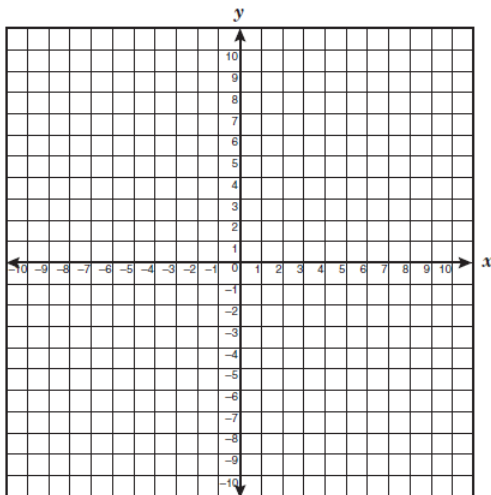


Name _____

SOLVING SYSTEMS OF EQUATIONS BY GRAPHING



1. Use the grid to graph $y > x - 2$. Which coordinate point represents a solution of this inequality?



A. (4, 0)

C. (-3, -5)

B. (7, 2)

D. (-2, 3)

A system of equations is _____ or _____ equations.

Here is an example of a simple system of equations:

$$\begin{aligned}x + y &= 5 \\(x)(y) &= 6\end{aligned}$$

Solving a system of equations like the one above means finding an x and y value that make *both* equations true.

Solution: $x = \underline{\quad}$ and $y = \underline{\quad}$, which can also be written as an ordered pair $(\underline{\quad}, \underline{\quad})$.

1) Tell whether the ordered pair is a solution to the system of equations. SHOW YOUR WORK!

(2, 1)

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

$$x + y = 3$$

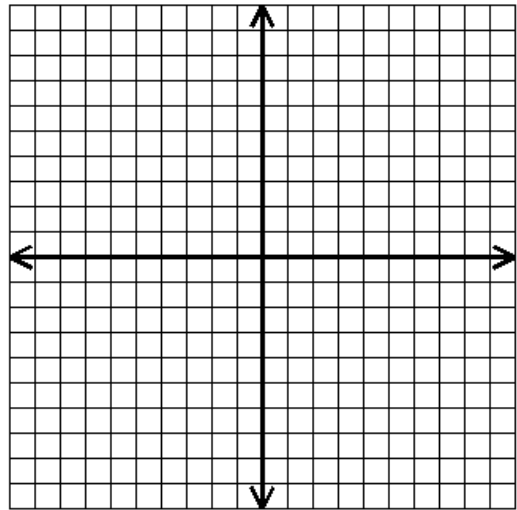
(-3, -10)

$$x - y = 7$$

$$3x - y = -19$$

Solve each system of equations by graphing.

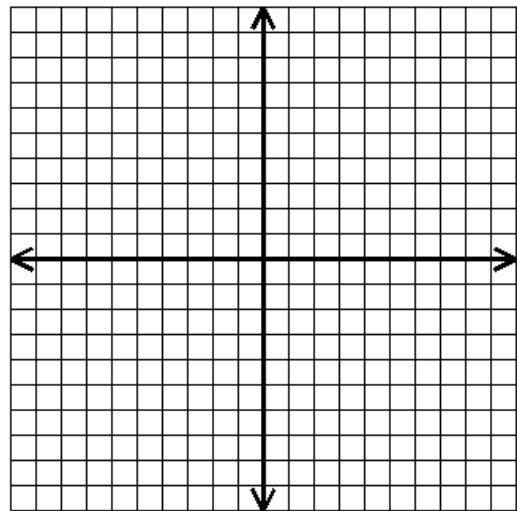
2) $y = -2x - 1$
 $y = -x + 3$



Therefore, the solution to a system is the _____ where the two lines _____.

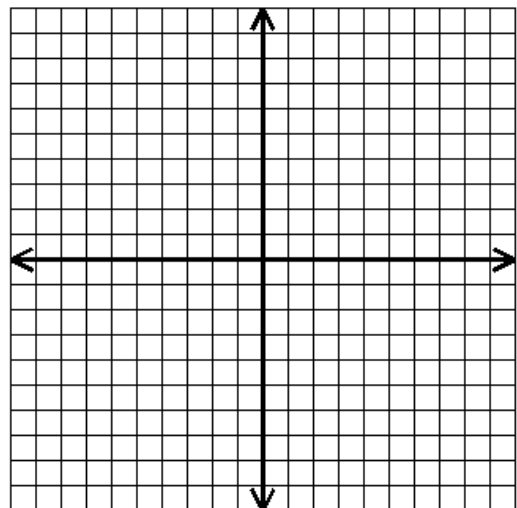
Solution: _____

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



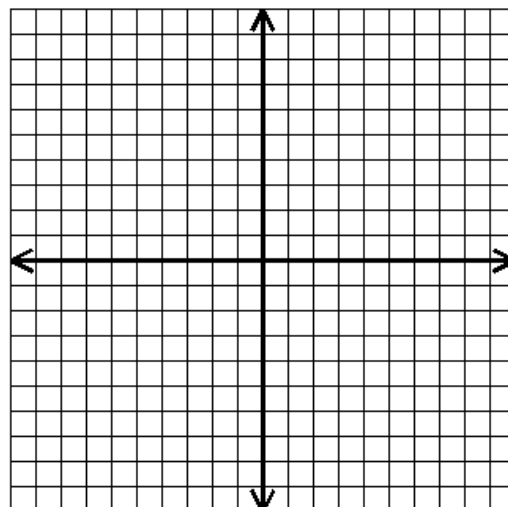
Solution: _____

4) $x - 3y = 6$
 $2x - 6y = -6$



Solution: _____

5) $x - 2y = -8$
 $3x - 6y = -24$



Solution: _____

Conclusion:

- Systems have 1 solution if the lines _____.
- Systems have NO solution if the lines are _____.
- Systems have INFINITELY many solutions if the lines are the _____.