Grade 8

10. Analyze and solve pairs of simultaneous linear equations. [8-EE8]

a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersections of their graphs because points of intersection satisfy both equations simultaneously. [8-EE8a]

b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. [8-EE8b]

Example: 3x + 2y = 5 and 3x + 2y = 6 have no solution because 3x + 2y cannot simultaneously be 5 and 6.

c. Solve real-world and mathematical problems leading to two linear equations in two variables. [8-EE8c]

Example: Given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair

Algebra I

Create equations that describe numbers or relationships. (Linear, quadratic, and exponential (integer inputs only); for Standard 14, linear only.)

14. Represent constraints by equations or ~~inequalities,~~ and by systems of equations and/or ~~inequalities~~ and interpret solutions as viable or non-viable options in a modeling context. [A-CED3]

Example: Represent inequalities describing nutritional and cost constraints on combinations of different foods.