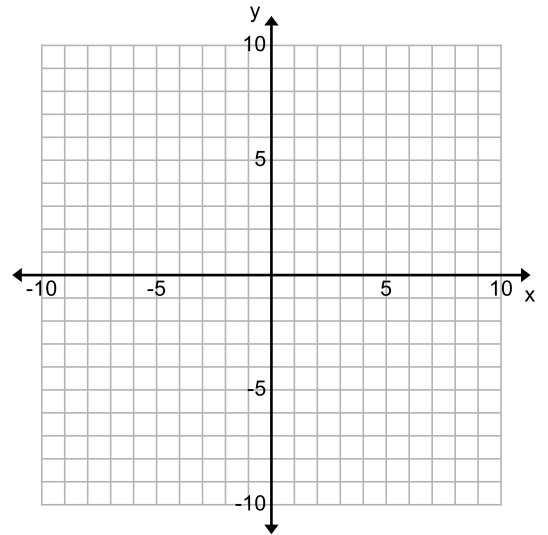


For numbers 1 – 4, (a) Graph each system of equations, and (b) If the system has a one solution, write the ordered pair. Otherwise, state that the solution has ***no solution*** or ***infinitely many solutions***.

1)  $y = 5$   
 $y = x + 5$

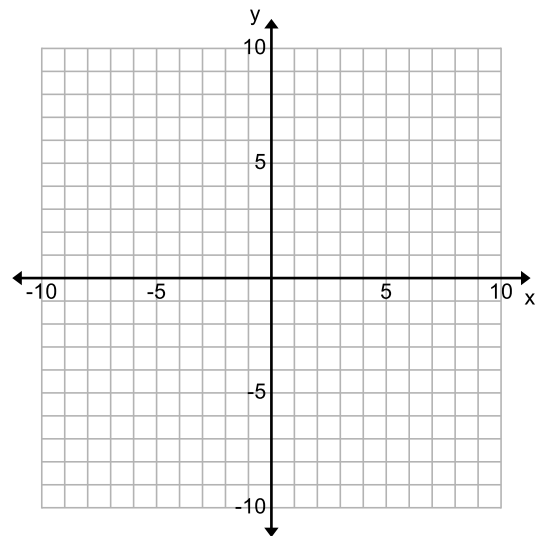
1) (a)



(b) \_\_\_\_\_

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

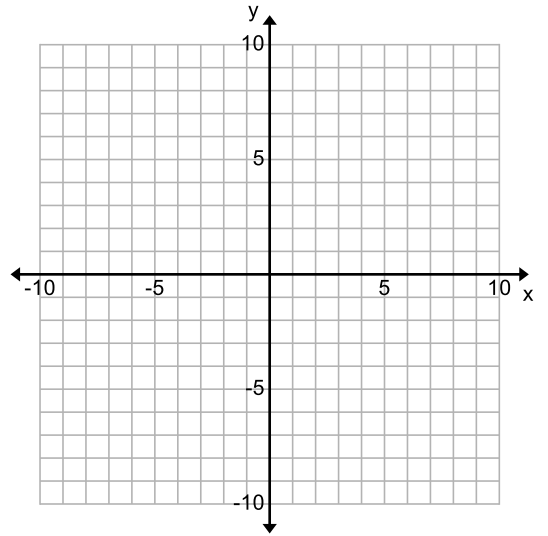
2) (a)



(b) \_\_\_\_\_

3)  $y = 2x + 3$   
 $4x - 2y = -6$

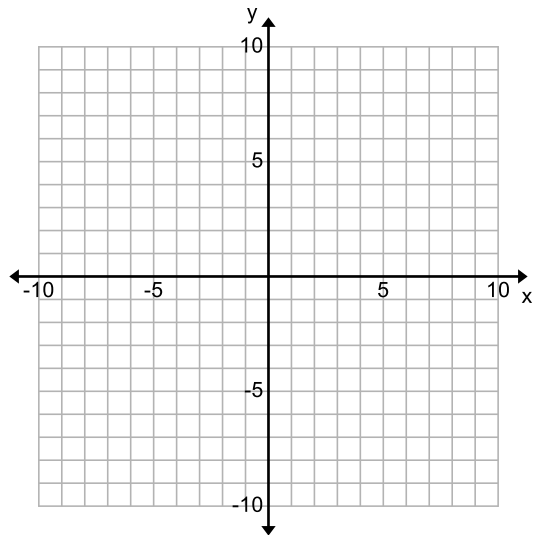
3) (a)



(b) \_\_\_\_\_

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

4) (a)



(b) \_\_\_\_\_

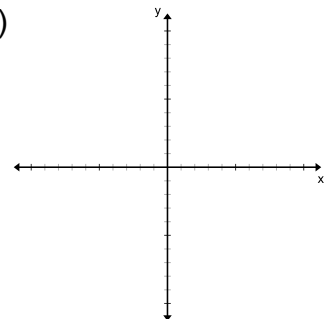
5) Write an example of a system of equations with exactly one solution.

5) \_\_\_\_\_

\_\_\_\_\_

6) Please draw an example of two lines with no solution.

6)



For numbers 7 - 9, try **substitution** to solve each system of equations.

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

7) \_\_\_\_\_

8)  $y = x + 1$   
 $2y = 2x + 4$

8) \_\_\_\_\_

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

9) \_\_\_\_\_

For numbers 10 - 13, try **elimination** to solve each system of equations.

10)  $x - y = 1$   
 $x + y = -7$

10) \_\_\_\_\_

11)  $3x + 2y = -1$   
 $2x + 2y = 2$

11) \_\_\_\_\_

12)  $2x + 5y = 3$   
 $-x + 3y = -7$

12) \_\_\_\_\_

13)  $2x + 3y = 14$   
 $3x - 4y = 4$

13) \_\_\_\_\_

For numbers 14 - 16, use **method of your choice** to solve each system of equations.

14)  $4x + y = 2$   
 $4x + 3y = 10$

14) \_\_\_\_\_

15)  $2x + y = 3$   
 $-4x - 4y = -8$

15) \_\_\_\_\_

16)  $y = x - 3$   
 $x - y = 6$

16) \_\_\_\_\_

Determine whether the point  $(-1, 4)$  is a solution to the system of equations, by substitution.

17)  $-2x + y = 6$   
 $y - x = -5$

17) YES NO

Please solve each of the following problems by the **method of your choice** using a system of equations.

- 18) One number added to twice another number is 12.  
The first number minus the second number is 3. Find  
the two numbers.

18) \_\_\_\_\_

- 19) Owen bought two pairs of gloves and four hats for  
\$43.00. Madelyn bought two pairs of gloves and two  
hats for \$30.00. What were the prices for the gloves  
and hats?

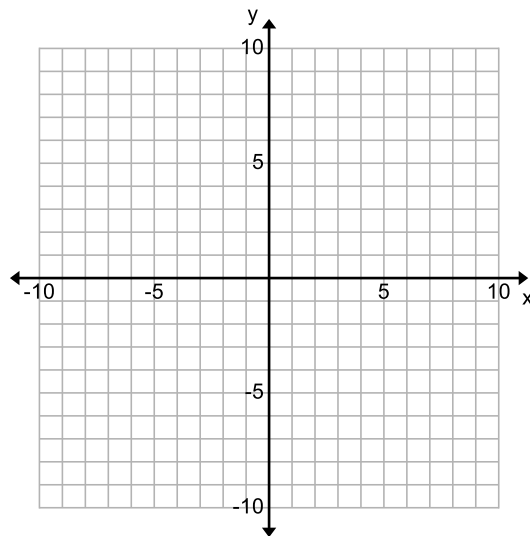
19) gloves: \_\_\_\_\_  
hats: \_\_\_\_\_

- 20) A library contains 2000 books. There are 3 times as many  
non-fiction books as fiction books. Determine the number  
of non-fiction and fiction books.

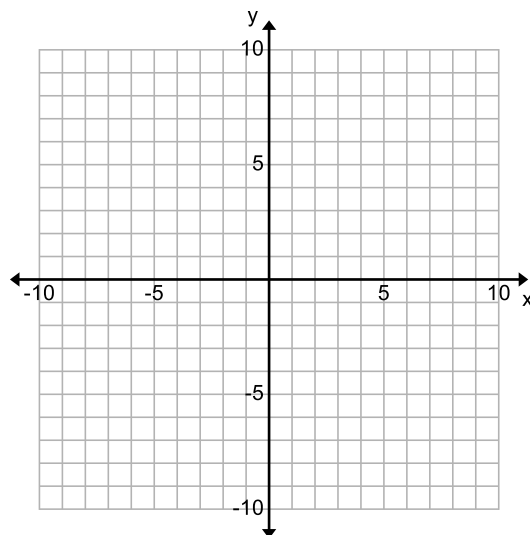
20) non-fiction: \_\_\_\_\_  
fiction: \_\_\_\_\_

Please solve each system of inequalities by graphing.

21)  $x > 3$   
 $y < x + 2$



22)  $y \leq -2x + 4$   
 $-3x + y < -1$



Find the slope of line through the given pair of points.

23)  $(5, -3)$  and  $(7, 1)$

23) \_\_\_\_\_

24) Write the equation of the line in slope-intercept form that has a slope of  $\frac{1}{3}$  and passes through the point  $(6, -1)$ .

24) \_\_\_\_\_

Please solve the inequality involving absolute value. Then graph your solution.

25)  $|2x - 1| \leq 11$

25) \_\_\_\_\_

