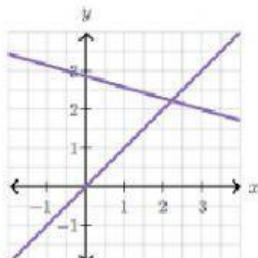


Systems of Equations

A system of equations is two or more equations

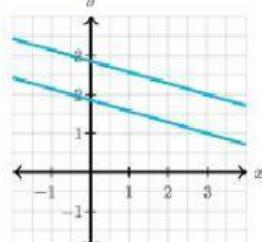
One Solution:

Intersects at one point that makes all equations true



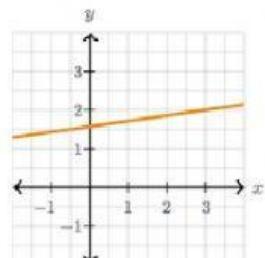
Infinite Solutions:

Equations are the same. All points on the line are solutions



No Solution:

Equations are different.
There is no solution



Solving Systems of Equations by Graphing

Steps:

1. Solve each equation for y (if necessary)
2. Graph both equations on the same graph
3. The intersection of the lines is the solution to the system
4. Write your answer as an ordered pair

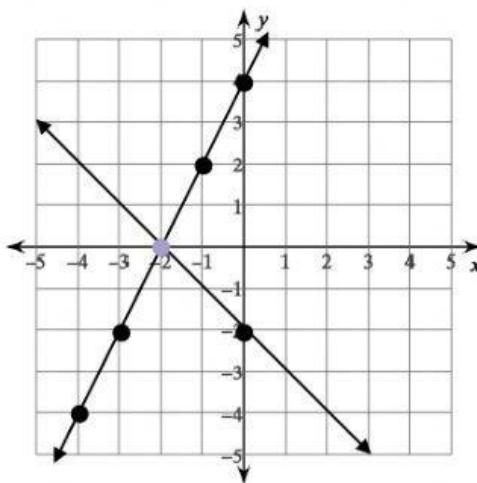
Solving for y reminder:

1. Move the x term to the other side
2. Divide both sides by the coefficient of y

EXAMPLES

$$y = 2x + 4$$

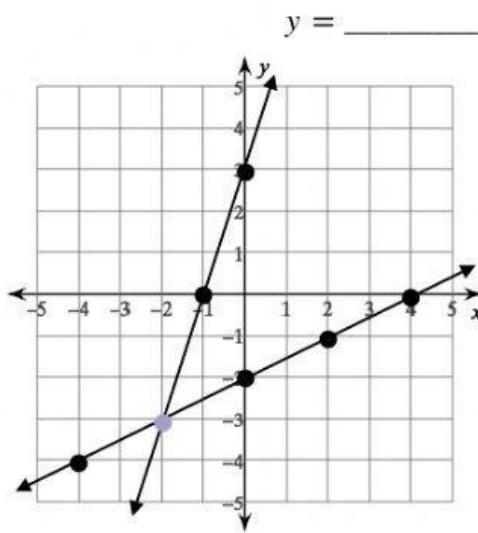
$$y = -4x - 2$$



Solution: $(-1, 2)$

$$y = \frac{1}{2}x - 2$$

$$-3x + y = 3$$



Solution: $(4, -3)$