

## High School Algebra Playlist: Representing Constraints by Equations or Inequalities

Aligns with [CCSS.Math.Content.HSA.CED.A.3](#): Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. *For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.*

### Related Standards

- [CCSS.Math.Content.HSA.REI.B.3](#): Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.
- [CCSS.Math.Content.HSA.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.*
- [CCSS.Math.Content.HSA.CED.A.2](#): Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.
- [CCSS.Math.Content.HSA.REI.D.11](#): Explain why the  $x$ -coordinates of the points where the graphs of the equations  $y = f(x)$  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.\*
- [CCSS.Math.Content.HSA.REI.D.12](#): Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.



## Objectives

In this module, you will learn and practice the following skills:

- represent constraints by equations or inequalities
- interpret solutions as viable or nonviable

Let's get started!

## Key Terms

- A **constraint** is a restriction or boundary that needs to be placed on a variable in a real-world problem.

PREVIEW

