

Chapter 5 Review #2

1) Is (4,1) a solution to the system of equations

$$\begin{cases} y = 3x - 11 \\ 2x - 3y = 6 \end{cases} ? \text{ Explain how you know.}$$

2) Is (4,1) a solution to the system of

$$\text{inequalities } \begin{cases} y \geq 3x - 11 \\ 2x - 3y < 6 \end{cases} ?$$

Explain how you know.

3) Solve the equation  
 $5x - 2y = 6$  for  $y$ .

4) Solve the equation  
 $5x - 2y = 6$  for  $x$ .

5) Solve the inequality  
 $5x - 2y > 6$  for  $y$ .

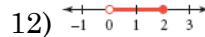
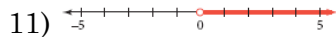
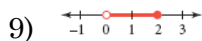
Consider the system of equations  $\begin{cases} y = 4 + 3x \\ y = a + bx \end{cases}$ . Explain what values of  $a$  and  $b$  give this system

6) exactly 1 solution

7) no solutions

8) infinitely many solutions

Write the inequality graphed on each number line.



Solve the following two systems using the substitution property. Remember to find both the  $x$  and  $y$  term and write your answer in the form  $(x, y)$ .

$$13) \begin{cases} y = -3x + 2 \\ y = -4x + 5 \end{cases}$$

$$14) \begin{cases} y = 5x - 3 \\ 3x - 2y = 13 \end{cases}$$

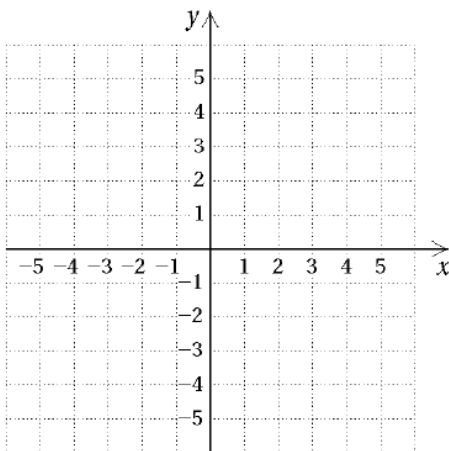
Solve the following two systems using the elimination property. Remember to find both the  $x$  and  $y$  term and write your answer in the form  $(x, y)$ .

$$15) \begin{cases} 3x - 2y = 0 \\ -x + 2y = -4 \end{cases}$$

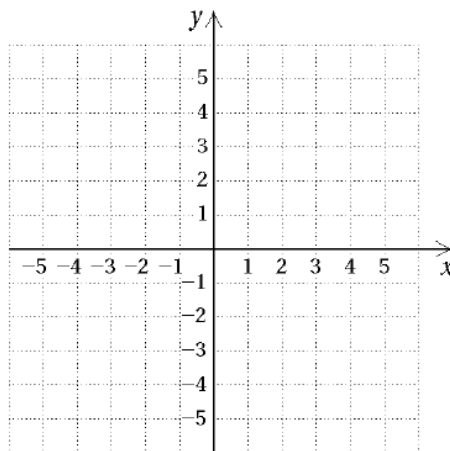
$$16) \begin{cases} -4x + 5y = -4 \\ -x + 4y = -1 \end{cases}$$

Graph each inequality or system on the coordinate plane provided.

$$17) y > x + 1$$



$$18) y \geq 3x - 2$$



$$19) x - y > 5$$

