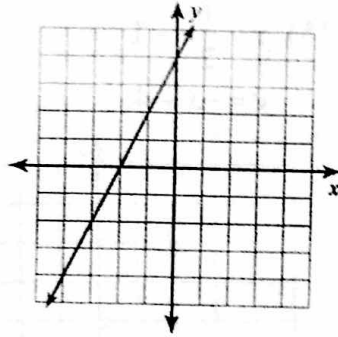


## 3rd Six Weeks REVIEW

Date \_\_\_\_\_ Period \_\_\_\_\_

## Interpreting Graphs



## USE THE GRAPH ABOVE TO ANSWER QUESTIONS 1-4.

- 1) What is the value of  $x$  when  $y = 4$ ?
- 2) What is the value of  $y$  when  $x = -3$ ?
- 3) What is the slope of the line?
- 4) Write the equation of the line.

## Transformations

- 5) Identify the transformation from  $f(x) = x + 7 \rightarrow g(x) = -x + 7$
- 6) Identify the transformation from  $f(x) = 2/3x + 6 \rightarrow g(x) = 2/3x - 6$
- 7) Identify the transformation from  $f(x) = 7x - 1 \rightarrow g(x) = 5x - 1$
- 8) Identify the transformation from  $f(x) = -x - 5 \rightarrow g(x) = 3x + 3$
- 9) Identify the transformation from  $f(x) = -4x - 5 \rightarrow g(x) = 4x + 7$

## Parallel &amp; Perpendicular

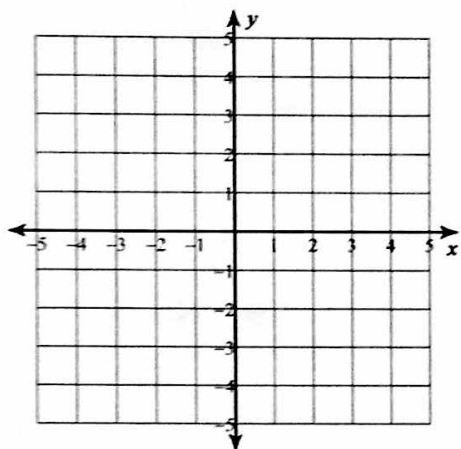
- 10) What is the slope of the line that is parallel to  $y = 6x + 2$ ?
- 11) What is the slope of the line that is perpendicular to  $y = -2x + 4$ ?
- 12) Determine if the lines are parallel, perpendicular, or neither.  
 $y = 3x - 1$   
 $y = -3x + 2$
- 13) Write the equation of a line that is PERPENDICULAR to  $y = 2/9x + 5$  and has a  $y$ -intercept of  $-8$ .

## Systems of Equations

Solve each system by graphing.

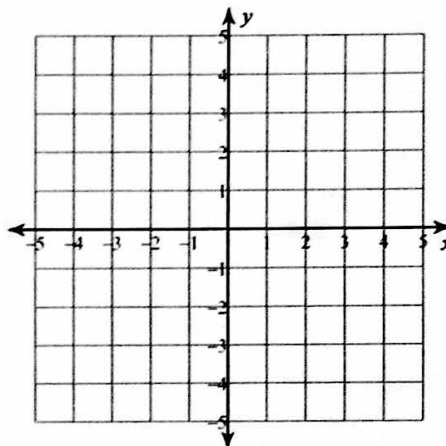
14)  $y = -\frac{1}{2}x - 2$

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



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

$$y = -x - 4$$



Solve each system by elimination.

16)  $-6x + 7y = -28$

$$6x - 6y = 24$$

17)  $-4x - 5y = 21$

$$4x + 5y = -21$$

18)  $5x + 3y = 19$

$$10x - 9y = -7$$

**Solve each system by substitution.**

19)  $6x - 4y = -6$   
 $y = 3x$

20)  $y = -4x + 8$   
 $8x + 6y = 16$

**Linear Applications**

- 21) A trophy company charges \$200 for a trophy plus \$0.10 per letter for the engraving. Write an equation to determine the total cost of a trophy with  $x$  letters in it.
- 22) A flower company has both edible arrangements ( $e$ ) for \$95 each and floral arrangements ( $f$ ) for \$55 each. One day the store sells a total of \$3050 in merchandise. Write an equation to represent the total sales for the day.
- 23) To rent a van, a moving company charges \$50.00 plus \$0.25 per mile. You are moving a distance of 200 miles and have budgeted \$225 for renting the van. Is this enough money?
- 24) At a school play childrens tickets cost \$5 each and adult tickets cost \$9 each. The total amount earned from ticket sales equals \$221. How many children's tickets were sold if 19 adult tickets were sold?
- 25) Katie has twice as much money as John. Together they have \$63. How much money does each have?

## Answers to 3rd Six Weeks REVIEW (ID: 1)

- 1) 0  
5) Reflection  
8) Rotation and Translation  
11)  $1/2$   
15)  $(-2, -2)$   
18)  $(2, 3)$   
22)  $3050 = 95e + 55f$   
25) John has \$21 and Katie has \$42
- 2) -2  
6) Translation  
9) Reflection and Translation  
12) Neither  
16)  $(0, -4)$   
19)  $(1, 3)$   
23) No
- 3) 2  
7) Rotation  
10) 6  
13)  $y = -9/2x - 8$   
17) Infinite number of solutions  
20)  $(2, 0)$   
24) 10
- 4)  $y = 2x + 4$   
14) No solution  
21)  $y = .1x + 200$