

Algebra 1, Part 1

ATTENTION

Grading at the end of the semester can take 7 school days!
Submit your **last assignment two weeks** before your school's semester ends.



How to Take This Course

Each unit includes guided notes that align with the lesson videos. The lesson quizzes, unit tests, and final exam are all based on the content covered in these videos. Most lessons also include links to optional resources or practice assignments. You're encouraged to explore these additional materials if you'd like extra support or more practice on specific topics.

Complete all the quizzes and the assignment in each unit. Once the quizzes for a unit are complete, you will have access to the unit test. We recommend you complete the unit assignment before you attempt the unit test; the assignment will help you prepare. You will have access to the final after you have been enrolled in the course for at least 30 days, all unit tests are completed, and your assignments **are graded**.

Allow 3-4 school days for an assignment to be graded. To understand the course grading, read the full course instructions.

[Course Instructions](#)

[How This Course Works & Suggested Timeline](#)

[Submitting Your Assignments](#)

[Ask The Teacher](#)

Meet your teacher for this course and ask a question.

Need help with the course? We offer online tutoring; find more details about it [here](#).

MANDATORY QUIZ

Completion ▾

You are required to take this quiz before you start the course. To prepare, read the course instructions and the "submitting your assignments" document, watch the video on the [how this course works page](#) and review the [suggested timeline](#).

[Learning Objectives & Standards Met By This Course](#)

Unit 1: Expressions and Operations

In this unit, you will

- Classify real numbers and apply properties such as commutative, associative, and distributive properties.
- Simplify algebraic expressions using order of operations, like terms, and the distributive property.
- Evaluate expressions by substituting values and applying inverse and identity properties.
- Use significant figures, precision, and accuracy when performing measurements and calculations.
- Choose appropriate units and types of measurement for different real-world situations.

[Unit 1 Guided Notes](#)

These guided notes correspond to the instructional videos. You may use them on the unit quizzes, unit tests, and course final.

As you work through the lessons, you are encouraged to work through the [practice problem set](#), and check your answers against the key.

[1.1 Properties of Real Numbers](#)

Quiz 1.1

Completion ▾

[1.2 Order of Operations](#)

Quiz 1.2

Completion ▾

[1.3 Simplifying Expressions](#)

Quiz 1.3

Completion ▾

[1.4 Evaluating Algebraic Expressions](#)

Quiz 1.4

Completion ▾

[1.5 Distributive Property](#)

Quiz 1.5

Completion ▾

[1.6 Descriptive Modeling and Accuracy](#)

Quiz 1.6

Completion ▾

[Unit 1 Assignment: Algebra and Everyday Decisions](#)

Completion ▾

Unit 1 Test

Not available unless: The activity [Quiz 1.1](#) is marked complete ...

[Show more ▾](#)

Unit 2: Equations and Inequalities

In this unit, you will

- Solve one-step, two-step, and multi-step equations, including those with variables on both sides.
- Work with proportions, literal equations, and equations involving absolute value.
- Graph and write inequalities on a number line using symbolic and verbal descriptions.
- Solve and graph linear, compound, and absolute value inequalities, and express solutions in interval notation.
- Apply equations and inequalities to real-world problems and interpret solutions within context.

[Unit 2 Guided Notes](#)

These guided notes correspond to the instructional videos. You may use them on the unit quizzes, unit tests, and course final.

As you work through the lessons, you are encouraged to work through the [practice problem set](#), and check your answers against the key.

[2.1 Solving One- and Two-Step Equations](#)

Quiz 2.1

Completion ▾

[2.2 Solving Multi-Step Equations](#)

Quiz 2.2

Completion ▾

[2.3 Solving Equations with Variables on Each Side](#)

Quiz 2.3

Completion ▾

[2.4 Solving Proportions](#)

Quiz 2.4

Completion ▾

[2.5 Literal Equations](#)

Quiz 2.5

Completion ▾

[2.6 Solving Absolute Value Equations](#)

Quiz 2.6

Completion ▾

[2.7 Graphing and Writing Inequalities](#)

Quiz 2.7

Completion ▾

[2.8 Solving Inequalities](#)

Quiz 2.8

Completion ▾

[2.9 Solving Absolute Value Inequalities](#)

Quiz 2.9

Completion ▾

[Unit 2 Assignment: The Road Trip](#)

Completion ▾

Unit 2 Test

Not available unless: The activity [Quiz 2.1](#) is marked complete ...

[Show more ▾](#)

Unit 3: Relations and Functions

In this unit, you will

- Identify functions using various representations, such as ordered pairs, tables, graphs, and mappings.
- Evaluate functions and use function notation to solve problems.
- Write function rules from tables, scenarios, and verbal descriptions.
- Graph linear and step functions, and describe features such as intercepts, domain, range, and intervals of increase or decrease.
- Apply transformations—including shifts, reflections, and dilations—to parent functions.

[Unit 3 Guided Notes](#)

These guided notes correspond to the instructional videos. You may use them on the unit quizzes, unit tests, and course final.

As you work through the lessons, you are encouraged to work through the [practice problem set](#), and check your answers against the key.

[3.1 Identifying Functions](#)

Quiz 3.1

Completion ▾

[3.2 Evaluating Functions](#)

Quiz 3.2

Completion ▾

[3.3 Writing Function Rules](#)

Quiz 3.3

Completion ▾

[3.4 Graphing Functions](#)

Quiz 3.4

Completion ▾

[3.5 Step Functions](#)

Quiz 3.5

Completion ▾

[3.6 Features of Functions](#)

Quiz 3.6

Completion ▾

[3.7 Transformations of Functions](#)

Quiz 3.7

Completion ▾

[Unit 3 Assignment: Functions in Real Life](#)

Completion ▾

Unit 3 Test

Not available unless: The activity [Quiz 3.1](#) is marked complete ...

[Show more ▾](#)

Unit 4: Linear Equations and Inequalities

In this unit, you will

- Analyze and graph linear equations in slope-intercept, standard, and point-slope form.
- Solve real-world problems using direct and inverse variation and interpret slope and intercepts in context.
- Graph and solve linear inequalities and systems, including compound and absolute value inequalities.
- Work with piecewise and absolute value functions, including graphing and interpreting their behavior.
- Explore inverse functions by finding and verifying the inverse of linear functions.

[Unit 4 Guided Notes](#)

These guided notes correspond to the instructional videos. You may use them on the unit quizzes, unit tests, and course final.

As you work through the lessons, you are encouraged to work through the [practice problem set](#), and check your answers against the key.

[4.1 Rate of Change and Slope](#)

Quiz 4.1

Completion ▾

[4.2 Slope-Intercept Form](#)

Quiz 4.2

Completion ▾

[4.3 Point-Slope Form and Standard Form](#)

Quiz 4.3

Completion ▾

[4.4 Direct and Inverse Variation](#)

Quiz 4.4

Completion ▾

[4.5 Linear Word Problems](#)

Quiz 4.5

Completion ▾

[4.6 Graphing Linear Inequalities](#)

Quiz 4.6

Completion ▾

[4.7 Piecewise Functions](#)

Quiz 4.7

Completion ▾

[4.8 Absolute Value Functions](#)

Quiz 4.8

Completion ▾

[4.9 Inverse of a Linear Function](#)

Quiz 4.9

Completion ▾

[Unit 4 Assignment: Graphing for the Talent Show](#)

Completion ▾

Unit 4 Test

Not available unless: The activity [Quiz 4.1](#) is marked complete ...

[Show more ▾](#)

Unit 5: Systems of Equations and Inequalities

In this unit, you will

- Solve systems of linear equations using graphing, substitution, and elimination methods.
- Identify systems that have one solution, no solution, or infinitely many solutions.
- Apply systems of equations to solve real-world word problems involving two variables.
- Graph and interpret solutions to systems of linear inequalities.
- Analyze overlapping solution regions for systems of inequalities and determine feasible solutions.

[Unit 5 Guided Notes](#)

These guided notes correspond to the instructional videos. You may use them on the unit quizzes, unit tests, and course final.

As you work through the lessons, you are encouraged to work through the [practice problem set](#), and check your answers against the key.

[5.1 Solving Systems by Graphing](#)

Quiz 5.1

Completion ▾

[5.2 Solving Systems Using Substitution](#)

Quiz 5.2

Completion ▾

[5.3 Solving Systems Using Elimination](#)

Quiz 5.3

Completion ▾

[5.4 Solving Special Systems](#)

Quiz 5.4

Completion ▾

[5.5 Applying Systems](#)

Quiz 5.5

Completion ▾

[5.6 Solving Systems of Linear Inequalities](#)

Quiz 5.6

Completion ▾

[Unit 5 Assignment: Systems of Equations and Inequalities](#)

Completion ▾

Unit 5 Test

Not available unless: The activity [Quiz 5.1](#) is marked complete ...

[Show more ▾](#)

Final Exam

You will have access to the final after you have been enrolled in the course for at least 30 days and when all unit tests are completed, and **your assignments are graded**.

Warning: You have only ONE attempt at the final. Are you ready to take the final? We highly recommend you take the practice final first, and if you are weak in any area, review the relevant course material again. You have unlimited attempts at the practice final; it will help you to prepare.

Remember, if you want to improve your grade in this course, you need to do that BEFORE you take the final exam.

Good Luck!!

Not available unless: The activity [MANDATORY QUIZ](#) is marked complete

Course Completion & Requesting a Transcript

Warning: If you are waiting for a resubmitted assignment to be graded, do NOT generate any course completion record until the teacher has graded it.

Transcript - Send a transcript to your school to report the credits you earned. A transcript will list all the courses you have taken with us, including those still in progress.

Course Certificate - This link cannot be accessed until you have completed the final. Upon satisfying this requirement, the link will become active.

Feedback - Before you go, we would appreciate your opinion on the course; please take 1 minute to complete the feedback form. We hope you enjoyed this course!

[Course Feedback](#)

Thank you for taking this course! Let us know what you think about it.

[Request a Transcript](#)

Notify your school that you have completed your course. Send them a transcript by email or mail. A transcript will list all the courses you have completed and those in progress.

[Certificate of Completion](#)

Not available unless: The activity [Final Exam](#) is marked complete