

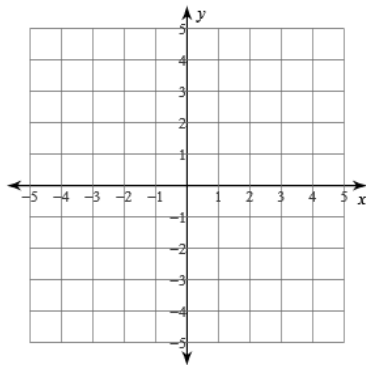
Algebra 2

Name \_\_\_\_\_

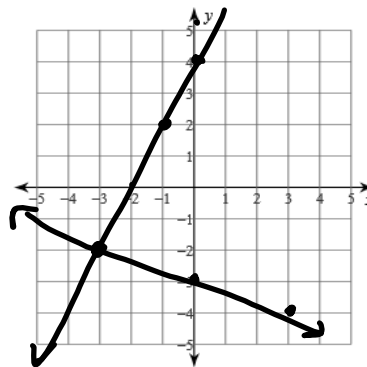
Review Systems for Quiz

Solve each system by graphing.

1)  $y = -x - 2$   
 $y = -6x + 3$

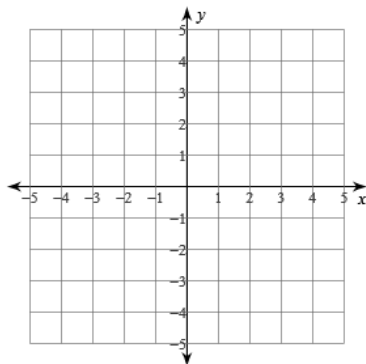


2)  $y = -\frac{1}{3}x - 3$   
 $y = 2x + 4$

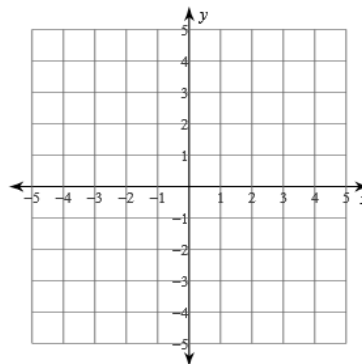


$(-3, -2)$

3)  $y = 2x + 3$   
 $y = -3x - 2$

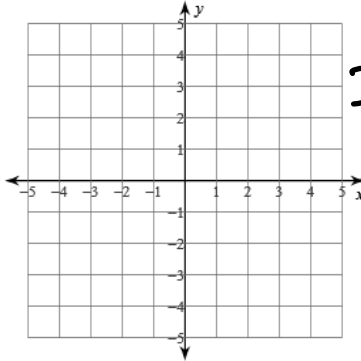


4)  $y = -2x + 4$   
 $y = -2x + 3$



5)  $4x + 3y = -3$   
 $x + 3y = 6$

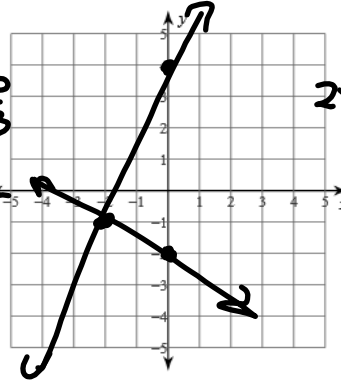
$\frac{3}{3}y = -\frac{4}{3}x - \frac{3}{3}$   
 $y = -\frac{4}{3}x - 1$



$\frac{3}{3}y = -\frac{1}{3}x + \frac{6}{3}$   
 $y = -\frac{1}{3}x + 2$

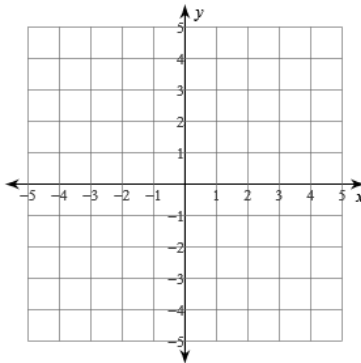
6)  $5x - 2y = -8$   
 $x + 2y = -4$

$-2y = -5x - 8$   
 $y = \frac{5}{2}x + 4$



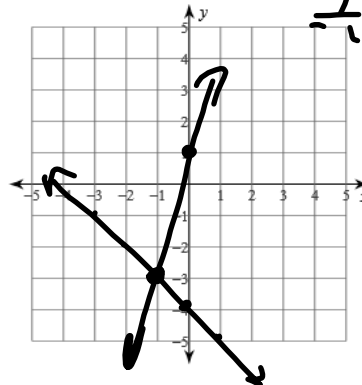
$2y = -\frac{1}{2}x - \frac{4}{2}$   
 $y = -\frac{1}{2}x - 2$   
 $(-2, -1)$

7)  $2x + y = 4$   
 $2x + y = 2$



8)  $x + y = -4$   
 $4x - y = -1$

$y = -x - 4$



$-\frac{y}{1} = -\frac{4x}{1} - \frac{1}{1}$   
 $y = 4x + 1$   
 $(-1, -3)$

Solve each system by substitution.

9)  $y = -4x - 15$   
 $y = 6x + 5$

$$\begin{aligned} 6x + 5 &= -4x - 15 \\ +4x & \quad +4x \\ \hline 10x + 5 &= -15 \\ 10x &= -20 \\ x &= -2 \end{aligned} \quad (-2, -7)$$

11)  $x + 6y = -7$   
 $2x - 7y = 5$

$$\begin{aligned} x &= -6y - 7 \\ 2(-6y - 7) - 7y &= 5 \\ -12y - 14 - 7y &= 5 \\ -19y &= 19 \\ y &= -1 \end{aligned} \quad x = -6(-1) - 7 = -1$$

13)  $x + 6y = 20$   
 $-x - 6y = -20$

$$\begin{array}{r} + \\ \hline 0x + 0y = 0 \end{array}$$

10)  $-8x - 2y = 3$   
 $y = -4x - 5$

$$\begin{aligned} -8x - 2(-4x - 5) &= 3 \\ -8x + 8x + 10 &= 3 \\ 10 &\neq 3 \end{aligned}$$

NO SOLUTION

12)  $-5x - 2y = -22$   
 $y = -2x + 8$

$$\begin{aligned} -5x - 2(-2x + 8) &= -22 \\ -5x + 4x - 16 &= -22 \\ -x &= -6 \\ x &= 6 \\ y &= -2(6) + 8 = -4 \end{aligned}$$

(6, -4)

14)  $y = -2x$   
 $y = -8x - 18$

15)  $y = 0$   
 $y = -5x$

$$\begin{aligned} 0 &= -5x \\ \frac{0}{-5} &= \frac{-5x}{-5} \\ x &= 0 \end{aligned} \quad (0, 0)$$

16)  $x - y = 0$   
 $5x - 6y = 2$

Solve each system by elimination.

17)  $7x + 7y = -21$   
 $-8x - 7y = 22$

18)  $-4x - 5y = -16$   
 $4x - 2y = 16$

$$\begin{aligned} + \\ \hline -7y &= 0 \\ y &= 0 \end{aligned} \quad (4, 0)$$

$$\begin{aligned} -4x - 5(0) &= -16 \\ -4x &= -16 \\ x &= 4 \end{aligned}$$

19)  $2x - y = 20$   
 $-3x - y = -25$

20)  $3x + y = -29$   
 $3x + y = -29$

21)  $3x - 3y = 21$   
 $-9x + y = 1$

22)  $8x + 8y = 24$   
 $-4x + y = 28$

23)  $-9x + 8y = 21$   
 $-4x - 3y = -30$

$$\begin{array}{r} 5 \\ 24(4x - 10y = 24) \quad 20x - 50y = 120 \\ 4(5x - 3y = -27) \quad -20x - 12y = -108 \\ \hline -36y = 228 \\ y = -6 \end{array}$$

Solve each system using any method.

25)  $2x - y = 15$   
 $-5x - 5y = -15$

26)  $y = 2x$   
 $-x + 7y = -13$

$$\begin{array}{r} 27) \quad 8x + 8y = 16 \\ + \quad -8x + 6y = 12 \\ \hline 14y = 28 \\ y = 2 \end{array}$$

28)  $6x + y = -2$   
 $-2x + 8y = -16$

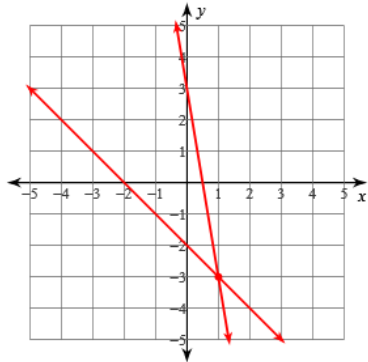
Algebra 2

Name \_\_\_\_\_

Review Systems for Quiz

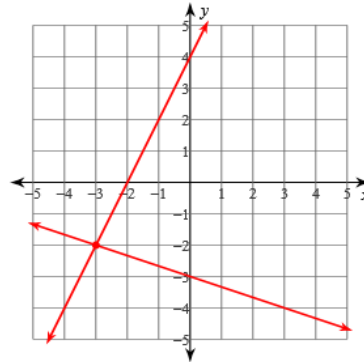
Solve each system by graphing.

1)  $y = -x - 2$   
 $y = -6x + 3$



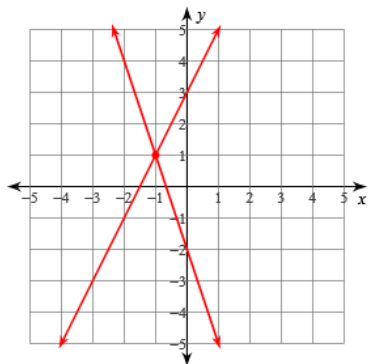
(1, -3)

2)  $y = -\frac{1}{3}x - 3$   
 $y = 2x + 4$



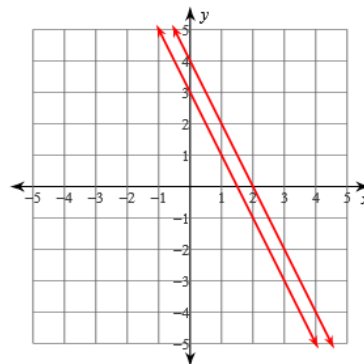
(-3, -2)

3)  $y = 2x + 3$   
 $y = -3x - 2$



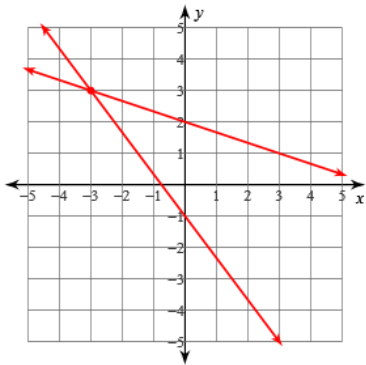
(-1, 1)

4)  $y = -2x + 4$   
 $y = -2x + 3$



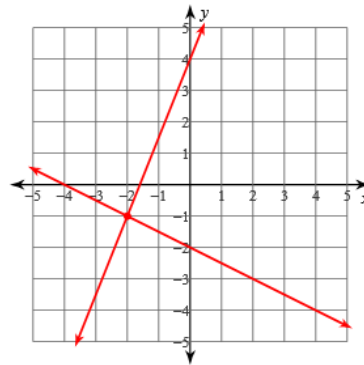
No solution

5)  $4x + 3y = -3$   
 $x + 3y = 6$



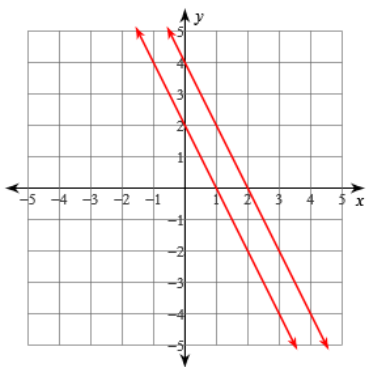
$(-3, 3)$

6)  $5x - 2y = -8$   
 $x + 2y = -4$



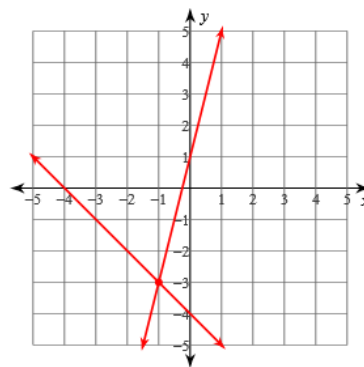
$(-2, -1)$

7)  $2x + y = 4$   
 $2x + y = 2$



No solution

8)  $x + y = -4$   
 $4x - y = -1$



$(-1, -3)$

Solve each system by substitution.

$$\begin{aligned} 9) \quad y &= -4x - 15 \\ y &= 6x + 5 \end{aligned}$$

$$(-2, -7)$$

$$\begin{aligned} 10) \quad -8x - 2y &= 3 \\ y &= -4x - 5 \end{aligned}$$

No solution

$$\begin{aligned} 11) \quad x + 6y &= -7 \\ 2x - 7y &= 5 \end{aligned}$$

$$(-1, -1)$$

$$\begin{aligned} 12) \quad -5x - 2y &= -22 \\ y &= -2x + 8 \end{aligned}$$

$$(6, -4)$$

$$\begin{aligned} 13) \quad x + 6y &= 20 \\ -x - 6y &= -20 \end{aligned}$$

Infinite number of solutions

$$\begin{aligned} 14) \quad y &= -2x \\ y &= -8x - 18 \end{aligned}$$

$$(-3, 6)$$

$$\begin{aligned} 15) \quad y &= 0 \\ y &= -5x \end{aligned}$$

$$(0, 0)$$

$$\begin{aligned} 16) \quad x - y &= 0 \\ 5x - 6y &= 2 \end{aligned}$$

$$(-2, -2)$$

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$$(-1, -2)$$

$$\begin{aligned} 18) \quad -4x - 5y &= -16 \\ 4x - 2y &= 16 \end{aligned}$$

$$(4, 0)$$

$$\begin{aligned} 19) \quad & 2x - y = 20 \\ & -3x - y = -25 \\ & (9, -2) \end{aligned}$$

$$\begin{aligned} 20) \quad & 3x + y = -29 \\ & 3x + y = -29 \\ & \text{Infinite number of solutions} \end{aligned}$$

$$\begin{aligned} 21) \quad & 3x - 3y = 21 \\ & -9x + y = 1 \\ & (-1, -8) \end{aligned}$$

$$\begin{aligned} 22) \quad & 8x + 8y = 24 \\ & -4x + y = 28 \\ & (-5, 8) \end{aligned}$$

$$\begin{aligned} 23) \quad & -9x + 8y = 21 \\ & -4x - 3y = -30 \\ & (3, 6) \end{aligned}$$

$$\begin{aligned} 24) \quad & 4x - 10y = 24 \\ & 5x - 3y = -27 \\ & (-9, -6) \end{aligned}$$

**Solve each system using any method.**

$$\begin{aligned} 25) \quad & 2x - y = 15 \\ & -5x - 5y = -15 \\ & (6, -3) \end{aligned}$$

$$\begin{aligned} 26) \quad & y = 2x \\ & -x + 7y = -13 \\ & (-1, -2) \end{aligned}$$

$$\begin{aligned} 27) \quad & 8x + 8y = 16 \\ & -8x + 6y = 12 \\ & (0, 2) \end{aligned}$$

$$\begin{aligned} 28) \quad & 6x + y = -2 \\ & -2x + 8y = -16 \\ & (0, -2) \end{aligned}$$