

Algebra I-A and I-B provide an expanded, two-year course sequence designed for students who are not prepared for the academic challenges of the traditional one-year Algebra I curriculum.

Algebra I-B course topics include a review of introductory algebra; measurement; graphing data; linear equations; systems of linear equations; polynomials; factoring of polynomials; factoring of quadratic functions; rational expressions; and radical expressions.

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

To assist students for whom language presents a barrier to learning or who are not reading at grade level, Algebra I-B includes audio resources in both Spanish and English.

Two versions of the Algebra I-B course are offered: one aligned with Florida's Next Generation Sunshine State Standards and Benchmarks, and the other with California's Algebra I Mathematics Content Standards. Detailed correlations to standards for other states are available upon request.

Length: Two Semesters

UNIT 1: REVIEW OF ALGEBRA I-A

LESSON 1: INTEGERS AND OPERATIONS

Study: Integers and Operations

Review sets; subsets; elements; whole numbers; positive and negative integers; the number line; absolute value; arithmetic operations and their properties; and the order of operations.

Duration: 0 hrs 50 mins

Checkout: Practice Problems

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

Duration: 0 hrs 30 mins

Quiz: Properties of Operations

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins
Scoring: 28 points

Quiz: Order of Operations

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring:

18 points

LESSON 2: FRACTIONS AND DECIMALS

Study: Fractions and Decimals

Review fraction terminology (including *numerator* and *denominator*); performing operations with fractions; real (rational and irrational) numbers; equivalent fractions; prime numbers and factorization; least common multiples; reciprocals; and converting fractions to decimals and percentages.

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Quiz: Like Denominators

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 16

points

Quiz: Equivalent Fractions

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring:

18 points

Quiz: Fractions, Decimals, and Percents

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25

mins Scoring: 28 points

LESSON 3: EXPONENTS

Study: Exponents

Review exponents and their place in the order of operations; laws for evaluating exponential expressions; fractional and decimal exponents; radical notation and principal square roots; laws for simplifying radical expressions; and scientific notation.

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Quiz: Exponential Expressions

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins

Scoring: 30 points

Quiz: Operations with Radicals

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins

Scoring: 16 points

Quiz: Scientific Notation

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 24

points

LESSON 4: VARIABLES AND PROBLEM SOLVING

Study: Variables and Problem Solving

Review variable expressions; mathematical sentences; equations and inequalities; solution sets; and steps to solving algebraic problems.

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Quiz: Variables and Problem Solving

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins

Scoring: 28 points

LESSON 5: SOLVING WITH ADDITION AND SUBTRACTION

Study: Solving with Addition and Subtraction

Review isolating variables, using a number line to solve equations and solution sets for inequalities.

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Practice: Number Line Tool

Use algebra and a number line tool to solve equations.

Duration: 0 hrs 40 mins Scoring: 25

points

Quiz: Solving Equations with Addition and Subtraction

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 16 points

Quiz: Solving Inequalities with Addition and Subtraction

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 16 points

LESSON 6: SOLVING WITH MULTIPLICATION AND DIVISION

Study: Solving with Multiplication and Division

Review solving equations involving multiplication and division, including by using a number line, and review solving inequalities with multiplication and division.

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Practice: Number Line Tool

Use algebra and a number line tool to solve equations.

Duration: 0 hrs 40 mins Scoring: 25

points

Quiz: Solving Equations with Multiplication

Take a quiz to assess your understanding of the material.

Duration: 0 hrs

25 mins Scoring: 16 points

Quiz: Solving Equations with Division

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25

mins Scoring: 16 points

Quiz: Solving Inequalities with Multiplication and Division

Take a quiz to assess your understanding of the material.

LESSON 7: SOLVING WITH ROOTS AND POWERS

Study: Solving with Roots and Powers

Review solving equations with square roots and absolute values. Review solving inequalities with square roots and absolute values, including by using a number line.

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30
mins

Quiz: Solving with Roots and Powers

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25
mins Scoring: 16 points

Quiz: Solving Inequalities with Roots and Powers

Take a quiz to assess your understanding of the material.

Duration:
0 hrs 25 mins Scoring: 16 points

Quiz: Finding Solution Sets with Inequalities

Take a quiz to assess your understanding of the material.

Duration: 0 hrs
25 mins Scoring: 16 points

LESSON 8: SOLVING MULTISTEP LINEAR EQUATIONS

Study: Solving Multistep Linear Equations

Review collecting like terms by using both addition/subtraction and multiplication/division and review identifying equations that are never or always true.

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30
mins

Quiz: Basic Collecting of Like Terms

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins

Scoring: 16 points

Quiz: Advanced Collecting of Like Terms

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25

mins Scoring: 16 points

Quiz: Finding Number of Solution Sets

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25

mins Scoring: 16 points

LESSON 9: REVIEW OF ALGEBRA I-A WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Review of Algebra I-A

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

Duration: 0 hrs 30 mins

Discuss: When Does a Number Become Scientific?

Take part in a discussion about applying methods learned in this unit.

Duration: 0 hrs 20 mins Scoring: 30 points

Test (CS): Review of Algebra I-A

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

Duration: 0

hrs 40 mins Scoring: 105 points

Test (TS): Review of Algebra I-A

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

Duration: 0

hrs 30 mins Scoring: 50 points

LESSON 10: DIAGNOSTIC

Diagnostic: Review of Algebra 1-A

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

Duration: 0 hrs 40 mins Scoring: 35 points

UNIT 2: 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, the origin, and the four quadrants.

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Quiz: The Cartesian Coordinate System

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25

mins Scoring: 28 points

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 hrs 50 mins

Practice: Graphing Tool

Use a graphing tool to draw line segments and investigate distance.

Duration: 0 hrs 40 mins

Scoring: 25 points

Quiz: Geometry with Coordinates

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins

Scoring: 20 points

LESSON 3: THE DISTANCE FORMULA

Study: The Distance Formula

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

Duration: 0 hrs 10 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30 mins

Quiz: The Distance Formula

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 24 points

LESSON 4: 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 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30 mins

Practice: Graphing Tool

Use a graphing tool to find best-fit lines and use them to make predictions.

Duration: 0 hrs 40 mins Scoring: 25 points

Quiz: Data Analysis

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 18 points

LESSON 5: GRAPHING DATA WRAP-UP**Practice: Assignment**

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Graphing Data

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

Duration: 0 hrs 30 mins

Discuss: You Are Here

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

Duration: 0 hrs 20 mins Scoring: 30 points

Test (CS): Graphing Data

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

Duration: 0 hrs 40 mins Scoring: 45 points

Test (TS): Graphing Data

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

Duration: 0 hrs 30 mins Scoring: 50 points

LESSON 6: DIAGNOSTIC

Diagnostic: Graphing Data

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

Duration: 0 hrs 40 mins Scoring: 15 points

UNIT 3: 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 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30 mins

Quiz: Finding Equations of Lines as Solutions

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins 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 hrs 50

mins

Checkout: Practice Problems

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

Duration: 0 hrs 30

mins

Practice: Graphing Tool

Use a graphing tool to investigate slope.

Duration: 0 hrs 40 mins Scoring: 25 points

Quiz: Finding Slopes of Lines

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins

Scoring: 30 points

Quiz: Positive, Negative, and Undefined Slopes

Take a quiz to assess your understanding of the material.

Duration: 0

hrs 25 mins 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 hrs 50 mins

Checkout: Practice Problems

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

Duration: 0 hrs 30

mins

Quiz: Slopes of Parallel and Perpendicular Lines

Take a quiz to assess your understanding of the material.

Duration:

0 hrs 25 mins Scoring: 30 points

LESSON 4: SLOPE-INTERCEPT EQUATION OF A LINE

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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 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Practice: Graphing Tool

Use a graphing tool to graph lines from your equations.

Duration: 0 hrs 40 mins Scoring: 25

points

Quiz: Finding Slope-Intercept Equations of Lines

Take a quiz to assess your understanding of the material.

Duration:

0 hrs 25 mins Scoring: 22 points

LESSON 5: 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 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Quiz: Finding the Point-Slope Equation

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25

mins Scoring: 30 points

Quiz: Finding the Equations of Lines

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins

Scoring: 22 points

LESSON 6: LINEAR INEQUALITIES

Study: Linear Inequalities

Learn about finding and graphing solution sets for linear inequalities.

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Quiz: Graphs of Inequalities

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring:

18 points

Study: Solving the Lighting Problem

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

Duration: 0 hrs 50 mins

LESSON 7: LINEAR EQUATIONS WRAP-UP**Practice: Assignment**

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Linear Equations

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

Duration: 0 hrs 30 mins

Discuss: A Slippery Slope

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

Duration: 0 hrs 20 mins Scoring: 30 points

Test (CS): Linear Equations

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

Duration: 0 hrs

40 mins Scoring: 57 points

Test (TS): Linear Equations

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

Duration: 0 hrs 30

mins Scoring: 50 points

LESSON 8: DIAGNOSTIC

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Diagnostic: Linear Equations

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

Duration: 0 hrs 40 mins Scoring: 19 points

UNIT 4: SYSTEMS OF LINEAR EQUATIONS

LESSON 1: 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 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30 mins

Practice: Graphing Tool

Use a graphing tool to investigate two-variable systems.

Duration: 0 hrs 40 mins Scoring: 25 points

Quiz: Solving with Graphing

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 30 points

LESSON 2: 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 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30 mins

Quiz: Solving with Substitution

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins

Scoring: 30 points

LESSON 3: 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 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Quiz: Solving with Elimination Standard Form

Take a quiz to assess your understanding of the material.

Duration: 0

hrs 25 mins Scoring: 30 points

Quiz: Solving with Elimination Nonstandard Form

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 26 points

LESSON 4: 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 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Practice: Graphing Tool

Use a graphing tool to investigate two-variable systems of inequalities.

Duration: 0 hrs 40 mins

Scoring: 25 points

Quiz: Solving Systems of Inequalities

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25

mins Scoring: 22 points

Quiz: Solving Systems with More Than Two Inequalities

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 22 points

LESSON 5: SYSTEMS OF LINEAR EQUATIONS WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Systems of Linear Equations

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

Duration: 0 hrs 30

mins

Discuss: What's the Solution?

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

Duration: 0 hrs 20 mins 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 hrs 40 mins Scoring: 51 points

Test (TS): Systems of Linear Equations

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

Duration: 0 hrs 30 mins Scoring: 50 points

LESSON 6: DIAGNOSTIC

Diagnostic: Systems of Linear Equations

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

Duration: 0 hrs 40 mins Scoring: 17 points

UNIT 5: ALGEBRA I-B SEMESTER 1 WRAP-UP

LESSON 1: ALGEBRA I-B SEMESTER 1

Review: Algebra I-B Semester 1

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

Duration: 1 hr

Exam: Algebra I-B Semester 1

Duration: 0 hrs 50 mins Scoring: 200 points

UNIT 6: POLYNOMIALS

LESSON 1: WHAT IS A MONOMIAL?

Study: What Is a Monomial?

Explore the world of monomials.

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Practice: Algebra Tiles Tool

Use an algebra tiles tool to investigate monomials.

Duration: 0 hrs 40 mins Scoring: 25

points

Quiz: What Is a Monomial?

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring:

20 points

LESSON 2: WHAT IS A POLYNOMIAL?

Study: What Is a Polynomial?

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

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Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30 mins

Quiz: Degrees of Polynomials

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins
Scoring: 30 points

Quiz: Degrees of Polynomials (Advanced)

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins
Scoring: 30 points

LESSON 3: 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 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30 mins

Quiz: Polynomial Addition with Tiles

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins
Scoring: 30 points

Quiz: Polynomial Addition

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins
Scoring: 28 points

Quiz: Polynomial Subtraction

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins
Scoring: 16 points

LESSON 4: 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 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30 mins

Quiz: Finding Products of Binomials

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins
Scoring: 28 points

Quiz: Finding the Product of Two Binomials

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins
Scoring: 30 points

Quiz: The FOIL Method

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins
Scoring: 16 points

LESSON 5: 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 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30 mins

Quiz: Polynomial Multiplication

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins
Scoring: 22 points

Quiz: Polynomial Multiplication (Advanced)

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Take a quiz to assess your understanding of the material.

Duration: 0 hrs

25 mins Scoring: 28 points

LESSON 6: DIVIDING POLYNOMIALS

Study: Dividing Polynomials

Learn about dividing polynomials by monomials.

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Practice: Algebra Tiles Tool

Use an algebra tiles tool to investigate dividing polynomials.

Duration: 0 hrs 40 mins

Scoring: 25 points

Quiz: Polynomial Division

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring:

30 points

LESSON 7: POLYNOMIALS WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Polynomials

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

Duration: 0 hrs 30 mins

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 hrs 20 mins Scoring: 30 points

Test (CS): Polynomials

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

Duration: 0 hrs 40

mins Scoring: 75 points

Test (TS): Polynomials

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

Duration: 0 hrs 30 mins

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 hrs 40 mins Scoring: 25 points

UNIT 7: FACTORING OF POLYNOMIALS

LESSON 1: WHY FACTOR?

Study: Why Factor?

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

Duration: 0 hrs

50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Quiz: Factoring Polynomials

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins 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 hrs

50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Practice: Algebra Tiles Tool

Use an algebra tiles tool to investigate perfect-square polynomials.

Duration: 0 hrs 40 mins

Scoring: 25 points

Quiz: Factoring Polynomials with Tiles

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25

mins 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 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Practice: Graphing Tool and Algebra Tiles Tool

Use a graphing tool and an algebra tiles tool to investigate factoring and graphing.

Duration: 0 hrs 40 mins Scoring: 25 points

Quiz: Factoring by Graphing

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring:

28 points

Quiz: Factoring by Graphing (Advanced)

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25

mins Scoring: 22 points

LESSON 4: GROUPING

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 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30 mins

Quiz: Factoring by Grouping

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 30 points

Quiz: Finding GCFs of Polynomials

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 16 points

LESSON 5: FACTORING OF POLYNOMIALS WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Factoring of Polynomials

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

Duration: 0 hrs 30 mins

Discuss: Factoring of Polynomials

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

Duration: 0 hrs 20 mins Scoring: 30 points

Test (CS): Factoring of Polynomials

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

Duration: 0 hrs 40 mins Scoring: 75 points

Test (TS): Factoring of Polynomials

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

Duration: 0 hrs 30 mins Scoring: 50 points

LESSON 6: DIAGNOSTIC

Diagnostic: Factoring of Polynomials

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

Duration: 0 hrs 40 mins Scoring: 25 points

UNIT 8: FACTORING OF QUADRATIC EXPRESSIONS

LESSON 1: FACTORING $X^2 + BX + C$

Study: Factoring $x^2 + bx + c$

Learn about factoring quadratic trinomials with leading coefficients of 1; the 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 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30 mins

Practice: Graphing Tool

Use a graphing tool to investigate quadratic functions with no leading coefficient.

Duration: 0 hrs 40 mins Scoring: 25 points

Quiz: Binomial Factors of Trinomials

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 30 points

Quiz: Factoring Trinomials

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 30 points

LESSON 2: FACTORING $AX^2 + BX + C$

Study: Factoring $ax^2 + bx + c$

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 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30 mins

Practice: Quadratic Factoring Tool

Use a quadratic factoring tool to investigate quadratic functions with a leading coefficient.

Duration: 0 hrs 40 mins Scoring: 25 points

Quiz: Factoring Trinomials (Basic)

Take a quiz to assess your understanding of the material.

*Duration: 0 hrs 25 mins
Scoring: 30 points*

Quiz: Factoring Trinomials (Advanced)

Take a quiz to assess your understanding of the material.

*Duration: 0 hrs 25 mins
Scoring: 30 points*

LESSON 3: SPECIAL CASES**Study: Special Cases**

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

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30 mins

Quiz: Factoring a Difference of Squares

Take a quiz to assess your understanding of the material.

*Duration: 0 hrs 25 mins
Scoring: 30 points*

Quiz: Factoring Perfect Square Trinomials

Take a quiz to assess your understanding of the material.

*Duration: 0 hrs
25 mins Scoring: 20 points*

Quiz: Sum or Difference of Two Cubes

Take a quiz to assess your understanding of the material.

*Duration: 0 hrs 25 mins
Scoring: 30 points*

LESSON 4: SOLVING QUADRATIC EQUATIONS

Study: Solving Quadratic Equations

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

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30 mins

Quiz: Factoring with the Zero Product Rule

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 28 points

Quiz: Converting Quadratics to Standard Form

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 28 points

Quiz: Quadratics with Perfect Square Trinomials

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 16 points

LESSON 5: 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 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30 mins

Quiz: Complex Numbers and Discriminants

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 30 points

Quiz: The Quadratic Formula

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Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins

Scoring: 30 points

LESSON 6: 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 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Quiz: Graphs of Quadratic Functions

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins

Scoring: 30 points

Quiz: Working with the Discriminant

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins

Scoring: 20 points

LESSON 7: FACTORING OF QUADRATIC EXPRESSIONS WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Factoring of Quadratic Functions

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

Duration: 0

hrs 30 mins

Discuss: Factoring of Quadratic Functions

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

Duration: 0 hrs 20 mins Scoring: 30 points

Test (CS): Factoring of Quadratic Functions

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

Duration: 0 hrs 40 mins Scoring: 75 points

Test (TS): Factoring of Quadratic Functions

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

Duration: 0 hrs 30 mins Scoring: 50 points

LESSON 8: DIAGNOSTIC

Diagnostic: Factoring of Quadratic Functions

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

Duration: 0 hrs 40 mins Scoring: 25 points

UNIT 9: RATIONAL EXPRESSIONS

LESSON 1: PROPORTIONS

Study: Proportions

Learn the definition of a rational expression and learn about using proportional reasoning to solve problems. Explore real-world examples of proportional reasoning.

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Practice: Proportion Builder Tool

Use a proportion builder tool to investigate proportions.

Duration: 0 hrs 40 mins

Scoring: 25 points

Quiz: Proportions

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 16 points

LESSON 2: RATIONAL EXPRESSIONS

Study: Rational Expressions

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

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Practice: Rational Expressions Tool

Use a rational expressions tool to investigate rational expressions.

Duration: 0 hrs

40 mins Scoring: 25 points

Quiz: Rational Expressions

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring:

16 points

LESSON 3: SIMPLIFYING RATIONAL EXPRESSIONS**Study: Simplifying Rational Expressions**

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

Duration: 0 hrs

50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30

mins

Quiz: Simplifying Rational Expressions

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25

mins Scoring: 16 points

LESSON 4: ADVANCED PROPORTIONS**Study: Advanced Proportions**

Learn how to solve more advanced proportions and explore real-world scenarios that require advanced proportional reasoning.

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30 mins

Quiz: Advanced Proportions

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 20 points

LESSON 5: RATIONAL EXPRESSIONS WRAP-UP**Practice: Assignment**

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Rational Expressions

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

Duration: 0 hrs 30 mins

Discuss: Undefined and Infinite Numbers

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

Duration: 0 hrs 20 mins Scoring: 30 points

Test (CS): Rational Expressions

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

Duration: 0 hrs 40 mins Scoring: 75 points

Test (TS): Rational Expressions

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

Duration: 0 hrs 30 mins Scoring: 50 points

LESSON 6: DIAGNOSTIC**Diagnostic: Rational Expressions**

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

Duration: 0 hrs 40 mins Scoring: 25 points

UNIT 10: RADICAL EXPRESSIONS

LESSON 1: BASICS OF RADICALS

Study: Basics of Radicals

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

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30 mins

Practice: Radical Expressions Tool

Use a radical expressions tool to investigate the basics of radicals.

Duration: 0 hrs 40 mins Scoring: 25 points

Quiz: Simplifying Products of Radicals

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 30 points

Quiz: Simplifying Quotients of Radicals

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 25 mins Scoring: 30 points

LESSON 2: MULTIPLYING AND DIVIDING RADICALS

Study: Multiplying and Dividing Radicals

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

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

Duration: 0 hrs 30 mins

Practice: Radical Values Tool

Use a radical values tool to investigate multiplying and dividing radicals.

Duration: 0 hrs 40 mins Scoring: 25 points

Quiz: Multiplying Radicals

Take a quiz to assess your understanding of the material.

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*Duration: 0 hrs 25 mins Scoring:
30 points*

Quiz: Dividing Radicals

Take a quiz to assess your understanding of the material.

*Duration: 0 hrs 25 mins Scoring: 28
points*

LESSON 3: ADDING AND SUBTRACTING RADICALS

Study: Adding and Subtracting Radicals

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

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

*Duration: 0 hrs 30
mins*

Quiz: Adding and Subtracting Radicals

Take a quiz to assess your understanding of the material.

*Duration: 0 hrs 25
mins Scoring: 30 points*

LESSON 4: RATIONALIZING DENOMINATORS

Study: Rationalizing Denominators

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

Duration: 0 hrs 50 mins

Checkup: Practice Problems

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

*Duration: 0 hrs 30
mins*

Quiz: Rationalizing Denominators

Take a quiz to assess your understanding of the material.

*Duration: 0 hrs 25 mins
Scoring: 30 points*

LESSON 5: RADICAL EXPRESSIONS WRAP-UP

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Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 1 hr Scoring: 100 points

Review: Radical Expressions

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

Duration: 0 hrs 30 mins

Discuss: Rooting Out Squares and Cubes

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

Duration: 0 hrs 20 mins Scoring: 30 points

Test (CS): Radical Expressions

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

Duration: 0

hrs 40 mins Scoring: 75 points

Test (TS): Radical Expressions

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

Duration: 0 hrs

30 mins Scoring: 50 points

LESSON 6: DIAGNOSTIC**Diagnostic: Radical Expressions**

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

Duration: 0 hrs 40 mins Scoring: 25 points

UNIT 11: ALGEBRA I-B SEMESTER 2 WRAP-UP

LESSON 1: ALGEBRA I-B SEMESTER 2**Review: Algebra I-B Semester 2**

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

Duration: 1 hr

Exam: Algebra I-B Semester 2

Duration: 0 hrs 50 mins Scoring: 200 points