

Quiz: Solving Systems by Grapng and Elimination Date _____ Period _____

How many solutions does each system have (hint: one, infinitely many, or no solution)?

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

$y = \frac{7}{2}x + 3$

one

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

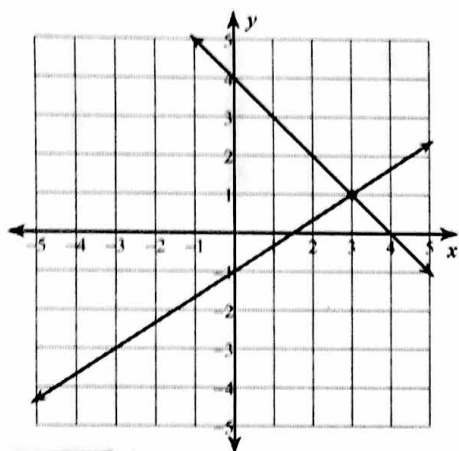
$y = -x - 1$
 $(-4, 3)$

one

Solve each system by graphing.

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

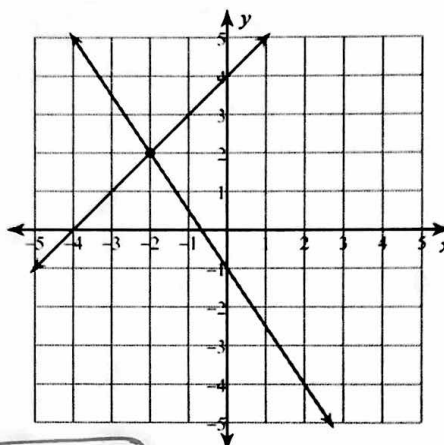
$y = -x + 4$



(3, 1)

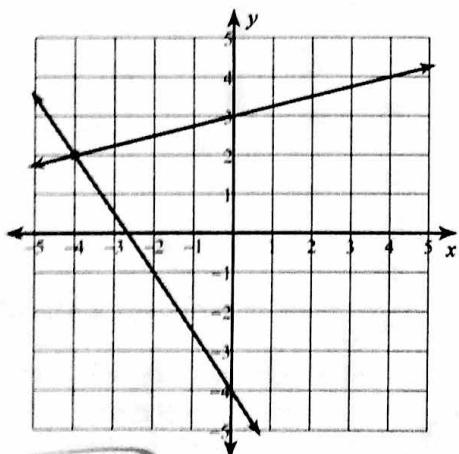
4) $y = x + 4$

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



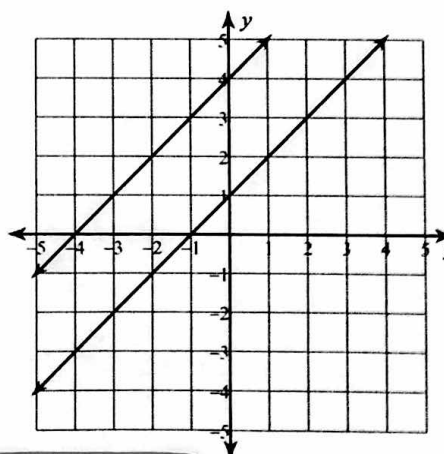
(-2, 2)

5) $x - 4y = -12$
 $3x + 2y = -8$



(-4, 2)

6) $x - y = -1$
 $x - y = -4$



No solution

Solve each system by elimination.

$$\begin{array}{r} 7) \quad -8x + 3y = 27 \\ \quad -10x - 3y = -27 \end{array}$$

(0, 9)

$$\begin{array}{r} 8) \quad 9x - y = 22 \\ \quad -9x + y = -22 \end{array}$$

Infinite number of solutions

$$\begin{array}{r} 9) \quad -3x - 7y = 0 \\ \quad -3x - 3y = 12 \end{array}$$

(-7, 3)

$$\begin{array}{r} 10) \quad 6x + 16y = -22 \\ \quad 8x - 8y = 0 \end{array}$$

(-1, -1)

$$\begin{array}{r} 11) \quad 3x - 3y = 6 \\ \quad -9x + 8y = -22 \end{array}$$

(6, 4)

Write a response to the following question.

12) What must be true in both equations of your system if elimination is to be used as a method for solving (hint: what was the goal at the top of the page in your notes)?

1) Same number
2) Different signs