Name _____ **Date** _____

Solving Systems by Graphing

Check whether the ordered pairs are solutions of the system:

$$x - 3y = -5$$
$$-2x + 3y = 10$$

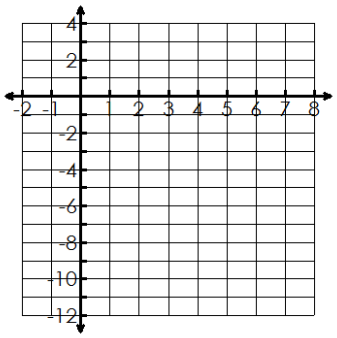
A. (4, 3)

B. (-5, 0)

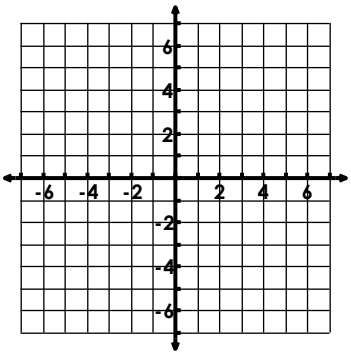
How to solve systems by graphing:

1. Graph each equation on the _____ coordinate plane.
2. If the lines _____: The point (_____) where the lines intersect is the _____.

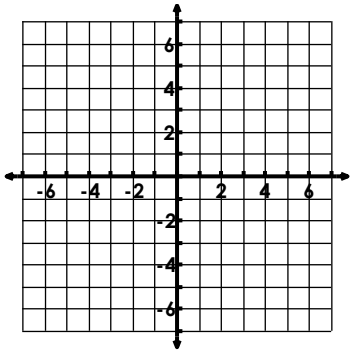
1. $y = 3x - 12$
$y = -2x + 3$



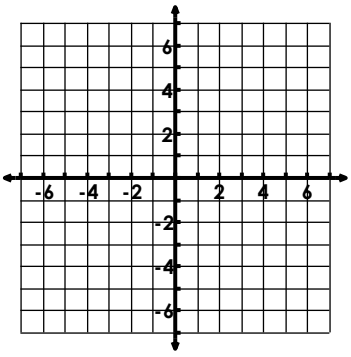
2. $y = -x - 2$
$y = \frac{2}{3}x + 3$



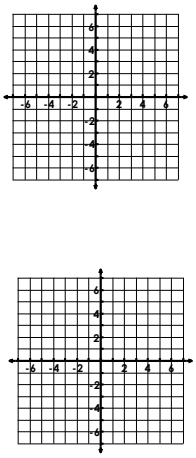
3. $y = x + 4$
$y = -x + 2$



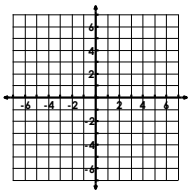
4. $x - y = 5$
$2x + 2y = 10$



Types of solutions:



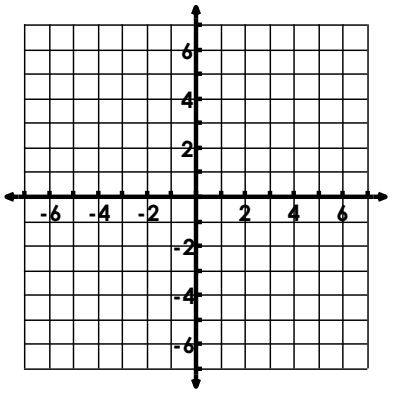
- If the lines have different slopes m, the solution is _____.



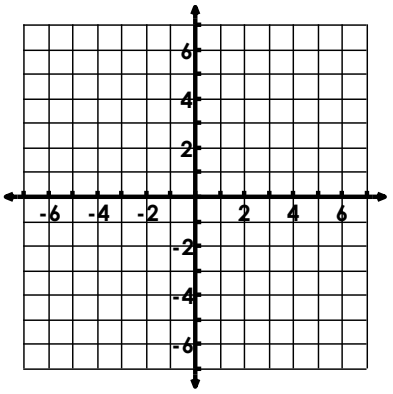
- If the lines have the same y-intercept b, and the same slope m, then the solution is _____.

- If the lines have the same slope m, but different y-intercepts b, the solution is _____.

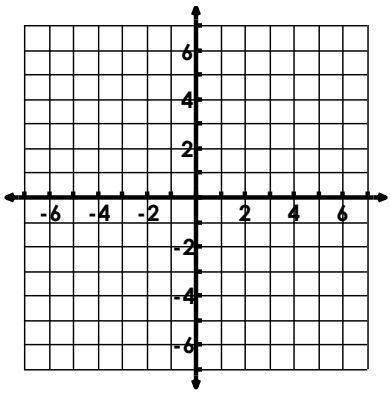
1. $2x - 2y = -8$
$2x + 2y = 4$



2. $y = -2x + 5$
$y = -2x + 1$



3. $2x + 6y = -18$
$x + 3y = -9$



4. $y = 1$
$2x + y = 1$