

# Station 1

The swimming team is ordering team sweatshirts. The cost  $y$  (in dollars) of  $x$  shirts ordered from the Spirit Shop can be calculated using the rule  $y = 20x + 40$ .

- a. Identify the slope and  $y$ -intercept of the graph of  $y = 20x + 40$ . Then explain the possible meaning of each in terms of the context.

Slope: \_\_\_\_\_

Meaning:

$y$ -intercept: \_\_\_\_\_

Meaning:

- b. How much will 15 sweatshirts cost? Show your work.

- c. If the bill was \$1,000, how many sweatshirts were ordered? Show or explain your work.

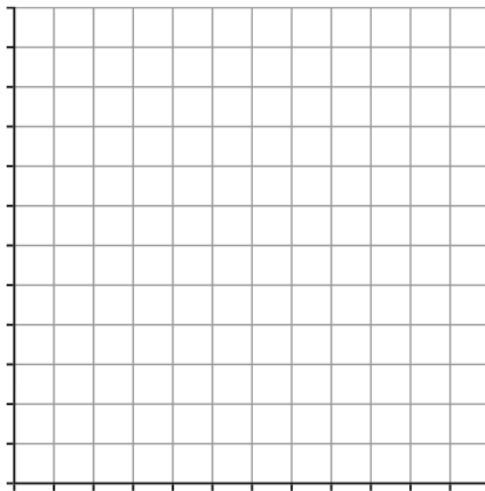
- d. Another store, Sweatshirts Plus is running a special. The cost  $y$  (in dollars) of buying  $x$  sweatshirts from Sweatshirts Plus is  $y = 10x + 150$  for a limited time. What is the cost per sweatshirt and what are the initial costs of buying sweatshirts during the sale?

- e. Write a NOW/NEXT rule for the original cost of the sweatshirts, AND write a NOW/NEXT rule for the special they are running for a limited time (part d)

# Station 2

Havaleh got her uncle to sponsor her for the walk to raise money for the fire department. He said he would pay her \$15 to enter the walk and \$3.50 extra for every mile she walked.

- a. Write a rule in slope intercept form to represent this situation. Let  $y$  equal the total amount of money Havaleh raises for the animal shelter, and let  $x$  equal the miles she walked.
  
  
  
  
  
  
  
  
  
  
- b. On the grid below, sketch a graph that indicates how much her uncle will pay as a function of the distance that she walks. Be sure to clearly label your graph.



# Station 3

1. Use the function  $f(x)=10x+21$  to evaluate the following. SHOW YOUR WORK!!!!

a.  $f(1)$

a.  $f(-2)$

b.  $f(0)$

2.. Use the function  $f(x)= -10x+2$ . What value of  $x$  will result in each of the following:

a.  $f(x)=12$

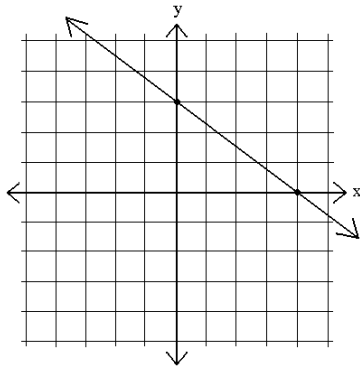
b.  $f(x)= -8$

c.  $f(x)= 122$

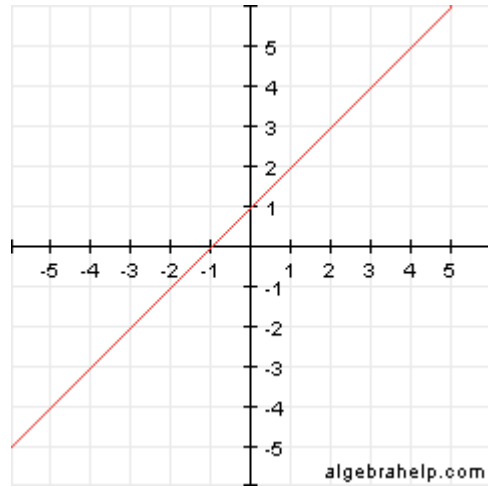
# Station 4

Write the equation of the line for the following questions:

1.



2.



3.

$x$	0	2	4	6	8
$y$	10	0	-10	-20	-30

4.  $(-2, 5)$  and  $(-4, 3)$

# Station 5

1. Write the equation of a line having slope  $m=12$  and y intercept  $(0, -1)$
2. Write the equation of a line that is parallel to  $y=3x$ , but goes through the point  $(6,4)$ .
3. Write the equation of a line that is parallel to  $y=2x-12$ , but goes through the point  $(-3,4)$ .
4. Write the equation of a line that is perpendicular to  $y=1/3 x-12$ , but goes through the point  $(-6,1)$ .

# Station 6

## TRUE OR FALSE SECTION:

\_\_\_\_\_ 16. This graph is a function

\_\_\_\_\_ 17. After 2 hours the family had traveled 150 miles.

\_\_\_\_\_ 18. The Family stayed in once place for 2 hours, while 150 miles from home.

\_\_\_\_\_ 19. The y intercept of this graph is 0 miles.

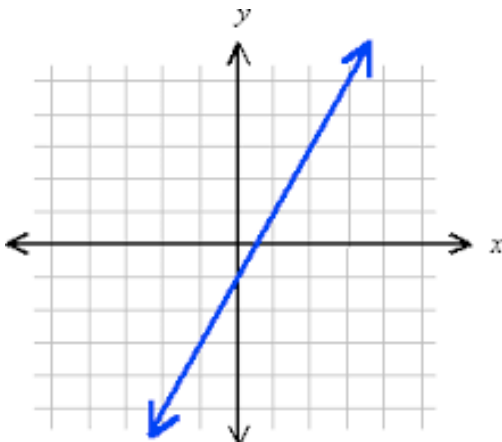
\_\_\_\_\_ 20. The slope represents the change in distance over change in time.

21. What is the steepest slope of this graph and when does it occur?

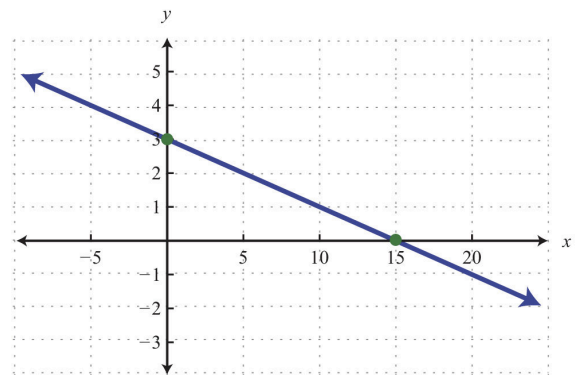
22. What is the least steep slope in this graph and when does it occur?

Write an equation from the information given:

23.



24.



# Station 7

1. What is the slope formula?
2. What is slope intercept form? What does  $m$  stand for? What does  $b$  stand for?
3. Explain how to find the slope from a graph?
4. What is true about the slopes of parallel lines? Give an example
5. What is true about the slopes of perpendicular lines? Give an example
6. Explain the vertical line test.