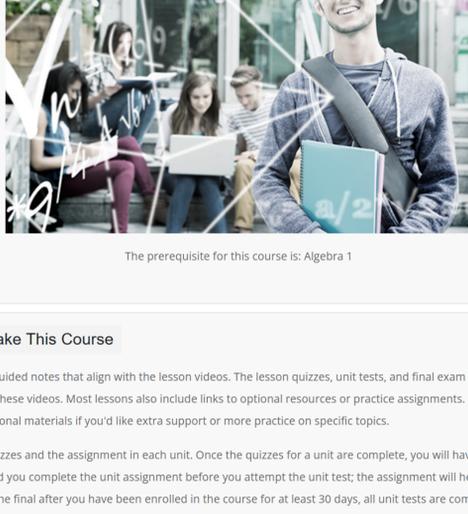


Geometry, Part 1

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.



The prerequisite for this course is: Algebra 1

How to Take This Course

This 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: Measurements and Proof

In this unit, you will

- Learn key geometric vocabulary and how to represent points, lines, angles, and shapes using proper notation.
- Measure and classify segments and angles, and apply formulas for midpoint and distance.
- Explore angle relationships, special pairs, and geometric constructions using a compass and straightedge.
- Analyze logical statements using conditional reasoning, and apply deductive and inductive logic to proofs.
- Construct algebraic and geometric proofs involving segments, angles, bisectors, and vertical angles.

[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 Basic Geometry Vocabulary](#)

Quiz 1.1

Completion ▾

[1.2 Measuring Segments](#)

Quiz 1.2

Completion ▾

[1.3 Measuring Angles](#)

Quiz 1.3

Completion ▾

[1.4 Angle Pairs and Relationships](#)

Quiz 1.4

Completion ▾

[1.5 Constructions](#)

Quiz 1.5

Completion ▾

[1.6 Conditional Statements](#)

Quiz 1.6

Completion ▾

[1.7 Inductive and Deductive Reasoning](#)

Quiz 1.7

Completion ▾

[1.8 Algebraic Proofs](#)

Quiz 1.8

Completion ▾

[1.9 Segment and Angle Proofs](#)

Quiz 1.9

Completion ▾

[Unit 1 Assignment: Building the Language of Geometry](#)

Completion ▾

Unit 1 Test

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

[Show more ▾](#)

Unit 2: Parallel and Perpendicular Lines

In this unit, you will

- Identify and classify relationships between lines and angles, including parallel, perpendicular, and skew lines.
- Use transversals to recognize special angle pairs and apply angle theorems to solve problems.
- Prove lines are parallel using angle relationships and their converses.
- Apply the concept of slope to determine and write equations of parallel and perpendicular lines.
- Solve geometric problems using algebraic equations that represent relationships between angles and lines.

[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 Lines and Angles](#)

Quiz 2.1

Completion ▾

[2.2 Parallel Lines and Algebra](#)

Quiz 2.2

Completion ▾

[2.3 Proving Lines Parallel](#)

Quiz 2.3

Completion ▾

[2.4 Slope and Equations of Parallel Lines](#)

Quiz 2.4

Completion ▾

[2.5 Slope and Equations of Perpendicular Lines](#)

Quiz 2.5

Completion ▾

[Unit 2 Assignment: Design a City](#)

Completion ▾

Unit 2 Test

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

[Show more ▾](#)

Unit 3: Rigid Motion and Congruence

In this unit, you will

- Classify triangles by sides and angles and apply the Triangle Sum and Exterior Angle Theorems.
- Describe and perform rigid transformations—translations, reflections, and rotations—on the coordinate plane.
- Identify line, point, and rotational symmetry and explore compositions of transformations.
- Prove figures and triangles congruent using SSS, SAS, ASA, AAS, HL, and CPCTC.
- Solve problems involving isosceles and equilateral triangles using triangle congruence and geometric reasoning.

[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 Classifying Triangles and Angles of Triangles](#)

Quiz 3.1

Completion ▾

[3.2 Rigid Transformations](#)

Quiz 3.2

Completion ▾

[3.3 Symmetry](#)

Quiz 3.3

Completion ▾

[3.4 Compositions of Transformations](#)

Quiz 3.4

Completion ▾

[3.5 Congruent Figures](#)

Quiz 3.5

Completion ▾

[3.6 Congruent Triangles \(SSS, SAS\)](#)

Quiz 3.6

Completion ▾

[3.7 Congruent Triangles \(ASA, AAS\)](#)

Quiz 3.7

Completion ▾

[3.8 HL and CPCTC](#)

Quiz 3.8

Completion ▾

[3.9 Isosceles and Equilateral Triangles](#)

Quiz 3.9

Completion ▾

[Unit 3 Assignment: Transformations in Action](#)

Completion ▾

Unit 3 Test

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

[Show more ▾](#)

Unit 4: Relationships in Triangles

In this unit, you will

- Explore triangle centers by constructing and analyzing midsegments, angle bisectors, perpendicular bisectors, medians, and altitudes.
- Identify and apply properties of points of concurrency: circumcenter, incenter, centroid, and orthocenter.
- Solve problems using triangle inequality theorems, including the Triangle Inequality and Hinge Theorems.
- Use indirect reasoning to prove geometric conjectures.
- Apply triangle relationships to classify sides and angles and solve problems involving triangles.

[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 Midsegments of a Triangle](#)

Quiz 4.1

Completion ▾

[4.2 Perpendicular and Angle Bisectors](#)

Quiz 4.2

Completion ▾

[4.3 Medians and Altitudes of Triangles](#)

Quiz 4.3

Completion ▾

[4.4 Constructing Centers of Triangles](#)

Quiz 4.4

Completion ▾

[4.5 Indirect Proofs](#)

Quiz 4.5

Completion ▾

[4.6 Inequalities in One and Two Triangles](#)

Quiz 4.6

Completion ▾

[Unit 4 Assignment: Points of Concurrency Poster](#)

Completion ▾

Unit 4 Test

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

[Show more ▾](#)

Unit 5: Similarity

In this unit, you will

- Use ratios and proportions to compare figures and solve real-world problems.
- Identify similar polygons and apply scale factors to find missing side lengths.
- Perform and describe dilations on and off the coordinate plane.
- Prove triangles are similar using the SSS, SAS, and AA similarity theorems.
- Apply geometric mean relationships and proportionality theorems within triangles, including those involving parallel lines and angle bisectors.

[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 Ratios and Proportions](#)

Quiz 5.1

Completion ▾

[5.2 Similar Polygons and Scale Factor](#)

Quiz 5.2

Completion ▾

[5.3 Dilations](#)

Quiz 5.3

Completion ▾

[5.4 Proving Triangles are Similar](#)

Quiz 5.4

Completion ▾

[5.5 Geometric Mean and Parts of Similar Triangles](#)

Quiz 5.5

Completion ▾

[5.6 Parallel Lines and Proportional Parts](#)

Quiz 5.6

Completion ▾

[Unit 5 Assignment: Similarity & Dilations](#)

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