Bentonville Schools

Course Name: PreAP Algebra I
School Year: 2025- 2026

Course Description: Pre-AP Algebra I is a full-year, intense course designed to prepare students for Pre-AP Geometry in the 9th grade. This course includes one-half of the 8th-grade math standards and all of the Algebra I math standards. The first half of the 8th-grade math standards were taught in Math 7 Advanced. Algebra I is a high school credit course. The grade will be calculated into the student's high school GPA and will be included on the student's high school transcript. Students who successfully complete this advanced course are on the path to take accelerated high school coursework in mathematics (such as AP Calculus and/or AP Statistics).

Unit 1	**Linear Functions and Linear Equations** ● A linear relationship has a constant rate of change, which can be visualized as the slope of the associated graph. ● There are many ways to algebraically represent a linear function and each form reveals different aspects of the function. ● Linear functions can be used to model contextual scenarios that involve a constant rate of change or data whose general trend is linear. ● A solution to a two-variable linear equation or inequality is an ordered pair that makes the equation or inequality true.
Unit 2	**Systems of Linear Equations and Inequalities** ● A solution to a system of linear equations or inequalities is an ordered pair of numbers that satisfies all the equations or inequalities simultaneously. ● Solving a system of linear equations or inequalities is a process of determining the value or values that make the equation or inequality true. ● Systems of linear equations or inequalities can be used to model scenarios that include multiple constraints.
Unit 3	**Quadratic Functions** ● Quadratic functions have a linear rate of change. ● Quadratic functions can be expressed as a product of linear factors. ● Quadratic functions can be used to model scenarios that involve a linear rate of change and symmetry around a unique minimum or maximum. ● Every quadratic equation, $ax^2+bx+ c = 0$, where a is not zero, has at most two real solutions. These solutions can be determined using the quadratic formula.
Unit 4	**Exponent Properties and Exponential Functions** ● Properties of exponents are derived from the properties of multiplication and division. ● An exponential function has constant multiplicative growth or decay. ● Exponential functions can be used to model contextual scenarios that involve constant multiplicative growth or decay. ● Estimate the solution to an equation that involves exponential expressions.
Unit 5	**Data and Statistics** ● Graphically Representing Data ● Better Measure for Center and Spread of Data ● Compare Data Sets ● Determine Appropriate Measures ● Calculating Standard Deviation

© 2023 College Board

Bentonville Schools

© 2023 College Board