

Algebra I is specifically aligned with Texas Essential Knowledge and Skills (TEKS) Algebra I Standards and Benchmarks. The Algebra I curriculum focuses on the mastery of critical skills and the recognition and understanding of key algebraic concepts. Through a "Discovery-Confirmation-Practice"-based exploration of these concepts, students are challenged to strengthen their computational skills, to deepen their understanding of key ideas and solution strategies, and to extend their knowledge through a variety of problem-solving applications.

Course topics include a review of the language of algebra, formulating equations from word problems, and solving basic equations from Introductory Algebra; measurement; an introduction to functions and domain and range; problem solving with functions; graphing; linear equations and systems of linear equations; polynomials and factoring; and data analysis and probability.

Algebra I features ample opportunity for students to hone their computational skills by working through practice problem sets before moving on to formal assessment.

In addition to unit and semester computer- and teacher-scored assessments, each semester concludes with a STAAR diagnostic assessment. This assessment contains questions specifically designed to reflect the test items found on the STAAR end-of-course exams.

The content is based on the National Council of Teachers of Mathematics (NCTM) standards and is specifically aligned with TEKS Algebra I Standards and Benchmarks.

Length: Two Semesters

UNIT 1: REVIEW THE LANGUAGE OF ALGEBRA

LESSON 1: INTEGERS AND OPERATIONS

Study: Integers and Operations

Review types of numbers and operations. Learn about sets, elements, the number line, and absolute value, as well as the order of operations.

Duration: 0 hr 40 min Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hr 30 min Scoring: 0 points

Quiz: Properties of Operations

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

Duration: 0 hr 25

min Scoring: 20 points

Quiz: Order of Operations

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

Duration: 0 hr 25 min

Scoring: 20 points

LESSON 2: FRACTIONS AND DECIMALS

Study: Fractions and Decimals

Review the parts of fractions, as well as how to add, subtract, multiply, and divide them.

Learn about real and irrational numbers, equivalent fractions, prime numbers, prime factorization, and least common multiples. Find reciprocals of fractions, as well as ways to change fractions into decimals and percents.

Duration: 0 hr 40

min Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hr 30 min Scoring: 0 points

Quiz: Like Denominators

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

Duration: 0 hr 25 min

Scoring: 20 points

Quiz: Equivalent Fractions

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

Duration: 0 hr 25 min

Scoring: 20 points

Quiz: Fractions, Decimals, and Percents

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

Duration:

0 hr 25 min Scoring: 20 points

LESSON 3: EXPONENTS

Study: Exponents

Review exponents and their place in the order of operations. Learn ways to evaluate exponential expressions. Learn about fractional and decimal exponents, radical notation, square roots, and scientific notation.

Duration:

0 hr 40 min Scoring: 0 points

Checkup: Practice Problems

Core > Texas Algebra I

Copyright © 2013 Apex Learning Inc. Apex Learning®, the Apex Learning logo, ClassTools®, ClassTools Achieve®, ClassTools Virtual, Literacy Advantage, and Beyond Books® are either registered trademarks or trademarks of Apex Learning Inc.

Check your understanding of the lesson.

Duration: 0 hr 30 min Scoring: 0 points

Quiz: Exponential Expressions

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

Duration: 0 hr 25

min Scoring: 20 points

Quiz: Operations with Radicals

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

Duration: 0 hr 25

min Scoring: 20 points

Quiz: Scientific Notation

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

Duration: 0 hr 25 min

Scoring: 20 points

LESSON 4: WHAT IS A VARIABLE?

Study: What Is a Variable?

Learn the definition of variables and work with some examples.

Duration: 0 hr 40 min

Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hr 30 min Scoring: 0 points

Quiz: What Is a Variable?

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

Duration: 0 hr 25 min

Scoring: 20 points

LESSON 5: FINDING AND NAMING VARIABLES

Study: Finding and Naming Variables

Practice finding and naming variables in word problems.

Duration: 0 hr 40 min

Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hr 30 min Scoring: 0 points

Quiz: Finding and Naming Variables

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

Duration: 0 hr

25 min Scoring: 20 points

LESSON 6: UNITS AND REASONABLE VALUES

Study: Units and Reasonable Values

Learn about units of measurement and predict reasonable values for answers to word problems.

Duration: 0 hr 40 min Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hr 30 min Scoring: 0 points

Quiz: Units and Reasonable Values

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

Duration: 0 hr

25 min Scoring: 20 points

LESSON 7: GRAPHS, TABLES, AND EQUATIONS

Study: Graphs, Tables, and Equations

Use information given in graphs, tables, and equations to find values for variables. Learn to organize information and find patterns. Explore the strengths and weaknesses of graphs, tables, and equations.

Duration: 0 hr 40 min Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hr 30 min Scoring: 0 points

Quiz: Graphs, Tables, and Equations

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

Duration: 0 hr

25 min Scoring: 20 points

LESSON 8: SOLVING PROBLEMS WITH TABLES AND GRAPHS

Study: Solving Problems with Tables and Graphs

Set up tables and graphs and use them to organize information.

Core > Texas Algebra I

Copyright © 2013 Apex Learning Inc. Apex Learning®, the Apex Learning logo, ClassTools®, ClassTools Achieve®, ClassTools Virtual, Literacy Advantage, and Beyond Books® are either registered trademarks or trademarks of Apex Learning Inc.

Decide when to use tables and graphs to solve problems.

Duration: 0 hr 40 min Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hr 30 min Scoring: 0 points

Quiz: Solving Problems with Tables and Graphs

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

Duration: 0 hr 25 min Scoring: 20 points

LESSON 9: VARIABLE EXPRESSIONS

Study: Variable Expressions

Define and form variable expressions using operations.

Duration: 0 hr 40 min Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hr 30 min Scoring: 0 points

Quiz: Variable Expressions

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

Duration: 0 hr 25 min Scoring: 20 points

LESSON 10: SIMPLIFYING AND EVALUATING EXPRESSIONS

Study: Simplifying and Evaluating Expressions

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

Duration: 0 hr 40 min Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hr 30 min Scoring: 0 points

Quiz: Simplifying and Evaluating Expressions

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

Duration: 0 hr 25 min Scoring: 20 points

LESSON 11: MATHEMATICAL SENTENCES

Study: Mathematical Sentences

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

Duration: 0 hr 40 min Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hr 30 min Scoring: 0 points

Quiz: Mathematical Sentences

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

Duration: 0 hr 25

min Scoring: 20 points

LESSON 12: REVIEW THE LANGUAGE OF ALGEBRA WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Review the Language of Algebra

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

Duration:

1 hr Scoring: 0 points

Discuss: Using X to Mark the Spot

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

Duration: 0 hr 20 min Scoring: 30 points

Test (CS): Review the Language of Algebra

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

Duration: 0 hr 40 min Scoring: 75 points

Test (TS): Review the Language of Algebra

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

Duration: 0 hr 30 min Scoring: 50 points

LESSON 13: DIAGNOSTIC

Diagnostic: Review the Language of Algebra

Take a diagnostic test that will create a study plan based on your answers.

Duration: 0 hr 40 min Scoring: 25 points

UNIT 2: SOLVING BASIC EQUATIONS

LESSON 1: SOLVING MATHEMATICAL SENTENCES

Study: Solving Mathematical Sentences

Use the guess-and-check method to solve equations. Define a solution set and compare solution sets of equations and inequalities.

Duration: 0 hr 40 min Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hr 30 min Scoring: 0 points

Quiz: Solving Mathematical Sentences

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

Duration: 0

hr 25 min Scoring: 20 points

LESSON 2: SOME GUIDELINES FOR PROBLEM-SOLVING

Study: Some Guidelines for Problem-Solving

Use problem-solving tips to solve a word problem. Develop a general strategy for solving word problems.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Some Guidelines for Problem-Solving

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

Duration: 0 hr 25 min Scoring: 20 points

LESSON 3: SOLVING WITH ADDITION AND SUBTRACTION

Study: Solving with Addition and Subtraction

Review how to isolate the variable and solve simple equations and inequalities with addition or subtraction.

Duration: 0 hr 40 min Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hr 30 min Scoring: 0 points

Quiz: Solving Equations with Addition and Subtraction

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

Duration: 0 hr 25 min Scoring: 20 points

Quiz: Solving Inequalities with Addition and Subtraction

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

Duration: 0 hr 25 min Scoring: 20 points

LESSON 4: SOLVING WITH MULTIPLICATION AND DIVISION**Study: Solving with Multiplication and Division**

Review how to isolate the variable and solve simple equations and inequalities with multiplication or division.

Duration: 0 hr 40 min Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hr 30 min Scoring: 0 points

Quiz: Solving Equations with Multiplication

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

Duration: 0 hr 25 min Scoring: 20 points

Quiz: Solving Equations with Division

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

Duration: 0

hr 25 min Scoring: 20 points

Quiz: Solving Inequalities with Multiplication and Division

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

Duration: 0 hr 25 min Scoring: 20 points

LESSON 5: SOLVING WITH ROOTS AND POWERS**Study: Solving with Roots and Powers**

Review how to solve equations and inequalities with square roots and absolute

values.

Duration: 0 hr 40 min Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hr 30 min Scoring: 0 points

Quiz: Solving with Roots and Powers

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

Duration: 0

hr 25 min Scoring: 20 points

Quiz: Solving Inequalities with Roots and Powers

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

Duration: 0 hr 25 min Scoring: 20 points

Quiz: Finding Solution Sets with Inequalities

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

Duration: 0 hr 25 min Scoring: 20 points

LESSON 6: SOLVING MULTISTEP LINEAR EQUATIONS

Study: Solving Multistep Linear Equations

Review the strategy for isolating variables in multistep equations. Explore equations that have zero, one, or infinite solutions.

Duration: 0 hr 40 min Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hr 30 min Scoring: 0 points

Quiz: Basic Collecting of Like Terms

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

Duration: 0 hr

25 min Scoring: 20 points

Quiz: Advanced Collecting of Like Terms

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

Duration:

0 hr 25 min Scoring: 20 points

Quiz: Finding Number of Solution Sets

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

Duration: 0

hr 25 min Scoring: 20 points

LESSON 7: SOLVING BASIC EQUATIONS WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Solving Basic Equations

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

Duration: 1 hr

Scoring: 0 points

Discuss: Problem-Solving Steps

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

Duration: 0 hr 20 min Scoring: 30 points

Test (CS): Solving Basic Equations

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

Duration:

0 hr 40 min Scoring: 75 points

Test (TS): Solving Basic Equations

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

Duration: 0

hr 30 min Scoring: 50 points

LESSON 8: DIAGNOSTIC

Diagnostic: Review of Introductory Algebra

Take a diagnostic test that will create a study plan based on your answers.

Duration: 0 hr 40 min Scoring: 25 points

UNIT 3: MEASUREMENT

LESSON 1: METRIC AND CUSTOMARY UNITS

Study: Metric and Customary Units

Explore the history of measurement in the forms of the metric system and the British/US System of Units. Create derived units from more basic components, such as ?kilometers per hour.?

Duration: 0

hr 40 min

Study: Flash Cards

Explore number systems, including the history of those of the Roman, Babylonian, Egyptian, and Chinese cultures.

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: Customary Units

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 16 points

Quiz: Metric System

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 16 points

LESSON 2: CONVERTING UNITS**Study: Converting Units**

Learn about converting between units from different systems, multiplication by one unit, and canceling.

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: Canceling Units

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 30 points

Quiz: Converting Units

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 30 points

LESSON 3: ESTIMATION AND SCALE**Study: Estimation and Scale**

Learn about scale of numbers, order of magnitude, powers of 10, estimating large numbers, and Fermi problems.

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: Estimation and Scale

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 30

points

LESSON 4: PRECISION IN MEASUREMENT

Study: Precision in Measurement

Learn about precision, accuracy, significant figures, multiplication, and addition.

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: Precision and Accuracy

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring:

30 points

Quiz: Significant Figures

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 30

points

LESSON 5: APPLICATIONS OF MEASUREMENT

Study: Applications of Measurement

Learn about applications of units, unit conversions, estimation and scale, order of magnitude, precision, accuracy, and significant figures.

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: Applications of Measurement

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 30 points

LESSON 6: WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Review Exercises

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

Duration: 1 hr

Discuss: To Convert or Not to Convert ...

Take part in a three- to five-question discussion about applying methods learned in this unit.

Duration: 0 hr 20 min Scoring: 30 points

Test (CS): Measurement

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

Duration: 0 hr 40

min Scoring: 75 points

Test (TS): Measurement

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: Measurement

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

Duration:

0 hr 40 min Scoring: 25 points

UNIT 4: WHAT IS A FUNCTION?

LESSON 1: WHEN ONE THING DEPENDS ON ANOTHER

Study: When One Thing Depends on Another

Learn the definition and explore examples of functions as quantities that depend on other quantities.

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: When One Thing Depends on Another

Take a quiz to assess your understanding of the material.

Duration: 0 hr

25 min Scoring: 28 points

LESSON 2: FUNCTION NOTATION

Study: Function Notation

Learn about and explore examples of function notation.

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: Translating to Function Notation

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 16 points

Quiz: Function Notation for Specific Amounts

Take a quiz to assess your understanding of the material.

Duration: 0 hr

25 min Scoring: 16 points

Quiz: Naming Functions

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 16

points

LESSON 3: INPUT-OUTPUT MACHINES

Study: Input-Output Machines

Learn about the domain and range of functions, input-output diagrams using rules for functions, and mathematical expressions in functions.

Duration: 0 hr 40 min

Checkout: Practice Problems

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

Duration: 0 hr 30 min

Quiz: Using Functions

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 28

points

LESSON 4: HOW MANY OUTPUTS?

Study: How Many Outputs?

Review functions and what makes them special, independent and dependent variables, inputs and outputs, and examples of relationships that might not be functional.

Duration: 0 hr 40 min

Quiz: How Many Outputs?

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 22

points

LESSON 5: FUNCTIONS AND RELATIONS

Study: Functions and Relations

Learn about using mapping diagrams, ordered pairs on diagrams, the difference between mapping diagrams of functions and relations, the vertical line test, and equations of functions and relations.

Duration: 0 hr 40 min

Checkout: Practice Problems

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

Duration: 0 hr 30 min

Quiz: Mapping Functions and Relations

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25

min Scoring: 16 points

Quiz: Identifying Functions and Relations

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25

min Scoring: 16 points

LESSON 6: DOMAIN AND RANGE

Study: Domain and Range

Learn about domains and range on a mapping diagram, estimating domain and range of functions, and calculating the domain of a function from an equation.

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: Domain and Range

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 22

points

LESSON 7: DISCRETE AND CONTINUOUS DATA

Study: Discrete and Continuous Data

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

Duration: 0 hr 40 min Scoring: 0 points

Checkup: Practice Problems

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

Duration: 0 hr 30 min

Scoring: 0 points

Quiz: Discrete and Continuous Data

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 20 points

LESSON 8: WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Review Exercise

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

assessments.

Duration: 1 hr

Discuss: Real-World Input/Output Machines

Take part in a three- to five-question discussion about applying methods learned in this unit.

Duration: 0 hr 20 min Scoring: 30 points

Test (CS): What Is a Function?

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

Duration: 0 hr

40 min Scoring: 105 points

Test (TS): What Is a Function?

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: What Is a Function?

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

Duration: 0 hr 40 min Scoring: 35 points

UNIT 5: SOLVING PROBLEMS WITH FUNCTIONS

LESSON 1: FUNCTIONS AND TABLES

Study: Functions and Tables

Learn about using input-output tables to define or describe functions, estimating values of functions, and finding a function's rule from a table.

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: Functions and Tables

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 20

points

LESSON 2: FUNCTIONS AND GRAPHS

Study: Functions and Graphs

Learn about using bar graphs, pie charts, and line graphs to describe or define functions.

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: Functions and Graphs

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring:

18 points

LESSON 3: FUNCTIONS AND FORMULAS

Study: Functions and Formulas

Learn about using algebraic rules and formulas to describe and define functions.

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: Functions and Formulas

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring:

16 points

Study: Solving the Profit Problem

In a real-world application, use tables, rules, and the method of estimating values to write an equation that expresses a function. Solve the equation and express the output in a line graph.

Duration: 0 hr 40

min

LESSON 4: WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Core > Texas Algebra I

Copyright © 2013 Apex Learning Inc. Apex Learning®, the Apex Learning logo, ClassTools®, ClassTools Achieve®, ClassTools Virtual, Literacy Advantage, and Beyond Books® are either registered trademarks or trademarks of Apex Learning Inc.

Review: Review Exercise

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

Duration: 1 hr

Discuss: Presenting Info the Best Way Possible

Take part in a three- to five-question discussion about applying methods learned in this unit.

Duration: 0 hr 20 min Scoring: 30 points

Test (CS): Solving Problems with Functions

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

Duration: 0 hr 40 min Scoring: 51 points

Test (TS): Solving Problems with Functions

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

Duration: 0 hr 30 min Scoring: 50 points

LESSON 5: DIAGNOSTIC**Diagnostic: Solving Problems with Functions**

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

Duration: 0 hr 40 min Scoring: 17 points

UNIT 6: GRAPHING DATA

LESSON 1: THE CARTESIAN COORDINATE SYSTEM**Study: The Cartesian Coordinate System**

Identify and define parts of the Cartesian coordinate system, such as the axes, origin, and the four quadrants.

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: The Cartesian Coordinate System

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 28 points

Core > Texas Algebra I

Copyright © 2013 Apex Learning Inc. Apex Learning®, the Apex Learning logo, ClassTools®, ClassTools Achieve®, ClassTools Virtual, Literacy Advantage, and Beyond Books® are either registered trademarks or trademarks of Apex Learning Inc.

LESSON 2: GEOMETRY WITH COORDINATES

Study: Geometry with Coordinates

Learn about using geometry with the coordinate system to find lengths of line segments, distances between points, perimeters, and even areas in the xy -plane.

Duration: 0 hr 40 min

Quiz: Geometry with Coordinates

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 20 points

LESSON 3: THE DISTANCE FORMULA

Study: The Distance Formula

Learn about deriving the distance formula for the xy -plane.

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: The Distance Formula

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring:

24 points

LESSON 4: COORDINATES AND DATA

Study: Coordinates and Data

Learn about graphs and the Cartesian coordinate system, plotting data points, looking for patterns, finding correlations, dependent and independent variables, the line of best fit, and deviation and range.

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: Coordinates and Data

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 16

points

LESSON 5: DATA ANALYSIS

Study: Data Analysis

Learn about using the Cartesian coordinate system to find patterns in data; plotting points on a graph; dependent and independent variables; converting table data to ordered pairs; and using the best-fit line to estimate the value of data points.

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: Data Analysis

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 18 points

LESSON 6: WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Review Exercise

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

Duration: 1 hr

Discuss: You are Here

Take part in a three- to five-question discussion about applying methods learned in this unit.

Duration: 0 hr 20 min Scoring: 30 points

Test (CS): Graphing Data

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

Duration: 0 hr 40

min Scoring: 69 points

Test (TS): Graphing Data

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: Graphing Data

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

Duration: 0 hr 40 min Scoring: 23 points

UNIT 7: ALGEBRA I SEMESTER 1 REVIEW AND EXAM

LESSON 1: PREPARING FOR THE SEMESTER EXAM

Review: Semester Review

Prepare for the semester exam by reviewing key concepts covered in Algebra I Semester 1.

Duration: 1 hr

Exam: Algebra 1 Semester 1

Duration: 0 hr 50 min Scoring: 250 points

UNIT 8: STAAR DIAGNOSTIC ASSESSMENT

LESSON 1: STAAR DIAGNOSTIC ASSESSMENT

Diagnostic: STAAR Diagnostic Assessment

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

Duration: 1 hr Scoring: 35 points

UNIT 9: LINEAR EQUATIONS

LESSON 1: PATTERNS AND LINES

Study: Patterns and Lines

Explore a variety of functional relationships involving direct variation. Get an introduction to lines by examining the connection between the pattern of points on the graph of a line and the line's equation. Find the equation of a line based on the coordinates of its points, and graph a linear equation from a chart of its solutions.

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: Finding Equations of Lines as Solutions

Take a quiz to assess your understanding of the material.

Duration: 0

hr 25 min Scoring: 30 points

LESSON 2: SLOPE

Study: Slope

Learn about slope, formula, the definition of rise and run, and measuring rate of change.

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: Finding Slopes of Lines

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring:

30 points

Quiz: Positive Negative and Undefined Slopes

Take a quiz to assess your understanding of the material.

Duration: 0

hr 25 min Scoring: 24 points

LESSON 3: PARALLEL AND PERPENDICULAR LINES

Study: Parallel and Perpendicular Lines

Learn about parallel and perpendicular lines and the relationships between their slopes.

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: Slopes of Parallel and Perpendicular Lines

Take a quiz to assess your understanding of the material.

Duration:

0 hr 25 min Scoring: 30 points

LESSON 4: SLOPE-INTERCEPT EQUATION OF A LINE

Study: Slope-Intercept Equation of a Line

Learn about using slope and y -intercept to find the slope-intercept equation of a line.

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: Finding Slope-Intercept Equations of Lines

Take a quiz to assess your understanding of the material.

Duration:

0 hr 25 min Scoring: 22 points

LESSON 5: GRAPHING AND MANIPULATING $Y = MX + B$

Study: Graphing and Manipulating $y = mx + b$

Learn, describe, and predict how changing the values of m and b in the slope-intercept equation of a line changes the graph of the equation.

Duration: 0 hr 40 min Scoring: 0 points

Checkup: Practice Problems

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

Duration: 0 hr 30 min

Scoring: 0 points

Quiz: Graphing and Manipulating $y = mx + b$

Take a quiz to assess your understanding of the material.

Duration: 0 hr

25 min Scoring: 20 points

LESSON 6: POINT-SLOPE EQUATION OF A LINE

Study: Point-Slope Equation of a Line

Learn about using slope and a point to find the y -intercept of a line; deriving and using the point-slope equation; and the standard form of an equation. Complete an application problem involving a mass on a spring.

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: Finding the Point-Slope Equation

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 30 points

Quiz: Finding the Equations of Lines

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 22 points

LESSON 7: LINEAR INEQUALITIES

Study: Linear Inequalities

Learn about finding and graphing solutions sets for linear inequalities.

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: Graphs of Inequalities

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring:

18 points

Study: Solving the Lighting Problem

Learn about applying linear inequalities in order to solve the real-world problem of energy usage, comparing incandescent and fluorescent light bulbs.

Duration: 0 hr 40 min

LESSON 8: WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Review Exercise

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

Duration: 0 hr 50 min

Discuss: A Slippery Slope

Core > Texas Algebra I

Copyright © 2013 Apex Learning Inc. Apex Learning®, the Apex Learning logo, ClassTools®, ClassTools Achieve®, ClassTools Virtual, Literacy Advantage, and Beyond Books® are either registered trademarks or trademarks of Apex Learning Inc.

Take part in a three- to five-question discussion about applying methods learned in this unit.

Duration: 0 hr 20 min Scoring: 30 points

Test (CS): Linear Equations

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

Duration: 0 hr 40 min Scoring: 66 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 9: DIAGNOSTIC

Diagnostic: Linear Equations

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

Duration: 0 hr 40 min Scoring: 22 points

UNIT 10: SYSTEMS OF LINEAR EQUATIONS

LESSON 1: FORMULATING SYSTEMS OF EQUATIONS

Study: Formulating Systems of Equations

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

Duration: 0 hr 40 min Scoring: 0 points

Checkup: Practice Problems

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

Duration: 0 hr 30 min Scoring: 0 points

Quiz: Formulating Systems of Equations

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 20 points

LESSON 2: TWO-VARIABLE SYSTEMS: GRAPHING

Study: Two-Variable Systems: Graphing

Learn about graphing systems of two linear equations and investigating when and why systems of linear equations have no solutions, exactly one solution, or infinitely many solutions.

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: Solving with Graphing

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 30 points

LESSON 3: TWO-VARIABLE SYSTEMS: SUBSTITUTION

Study: Two-Variable Systems: Substitution

Learn about replacing a variable with an equal value or expression in order to transform a two-variable equation into a one-variable equation. Learn about using the substitution method to solve systems of linear equations and about applying this method to the real-world problem of a rabbit catching a turtle.

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: Solving with Substitution

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 30 points

LESSON 4: TWO-VARIABLE SYSTEMS: ELIMINATION

Study: Two-Variable Systems: Elimination

Strategize methods for eliminating a variable term when solving a system of linear equations. Practice adding or subtracting the same value from both sides of an equation in order to eliminate strategic terms. Change equations from nonstandard form to standard form so that they are easier to work with and adapt to the elimination method.

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: Solving with Elimination Standard Form

Take a quiz to assess your understanding of the material.

Duration: 0

hr 25 min Scoring: 30 points

Quiz: Solving with Elimination Non-Standard Form

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 26 points

LESSON 5: TWO-VARIABLE SYSTEMS: MATRICES

Study: Two-Variable Systems: Matrices

Learn about using a matrix to represent a system of linear equations; using row arithmetic as shorthand for the elimination method; and using matrices to solve systems of linear equations.

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: Reading and Using Matrices

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 22 points

Quiz: Solving with a Matrix

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 28

points

LESSON 6: TWO-VARIABLE SYSTEMS OF INEQUALITIES

Study: Two-Variable Systems of Inequalities

Learn about graphing and finding solution sets for systems of inequalities, including those with no solution and those with more than two inequalities.

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: Solving Systems of Inequalities

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 22 points

Quiz: Solving Systems with More than Two Inequalities

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 22 points

LESSON 7: THREE-VARIABLE SYSTEMS OF EQUATIONS

Study: Three-Variable Systems of Equations

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

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 30 min

Quiz: Solving Three-Variable Systems of Equations

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 26 points

LESSON 8: THREE-VARIABLE SYSTEMS: MATRICES

Study: Three-Variable Systems: Matrices

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

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 30 min

Quiz: Solving Three-Variable Systems with Matrices

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 20 points

LESSON 9: WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Review Exercise

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

Duration: 0 hr 50 min

Discuss: What's the Solution?

Take part in a three- to five-question discussion about applying methods learned in this unit.

Duration: 0 hr 20 min Scoring: 30 points

Test (CS): Systems of Linear Equations

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

Duration: 0 hr 40 min Scoring: 84 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 10: DIAGNOSTIC

Diagnostic: Systems of Linear Equations

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

Duration: 0 hr 40 min Scoring: 28 points

UNIT 11: POLYNOMIALS

LESSON 1: WHAT IS A POLYNOMIAL?

Study: What is a Polynomial?

Learn the definitions of monomials, polynomials, constants, terms, coefficients, binomials, trinomials, and degree. Learn about finding degrees of polynomials.

Duration: 0 hr 40 min

Checkup: Practice Problems

Core > Texas Algebra I

Copyright © 2013 Apex Learning Inc. Apex Learning®, the Apex Learning logo, ClassTools®, ClassTools Achieve®, ClassTools Virtual, Literacy Advantage, and Beyond Books® are either registered trademarks or trademarks of Apex Learning Inc.

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

Duration: 0 hr 30 min

Quiz: Degrees of Polynomials

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring:

30 points

Quiz: Degrees of Polynomials (Advanced)

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25

min Scoring: 30 points

LESSON 2: ADDING AND SUBTRACTING POLYNOMIALS

Study: Adding and Subtracting Polynomials

Learn about using tiles to represent, add, and subtract polynomials and about adding and subtracting polynomials by collecting like terms. Apply these methods to the real-world problem of purchasing streetlamps.

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: Polynomial Addition with Tiles

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 30 points

Quiz: Polynomial Addition

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 28

points

Quiz: Polynomial Subtraction

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring:

16 points

LESSON 3: MULTIPLYING BINOMIALS

Study: Multiplying Binomials

Learn about using tiles to multiply linear binomials; using the distributive property to simplify

and find the product of two binomials; and the FOIL (first, outer, inner, last) method of finding products.

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: Finding Products of Binomials

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 28 points

Quiz: Finding the Product of Two Binomials

Take a quiz to assess your understanding of the material.

Duration: 0 hr

25 min Scoring: 30 points

Quiz: The FOIL Method

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 16

points

LESSON 4: MULTIPLYING POLYNOMIALS

Study: Multiplying Polynomials

Learn about using a table to multiply polynomials; using the distributive property; and multiplying polynomials by arranging them vertically.

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: Polynomial Multiplication

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 22 points

Quiz: Polynomial Multiplication (Advanced)

Take a quiz to assess your understanding of the material.

Duration: 0 hr

25 min Scoring: 28 points

LESSON 5: DIVIDING POLYNOMIALS

Core > Texas Algebra I

Copyright © 2013 Apex Learning Inc. Apex Learning®, the Apex Learning logo, ClassTools®, ClassTools Achieve®, ClassTools Virtual, Literacy Advantage, and Beyond Books® are either registered trademarks or trademarks of Apex Learning Inc.

Study: Dividing Polynomials

Learn about using long division to find the quotient of two polynomials; dividing polynomials with missing terms; and dividing polynomials with remainders.

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: Polynomial Long Division

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 30 points

LESSON 6: GRAPHING POLYNOMIALS

Study: Graphing Polynomials

Learn about graphs as pictures of solution sets. Use a table to find and graph solutions to polynomial equations. Explore why these graphs are always continuous curves. Graph higher-degree polynomial equations by plotting their corresponding points and identifying their parts, such as extreme values (maximum and minimum) and roots.

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: Finding Extreme Values

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring:

24 points

Quiz: Finding Roots of Graphs

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring:

22 points

Study: The Stereo Problem

Apply the method of graphing polynomials in order to solve the real-world problem of finding the relationship between the price of stereos and sales figures.

Duration: 0 hr 40 min

LESSON 7: WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Review Exercise

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

Duration: 0 hr 50 min

Discuss: Thinking Positive in the Real World

Take part in a three- to five-question discussion about applying methods learned in this unit.

Duration: 0 hr 20 min Scoring: 30 points

Test (CS): Polynomials

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

Duration: 0 hr 40 min

Scoring: 75 points

Test (TS): Polynomials

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

Duration: 0 hr 30 min

Scoring: 50 points

LESSON 8: DIAGNOSTIC**Diagnostic: Polynomials**

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

Duration:

0 hr 40 min Scoring: 25 points

UNIT 12: FACTORING OF POLYNOMIALS

LESSON 1: WHY FACTOR?**Study: Why Factor?**

Learn about composite numbers, reducible polynomials, and the zero product rule.

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: Factoring Polynomials

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring:

30 points

LESSON 2: FACTORING WITH TILES

Study: Factoring with Tiles

Review using tiles to multiply polynomials and to find factors of polynomials.

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: Factoring Polynomials with Tiles

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25

min Scoring: 24 points

LESSON 3: FACTORING AND GRAPHING

Study: Factoring and Graphing

Learn about the connection between roots and linear factors; using roots on graphs of polynomials to find linear factors; and polynomials with no linear factors or repeated linear factors.

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: Factoring by Graphing

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring:

28 points

Quiz: Factoring by Graphing (Advanced)

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25

min Scoring: 22 points

LESSON 4: GROUPING

Core > Texas Algebra I

Copyright © 2013 Apex Learning Inc. Apex Learning®, the Apex Learning logo, ClassTools®, ClassTools Achieve®, ClassTools Virtual, Literacy Advantage, and Beyond Books® are either registered trademarks or trademarks of Apex Learning Inc.

Study: Grouping

Learn about polynomials with terms that have a common factor; applying the distributive property in reverse to factor out common factors; and finding the greatest common factor.

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: Factoring by Grouping

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring:

30 points

Quiz: Finding GCFs of Polynomials

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 16 points

LESSON 5: FACTORING $X^2 + BX + C$ **Study: Factoring $x^2 + bx + c$**

Learn about factoring quadratic trinomials with leading coefficients of 1; rules for finding the constant term and coefficient of the x-term; using a table to factor trinomials; and diagramming signs while factoring trinomials.

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: Binomial Factors of Trinomials

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 30 points

Quiz: Factoring Trinomials

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 30

points

LESSON 6: FACTORING $AX^2 + BX + C$ **Study: Factoring $ax^2 + bx + c$**

Core > Texas Algebra I

Copyright © 2013 Apex Learning Inc. Apex Learning®, the Apex Learning logo, ClassTools®, ClassTools Achieve®, ClassTools Virtual, Literacy Advantage, and Beyond Books® are either registered trademarks or trademarks of Apex Learning Inc.

Learn about factoring trinomials with leading coefficients other than 1; factoring out a leading coefficient of -1; how values of factors relate to values of a trinomial; finding factor pairs of leading coefficients and constant terms; and finding signs in factors of trinomials with a leading coefficient different from 1.

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: Factoring Trinomials (Basic)

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 30 points

Quiz: Factoring Trinomials (Advanced)

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 30 points

LESSON 7: SPECIAL CASES

Study: Special Cases

Learn about recognizing and factoring a difference of squares; perfect-square trinomials; sums; and differences of two cubes.

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: Factoring a Difference of Squares

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25

min Scoring: 30 points

Quiz: Factoring Perfect Square Trinomials

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25

min Scoring: 20 points

Quiz: Sum or Difference of Two Cubes

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 30 points

LESSON 8: SOLVING QUADRATIC EQUATIONS

Study: Solving Quadratic Equations

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

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 30 min

Quiz: Factoring with the Zero Product Rule

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25

min Scoring: 28 points

Quiz: Converting Quadratics to Standard Form

Take a quiz to assess your understanding of the material.

Duration: 0

hr 25 min Scoring: 28 points

Quiz: Quadratics with Perfect Square Trinomials

Take a quiz to assess your understanding of the material.

Duration: 0

hr 25 min Scoring: 16 points

LESSON 9: COMPLETING THE SQUARE

Study: Completing the Square

Learn about solving quadratic equations without perfect-square trinomials; completing the square using tiles; and completing the square when the coefficients are more complicated.

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: Completing the Square

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring:

24 points

Quiz: Completing the Square (Advanced)

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25

Core > Texas Algebra I

Copyright © 2013 Apex Learning Inc. Apex Learning®, the Apex Learning logo, ClassTools®, ClassTools Achieve®, ClassTools Virtual, Literacy Advantage, and Beyond Books® are either registered trademarks or trademarks of Apex Learning Inc.

LESSON 10: THE QUADRATIC FORMULA

Study: The Quadratic Formula

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

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: Complex Numbers and Discriminants

Take a quiz to assess your understanding of the material.

Duration: 0 hr

25 min Scoring: 30 points

Quiz: The Quadratic Formula

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring:

30 points

LESSON 11: GRAPHS OF QUADRATIC FUNCTIONS

Study: Graphs of Quadratic Functions

Relate factors of a quadratic function to the graph of a parabola and its corresponding x-intercepts. Locate the vertex of a quadratic function graphically and algebraically. Use the discriminant of the quadratic formula to identify the number and types of solutions to a given quadratic equation, as well as to visualize its corresponding graph.

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 30 min

Quiz: Graphs of Quadratic Functions

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 30 points

Quiz: Working with the Discriminant

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 20 points

LESSON 12: WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Review Exercise

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

Duration: 0 hr 50 min

Discuss: Being Part of a Group

Take part in a three- to five-question discussion about applying methods learned in this unit.

Duration: 0 hr 20 min Scoring: 30 points

Test (CS): Factoring of Polynomials

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

Duration: 0 hr 40 min Scoring: 105 points

Test (TS): Factoring of Polynomials

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: Factoring of Polynomials

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

Duration: 0 hr 40 min Scoring: 35 points

UNIT 13: ADVANCED FUNCTIONS

LESSON 1: INVERSES

Study: Inverses

Learn about undoing functions, mapping diagrams of inverse functions, and finding the equation for an

Core > Texas Algebra I

Copyright © 2013 Apex Learning Inc. Apex Learning®, the Apex Learning logo, ClassTools®, ClassTools Achieve®, ClassTools Virtual, Literacy Advantage, and Beyond Books® are either registered trademarks or trademarks of Apex Learning Inc.

inverse function.

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: Inverses with Variables x and y

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 16 points

Quiz: Inverses with Other Variables

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 16 points

LESSON 2: GRAPHS OF INVERSES

Study: Graphs of Inverses

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

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 30 min

Quiz: Graphs of Inverses

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 18

points

LESSON 3: SHIFTING FUNCTIONS

Study: Shifting Functions

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

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 30 min

Quiz: Shifting Functions Vertically

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 18 points

Quiz: Shifting Functions Horizontally

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 16 points

Quiz: Shifting Functions Vertically and Horizontally

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 18 points

LESSON 4: STRETCHING FUNCTIONS VERTICALLY

Study: Stretching Functions Vertically

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

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: Stretching Functions Vertically

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 16 points

Study: Solving the Ball-Tossing Problem

Learn about shifting and stretching graphs and using inverses and about how to apply these methods to the real-world problem of tossing a ball. Learn about using average velocity as an estimate of instantaneous velocity.

Duration: 0 hr 40 min

LESSON 5: INVERSE VARIATION

Study: Inverse Variation

Review direct variation and how increasing input leads to proportionally increasing output.

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

Duration: 0 hr 40 min

Checkup: Practice Problems

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

Duration: 0 hr 30 min

Quiz: Inverse Variation

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 18

points

LESSON 6: RATIONAL FUNCTIONS

Study: Rational Functions

Learn the definition of a rational function and about finding the domain of a given function.

Explore the horizontal and vertical asymptotes of rational functions.

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: Rational Functions

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 28

points

LESSON 7: EXPONENTIAL FUNCTIONS

Study: Exponential Functions

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

Duration: 0 hr

40 min

Checkup: Practice Problems

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

Duration: 0 hr 30 min

Quiz: Evaluating Exponential Functions

Take a quiz to assess your understanding of the material.

*Duration: 0 hr 25
min Scoring: 30 points*

Quiz: Calculating Exponential Growth

Take a quiz to assess your understanding of the material.

*Duration: 0 hr 25 min
Scoring: 28 points*

LESSON 8: EXAMPLES AND APPLICATIONS OF EXPONENTIAL FUNCTIONS

Study: Examples and Applications of Exponential Functions

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

Duration: 0 hr 40 min

LESSON 9: WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Review Exercise

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

Duration: 0 hr 50 min

Discuss: The Power of Undoing or Shifting Functions

Take part in a three- to five-question discussion about applying methods learned in this unit.

Duration: 0 hr 20 min Scoring: 30 points

Test (CS): Advanced Functions

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

*Duration: 0
hr 40 min Scoring: 75 points*

Test (TS): Advanced Functions

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: Advanced Functions

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

Duration: 0 hr 40 min Scoring: 25 points

UNIT 14: INTRO TO DATA ANALYSIS & PROBABILITY

LESSON 1: WHAT IS A STATISTIC?

Study: What Is a Statistic?

Learn about descriptive inferential statistics, statistics parameters, sampling techniques, random samples, categorical numerical data, and graphic displays.

Duration: 0 hr 40 min Scoring: 0 points

Checkup: Practice Problems

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

Duration: 0 hr 30 min

Scoring: 0 points

Quiz: What Is a Statistic?

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 28

points

Quiz: Types of Data

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 26 points

LESSON 2: GRAPHICAL ANALYSIS OF DATA

Study: Graphical Analysis of Data

Learn about the different ways to express data graphically and the various shapes or properties these representations have.

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: Graphical Analysis of Data

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 24 points

LESSON 3: NUMERICAL ANALYSIS OF DATA

Study: Numerical Analysis of Data

Learn about the numerical analysis of data as it relates to means, medians, modes, IQR outliers, test quartiles, boxplots, variance, and standard deviation.

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: Measures of Central Tendency

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 30 points

Quiz: Quartiles and Boxplots

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring:

28 points

Quiz: Measures of Spread

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 26

points

LESSON 4: WHAT IS PROBABILITY?

Study: What Is Probability?

Learn about probability, random events, and theoretical and empirical forms.

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: What Is Probability?

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 22

points

Quiz: Sample Space

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 24 points

Study: Organizing What is Possible

Learn about counting strategies and developing general principles for counting outcomes.

Duration: 0 hr 40 min

LESSON 5: COUNTING PRINCIPLES

Study: Counting Principles

Learn about multiplication, principle-tree diagrams, Venn diagrams, permutations, and combinations.

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: Counting Principles

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min Scoring: 16 points

LESSON 6: BASIC RULES OF PROBABILITY

Study: Basic Rules of Probability

Learn four fundamental rules of probability, the addition rule for disjoint events, and the multiplication rule for independent events.

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: Basic Rules of Probability

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 24 points

Quiz: Basic Rules of Probability II

Take a quiz to assess your understanding of the material.

Duration: 0 hr 25 min

Scoring: 24 points

LESSON 7: WRAP-UP

Core > Texas Algebra I

Copyright © 2013 Apex Learning Inc. Apex Learning®, the Apex Learning logo, ClassTools®, ClassTools Achieve®, ClassTools Virtual, Literacy Advantage, and Beyond Books® are either registered trademarks or trademarks of Apex Learning Inc.

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Review Exercises

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

Duration: 0 hr 50 min

Discuss: Intro to Data Analysis & Probability

Take part in a three- to five-question discussion about applying methods learned in this unit.

Duration: 0 hr 20 min Scoring: 30 points

Test (CS): Intro to Data Analysis & Probability

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

Duration: 0 hr 40 min Scoring: 75 points

Test (TS): Intro to Data Analysis & Probability

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

Duration: 0 hr 30 min Scoring: 50 points

LESSON 8: DIAGNOSTIC**Diagnostic: Intro to Data Analysis & Probability**

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

Duration: 0 hr 40 min Scoring: 25 points

UNIT 15: ALGEBRA I SEMESTER 2 REVIEW AND EXAM

LESSON 1: PREPARING FOR THE SEMESTER EXAM**Review: Semester Review**

Prepare for the semester exam by reviewing key concepts covered in Algebra I Semester 2.

Duration: 1 hr

Exam: Semester Exam

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

Duration: 0 hr 50 min Scoring: 258 points

Core > Texas Algebra I

Copyright © 2013 Apex Learning Inc. Apex Learning®, the Apex Learning logo, ClassTools®, ClassTools Achieve®, ClassTools Virtual, Literacy Advantage, and Beyond Books® are either registered trademarks or trademarks of Apex Learning Inc.

UNIT 16: STAAR DIAGNOSTIC ASSESSMENT

LESSON 1: STAAR DIAGNOSTIC ASSESSMENT

Diagnostic: STAAR Diagnostic Assessment

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

Duration: 1 hr Scoring: 35 points