

Chp 7

Solving Systems Practice Problems

Solve by graphing:

$$\begin{aligned} \textcircled{1} \quad & 3x + y = 6 \\ & -x + 2y = 12 \end{aligned}$$

$$\boxed{(0, 6)}$$

$$\begin{aligned} \textcircled{2} \quad & 4x - 5y = 0 & y = \frac{4}{5}x \\ & 3x - 5y = -5 & -5y = -3x - 5 \\ & & y = \frac{3}{5}x + 1 \end{aligned}$$

$$\boxed{(5, 4)}$$

Solve by Elimination:

$$\begin{aligned} \textcircled{3} \quad & 3x + 5y = 5 \\ & 2x - 3y = 16 \end{aligned} \quad \boxed{(5, -2)}$$

$$\begin{aligned} \textcircled{4} \quad & 2x + 3y = 9 \\ & -3x + y = 25 \end{aligned} \quad \boxed{(-6, 7)}$$

Solve by Substitution:

$$\begin{aligned} \textcircled{5} \quad & 6x - 3y = 15 \\ & -2x + y = -5 \end{aligned}$$

$$\boxed{\text{Infinite Solns.}}$$

$$\begin{aligned} \textcircled{6} \quad & 3x - 4y = -5 \\ & -x + 3y = -5 \end{aligned}$$

$$\boxed{(-7, -4)}$$

Solve by any method:

$$\begin{aligned} \textcircled{7} \quad & 4x - 5y = 13 \\ & 6x + 2y = 48 \end{aligned} \quad \boxed{(7, 3)}$$

$$\begin{aligned} \textcircled{8} \quad & 6x - 2y = 5 \\ & -3x + y = 7 \end{aligned}$$

$$\boxed{\emptyset}$$

Is the ordered pair a solution to the system?

$$\textcircled{9} \quad (-5, -6) \text{ in}$$

$$2x - 3y = 8$$

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

$$\boxed{\text{Yes!}}$$

$$\textcircled{10}$$

$$(4, 1) \text{ in}$$

$$2x + 5y = 13$$

$$6x + 2y = -13$$

$$\boxed{\text{No!}}$$