Relationships**

Understand the importance of the constant of proportionality. Find the constant of proportionality from a table, a graph, or an equation.

Duration: 0 hrs 40 mins Scoring: 0 points

**Checkup: Analyzing Proportional Relationships**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Analyzing Proportional Relationships**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

**Practice: Analyzing Proportional Relationships**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

**Quiz: Analyzing Proportional Relationships**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

**LESSON 4: REPRESENTING PROPORTIONAL RELATIONSHIPS****Study: Representing Proportional Relationships**

Interpret proportional relationships from a graph. Know how to interpret points on the graph of a proportion.

Duration: 0 hrs 40 mins Scoring: 0 points

**Checkup: Representing Proportional Relationships**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Representing Proportional Relationships**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

**Practice: Representing Proportional Relationships**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

**Quiz: Representing Proportional Relationships**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

**LESSON 5: USING PROPORTIONS TO SOLVE PROBLEMS****Study: Using Proportions to Solve Problems**

Use proportions to solve problems involving percents. Find a percent of increase or decrease, and calculate taxes and discounts.

Duration: 0 hrs 40 mins Scoring: 0 points

#### **Checkpoint: Using Proportions to Solve Problems**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

#### **Review: Using Proportions to Solve Problems**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

#### **Practice: Using Proportions to Solve Problems**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

#### **Quiz: Using Proportions to Solve Problems**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

### **LESSON 6: WRAP-UP: RATE, RATIO, AND PROPORTION**

#### **Review: Rate, Ratio, and Proportion**

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

Duration: 0 hrs 20 mins Scoring: 0 points

#### **Test (CS): Rate, Ratio, and Proportion**

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

Duration: 0 hrs 45 mins Scoring: 32 points

## **UNIT 2: ADDITION AND SUBTRACTION OF RATIONAL NUMBERS**

### **LESSON 1: ADDING RATIONAL NUMBERS**

#### **Study: Adding Rational Numbers**

Add positive and negative rational numbers. Use a number line to show addition of signed numbers.

Duration: 0 hrs 40 mins Scoring: 0 points

#### **Checkpoint: Adding Rational Numbers**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

#### **Review: Adding Rational Numbers**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

#### **Practice: Adding Rational Numbers**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

#### **Quiz: Adding Rational Numbers**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

### **LESSON 2: SUBTRACTING RATIONAL NUMBERS**

#### **Study: Subtracting Rational Numbers**

See that subtracting a number is the same as adding its opposite. Use subtraction of rational numbers, including signed numbers, to solve problems.

Duration: 0 hrs 40 mins Scoring: 0 points

**Checkpoint: Subtracting Rational Numbers**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Subtracting Rational Numbers**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

**Practice: Subtracting Rational Numbers**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

**Quiz: Subtracting Rational Numbers**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

**LESSON 3: USING PROPERTIES TO ADD AND SUBTRACT RATIONAL NUMBERS****Study: Using Properties to Add and Subtract Rational Numbers**

Use the commutative, associative, and distributive properties in addition problems. Apply these properties to make problems simpler, rewriting subtraction as addition of the opposite when necessary.

Duration: 0 hrs 40 mins Scoring: 0 points

**Checkpoint: Using Properties to Add and Subtract Rational Numbers**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Using Properties to Add and Subtract Rational Numbers**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

**Practice: Using Properties to Add and Subtract Rational Numbers**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

**Quiz: Using Properties to Add and Subtract Rational Numbers**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

**LESSON 4: WRAP-UP: ADDITION AND SUBTRACTION OF RATIONAL NUMBERS****Review: Addition and Subtraction of Rational Numbers**

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

Duration: 0 hrs 20 mins Scoring: 0 points

**Test (CS): Addition and Subtraction of Rational Numbers**

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

Duration: 0 hrs 45 mins Scoring: 20 points

**UNIT 3: MULTIPLICATION AND DIVISION OF RATIONAL NUMBERS****LESSON 1: MULTIPLYING RATIONAL NUMBERS****Study: Multiplying Rational Numbers**

Discover the rules for multiplying signed numbers. Solve problems involving multiplication of rational numbers. Given an equation, write a problem it could model.

Duration: 0 hrs 40 mins Scoring: 0 points

**Checkpoint: Multiplying Rational Numbers**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### **Review: Multiplying Rational Numbers**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

### **Practice: Multiplying Rational Numbers**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

### **Quiz: Multiplying Rational Numbers**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

## **LESSON 2: DIVIDING RATIONAL NUMBERS**

### **Study: Dividing Rational Numbers**

Learn that the sign rules for division are the same as the rules for multiplication. Understand how to divide fractions, and that division by 0 is undefined.

Duration: 0 hrs 40 mins Scoring: 0 points

### **Checkpoint: Dividing Rational Numbers**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### **Review: Dividing Rational Numbers**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

### **Practice: Dividing Rational Numbers**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

### **Quiz: Dividing Rational Numbers**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

## **LESSON 3: USING PROPERTIES TO MULTIPLY AND DIVIDE RATIONAL NUMBERS**

### **Study: Using Properties to Multiply and Divide Rational Numbers**

Learn how to use properties when multiplying and dividing signed numbers. See how to rewrite division as multiplication by the reciprocal. Apply properties to make multiplication simpler.

Duration: 0 hrs 40 mins Scoring: 0 points

### **Checkpoint: Using Properties to Multiply and Divide Rational Numbers**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### **Review: Using Properties to Multiply and Divide Rational Numbers**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

### **Practice: Using Properties to Multiply and Divide Rational Numbers**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

### **Quiz: Using Properties to Multiply and Divide Rational Numbers**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

## LESSON 4: EXPRESSING RATIONAL NUMBERS IN DECIMAL FORM

### Study: Expressing Rational Numbers in Decimal Form

Use division to rewrite fractions as decimals. See that this division may result in a repeating decimal, and learn how to write repeating decimals. Understand that some numbers are not rational.

Duration: 0 hrs 40 mins Scoring: 0 points

### Checkpoint: Expressing Rational Numbers in Decimal Form

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### Review: Expressing Rational Numbers in Decimal Form

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

### Practice: Expressing Rational Numbers in Decimal Form

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

### Quiz: Expressing Rational Numbers in Decimal Form

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

## LESSON 5: USING OPERATIONS ON RATIONAL NUMBERS TO SOLVE PROBLEMS

### Study: Using Operations on Rational Numbers to Solve Problems

Use the order of operations to simplify expressions with rational numbers. Solve real-world and mathematical problems involving multiplication, division, addition, and subtraction.

Duration: 0 hrs 40 mins Scoring: 0 points

### Checkpoint: Using Operations on Rational Numbers to Solve Problems

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### Review: Using Operations on Rational Numbers to Solve Problems

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

### Practice: Using Operations on Rational Numbers to Solve Problems

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

### Quiz: Using Operations on Rational Numbers to Solve Problems

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

## LESSON 6: WRAP-UP: MULTIPLICATION AND DIVISION OF RATIONAL NUMBERS

### Review: Multiplication and Division of Rational Numbers

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

Duration: 0 hrs 20 mins Scoring: 0 points

### Test (CS): Multiplication and Division of Rational Numbers

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

Duration: 0 hrs 45 mins Scoring: 34 points

## UNIT 4: FOUNDATIONS OF ALGEBRA

### LESSON 1: SIMPLIFYING AND REWRITING ALGEBRAIC EXPRESSIONS

#### Study: Simplifying and Rewriting Algebraic Expressions

Learn how to simplify algebraic expressions by combining like terms. Add, subtract, factor, and expand linear expressions.

Duration: 0 hrs 40 mins Scoring: 0 points

#### **Checkpoint: Simplifying and Rewriting Algebraic Expressions**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

#### **Review: Simplifying and Rewriting Algebraic Expressions**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

#### **Practice: Simplifying and Rewriting Algebraic Expressions**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

#### **Quiz: Simplifying and Rewriting Algebraic Expressions**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

### **LESSON 2: SOLVING MULTI-STEP PROBLEMS WITH RATIONAL NUMBERS**

#### **Study: Solving Multi-Step Problems with Rational Numbers**

Solve algebraic and real-world multi-step problems. Problems include mixed numbers, decimals, and signed numbers, and require the correct use of mathematical properties and the order of operations.

Duration: 0 hrs 40 mins Scoring: 0 points

#### **Checkpoint: Solving Multi-Step Problems with Rational Numbers**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

#### **Review: Solving Multi-Step Problems with Rational Numbers**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

#### **Practice: Solving Multi-Step Problems with Rational Numbers**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

#### **Quiz: Solving Multi-Step Problems with Rational Numbers**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

### **LESSON 3: SOLVING TWO-STEP EQUATIONS**

#### **Study: Solving Two-Step Equations**

Solve two-step problems arithmetically by reversing the operations and their order. Develop and use an algebraic method to solve two-step equations by using inverse operations.

Duration: 0 hrs 40 mins Scoring: 0 points

#### **Checkpoint: Solving Two-Step Equations**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

#### **Review: Solving Two-Step Equations**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

#### **Practice: Solving Two-Step Equations**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

### Quiz: Solving Two-Step Equations

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

## LESSON 4: SOLVING LINEAR INEQUALITIES

### Study: Solving Linear Inequalities

Write inequalities to represent problems. Solve inequalities algebraically and show the solutions on a number line. See that multiplying or dividing both sides of an inequality by a negative number reverses the inequality sign.

Duration: 0 hrs 40 mins Scoring: 0 points

### Checkpoint: Solving Linear Inequalities

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### Review: Solving Linear Inequalities

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

### Practice: Solving Linear Inequalities

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

### Quiz: Solving Linear Inequalities

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

## LESSON 5: WRAP-UP: FOUNDATIONS OF ALGEBRA

### Review: Foundations of Algebra

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

Duration: 0 hrs 20 mins Scoring: 0 points

### Test (CS): Foundations of Algebra

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

Duration: 0 hrs 45 mins Scoring: 24 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 20 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: 0 hrs 50 mins Scoring: 110 points

## UNIT 6: GEOMETRIC FIGURES

### LESSON 1: SCALE DRAWINGS

#### Study: Scale Drawings

Understand that a scale drawing represents a real object, but is a different size. Know the role of the scale factor. Use scale drawings to compute lengths and areas of real objects.

Duration: 0 hrs 40 mins Scoring: 0 points

#### Checkpoint: Scale Drawings



Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### **Review: Scale Drawings**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

### **Practice: Scale Drawings**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

### **Quiz: Scale Drawings**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

## **LESSON 2: GEOMETRIC DRAWINGS**

### **Study: Geometric Drawings**

Use a protractor and ruler to draw geometric figures. Given three measurements for a triangle, determine whether it is possible to draw 0, 1, or more than one such triangle.

Duration: 0 hrs 40 mins Scoring: 0 points

### **Checkup: Geometric Drawings**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### **Review: Geometric Drawings**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

### **Practice: Geometric Drawings**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

### **Quiz: Geometric Drawings**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

## **LESSON 3: CROSS-SECTIONS OF GEOMETRIC SOLIDS**

### **Study: Cross-Sections of Geometric Solids**

Learn the meaning of the cross-section of a solid. Identify cross-sections for different figures, especially prisms and pyramids.

Duration: 0 hrs 40 mins Scoring: 0 points

### **Checkup: Cross-Sections of Geometric Solids**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### **Review: Cross-Sections of Geometric Solids**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

### **Practice: Cross-Sections of Geometric Solids**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

### **Quiz: Cross-Sections of Geometric Solids**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

## LESSON 4: WRAP-UP: GEOMETRIC FIGURES

### Review: Geometric Figures

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

Duration: 0 hrs 20 mins Scoring: 0 points

### Test (CS): Geometric Figures

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

Duration: 0 hrs 45 mins Scoring: 18 points

## UNIT 7: GEOMETRY IN TWO AND THREE DIMENSIONS

### LESSON 1: CIRCLES

#### Study: Circles

Learn the parts of a circle. Understand the number pi. Learn and apply the circumference and area formulas for a circle.

Duration: 0 hrs 40 mins Scoring: 0 points

#### Checkpoint: Circles

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

#### Review: Circles

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

#### Practice: Circles

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

#### Quiz: Circles

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

### LESSON 2: ANGLE RELATIONSHIPS

#### Study: Angle Relationships

Explore relationships between different types of angles, including vertical, adjacent, complementary, and supplementary angles.

Use these relationships to find unknown angle measures.

Duration: 0 hrs 40 mins Scoring: 0 points

#### Checkpoint: Angle Relationships

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

#### Review: Angle Relationships

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

#### Practice: Angle Relationships

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

#### Quiz: Angle Relationships

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

### LESSON 3: AREA, VOLUME, AND SURFACE AREA

#### Study: Area, Volume, and Surface Area

Explore areas of parallelograms and composite figures. Investigate surface areas and volumes of triangular prisms and

composite solids.

Duration: 0 hrs 40 mins Scoring: 0 points

### **Checkpoint: Area, Volume, and Surface Area**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

### **Review: Area, Volume, and Surface Area**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

### **Practice: Area, Volume, and Surface Area**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

### **Quiz: Area, Volume, and Surface Area**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

## **LESSON 4: WRAP-UP: GEOMETRY IN TWO AND THREE DIMENSIONS**

### **Review: Geometry in Two and Three Dimensions**

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

Duration: 0 hrs 20 mins Scoring: 0 points

### **Test (CS): Geometry in Two and Three Dimensions**

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

Duration: 0 hrs 45 mins Scoring: 20 points

## **UNIT 8: STATISTICS AND SAMPLING**

### **LESSON 1: POPULATIONS AND SAMPLES**

#### **Study: Populations and Samples**

Learn the difference between a population and a statistical sample. Learn about the importance of taking a representative sample, and see how to make predictions based on random samples.

Duration: 0 hrs 40 mins Scoring: 0 points

#### **Checkpoint: Populations and Samples**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

#### **Review: Populations and Samples**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

#### **Practice: Populations and Samples**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

#### **Quiz: Populations and Samples**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

### **LESSON 2: COMPARING DATA SETS VISUALLY**

#### **Study: Comparing Data Sets Visually**

Practice finding the mean absolute deviation (MAD) for a data set. Use the MAD as a way to compare the means of two data sets.

Duration: 0 hrs 40 mins Scoring: 0 points

**Checkpoint: Comparing Data Sets Visually**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Comparing Data Sets Visually**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

**Practice: Comparing Data Sets Visually**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

**Quiz: Comparing Data Sets Visually**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

**LESSON 3: USING STATISTICAL MEASURES TO COMPARE DATA SETS****Study: Using Statistical Measures to Compare Data Sets**

Use means and medians to compare the centers of data sets. Use ranges and MADs to compare the variabilities of data sets. Compare populations based on sample data.

Duration: 0 hrs 40 mins Scoring: 0 points

**Checkpoint: Using Statistical Measures to Compare Data Sets**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Using Statistical Measures to Compare Data Sets**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

**Practice: Using Statistical Measures to Compare Data Sets**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

**Quiz: Using Statistical Measures to Compare Data Sets**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

**LESSON 4: WRAP-UP: STATISTICS AND SAMPLING****Review: Statistics and Sampling**

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

Duration: 0 hrs 20 mins Scoring: 0 points

**Test (CS): Statistics and Sampling**

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

Duration: 0 hrs 45 mins Scoring: 20 points

**UNIT 9: PROBABILITY****LESSON 1: PROBABILITY****Study: Probability**

Understand that the likelihood of an event, called the probability, is a number from 0 (impossible) to 1 (certain). Use the fraction of times an event is observed to estimate its probability.

Duration: 0 hrs 40 mins Scoring: 0 points

**Checkpoint: Probability**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Probability**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

**Practice: Probability**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

**Quiz: Probability**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

**LESSON 2: CALCULATING PROBABILITY**

**Study: Calculating Probability**

Find the probabilities of equally-likely outcomes and events that include more than one equally-likely outcome. Estimate probabilities based on experimental results.

Duration: 0 hrs 40 mins Scoring: 0 points

**Checkpoint: Calculating Probability**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Calculating Probability**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

**Practice: Calculating Probability**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

**Quiz: Calculating Probability**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

**LESSON 3: PROBABILITY OF COMPOUND EVENTS**

**Study: Probability of Compound Events**

Learn the definition of a compound event. Use lists, tables, and tree diagrams to identify the outcomes of a compound event.

Duration: 0 hrs 40 mins Scoring: 0 points

**Checkpoint: Probability of Compound Events**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Probability of Compound Events**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

**Practice: Probability of Compound Events**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

**Quiz: Probability of Compound Events**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

**LESSON 4: SIMULATIONS**

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**Study: Simulations**

See how to use simulations to estimate an unknown probability. Design simulations using coins, number cubes, and random digits.

Duration: 0 hrs 40 mins Scoring: 0 points

**Checkup: Simulations**

Check your understanding of the lesson.

Duration: 0 hrs 20 mins Scoring: 0 points

**Review: Simulations**

Review important ideas and skills from this lesson.

Duration: 0 hrs 5 mins Scoring: 0 points

**Practice: Simulations**

Submit your work for a set of practice problems.

Duration: 0 hrs 30 mins Scoring: 5 points

**Quiz: Simulations**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 10 mins Scoring: 10 points

**LESSON 5: WRAP-UP: PROBABILITY****Review: Probability**

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

Duration: 0 hrs 20 mins Scoring: 0 points

**Test (CS): Probability**

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

Duration: 0 hrs 45 mins Scoring: 28 points

**UNIT 10: 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 20 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: 0 hrs 50 mins Scoring: 86 points