

BCS Algebra II Priority Standards

For a complete list of course standards visit <https://tinyurl.com/yd8w7ypt>

Functions

(F-BF.B.3) Identify the effect on the graph of replacing $f(x)$ by $f(x)+k$, $kf(x)$, and $f(x+k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate and explain the effects on the graph using technology. Include recognizing even and odd function from their graphs and algebraic expressions for them.

(F-IF.B.4) For a function that models a relationship between two quantities, interpret key features of graph and tables of the quantities, and sketch the graphs showing key features given a verbal description of the relationship. Key features include: intercepts; relative minimums and maximums; symmetries; end behavior; and periodicity.

(A-REI.D.11) Explain why the x -coordinates of the points where the graphs of $y=f(x)$ and $y=g(x)$ intersect are the solutions of the equation $f(x)=g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.

(A-CED.A.1) Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.

(A-CED.A.2) Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

Quadratics

(A-CED.A.1) Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.

(A-CED.A.2) Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

Radicals

(A-CED.A.1) Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.

(A-CED.A.2) Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

(A-REI.A.2) Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.

Polynomials

(F-IF.C.7.c) Graph polynomial functions, identifying zeros when using suitable factorizations are available, and showing end behavior.

(A-CED.A.2) Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

(A-APR.B.3) Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.

Exponential & Logarithmic

(F-LE.A.4) For exponential models, express as a logarithm the solution to $ab^{ct}=d$ where a , c , and d are numbers and the base b is 2, 10, or e ; evaluate the logarithm using technology.

(A-CED.A.1) Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.

(A-CED.A.2) Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

(F-IF.C.7.e) Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric function, showing period, amplitude, and midline.

Trigonometry

(A-CED.A.1) Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.

(A-CED.A.2) Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

(F-IF.C.7.e) Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric function, showing period, amplitude, and midline.

(F.TF.5) Choose trig functions given angles in degree measure to model periodic phenomena with specific period midline and amplitude.

Probability & Statistics

(S-IC.A.1) Understand statistics as a process for making inferences to be made about population parameters based on a random sample from that population.

Rationals

(A-REI.A.2) Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.

Matrices & Systems

(A-REI.C.7) Solve a simple system consisting of a linear equation and a quadratic equation in 2 variables algebraically and graphically.