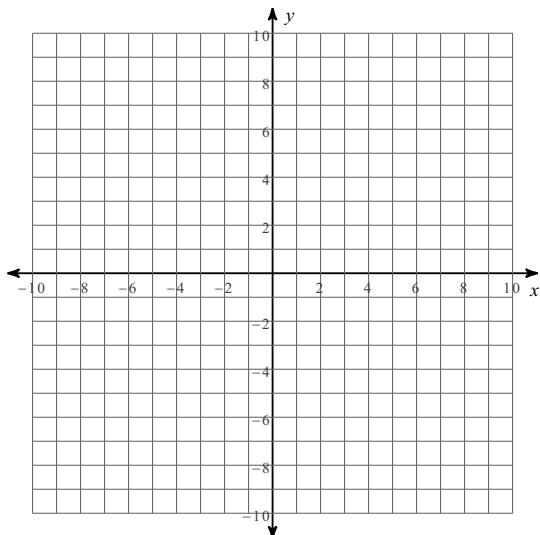


Assignment #1 - 2x2 Systems of Equations

Date _____ Period _____

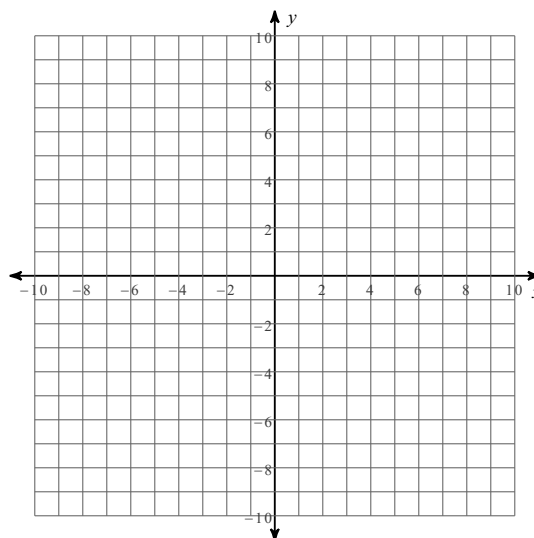
Solve each system by graphing.

$$1) \begin{aligned} y &= -2x - 9 \\ y &= 3x - 4 \end{aligned}$$



$$2) \begin{aligned} y &= \frac{2}{3}x + 1 \end{aligned}$$

$$y = -\frac{1}{6}x + 6$$

**Solve each system by substitution.**

$$3) \begin{aligned} 8x - y &= 13 \\ 2x + y &= -3 \end{aligned}$$

$$4) \begin{aligned} -8x + 5y &= -8 \\ -6x + 3y &= -6 \end{aligned}$$

Solve each system by elimination.

$$5) \begin{aligned} -10x - 14y &= -8 \\ 8x + 7y &= -2 \end{aligned}$$

$$6) \begin{aligned} 9x + 2y &= -26 \\ 4x + 5y &= -28 \end{aligned}$$

Solve each system using any appropriate method

$$\begin{aligned} 7) \quad 0 &= -2y + 16x - 20 \\ -y - 8x &= -6 \end{aligned}$$

$$\begin{aligned} 8) \quad 29 &= 9y + 14x \\ -5y + 13 &= 7x \end{aligned}$$

$$\begin{aligned} 9) \quad 4y &= 2 - 3x \\ -12y &= -12 + 9x \end{aligned}$$

$$\begin{aligned} 10) \quad -4x - 2y &= 4 \\ -20 - 20x &= 10y \end{aligned}$$

$$\begin{aligned} 11) \quad y &= -23 - 5x \\ 21 - 3y &= -3x \end{aligned}$$

$$\begin{aligned} 12) \quad 3x - 3 - \frac{6}{7}y &= 0 \\ -2y &= 4x - 4 \end{aligned}$$

$$\begin{aligned} 13) \quad 0 &= -1 + \frac{1}{25}x - \frac{8}{25}y \\ -8y &= 18 - 2x \end{aligned}$$

$$\begin{aligned} 14) \quad 27y &= -25 - 18x \\ 15 + 10x &= -15y \end{aligned}$$

$$\begin{aligned} 15) \quad 7y - 9x &= -19 \\ -4x &= -2y - 4 \end{aligned}$$

$$\begin{aligned} 16) \quad -3 + \frac{1}{3}x - \frac{1}{3}y &= 0 \\ -3y &= 5x + 27 \end{aligned}$$

$$\begin{aligned} 17) \quad -6 - 8y &= 3x \\ 0 &= -9y + 8 + 4x \end{aligned}$$

$$\begin{aligned} 18) \quad -49x + 16 &= -21y \\ 12 &= 84x - 36y \end{aligned}$$

$$\begin{aligned} 19) \quad 0 &= x - \frac{3}{2}y - \frac{7}{2} \\ -78 - 30y + 12x &= 0 \end{aligned}$$

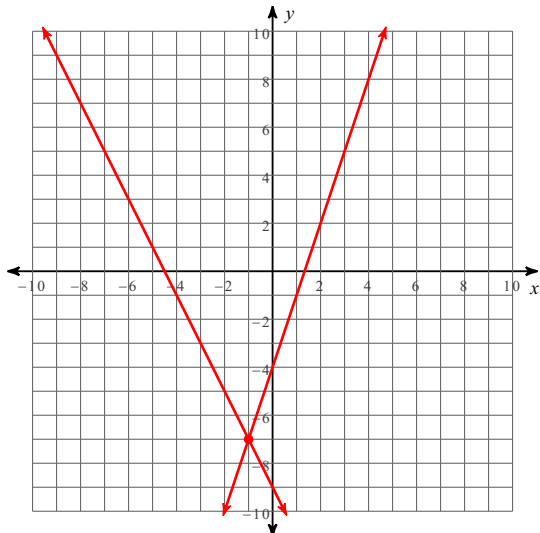
$$\begin{aligned} 20) \quad 0 &= -5x - 8y + 24 \\ 7y &= -2x + 21 \end{aligned}$$

Assignment #1 - 2x2 Systems of Equations

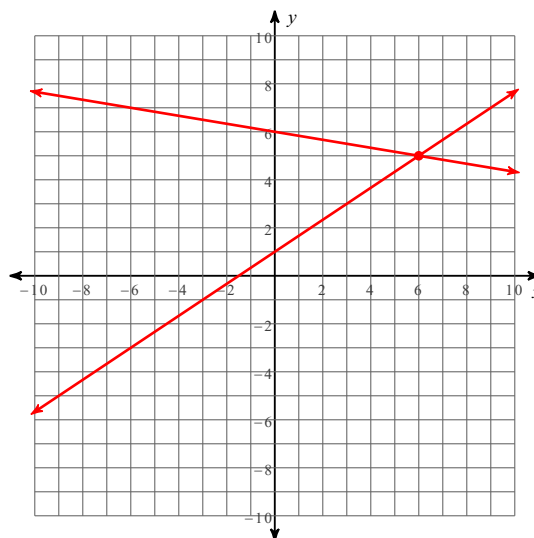
Date _____ Period _____

Solve each system by graphing.

$$1) \begin{aligned} y &= -2x - 9 \\ y &= 3x - 4 \end{aligned}$$

 $(-1, -7)$

$$2) \begin{aligned} y &= \frac{2}{3}x + 1 \\ y &= -\frac{1}{6}x + 6 \end{aligned}$$

 $(6, 5)$ **Solve each system by substitution.**

$$3) \begin{aligned} 8x - y &= 13 \\ 2x + y &= -3 \end{aligned}$$

 $(1, -5)$

$$4) \begin{aligned} -8x + 5y &= -8 \\ -6x + 3y &= -6 \end{aligned}$$

 $(1, 0)$ **Solve each system by elimination.**

$$5) \begin{aligned} -10x - 14y &= -8 \\ 8x + 7y &= -2 \end{aligned}$$

 $(-2, 2)$

$$6) \begin{aligned} 9x + 2y &= -26 \\ 4x + 5y &= -28 \end{aligned}$$

 $(-2, -4)$

Solve each system using any appropriate method

$$\begin{aligned} 7) \quad 0 &= -2y + 16x - 20 \\ -y - 8x &= -6 \end{aligned}$$

$$(1, -2)$$

$$\begin{aligned} 8) \quad 29 &= 9y + 14x \\ -5y + 13 &= 7x \end{aligned}$$

$$(4, -3)$$

$$\begin{aligned} 9) \quad 4y &= 2 - 3x \\ -12y &= -12 + 9x \end{aligned}$$

No solution

$$\begin{aligned} 10) \quad -4x - 2y &= 4 \\ -20 - 20x &= 10y \end{aligned}$$

Infinite number of solutions

$$\begin{aligned} 11) \quad y &= -23 - 5x \\ 21 - 3y &= -3x \end{aligned}$$

$$(-5, 2)$$

$$12) \quad 3x - 3 - \frac{6}{7}y = 0$$

$$-2y = 4x - 4$$

$$(1, 0)$$

$$\begin{aligned} 13) \quad 0 &= -1 + \frac{1}{25}x - \frac{8}{25}y \\ -8y &= 18 - 2x \end{aligned}$$

$$(-7, -4)$$

$$\begin{aligned} 14) \quad 27y &= -25 - 18x \\ 15 + 10x &= -15y \end{aligned}$$

No solution

$$\begin{aligned} 15) \quad 7y - 9x &= -19 \\ -4x &= -2y - 4 \end{aligned}$$

$$(-1, -4)$$

$$16) \quad -3 + \frac{1}{3}x - \frac{1}{3}y = 0$$

$$-3y = 5x + 27$$

$$(0, -9)$$

$$\begin{aligned} 17) \quad -6 - 8y &= 3x \\ 0 &= -9y + 8 + 4x \end{aligned}$$

$$(-2, 0)$$

$$\begin{aligned} 18) \quad -49x + 16 &= -21y \\ 12 &= 84x - 36y \end{aligned}$$

No solution

$$\begin{aligned} 19) \quad 0 &= x - \frac{3}{2}y - \frac{7}{2} \\ -78 - 30y + 12x &= 0 \end{aligned}$$

$$(-1, -3)$$

$$\begin{aligned} 20) \quad 0 &= -5x - 8y + 24 \\ 7y &= -2x + 21 \end{aligned}$$

$$(0, 3)$$