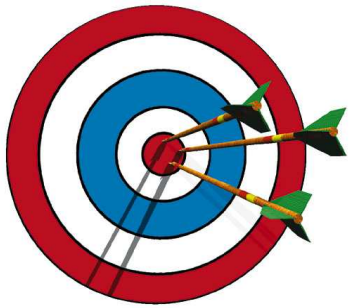


Systems of Equations

Today's Learning Targets:

6.1 - I can explain what it means for an ordered pair to be a solution of a system.

6.2 - I can use the graphs of two linear equations to estimate the solution of the system.

6.3 - I can explain graphically special systems of equations.

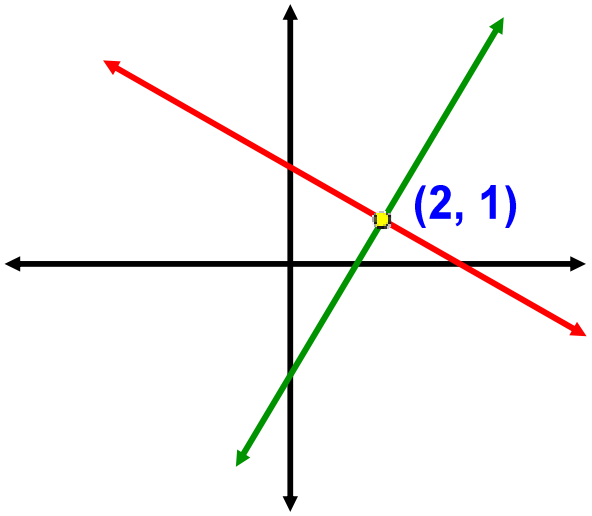
System of Linear Equations:

_____

- _____
- _____

A _____ to a system equations is an _____ (x, y).

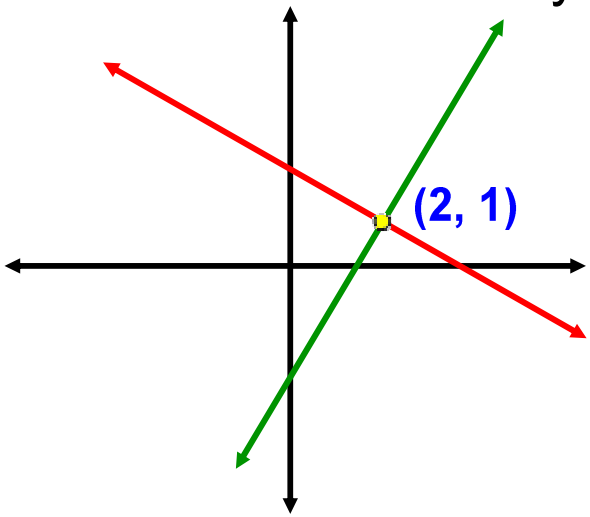
- An _____ of the two graphs
- Is _____ for (works in)



$$\begin{cases} x + 2y = 4 \\ y = \frac{3}{2}x - 2 \end{cases}$$

To solve a system by graphing:

1. _____
2. _____ where they cross as an _____
3. Check the solution by _____.



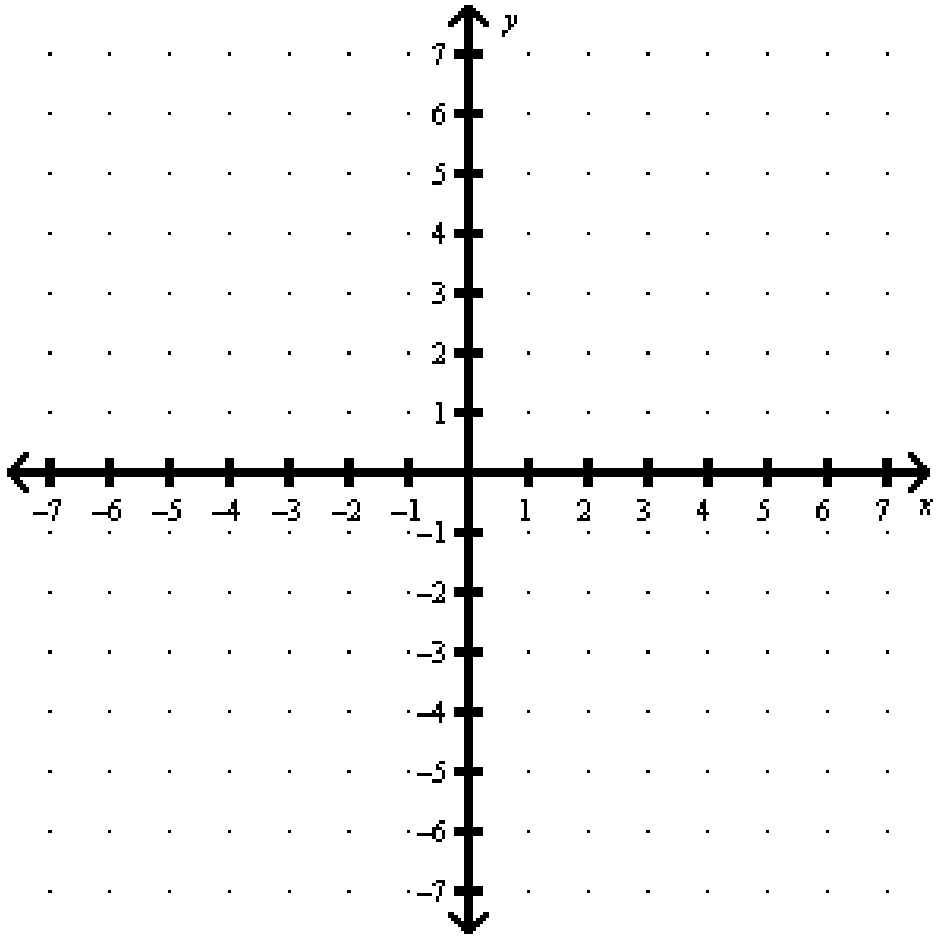
$$\begin{cases} x + 2y = 4 \\ y = \frac{3}{2}x - 2 \end{cases}$$

Ways to graph:

x | y -2 -1 0 1 2	$y = mx + b$

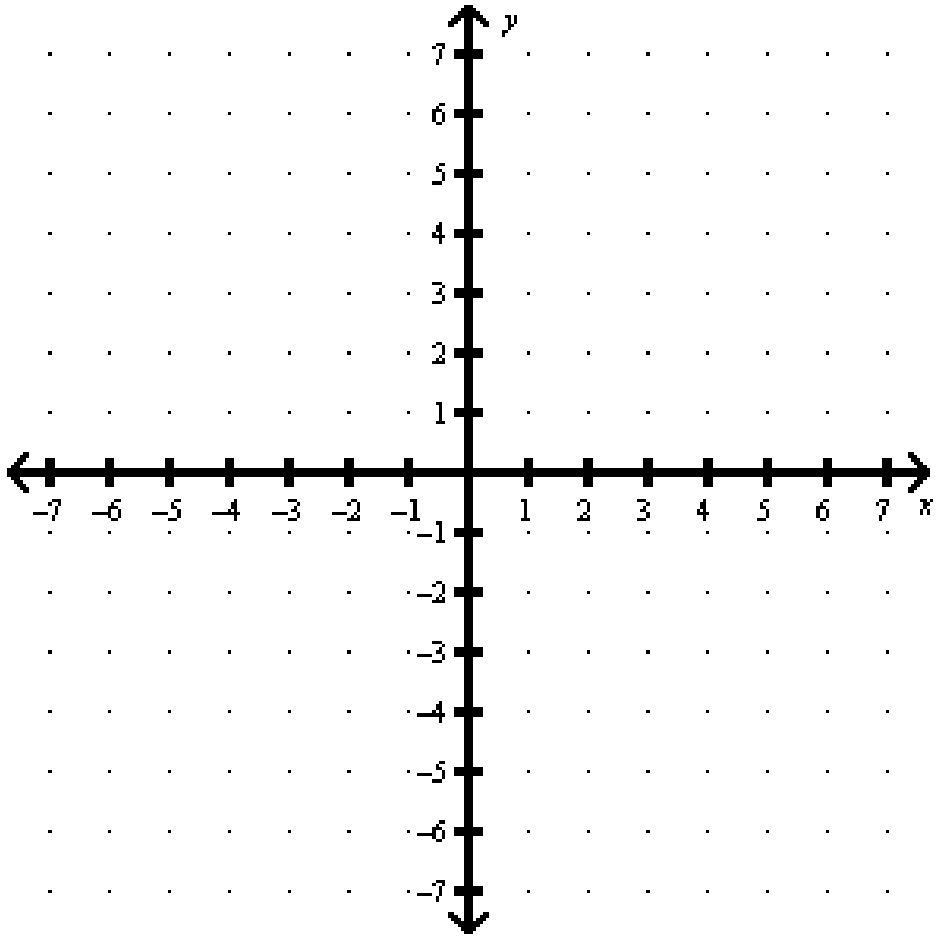
Solve the system by graphing.

$$\begin{cases} y = -x + 1 \\ y = 3x - 3 \end{cases}$$



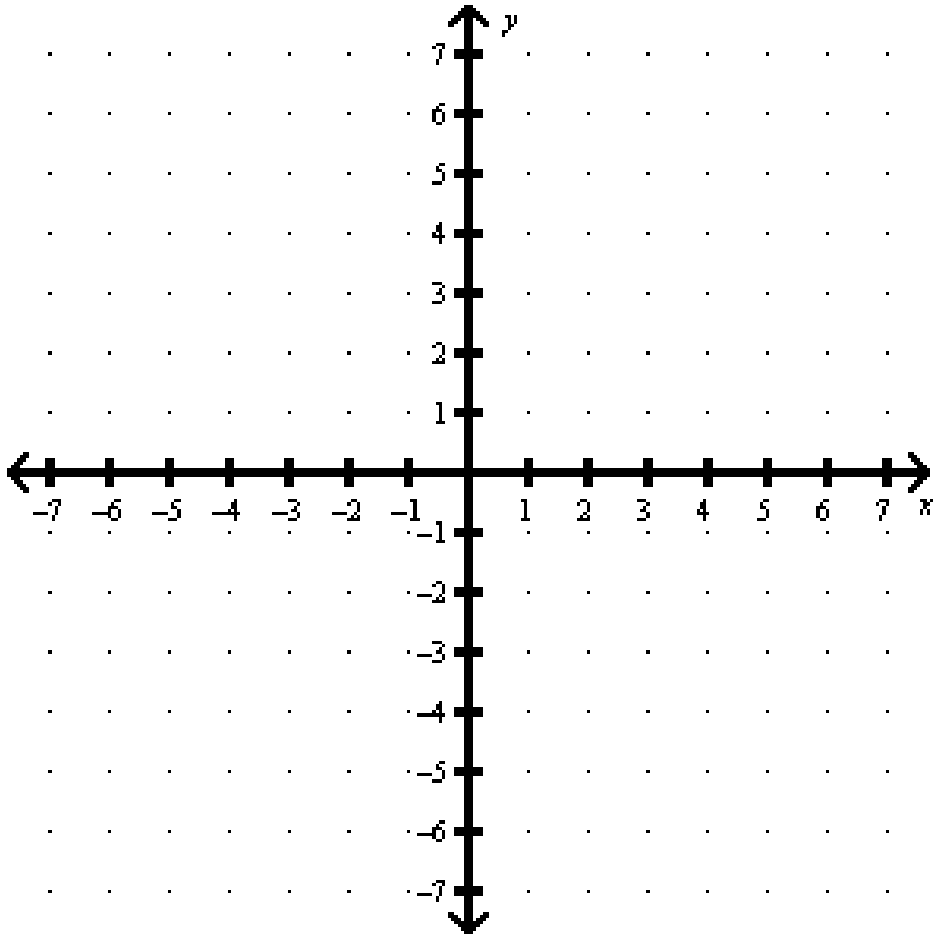
Solve the system by graphing.

$$\begin{cases} y = \frac{2}{3}x - 2 \\ y + x = 3 \end{cases}$$



Solve the system by graphing.

$$\begin{cases} y = -2 \\ x = 4 \end{cases}$$



Is (2, 7) a solution to this system?

use algebra to check.

$$\begin{cases} y = 4x - 1 \\ y = 3x + 2 \end{cases}$$

Is (3, 11) a solution to this system?

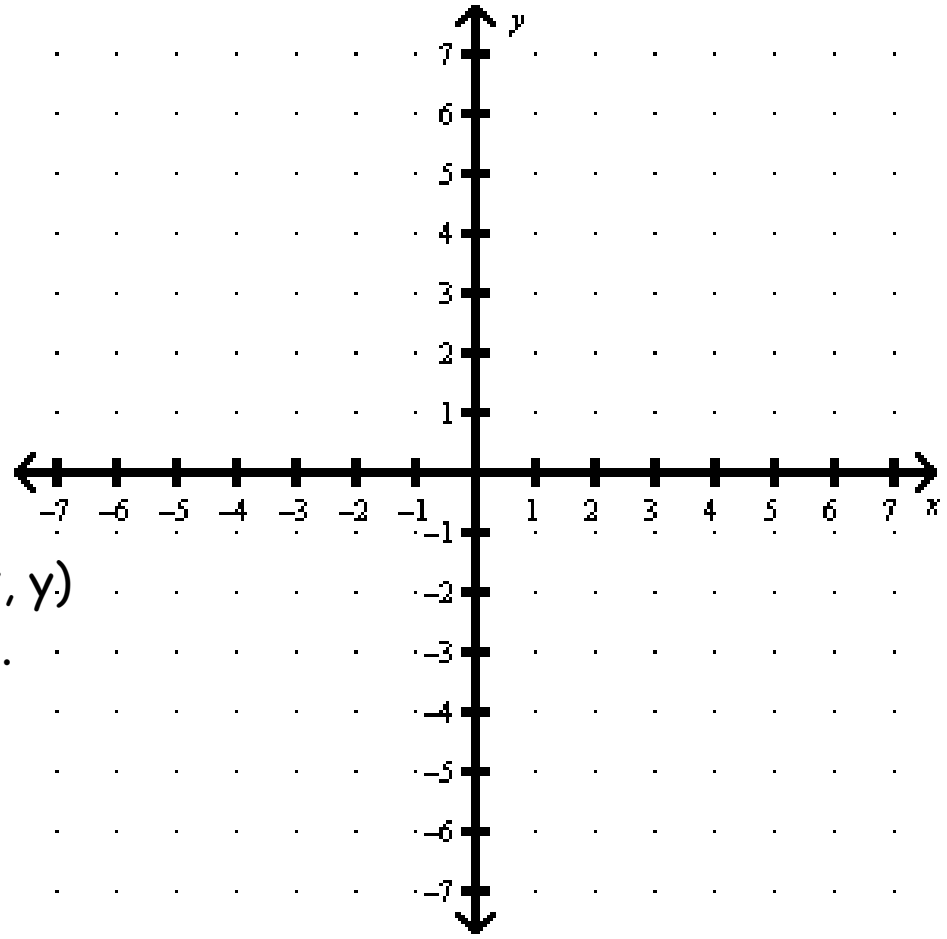
use algebra to check.

$$\begin{cases} y = 4x - 1 \\ y = 3x + 2 \end{cases}$$

Solve the system by graphing*.

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

$y = \frac{1}{2}x - 3$



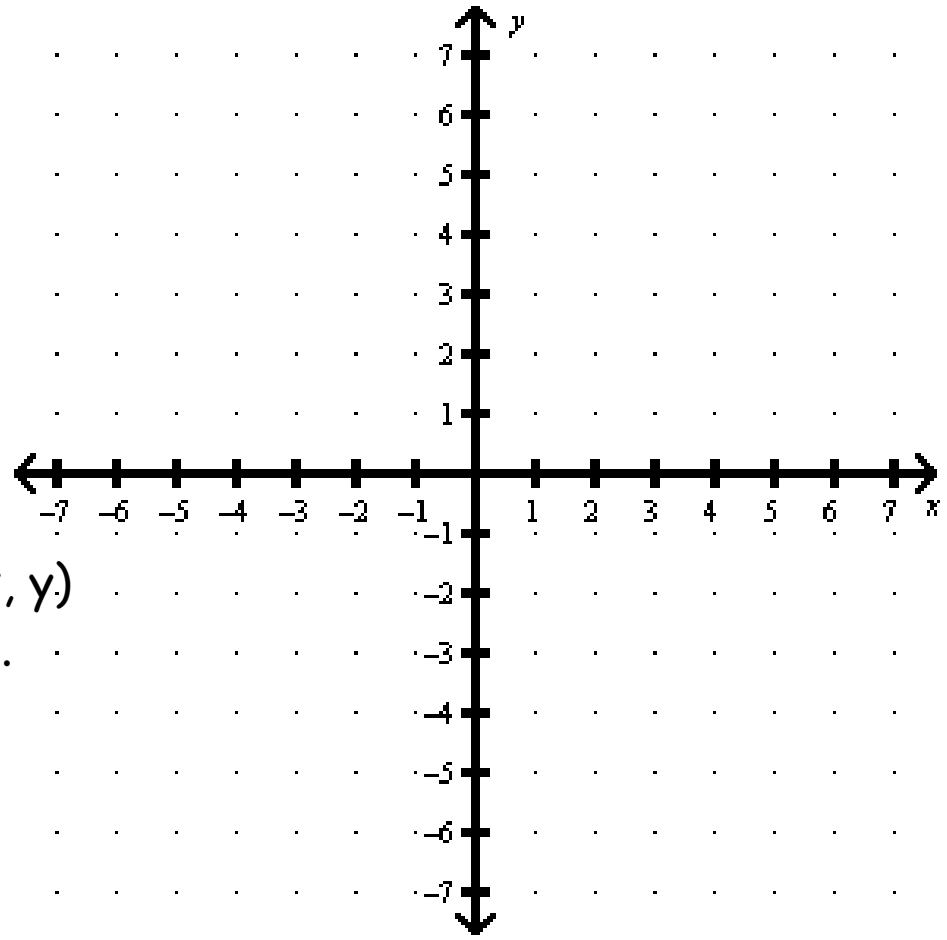
The SOLUTION is the intersection point, the (x, y) pair they have in common.

What's the solution?

Solve the system by graphing*.

$y = -x + 2$

$x + y = 2$



The SOLUTION is the intersection point, the (x, y) pair they have in common.

What's the solution?

3 Possible Solutions of Linear Systems