

MATH

ADVANCED ALGEBRA WITH FINANCIAL APPLICATIONS

Grades: 10-12

This course walks students through the information needed to make the best decisions with money. Advanced Algebra with Financial Applications is an advanced course incorporating real-world applications, collaboration, and calculations using technology. Learn the formulas used to determine account balances, monthly payments, total costs, and more.

Prerequisites: Student must have successfully passed Algebra I.

ALGEBRA 1 (1 credit)

Grades: 9-10

Algebra I emphasizes the importance of algebra in everyday life through hundreds of real-world examples. Assessments are designed to ensure that your understanding goes beyond rote memorization of steps and procedures. Upon successful course completion, you will have a strong foundation in Algebra I and will be prepared for other higher level math courses.

ALGEBRA 1A (1 credit)

Grades: 9-12

Algebra and the world around you. You may not know it, but algebra is behind the scenes of just about everything. How long will it take to get to school? What does it mean to be average in height? What percentage of your time do you spend studying or watching TV? There are ways to measure and calculate everything from the amount of water in a glass, to the amount of glass needed to build a skyscraper.

This course will review some of the fundamental math skills you learned in middle school, and then get you up to speed on the basic concepts of algebra. Each module takes you step-by-step into the world of integers, equations, graphs and data analysis. You'll work at your own pace until the numbers come out right.

This course connects algebra to the real world. It also demystifies algebra, making it easier to understand and master. The goal is to create a foundation in math that will stay with you throughout high school.

ALGEBRA 1B (1 credit)

Grades: 9-12

It's time to finish what you started. In Algebra 1a, you learned that algebra is an efficient way to solve some real-world problems. You also acquired the power to do a lot of the important basic work. Now, after a quick review, you'll be ready to tackle Algebra 1b.

This course works like the last one. You'll get step-by-step instructions with all the numbers, equations, and graphs on the screen right in front of you. You'll also have plenty of time to practice and plenty of opportunities to ask your teacher for help. Along with learning new algebraic strategies and properties, you'll learn data analysis concepts and techniques. You'll also see how algebra connects with other high school subjects like geometry, statistics and biology.

Together, Algebra 1a and 1b will meet your Algebra 1 requirement. These courses will also give you a powerful tool for understanding how the world works, and how to make it work for you.

ALGEBRA II (1 credit)

Grades: 9-12

Starting with a review of basic algebra, students will learn polynomials, quadratic equations, exponential and logarithmic relations, and probability and statistics. Throughout the course, these mathematical concepts are applied to everyday occurrences to demonstrate how the world around us functions.

Prerequisite: Student must have successfully passed Algebra I.

AP STATISTICS (1 credit)

Grade: 12

Advanced Placement Statistics is designed to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Topics introduced include the exploratory analysis of data and numerical techniques to study patterns, methods of valid data collection, probability as the tool for anticipating what distributions of data should look like, and confirming models through statistical inference.

AP Exam: Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it.

Pre-requisites: Algebra I & II

CONSUMER MATH (1 credit)

Grade: 9-12

This comprehensive review and study of arithmetic skills apply to both personal and vocational business opportunities. Topics include whole numbers, fractions, percentages, basic statistics, and graphs. Practical applications in finance, taxes, budgeting, banking and home ownership are provided.

GEOMETRY (1 credit)

Grades: 9-12

One day in 2580 B.C.E., a very serious architect stood in a dusty desert with a set of plans. His plans called for creating a structure 480 feet tall, with a square base and triangular sides, using stone blocks weighing two tons each. The Pharaoh wanted the job done right. The better this architect understood geometry, the better his chances were for staying alive.

Geometry is everywhere, not just in pyramids. Engineers use geometry to build highways and bridges. Artists use geometry to create perspective in their paintings, and mapmakers help travelers find things using the points located on a geometric grid. Throughout this course, students travel a mathematical highway illuminated by spatial relationships, reasoning, connections, and problem solving.