

Based on the NCTM Curricular Focal Points, Math Foundations II is designed to expedite student progress through 6th- to 8th-grade skills. The course is appropriate for use as remediation at the high school level or as a bridge-to-high-school or as middle school curriculum. The program simultaneously builds the computational skills and the conceptual understanding needed to undertake high school-level math courses with confidence.

The course's carefully paced guided instruction is accompanied by interactive practice that is engaging and accessible. Formative assessments help students to understand areas of weakness and improve performance, while summative assessments chart progress and skill development. Early in the course, students develop general strategies to hone their problem-solving skills. Subsequent units provide a problem-solving strand that asks students to practice applying specific math skills to a variety of real-world contexts.

The content is based on the National Council of Teachers of Math (NCTM) April 2006 publication, *Curricular Focal Points for Prekindergarten through Grade 8 Mathematics: A Quest for Coherence* and is aligned to state standards.

Length: Two semesters

UNIT 1: INTEGERS AND OPERATIONS

LESSON 1: NEGATIVE NUMBERS

Study: Negative Numbers

Learn about positive, negative, and opposite numbers, as well as integers and signs.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Negative Numbers

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 9 points

LESSON 2: ABSOLUTE VALUE

Study: Absolute Value

Learn about the absolute value of integers, the definition symbol, and the absolute value of expressions.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Absolute Value

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 3: ADDING AND SUBTRACTING INTEGERS

Study: Adding and Subtracting Integers

Add integers with and without the aid of a number line.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Adding and Subtracting Integers

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 4: MULTIPLYING AND DIVIDING INTEGERS

Study: Multiplying and Dividing Integers

Learn rules for multiplying a positive and negative integer or multiplying two negative integers.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Multiplying and Dividing Integers

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 5: PROPERTIES OF OPERATIONS

Study: Properties of Operations

Learn about the associative, commutative, and distributive properties of addition and multiplication.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Properties of Operations

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 9 points

LESSON 6: ORDER OF OPERATIONS

Study: Order of Operations

Use the order of operations to evaluate expressions.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Order of Operations

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 7: NUMBER LINES AND INEQUALITIES

Study: Number Lines and Inequalities

Define and use a number line. Represent relationships between numbers with inequality symbols.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Number Lines and Inequalities

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 8: PROBLEM SOLVING

Study: Problem Solving

Learn strategies for solving a variety of application problems related to topics in this unit.

Duration: 0 hr 30 min

Practice: Assignment

Submit your work for a set of problem-solving applications.

Duration: 0 hr 30 min Scoring: 30 points

LESSON 9: INTEGERS AND OPERATIONS WRAP-UP

Review: Integers and Operations

Review unit material in preparation for upcoming assessments.

Duration: 0 hr 30 min

Test (CS): Integers and Operations

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

Duration: 0 hr 30 min Scoring: 60 points

Test (TS): Integers and Operations

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

Duration: 0 hr 30 min Scoring: 50 points

LESSON 10: DIAGNOSTIC

Diagnostic: Integers and Operations

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 0 hr 30 min Scoring: 30 points

UNIT 2: FRACTIONS AND OPERATIONS

LESSON 1: FRACTION FUNDAMENTALS

Study: Fraction Fundamentals

Learn about fractions, numerators, denominators, and equivalent fractions.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Fraction Fundamentals

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 2: INTRODUCTION TO FRACTION ARITHMETIC

Study: Introduction to Fraction Arithmetic

Learn about adding and subtracting fractions with like denominators, multiplying a fraction by an integer, and multiplying fractions.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Introduction to Fraction Arithmetic

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 3: EQUIVALENT FRACTIONS

Study: Equivalent Fractions

Learn about building equivalent fractions in order to add and subtract fractions with unlike denominators. Learn about comparing equivalent fractions.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Equivalent Fractions

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 9 points

LESSON 4: SIMPLIFYING FRACTIONS

Study: Simplifying Fractions

Learn about finding common factors; dividing numerators and denominators by a common factor in order to simplify a fraction; putting a fraction in lowest terms; prime and composite numbers; and using a factor tree to find prime factorization.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Simplifying Fractions

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 5: IMPROPER FRACTIONS AND MIXED NUMBERS

Study: Improper Fractions and Mixed Numbers

Learn about proper and improper fractions, writing improper fractions as mixed numbers, and converting mixed numbers to improper fractions.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Improper Fractions and Mixed Numbers

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 6: DIVIDING FRACTIONS

Study: Dividing Fractions

Learn the definition of reciprocals. Learn about finding reciprocals of fractions in order to divide them.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Dividing Fractions

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 7: ADDING AND SUBTRACTING FRACTIONS

Study: Adding and Subtracting Fractions

Learn about the smallest common denominator (the least common multiple of denominators) and about using prime factorization to find the least common multiple.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Adding and Subtracting Fractions

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 8: THE SET OF RATIONAL NUMBERS

Study: The Set of Rational Numbers

Learn about rational and irrational numbers and pi.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Rational Numbers

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 9: PROBLEM SOLVING

Study: Problem Solving

Learn strategies for solving a variety of application problems related to topics in this unit.

Duration: 0 hr 30 min

Practice: Assignment

Submit your work for a set of problem-solving applications.

Duration: 0 hr 30 min Scoring: 30 points

LESSON 10: FRACTIONS AND OPERATIONS WRAP-UP

Review: Fractions and Operations

Review unit material in preparation for upcoming assessments.

Duration: 0 hr 30 min

Test (CS): Fractions and Operations

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

Duration: 0 hr 30 min Scoring: 60 points

Test (TS): Fractions and Operations

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

Duration: 0 hr 30 min Scoring: 50 points

LESSON 11: DIAGNOSTIC

Diagnostic: Fractions and Operations

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 0 hr 30 min Scoring: 30 points

UNIT 3: DECIMALS AND OPERATIONS

LESSON 1: DECIMAL FUNDAMENTALS

Study: Decimal Fundamentals

Review decimals and how to add and subtract them.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Decimal Fundamentals

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 2: MULTIPLYING DECIMALS

Study: Multiplying Decimals

Estimate products of decimal numbers by rounding to a whole number. Learn where to place the decimal point after multiplying decimal numbers. Practice finding the product of decimal numbers.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Multiplying Decimals

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 3: MULTIPLYING DECIMALS AND ADDING ZEROS

Study: Multiplying Decimals and Adding Zeros

Learn about using zero as a place value holder. Practice this skill using a sample problem.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Multiplying Decimals and Adding Zeros

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 4: REPEATING DECIMALS

Study: Repeating Decimals

Use division to convert a fraction to a decimal. Identify repeating decimals and repeating patterns. Learn how to write a repeating decimal so that it has the exact value as its corresponding fraction.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Repeating Decimals

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 5: DIVIDING DECIMALS

Study: Dividing Decimals

Review long division, placing the decimal point in order to divide, adding zeros in order to hold place value, using decimals in order to display remainders, and dividing decimals by decimals. Practice these skills using sample problems.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Dividing Decimals

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 6: ADDING AND SUBTRACTING DECIMALS IN WORD PROBLEMS

Study: Adding and Subtracting Decimals in Word Problems

Review problem-solving steps and converting word problems into number problems with decimals. Practice adding and subtracting decimals using sample problems.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Adding and Subtracting Decimals in Word Problems

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 7: WORD PROBLEMS WITH DECIMALS - ALL OPERATIONS

Study: Word Problems with Decimals - All Operations

Using real-world items in a grocery store, practice adding, subtracting, multiplying, and dividing decimals.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Word Problems with Decimals - All Operations

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 8: ESTIMATING SUMS AND DIFFERENCES WITH DECIMALS

Study: Estimating Sums and Differences with Decimals

Learn about rounding decimal values to the nearest whole number and using larger place values for larger numbers. Understand how rounding to different place values affects estimates. Practice estimating decimal sums and differences using sample problems.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Estimating Sums and Differences with Decimals

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 9: ESTIMATING PRODUCTS AND QUOTIENTS OF DECIMALS

Study: Estimating Products and Quotients of Decimals

Learn about rounding decimal numbers to the highest place value in order to multiply or divide, rounding decimal values of less than 1, and estimating products and quotients of less than 1. Practice these skills using sample problems.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Estimating Products and Quotients of Decimals

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 10: PROBLEM SOLVING

Study: Problem Solving

Learn strategies for solving a variety of application problems related to topics in this unit.

Duration: 0 hr 30 min

Practice: Assignment

Submit your work for a set of problem-solving applications.

Duration: 0 hr 30 min Scoring: 30 points

LESSON 11: DECIMALS AND OPERATIONS WRAP-UP

Review: Decimals and Operations

Review unit material in preparation for upcoming assessments.

Duration: 0 hr 30 min

Test (CS): Decimals and Operations

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

Duration: 0 hr 30 min Scoring: 60 points

Test (TS): Decimals and Operations

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

Duration: 0 hr 30 min Scoring: 50 points

LESSON 12: DIAGNOSTIC

Diagnostic: Decimals and Operations

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 0 hr 30 min Scoring: 30 points

UNIT 4: PERCENTS, RATIOS, PROPORTIONS, AND RATES

LESSON 1: THE MEANING OF PERCENT

Study: The Meaning of Percent

Learn about the definition of percent. Learn about percent as a fraction in which the denominator is always 100% as a ratio of part to whole.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: The Meaning of Percent

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 2: ESTIMATING PERCENT

Study: Estimating Percent

Learn about common percents and where they appear, converting percents to fractions, and estimating amounts using common percents. Practice these skills using sample problems.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Estimating Percent

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 3: WORKING WITH PERCENTS

Study: Working with Percents

Learn about how the sum of a whole always equals 100% and about finding missing percents. Explore real-world problems finding percents.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Working with Percents

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 4: RELATING FRACTIONS, DECIMALS, AND PERCENTS

Study: Relating Fractions, Decimals, and Percents

Learn about writing values as fractions, decimals, and percents. Practice finding the missing percent, decimal, or fraction using sample problems.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Relating Fractions, Decimals, and Percents

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 5: COMMON FRACTIONS, DECIMALS, AND PERCENTS

Study: Common Fractions, Decimals, and Percents

Learn about converting among common fractions, decimals, and percents, such as 25, 50, 75, and 100. Learn about common fractions with 10 in the denominator and how they appear as decimals and percents. Practice these skills using a sample problem.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Common Fractions, Decimals, and Percents

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 6: INTRODUCTION TO RATIOS

Study: Introduction to Ratios

Learn about writing fractions as ratios, simplifying ratios, other ways to write ratios, and the order of numbers in a ratio. Practice these skills using sample problems.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Introduction to Ratios

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 7: COMPARING RATIOS

Study: Comparing Ratios

Learn how to compare two ratios and convert ratios into fractions and percentages.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Comparing Ratios

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 8: PROPORTIONS

Study: Proportions

Use ratios to define proportions and solve problems involving proportions.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Proportions

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 9: RATES

Study: Rates

Use ratios to define rates and solve rate problems.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Rates

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 10: SIMILARITY AND SCALE FACTORS

Study: Similarity and Scale Factors

Use proportions to describe similar geometric objects.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Similarity and Scale Factors

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 11: PROBLEM SOLVING

Study: Problem Solving

Learn strategies for solving a variety of application problems related to topics in this unit.

Duration: 0 hr 30 min

Practice: Assignment

Submit your work for a set of problem-solving applications.

Duration: 0 hr 30 min Scoring: 30 points

LESSON 12: PERCENTS, RATIOS, PROPORTIONS, AND RATES WRAP-UP

Review: Percents, Ratios, Proportions, and Rates

Review unit material in preparation for upcoming assessments.

Duration: 0 hr 30 min

Test (CS): Percents, Ratios, Proportions, and Rates

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

Duration: 0 hr 30 min Scoring: 60 points

Test (TS): Percents, Ratios, Proportions, and Rates

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

Duration: 0 hr 30 min Scoring: 50 points

LESSON 13: DIAGNOSTIC

Diagnostic: Percents, Ratios, Proportions, and Rates

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 0 hr 30 min Scoring: 30 points

UNIT 5: THE LANGUAGE OF ALGEBRA

LESSON 1: WHAT IS A VARIABLE?

Study: What is a Variable?

Learn the definition and explore examples of variables.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: What is a Variable?

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 2: FINDING AND NAMING VARIABLES

Study: Finding and Naming Variables

Select relevant variables and name them.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Finding and Naming Variables

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 3: UNITS AND REASONABLE VALUES

Study: Units and Reasonable Values

Learn to recognize units of measure and determine reasonable values.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Units and Reasonable Values

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 4: GRAPHS, TABLES, AND EQUATIONS

Study: Graphs, Tables, and Equations

Find the value of a variable using graphs, tables, and equations. Learn to organize information and find patterns. Explore examples and advantages of each problem-solving method.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Graphs, Tables, and Equations

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 5: SOLVING PROBLEMS WITH TABLES AND GRAPHS

Study: Solving Problems with Tables and Graphs

Set up tables and graphs and use them to organize information. Determine when to use tables and graphs to solve problems.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Solving Problems with Tables and Graphs

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 6: VARIABLE EXPRESSIONS

Study: Variable Expressions

Define and form variable expressions by performing operations.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Variable Expressions

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 9 points

LESSON 7: MATHEMATICAL SENTENCES

Study: Mathematical Sentences

Learn about the types and parts of mathematical sentences. Learn about translating word problems into mathematical sentences.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Mathematical Sentences

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 8: PROBLEM SOLVING

Study: Problem Solving

Learn strategies for solving a variety of application problems related to topics in this unit.

Duration: 0 hr 30 min

Practice: Assignment

Submit your work for a set of problem-solving applications.

Duration: 0 hr 30 min Scoring: 30 points

LESSON 9: THE LANGUAGE OF ALGEBRA WRAP-UP

Review: The Language of Algebra

Review unit material in preparation for upcoming assessments.

Duration: 0 hr 30 min

Test (CS): The Language of Algebra

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

Duration: 0 hr 30 min Scoring: 60 points

Test (TS): The Language of Algebra

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

Duration: 0 hr 30 min Scoring: 50 points

LESSON 10: DIAGNOSTIC

Diagnostic: The Language of Algebra

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 0 hr 30 min Scoring: 30 points

UNIT 6: SOLVING EQUATIONS WITH ADDITION AND SUBTRACTION

LESSON 1: SIMPLIFYING AND EVALUATING EXPRESSIONS

Study: Simplifying and Evaluating Expressions

Simplify variable expressions by evaluating their numerical parts. Evaluate variable expressions by substituting values for x .

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Simplifying and Evaluating Expressions

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 7 points

LESSON 2: SOLVING MATHEMATICAL SENTENCES

Study: Solving Mathematical Sentences

Solve equations using the "guess-and-check" method. Define a solution set and compare solution sets of equations and inequalities.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Solving Mathematical Sentences

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 3: SOLVING EQUATIONS GRAPHICALLY

Study: Solving Equations Graphically

Discover problem-solving strategies including isolating a variable and using tiles to represent values in word problems.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Solving Equations Graphically

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 9 points

LESSON 4: SOLVING EQUATIONS WITH LARGER NUMBERS

Study: Solving Equations with Larger Numbers

Translate English into number sentences and represent equations with a balanced scale.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Solving Equations with Larger Numbers

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 9 points

LESSON 5: SOLVING $x + a = b$

Study: Solving $x + a = b$

Practice solving equations in the form $x + a = b$ by isolating the variable x on one side of the equation. Learn how to solve this type of equation when the value of a is positive or negative.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Solving $x + a = b$

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 6: SOLVING WITH A NUMBER LINE

Study: Solving with a Number Line

Plot points on a number line, moving to the left or right to solve equations.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

LESSON 7: SOLVING INEQUALITIES

Study: Solving Inequalities

Develop strategies to solve various forms of inequalities and display their solution set on a number line.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Solving Inequalities

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 8: VARIATIONS OF EQUATIONS AND INEQUALITIES

Study: Variations of Equations and Inequalities

Explore problems that take different forms, rearranging equations into $x + a = b$ form (standard form) and solving inequalities in nonstandard form.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Variations of Equations and Inequalities

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 9: PROBLEM SOLVING

Study: Problem Solving

Learn strategies for solving a variety of application problems related to topics in this unit.

Duration: 0 hr 30 min

Practice: Assignment

Submit your work for a set of problem-solving applications.

Duration: 0 hr 30 min Scoring: 30 points

LESSON 10: SOLVING EQUATIONS WITH ADDITION AND SUBTRACTION WRAP-UP

Review: Solving Equations with Addition and Subtraction

Review unit material in preparation for upcoming assessments.

Duration: 0 hr 30 min

Test (CS): Solving Equations with Addition and Subtraction

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

Duration: 0 hr 30 min Scoring: 60 points

Test (TS): Solving Equations with Addition and Subtraction

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

Duration: 0 hr 30 min Scoring: 50 points

LESSON 11: DIAGNOSTIC

Diagnostic: Solving Equations with Addition and Subtraction

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 0 hr 30 min Scoring: 30 points

UNIT 7: SOLVING EQUATIONS WITH MULTIPLICATION AND DIVISION

LESSON 1: SOLVING $AX = B$

Study: Solving $ax = b$

Learn about setting up a table; writing an equation to express a pattern; isolating a variable; dividing by coefficient of a variable; and using a number line to solve equations in standard form.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Solving $ax = b$

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 2: SOLVING $X/A = B$

Study: Solving $x/a = b$

Learn about solving division problems using multiplication.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Solving $x/a = b$

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 3: INEQUALITIES

Study: Inequalities

Learn about solving inequalities by dividing by the coefficient of a variable. Learn about multiplying and dividing inequalities by negative numbers.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Inequalities

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 4: PROBLEM SOLVING

Study: Problem Solving

Learn strategies for solving a variety of application problems related to topics in this unit.

Duration: 0 hr 30 min

Practice: Assignment

Submit your work for a set of problem-solving applications.

Duration: 0 hr 30 min Scoring: 30 points

LESSON 5: SOLVING EQUATIONS WITH MULTIPLICATION AND DIVISION WRAP-UP

Review: Solving Equations with Multiplication and Division

Review unit material in preparation for upcoming assessments.

Duration: 0 hr 30 min

Test (CS): Solving Equations with Multiplication and Division

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

Duration: 0 hr 30 min Scoring: 60 points

Test (TS): Solving Equations with Multiplication and Division

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

Duration: 0 hr 30 min Scoring: 50 points

LESSON 6: DIAGNOSTIC

Diagnostic: Solving Equations with Multiplication and Division

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 0 hr 30 min Scoring: 30 points

UNIT 8: EXPONENTS

LESSON 1: DEFINITIONS AND EXAMPLES OF EXPONENTS

Study: Definitions and Examples of Exponents

Learn the definitions of base exponent power and exponential expression. Learn to use a table to illustrate real-world applications of exponents.

Duration: 0 hr 40 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Definitions and Examples of Exponents

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 2: EXPONENTS AND THE ORDER OF OPERATIONS

Study: Exponents and the Order of Operations

Learn about evaluating expressions with exponents using the order of operations.

Duration: 0 hr 40 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Exponents and the Order of Operations

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 3: LAWS OF EXPONENTS

Study: Laws of Exponents

Learn about the multiplication law of exponents with positive and negative exponents; the rule for negative exponents; the division law of exponents; raising products and fractions to a power; and the power rule of exponents.

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: The Multiplication Law of Exponents

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 4: SCIENTIFIC NOTATION

Study: Scientific Notation

Learn about expressing large numbers using scientific notation and about the form of scientific notation. Explore examples from elementary science.

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Scientific Notation

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 5: EXPONENTS IN GEOMETRY

Study: Exponents in Geometry

Learn about using exponents to represent area and volume formulae. Explore units of area and volume.

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 30 min

Quiz: Exponents in Geometry

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 6: SQUARE ROOTS

Study: Square Roots

Learn about fractional exponents; principal square roots; square roots of positive numbers; perfect squares; and negative square roots vs. square roots of negative numbers.

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Square Roots

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 7: RADICAL NOTATION

Study: Radical Notation

Learn about radical signs and radicands. Explore laws of exponents that apply to radicals.

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Radical Notation

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 8: PROBLEM SOLVING

Study: Problem Solving

Learn strategies for solving a variety of application problems related to topics in this unit.

Duration: 0 hr 30 min

Practice: Assignment

Submit your work for a set of problem-solving applications.

Duration: 0 hr 30 min Scoring: 30 points

LESSON 9: EXPONENTS WRAP-UP

Review: Exponents

Review unit material in preparation for upcoming assessments.

Duration: 0 hr 30 min

Test (CS): Exponents

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

Duration: 0 hr 30 min Scoring: 60 points

Test (TS): Exponents

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

Duration: 0 hr 30 min Scoring: 50 points

LESSON 10: DIAGNOSTIC

Diagnostic: Exponents

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 0 hr 30 min Scoring: 30 points

UNIT 9: SOLVING EQUATIONS WITH ROOTS AND POWERS

LESSON 1: SOLVING $|x| = b$

Study: Solving $|x| = b$

Learn about finding solution sets for absolute values using a number line.

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Solving $|x| = b$

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 2: SOLVING $X^2 = B$ **Study: Solving $x^2 = b$**

Learn about evaluating expressions with exponents by isolating the variable and finding the principal square root of both sides.

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Solving $x^2 = b$

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 3: SOLVING & RADIC; $X = B$ **Study: Solving $\sqrt{x} = b$**

Learn to solve equations involving square roots.

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Solving $\sqrt{x} = b$

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 4: INEQUALITIES AND ABSOLUTE VALUE**Study: Inequalities and Absolute Value**

Learn about using a number line to find solution sets of equations with absolute values.

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Inequalities and Absolute Value

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 5: INEQUALITIES AND X^2 **Study: Inequalities and x^2**

Learn about solving inequalities with exponents.

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Inequalities and x^2

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 6: INEQUALITIES AND \sqrt{x}

Study: Inequalities and \sqrt{x}

Learn about solving inequalities with square roots by squaring both sides and plotting solution sets on a number line.

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Inequalities and \sqrt{x}

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 7: PROBLEM SOLVING

Study: Problem Solving

Learn strategies for solving a variety of application problems related to topics in this unit.

Duration: 0 hr 30 min

Practice: Assignment

Submit your work for a set of problem-solving applications.

Duration: 0 hr 30 min Scoring: 30 points

LESSON 8: SOLVING EQUATIONS WITH ROOTS AND POWERS WRAP-UP

Review: Solving Equations with Roots and Powers

Review unit material in preparation for upcoming assessments.

Duration: 0 hr 30 min

Test (CS): Solving Equations with Roots and Powers

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

Duration: 0 hr 30 min Scoring: 60 points

Test (TS): Solving Equations with Roots and Powers

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

Duration: 0 hr 30 min Scoring: 50 points

LESSON 9: DIAGNOSTIC

Diagnostic: Solving Equations with Roots and Powers

Duration: 0 hr 30 min Scoring: 30 points

UNIT 10: MULTI-STEP EQUATIONS

LESSON 1: SOLVING $ax + b = c$

Study: Solving $ax + b = c$

Identify the strategy for solving one-step equations and apply it to multi-step equations. Perform the reverse of two or more operations on an equation. Build a variable expression to determine how to isolate the variable.

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Solving $ax + b = c$

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 2: COLLECTING LIKE TERMS

Study: Collecting Like Terms

Learn definitions of like terms and constants. Learn about collecting like terms adding and subtracting coefficients of like terms and solving equations with unlike terms.

Duration: 0 hr 40 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Collecting Like Terms

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 3: USING THE DISTRIBUTIVE PROPERTY

Study: Using the Distributive Property

Learn about using the distributive property with variable expressions then collecting like terms.

Duration: 0 hr 40 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Using the Distributive Property

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 4: VARIABLES ON BOTH SIDES OF THE EQUATION

Study: Variables on Both Sides of the Equation

Learn about adding or subtracting variable expressions from both sides of an equation and about collecting variable terms on one side of an equation. Learn about equations with no solution.

Duration: 0 hr 40 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Variables on Both Sides of the Equation - Basic

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 5: PROBLEM SOLVING

Study: Problem Solving

Learn strategies for solving a variety of application problems related to topics in this unit.

Duration: 0 hr 30 min

Practice: Assignment

Submit your work for a set of problem-solving applications.

Duration: 0 hr 30 min Scoring: 30 points

LESSON 6: MULTI-STEP EQUATIONS WRAP-UP

Review: Multi-Step Equations

Review unit material in preparation for upcoming assessments.

Duration: 0 hr 30 min

Test (CS): Multi-Step Equations

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

Duration: 0 hr 30 min Scoring: 60 points

Test (TS): Multi-Step Equations

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

Duration: 0 hr 30 min Scoring: 50 points

LESSON 7: DIAGNOSTIC

Diagnostic: Multi-Step Equations

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 0 hr 30 min Scoring: 30 points

UNIT 11: LINEAR EQUATIONS

LESSON 1: CARTESIAN COORDINATE SYSTEMS

Study: Cartesian Coordinate Systems

Represent real-world information with points instead of bars on a graph. Discover that the Cartesian coordinate system is made up of two number lines. Identify the origin the x-axis the y-axis and the four quadrants on the xy-plane. Graph sets of coordinates known as ordered pairs.

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Reading Data from Graphs

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 2: LINES IN THE XY-PLANE

Study: Lines in the xy-plane

Learn about plotting solution set values of equations as data points on the xy-plane (the graph of the equation).

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Lines in the xy-plane

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 3: SLOPE

Study: Slope

Learn about rise run and the slope formula. Learn about rearranging a formula to compute rise and run negative zero and undefined slopes.

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Finding the Slope of a Line - Basic

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 4: PARALLEL AND PERPENDICULAR LINES

Study: Parallel and Perpendicular Lines

Define parallel lines and the relationship of their slopes. Identify perpendicular lines how they intersect and the product of their slopes as negative reciprocals.

Duration: 0 hr 40 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Parallel and Perpendicular Lines

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 5: SLOPE AND EQUATIONS

Study: Slope and Equations

Learn about finding the equation of a line. Learn about slope as the coefficient of the variable in the equation of the line ($y = mx$).

Duration: 0 hr 40 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Slope and Equations

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 6: SLOPE-INTERCEPT FORM

Study: Slope-Intercept Form

Determine the equations of lines that don't pass through the origin. Plot a set of points to find the graph slope and y-intercept equation of a line. Discover the general form of the slope-intercept equation of a line.

Duration: 0 hr 40 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Slope-Intercept Form

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 7: POINT-SLOPE FORM

Study: Point-Slope Form

Learn about the point-slope equation and about manipulating equations into slope-intercept form.

Duration: 0 hr 40 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Point-Slope Equation of a Line

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 8: LINEAR INEQUALITIES

Study: Linear Inequalities

Learn about graphing inequalities and the half-plane. Discover three steps to graphing inequalities.

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Linear Inequalities

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 9: PROBLEM SOLVING

Study: Problem Solving

Learn strategies for solving a variety of application problems related to topics in this unit.

Duration: 0 hr 30 min

Practice: Assignment

Submit your work for a set of problem-solving applications.

Duration: 0 hr 30 min Scoring: 30 points

LESSON 10: LINEAR EQUATIONS WRAP-UP

Review: Linear Equations

Review unit material in preparation for upcoming assessments.

Duration: 0 hr 30 min

Test (CS): Linear Equations

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

Duration: 0 hr 30 min Scoring: 60 points

Test (TS): Linear Equations

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

Duration: 0 hr 30 min Scoring: 50 points

LESSON 11: DIAGNOSTIC

Diagnostic: Linear Equations

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 0 hr 30 min Scoring: 30 points

UNIT 12: SYSTEMS OF LINEAR EQUATIONS

LESSON 1: GRAPHING TWO VARIABLE SYSTEMS

Study: Graphing Two Variable Systems

Learn how to graph systems of two linear equations. Investigate when and why systems of linear equations have no solutions, exactly one solution, or infinitely many solutions.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Graphing Two Variable Systems

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 2: SOLVING TWO VARIABLE SYSTEMS WITH SUBSTITUTION

Study: Solving Two Variable Systems with Substitution

Use the substitution method to solve systems of linear equations. See how to transform a two-variable equation into a one-variable equation by replacing a variable with an equal value or expression.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Solving Two Variable Systems with Substitution

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 3: SOLVING TWO VARIABLE SYSTEMS BY ELIMINATION

Study: Solving Two Variable Systems by Elimination

Learn the elimination method to solve systems of linear equations by adding or subtracting the same value from both sides of an equation. Learn how to find convenient variable terms to eliminate, manipulate equations into standard form and adjust coefficients.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Solving Two Variable Systems by Elimination

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 4: TWO VARIABLE SYSTEMS OF INEQUALITIES

Study: Two Variable Systems of Inequalities

Learn how to graph and determine the solution set for a system of inequalities. Identify situations where a system of inequalities has no solutions.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Two Variable Systems of Inequalities

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 5: PROBLEM SOLVING

Study: Problem Solving

Learn strategies for solving a variety of application problems related to topics in this unit.

Duration: 0 hr 30 min

Practice: Assignment

Submit your work for a set of problem-solving applications.

Duration: 0 hr 30 min Scoring: 30 points

LESSON 6: SYSTEMS OF LINEAR EQUATIONS WRAP-UP

Review: Systems of Linear Equations

Review unit material in preparation for upcoming assessments.

Duration: 0 hr 30 min

Test (CS): Systems of Linear Equations

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

Duration: 0 hr 30 min Scoring: 60 points

Test (TS): Systems of Linear Equations

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

Duration: 0 hr 30 min Scoring: 50 points

LESSON 7: DIAGNOSTIC

Diagnostic: Systems of Linear Equations

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 0 hr 30 min Scoring: 30 points

UNIT 13: DISTANCE AND ANGLES

LESSON 1: LINES, SEGMENTS AND RAYS

Study: Lines, Segments and Rays

Learn definitions of a ray, a line, and a line segment.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Rays and Lines

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 9 points

LESSON 2: ANGLES

Study: Angles

Classify angles and how to measure and name them.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Angles

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 3: ANGLES OF A TRIANGLE

Study: Angles of a Triangle

Learn the angle sum theorem, third angle theorem, and how to define a right triangle.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Angles of a Triangle

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 9 points

LESSON 4: SIMILAR TRIANGLES

Study: Similar Triangles

Explore the properties of similar triangles and compare them.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Similar Triangles

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 5: THE PYTHAGOREAN THEOREM

Study: The Pythagorean Theorem

Definition of right angles and triangles, formula for Pythagorean Theorem, using the Theorem to solve a real-world problem

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: The Pythagorean Theorem

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 8 points

LESSON 6: THE DISTANCE FORMULA

Study: The Distance Formula

Use the Pythagorean Theorem to derive the distance formula.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: The Distance Formula

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 7: PROBLEM SOLVING

Study: Problem Solving

Learn strategies for solving a variety of application problems related to topics in this unit.

Duration: 0 hr 30 min

Practice: Assignment

Submit your work for a set of problem-solving applications.

Duration: 0 hr 30 min Scoring: 30 points

LESSON 8: DISTANCE AND ANGLES WRAP-UP

Review: Distance and Angles

Review unit material in preparation for upcoming assessments.

Duration: 0 hr 30 min

Test (CS): Distance and Angles

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

Duration: 0 hr 30 min Scoring: 60 points

Test (TS): Distance and Angles

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

Duration: 0 hr 30 min Scoring: 50 points

LESSON 9: DIAGNOSTIC

Diagnostic: Distance and Angles

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 0 hr 30 min Scoring: 30 points

UNIT 14: AREA, SURFACE AREA, AND VOLUME

LESSON 1: REVIEW OF PERIMETER, AREA, AND VOLUME

Study: Review of Area and Volume

Review basic facts about area, volume, and the standard unit of measures.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Review of Area and Volume

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 2: AREA OF TRIANGLES

Study: Area of Triangles

Calculate the area of a polygon and explore square units and the triangle area formula.

Duration: 0 hr 30 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Area of Triangles

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 3: THE NUMBER PI

Study: The Number Pi

Formula for calculating volume of rectangular solids, sample problems.

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 20 min Scoring: 0 points

Quiz: The Number Pi

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 10 points

LESSON 4: THE AREA OF A CIRCLE

Study: The Area of a Circle

Learn the formula for area of a circle and use proportions to calculate the area of a sector.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: The Area of a Circle

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 5: SURFACE AREA OF PRISMS AND CYLINDERS

Study: Surface Area of Prisms and Cylinders

Derive and use formulas to calculate surface area of prisms and cylinders.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Surface Area of Prisms and Cylinders

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 6: VOLUME OF PRISMS AND CYLINDERS

Study: Volume of Prisms and Cylinders

Derive and use formulas to calculate volume of prisms and cylinders.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Volume of Prisms and Cylinders

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 7: PROBLEM SOLVING

Study: Problem Solving

Learn strategies for solving a variety of application problems related to topics in this unit.

Duration: 0 hr 30 min

Practice: Assignment

Submit your work for a set of problem-solving applications.

Duration: 0 hr 30 min Scoring: 30 points

LESSON 8: AREA, SURFACE AREA, AND VOLUME WRAP-UP

Review: Area, Surface Area, and Volume

Review unit material in preparation for upcoming assessments.

Duration: 0 hr 30 min

Test (CS): Area, Surface Area, and Volume

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

Duration: 0 hr 30 min Scoring: 60 points

Test (TS): Area, Surface Area, and Volume

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

Duration: 0 hr 30 min Scoring: 50 points

LESSON 9: DIAGNOSTIC

Diagnostic: Area, Surface Area, and Volume

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 0 hr 30 min Scoring: 30 points

UNIT 15: DATA ANALYSIS AND PROBABILITY

LESSON 1: REVIEW OF DATA ANALYSIS

Study: Review of Data Analysis

Review of descriptive data analysis including frequency tables, line plots, bar graphs, histograms, stem and leaf plots and pie charts.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Review of Data Analysis

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 9 points

LESSON 2: POPULATIONS AND SAMPLES

Study: Populations and Samples

Differentiate between a population and a sample and make estimates about a population based on data from a sample using proportions.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Populations and Samples

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 3: MEAN, MEDIAN, AND MODE

Study: Mean, Median, and Mode

Explore mean, median, and range as measures of center.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Mean, Median, and Range

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 4: QUARTILES AND BOX AND WHISKER PLOTS

Study: Quartiles and Box and Whisker Plots

Learn how to calculate the 25th and 75th quartile and then construct a box-and-whisker plot.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Quartiles and Box and Whisker Plots

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 5: TWO VARIABLE DATA SETS AND THE LINE OF BEST FIT

Study: Two Variable Data Sets and the Line of Best Fit

Review scatter plots and learn how to informally find a line a best fit.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Two Variable Data Sets and the Line of Best Fit

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 6: INTRODUCTION TO PROBABILITY

Study: Introduction to Probability

Explore the definition of probability using proportions.

Duration: 0 hr 30 min

Checkpoint: Practice Problems

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

Duration: 0 hr 20 min

Quiz: Introduction to Probability

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 10 points

LESSON 7: PROBLEM SOLVING

Study: Problem Solving

Learn strategies for solving a variety of application problems related to topics in this unit.

Duration: 0 hr 30 min

Practice: Assignment

Submit your work for a set of problem-solving applications.

Duration: 0 hr 30 min Scoring: 30 points

LESSON 8: DATA ANALYSIS AND PROBABILITY WRAP-UP

Review: Data Analysis and Probability

Review unit material in preparation for upcoming assessments.

Duration: 0 hr 30 min

Test (CS): Data Analysis and Probability

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

Duration: 0 hr 30 min Scoring: 60 points

Test (TS): Data Analysis and Probability

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

Duration: 0 hr 30 min Scoring: 50 points

LESSON 9: DIAGNOSTIC

Diagnostic: Data Analysis and Probability

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 0 hr 30 min Scoring: 30 points