

Solving Systems of Equations by Graphing

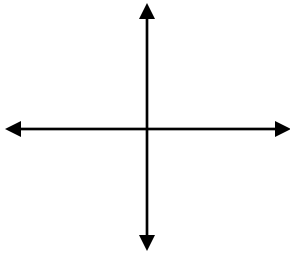
A _____ is a collection of equations in the same variable.

You can graph a system of equations in two variables to find:

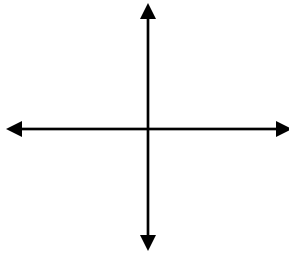
The solution of the intersection between the functions.

There are three possibilities for a system of two linear equations in two variables:
(sketch an example for each possibility)

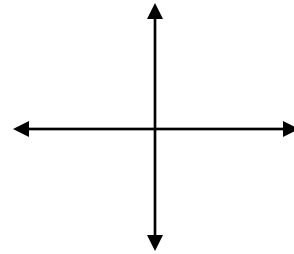
a. _____ lines



b. _____ lines



c. _____ lines



If a system of equations has at least one solution, it is called _____.

- If a system has exactly one solution it is called _____.
- If a system has infinitely many solutions, it is called _____.

If a system does not have a solution, it is called _____.

Review on graphing a line:

To graph a line the equation must be in slope-intercept form ($y = mx + b$)

where m is the slope $\left(\frac{\text{rise}}{\text{run}}\right)$ and b is the y-intercept (starting point on y-axis).

Once the equation is in slope-intercept form, plot the y-intercept and then use the slope to find at least two other points on the line.