

NAME \_\_\_\_\_

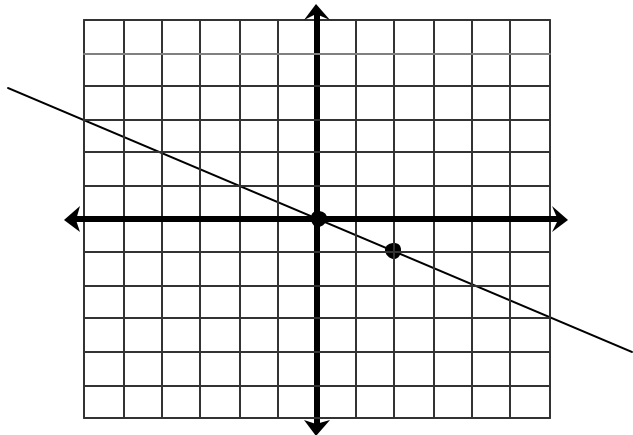
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# Sections 4. All

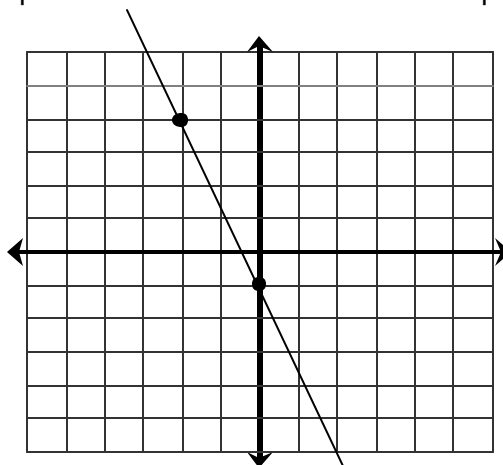
## ALGEBRA

### Analyzing Equations Through Slope & Y-int Mixed Review:

1. In the graphs below, find the y-intercept and the slope and write them on the lines provided.



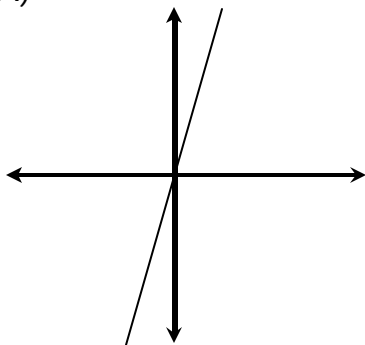
slope = \_\_\_\_\_ y-int = \_\_\_\_\_



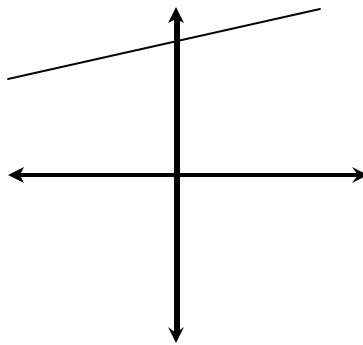
slope = \_\_\_\_\_ y-int = \_\_\_\_\_

2. Circle the graph below with the biggest slope. Box the graph with the biggest y-intercept.

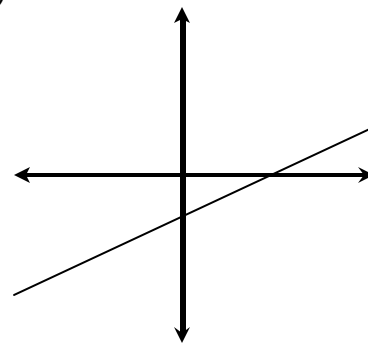
A)



B)



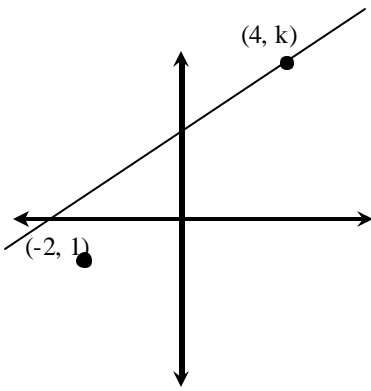
C)



3. What is the slope of a line passing through the points (4, 6) and (6, 11)?

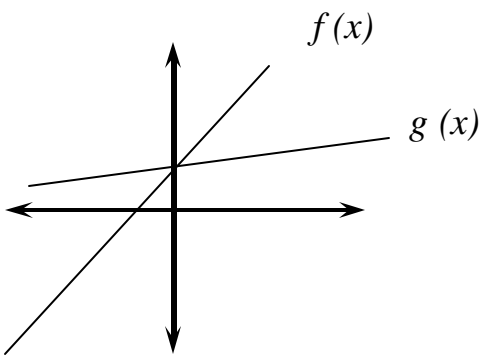
4. What is the y-intercept of a line passing through the points (4, 6) and (6, 11)?

5. Look at the points listed in the graph below. Find the value of  $k$  when the slope is  $.66667$ .



- A)  $k = 1$
- B)  $k = 3$
- C)  $k = 5$
- D)  $k = 7$

6. Look at the graphs of  $f(x)$  and  $g(x)$  shown below.



Suppose  $f(x) = x + 4$  which of the following could be a possible equation for  $g(x)$

- a)  $g(x) = \frac{1}{6}x + 4$
- b)  $g(x) = \frac{1}{5}x + 1$
- c)  $g(x) = \frac{1}{10}x + 9$
- d)  $g(x) = \frac{1}{3}x - 2$

7. Which of the equations below represents a relationship where  $y$  varies directly with  $x$ ?

- a.  $y = 3x$
- b.  $x = 2$
- c.  $y = x^2 + 1$
- d.  $y = 2 - 2x$

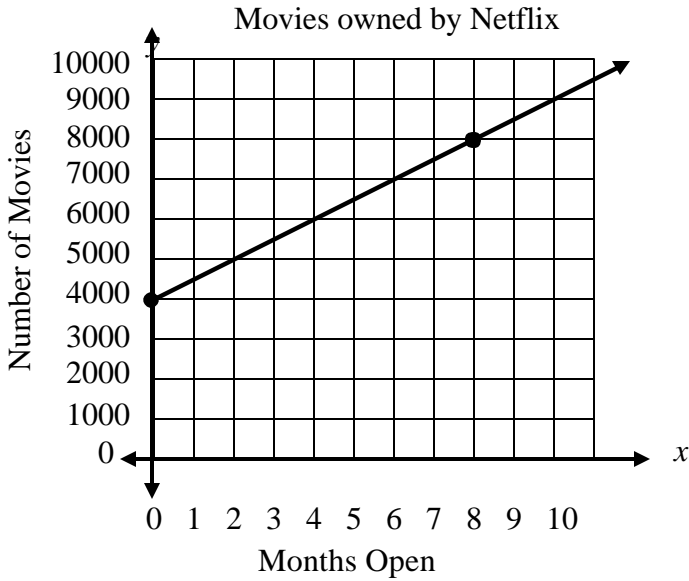
8. Which of the equations below represents a relationship where  $y$  varies directly with  $x$ ?

- a.  $x + y = 3x$
- b.  $y = 2$
- c.  $y = 4x$
- d.  $y = 22 + 7$

9. Which of the equations below represents a relationship where  $y$  varies directly with  $x$ ?

- a.  $y = 5 - 2x$
- b.  $x = 4y - 2$
- c.  $y = 2 + x$
- d.  $y = 12x$

10. The graph below shows the number of movies that Netflix had in its library over the first 10 months of its existence.



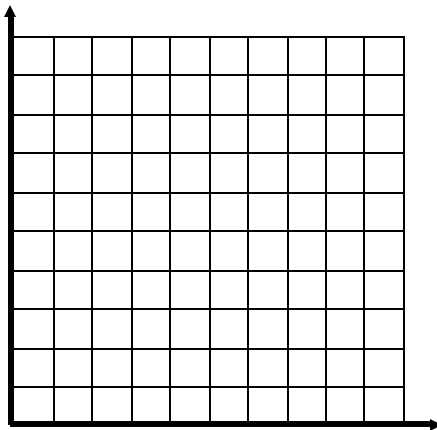
Which of the following functions represents the relationship between months open and total movies?

- a)  $f(x) = 4000x + 8$
- b)  $f(x) = 8x + 4000$
- c)  $f(x) = 500x + 4000$
- d)  $f(x) = 4000x + 4000$

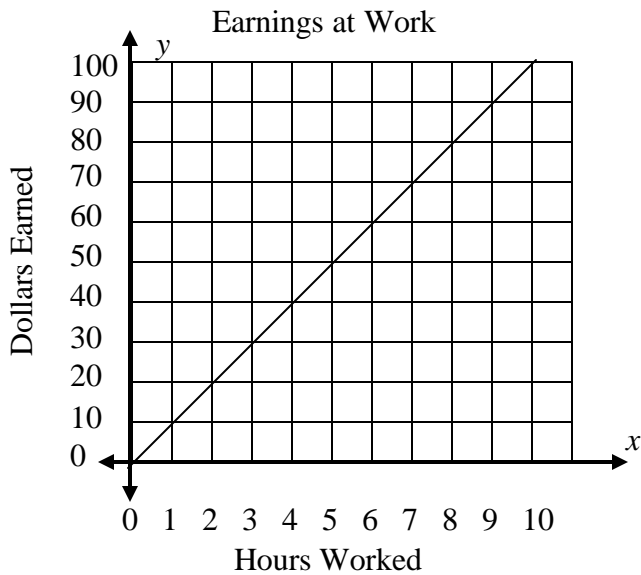
11. Tim earns \$7 an hour working at McDonald's. He also was given a signing bonus when he started of \$25. Which equation below represents Tim's money.

- a)  $f(x) = 25x - 7$
- b)  $f(x) = 25x + 7$
- c)  $f(x) = 7x + 25$
- d)  $f(x) = 7x - 25$

12. Doug starts with \$8, and spends \$1 each day. Draw a graph to illustrate Doug's money.



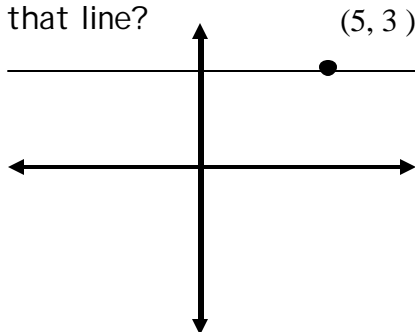
13. Look at the graph shown here.



Which of the following properties of the graph represents the **rate of change** of a man's earnings to the time that he works?

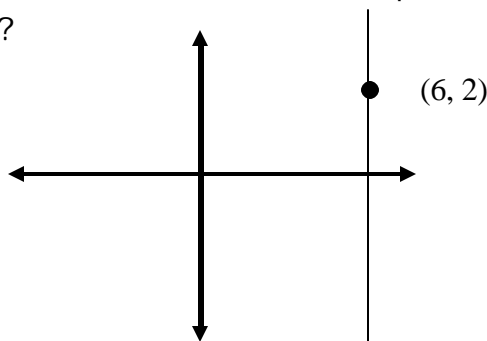
- A) The line is straight
- B) The y-intercept of the line
- C) The slope of the line
- D) The x-intercept of the line.

14. The line shown below is a horizontal line passing through the point (5, 3). What is the equation of that line?



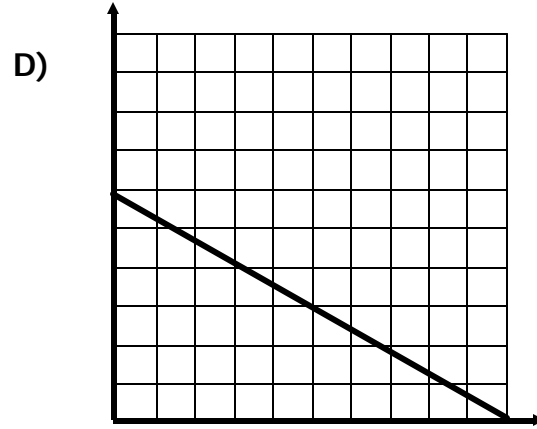
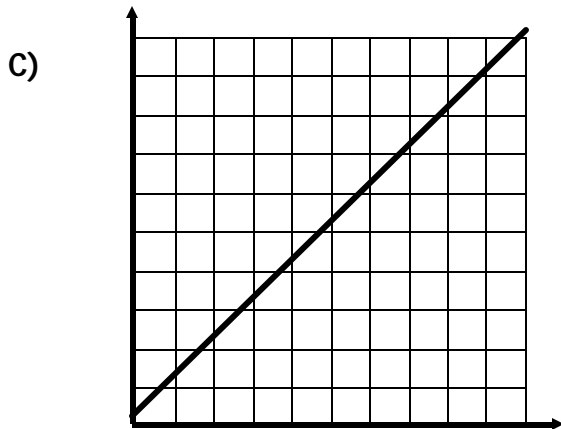
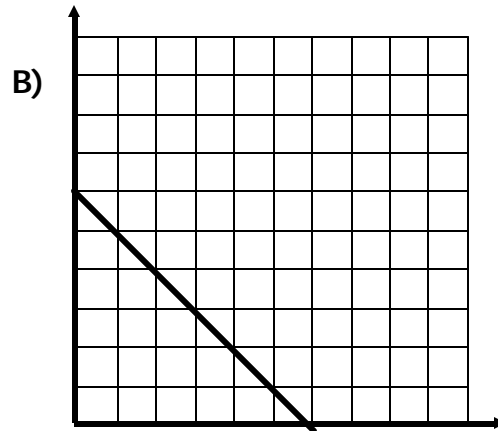
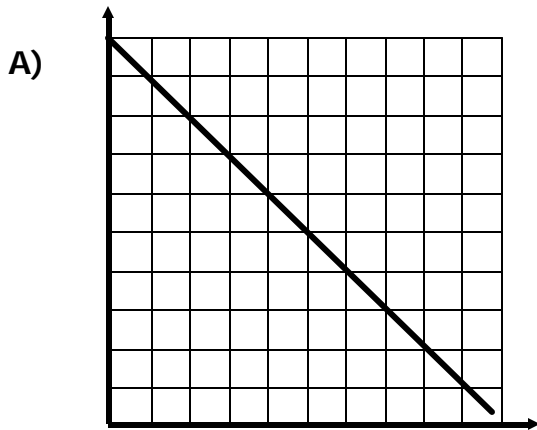
Equation: \_\_\_\_\_

15. The line shown below is a vertical line passing through the point (6, 2). What is the equation of that line?



Equation: \_\_\_\_\_

16. A bottle of water is being emptied. If the water is pouring out at a rate of one liter per minute, and the bottle started with 6 liters, which graph best represents this relation?



17. Joey goes to the amusement to ride as many rides as he can. Each ride costs \$3. In addition to paying for each ride, Joey must also pay admission into the park, which costs \$6. Which equation below represents the amount of money Joey will spend to ride  $x$  rides?

a)  $f(x) = 3x - 8$

b)  $f(x) = 3x + 8$

c)  $f(x) = 3x - 6$

d)  $f(x) = 3x + 6$