



# Algebra 1

## Grand Haven High School



**Course Number:** E20 A/B  
**Grade Level:** 9-12  
**Credits :** 1  
**Prerequisite Courses :** None

### Course Description

Algebra 1A builds upon knowledge to recognize and solve mathematical and real-world problems involving linear relationships and to make sense of and move fluently between the graphic, numeric, symbolic, and verbal representations of these patterns. It builds on the approach to the study of functions and representations begun in the middle grades. This is done by broadening the study of linear relationships to include piecewise functions, absolute value equations, systems of equations with two unknowns, formalized function notation, and linear regression and correlation.

Algebra I B builds upon knowledge of linear patterns of change and familiarity with nonlinear patterns such as exponential and quadratic. The knowledge of exponential and quadratic function families is extended and deepened by including topics such as rules of exponentiation, operations and factoring polynomials, and standard and vertex forms for quadratic equations. Students will also develop their knowledge of radical functions and the applications they model.

Algebra I is a requirement for graduation and preparation for their high school math proficiency test. A scientific calculator or a graphing calculator is required.

### Course Objectives

Throughout the course, you will meet the following goals:

- \* Understand the properties of the real number system
- \* Use variables to represent quantities that are unknown, can change, or are dependent on other quantities
- \* Write, evaluate, simplify, and manipulate algebraic expressions, equations, and inequalities
- \* Model real-world phenomena with the language of algebra
- \* Represent relationships between quantities symbolically and graphically and make use of both representations to solve problems
- \* Communicate about reasoning mathematically and evaluate the mathematical reasoning of others

### Building Behavioral Expectations

***TEAM GH ... One Team, One Family, One Grand Haven. Be Kind. Always.***

It is our expectation that ALL GHHS students, staff and parents will ... always give their best **EFFORT** in everything that they do, work hard to be **INCLUSIVE** of each other, show **RESPONSIBILITY** in class, the hallways, cafeteria and at events, and **WORK TOGETHER** at all times!

**GO BUCS**

## Student Expectations

Successful completion of Algebra 1 requires consistent attendance, active participation in class, work completion, and responsibly checking Google Classroom for missed assignments, and best effort on quizzes and tests.

## Communication

\* Students are expected to regularly monitor their progress through the StudentVue and Google Classroom. Parents and students are encouraged to contact teachers through email or phone with any questions or concerns.

\* The Math Lab is available for additional help.

## Grading Policy

\* Tests 50%

\* Quizzes 25%

\* Assignments 25%

## Scope and Sequence

First Semester:

Chapter 1: Solving Linear Equations

Chapter 2: Solving Linear Inequalities

Chapter 3: Graphing Linear Functions

Chapter 4: Writing Linear Functions

Chapter 5: Solving Systems of Linear Equations

Second Semester:

Chapter 6: Exponential Functions and Sequences

Chapter 7: Polynomial Equations and Factoring

Chapter 8: Graphing Quadratic Functions

Chapter 9: Solving Quadratic Equations

Chapter 10: Radical Functions and Equations

Chapter 11: Data Analysis and Displays

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