

8th Grade Math Syllabus





Course Description

In 8th Grade Math Part 1, students will learn about the tools for solving equations, transformations of geometric figures, proportional relationships, and the equations for straight lines. The lessons are labeled as Weeks to help you pace yourself through a normal high school course, but those weeks are not deadlines or due dates. You still have your full time to finish the course.

This course has been divided into four main units:

- Unit 1: Expressions and Equations
- Unit 2: Analyzing Geometric Figures
- Unit 3: Linear Equations
- Unit 4: Functions

In addition, the course will also have students develop twenty-first-century skills in communication as well as the attribute of respect. Students will find more information on the skill and attribute in the Getting Started module.

Prerequisites

There are no prerequisites for this class. However, we recommend students take the classes that come before this course. Typically, this means students have already taken 7th Grade Math, Parts 1 and 2.

Course Materials

No textbooks are required for this course; all content can be found within the course lesson pages. Students may use a handheld graphing or scientific calculator or a Desmos online calculator (found at desmos.com/scientific or desmos.com/calculator only) during the final exam; no other calculator is allowed.



Course Outcomes

As students complete the course assignments, they will increase their knowledge, improve a twenty-first-century skill, and develop an attribute.



Knowledge: 8th Grade Math Part 1

In this course, *knowledge* refers to the subject matter and content students will learn while completing the readings, practices, quizzes, and assignments.

On successful completion of this course, students will be able to do the following:

1. Simplify expressions and solve equations and identify various transformations (Unit 1 Expressions and Equations).
2. Use rigid transformations and angle measures to determine if triangles and other figures are similar (Unit 2 Analyzing Geometric Figures).
3. Graph and interpret proportional relationships, calculate slope, and solve systems of linear equations algebraically and graphically (Unit 3 Linear Equations).
4. Determine if a relation is a function and graph and analyze linear functions that model real-world situations (Unit 4 Functions).



21st-Century Skill: Communication

As students complete this course's assignments, they will gain skills in *Communication: Communicate Using Writing*. This skill is part of the Communication category.



Attribute: Respect

This course focuses on developing the attribute of *respect* in the context of 8th Grade Math.



Grading and Assignments

The letter grade in this course will be based on these assignments and exams.

Assignment or Exam	Grading	Percent of Total Grade
Topic Assignments	Computer-Graded	25%
Content Guides	Computer-Graded	10%
Module Quizzes	Computer-Graded	40%
Midcourse Quiz and Final Exam	Computer-Graded	25%

Topic Assignments

Each module consists of four topics. Each topic has one assignment where students will be asked to demonstrate their knowledge of the content learned from the lesson material. In total, there are 56 topic assignments in the course. Students will have unlimited attempts.

Content Guides

Every module has a content guide to help students work on the key math problems in the lessons. Students will fill out the content guides and submit them for a grade at the end of the last module of each unit. Content guides are graded based on completion, so students will get full points if they have everything filled out.

Module Quizzes

At the end of each module, students will take a quiz that covers all topics taught. While students have unlimited attempts for topic assignment questions, module quizzes will only allow for 2 attempts at each question and do not generate additional questions.

Module quizzes can *not* be resubmitted.

Midcourse Quiz

This computer-graded quiz will cover the material up to the midcourse quiz. The questions on the midcourse quiz will be similar in format to the questions on the final exam.

The midcourse quiz can *not* be resubmitted.

Final Exam

The final exam covers all course content.

Course Grade

The letter grade will be calculated according to these percentages.

Percent to Letter Grade Calculation	
A	100%–93%
A–	<93%–90%
B+	<90%–87%
B	<87%–83%
B–	<83%–80%
C+	<80%–77%
C	<77%–73%
C–	<73%–70%
D+	<70%–67%
D	<67%–63%
D–	<63%–60%
F (fail)	<60%–0%