

# Middle School Algebra - Session 3

Instructor: Tim Handley

**Objective:** The Algebra course is designed to follow the CCSS for 8th grade and is an equivalent course for 8th grade math. In session 3, students will learn how to use the Pythagorean theorem, and calculate distance, perimeter, and area on a coordinate plane. They will also learn about functions and graphing.

## Unit 4: Pythagorean theorem, distance, area, and volume

1. Pythagorean Theorem
2. Distance formula
3. Area and perimeter in the coordinate plane
4. Volume

## Unit 5: Functions and Graphing

5. Define and compare functions, domain, range
6. Evaluate functions, function notation, average rate of change
7. Graphing and describing characteristics of a line
8. Writing the equation of a line

## Session 3 projects:

Linear battle field

## Required Materials

1 subject spiral bound notebook (look for 100+ pages), graph paper, pencil, scientific calculator (TI-30 suggested), ruler