

Sec. 7.1 Graphing Systems of Equations

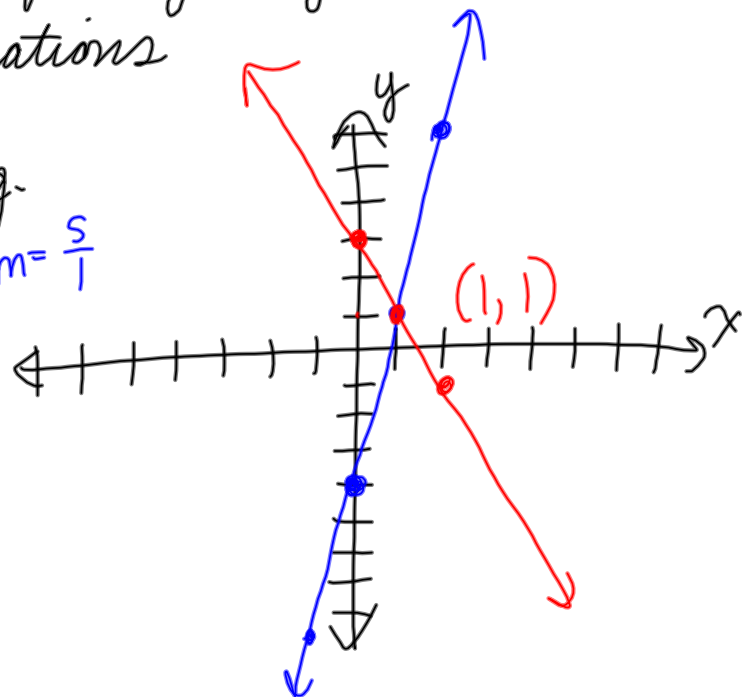
Solve by graphing.

a. ① $y = 5x - 4$
 $1 = 5 - 4$ ✓

$m = \frac{5}{1}$

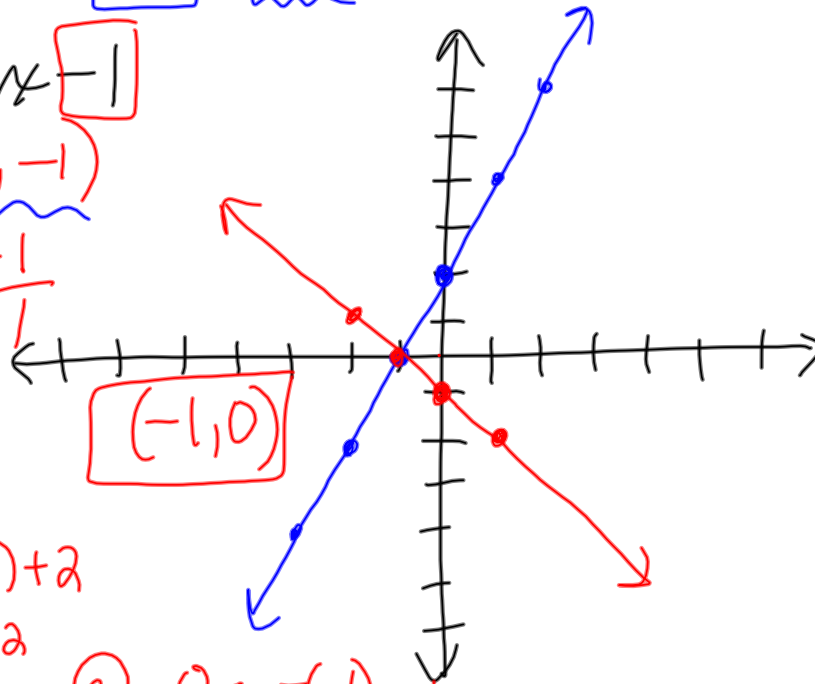
② $y = -2x + 3$
 $m = \frac{-2}{1}$

$1 = -2 + 3$ ✓



① $y = 2x + 2$ $(0, 2)$ $m = 2$

② $y = -x - 1$
 $(0, -1)$
 $m = -1$



Check

① $0 = 2(-1) + 2$
 $0 = -2 + 2$
 $0 = 0$

② $0 = -(-1) - 1$
 $0 = 1 - 1$
 $0 = 0$

$$1.) \quad \begin{matrix} (1, 3) \\ x \quad y \end{matrix}$$

yes.

$$y = 5x - 2 \quad \checkmark$$

$$3 = 5 \cdot 1 - 2$$

$$3 = 5 - 2$$

$$3 = 3$$

$$y = -3x + 6 \quad \checkmark$$

$$3 = -3(1) + 6$$

$$3 = -3 + 6$$

$$3 = 3$$

$$9. \quad \begin{array}{r} 2x + 6y = -5 \\ -2x \quad \quad -2x \end{array} \quad \begin{array}{l} \text{Solve for } y \\ y = \underline{mx} + b \end{array}$$

$$\frac{6y}{6} = \frac{-2x}{6} - \frac{5}{6}$$

$$y = -\frac{1}{3}x - \frac{5}{6}$$

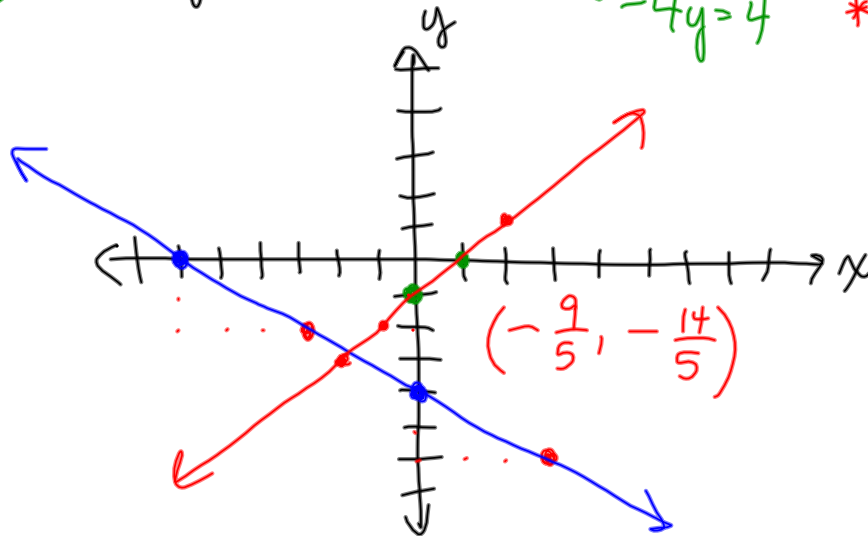
7.1 A EVENS

Solve by graphing -

a. $2x + 3y = 12$ $\begin{matrix} (x, y) \\ (-6 | 0) \\ (0 | 4) \end{matrix} \rightarrow 2x = -12$ * $m = \frac{-A}{B} = \frac{-2}{3}$

$4x - 4y = 4$ $\begin{matrix} 1 | 0 \\ 0 | -1 \end{matrix} \rightarrow 4x - 4 \cdot 0 = 4$ * $m = \frac{-A}{B} = \frac{-4}{-4} = 1$

$4x = 4$
 $-4y = 4$



x -intercept a : where the graph crosses the x -axis
 * Find by making $y=0$ $(a, 0)$

y -intercept b : where the graph crosses the y -axis
 * Find by making $x=0$ $(0, b)$

b.

$$y + 2x = 2 \rightarrow 2x + y = 2 \quad \begin{array}{l} \frac{1}{0} \frac{0}{2} \rightarrow 2x = 2 \\ \frac{0}{1} \frac{2}{2} \rightarrow y = 2 \end{array}$$

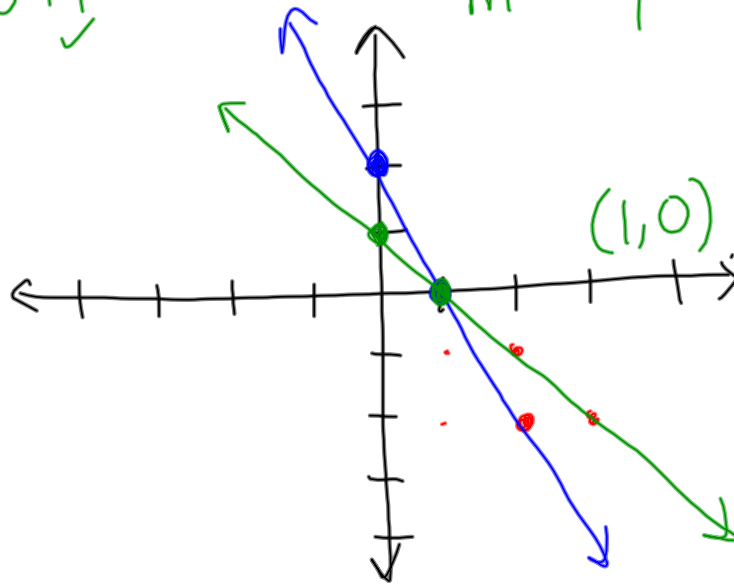
$m = -\frac{2}{1}$

$$y + x = 1 \rightarrow x + y = 1 \quad \begin{array}{l} \frac{1}{0} \frac{0}{1} \rightarrow x = 1 \\ \frac{0}{1} \frac{1}{1} \rightarrow y = 1 \end{array}$$

$m = -\frac{1}{1}$

$0 + 2 \cdot 1 = 2 \checkmark$

$0 + 1 = 1 \checkmark$



$$\begin{array}{l}
 2x + y = 0 \quad \begin{array}{l} 0|0 \rightarrow 2x=0 \\ 0|0 \rightarrow y=0 \end{array} \quad m = \frac{-A}{B} = \frac{-2}{1} \\
 x + 2y = -6 \quad \begin{array}{l} -6|0 \rightarrow x = -6 \\ 0|-3 \rightarrow 2y = -6 \end{array} \quad m = \frac{-A}{B} = \frac{-1}{2}
 \end{array}$$

