

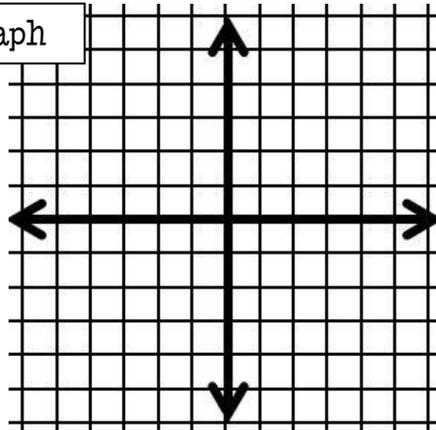
One Solution

No Solution

Infinitely
Many
Solutions

$$\begin{aligned}x - 3y &= -9 \\x - y &= -1\end{aligned}$$

Using a Graph

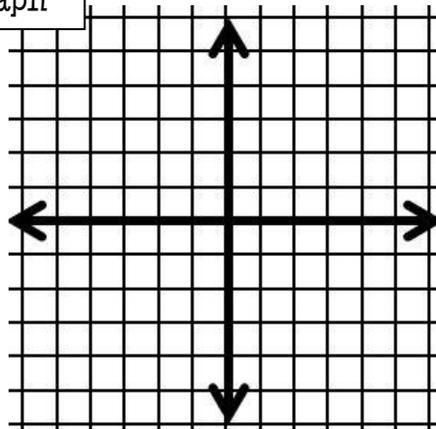


$$\begin{aligned}2x + 5y &= 14 \\6x + 7y &= 10\end{aligned}$$

Using Substitution or Elimination

$$\begin{aligned}x - y &= -4 \\-3x + 3y &= -6\end{aligned}$$

Using a Graph

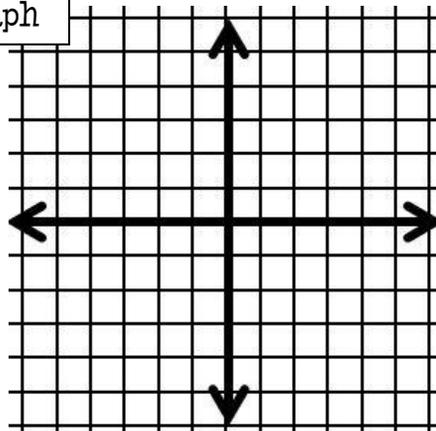


$$\begin{aligned}x - 2y &= 7 \\-x + 2y &= 7\end{aligned}$$

Using Substitution or Elimination

$$\begin{aligned}x + 3y &= 6 \\-2x - 6y &= -12\end{aligned}$$

Using a Graph



$$\begin{aligned}-16x + 2y &= -2 \\y &= 8x - 1\end{aligned}$$

Using Substitution or Elimination

Answer Key!

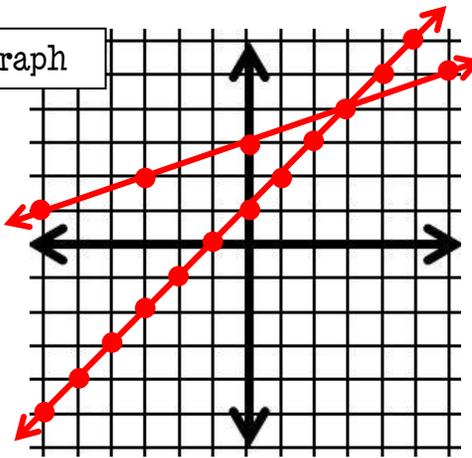
One Solution

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$$\begin{aligned}x - 3y &= -9 \\ x - y &= -1\end{aligned}$$

Using a Graph



$$\begin{array}{r}x - 3y = -9 \\ -x \quad -x \\ \hline -3y = -x - 9 \\ -3 \quad -3 \quad -3 \\ \hline y = \frac{1}{3}x + 3\end{array}$$

$$\begin{array}{r}x - y = -1 \\ -x \quad -x \\ \hline -y = -x - 1 \\ -1 \quad -1 \quad -1 \\ \hline y = x + 1\end{array}$$

$$y = \frac{1}{3}x + 3$$

$$y = x + 1$$

Solution: (3, 4)

$$\begin{aligned}2x + 5y &= 14 \\ 6x + 7y &= 10\end{aligned}$$

Using Substitution or Elimination

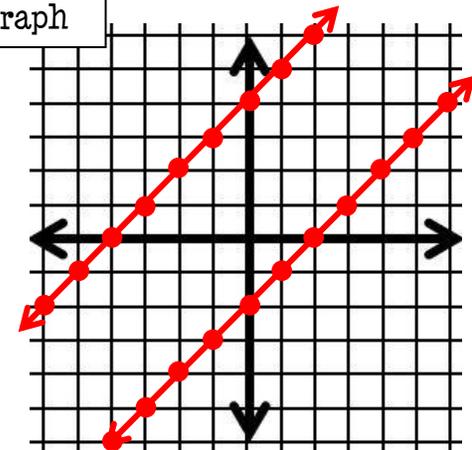
$$\begin{array}{r} -3(2x + 5y = 14) \rightarrow -6x - 15y = -42 \\ 6x + 7y = 10 \\ \hline -8y = -32 \\ -8 \quad -8 \\ \hline y = 4\end{array}$$

$$\begin{array}{r}2x + 5y = 14 \\ 2x + 5(4) = 14 \\ 2x + 20 = 14 \\ -20 \quad -20 \\ \hline \frac{2x}{2} = \frac{-6}{2} \\ x = -3\end{array}$$

Solution: (-3, 4)

$$\begin{aligned}x - y &= -4 \\ -3x + 3y &= -6\end{aligned}$$

Using a Graph



$$\begin{array}{r}x - y = -4 \\ -x \quad -x \\ \hline -y = -x - 4 \\ -1 \quad -1 \quad -1 \\ \hline y = x + 4\end{array}$$

$$\begin{array}{r}-3x + 3y = -6 \\ +3x \quad +3x \\ \hline 3y = 3x - 6 \\ 3 \quad 3 \quad 3 \\ \hline y = x - 2\end{array}$$

$$y = x + 4$$

$$y = x - 2$$

No Solution!

$$\begin{aligned}x - 2y &= 7 \\ -x + 2y &= 7\end{aligned}$$

Using Substitution or Elimination

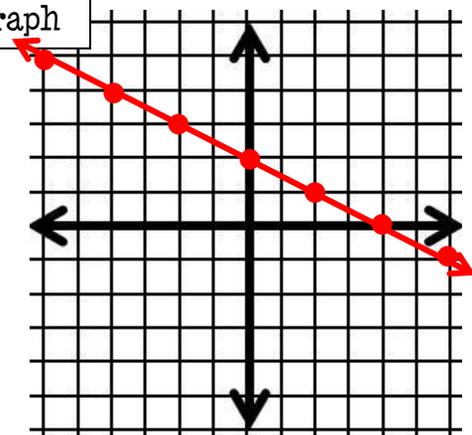
$$\begin{array}{r}x - 2y = 7 \\ -x + 2y = 7 \\ \hline 0 = 14\end{array}$$

$$0 \neq 14$$

No Solution!

$$\begin{aligned}x + 3y &= 6 \\ -2x - 6y &= -12\end{aligned}$$

Using a Graph



$$\begin{array}{r}x + 3y = 6 \\ -x \quad -x \\ \hline 3y = -x + 6 \\ 3 \quad 3 \quad 3 \\ \hline y = \frac{-1}{3}x + 2\end{array}$$

$$\begin{array}{r}-2x - 6y = -12 \\ +2x \quad +2x \\ \hline -6y = 2x - 12 \\ -6 \quad -6 \quad -6 \\ \hline y = \frac{-1}{3}x + 2\end{array}$$

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

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

Infinitely Many Solutions!

$$\begin{aligned}-16x + 2y &= -2 \\ y &= 8x - 1\end{aligned}$$

Using Substitution or Elimination

$$\begin{array}{r}-16x + 2y = -2 \\ -16x + 2(8x - 1) = -2 \\ -16x + 16x - 2 = -2 \\ -2 = -2\end{array}$$

Infinitely Many Solutions!

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Directions

Step 1: Print pages 1 & 2 (along the short edge).

Step 2: Cut along the thick dotted line at the bottom and discard that piece.

Step 3: Fold in half (hamburger style)

Step 4: Cut just the top half along the dotted lines to create the three tabs.

The final product should look like this:

