

Name _____

Date _____

Review for Final: Linear Equations

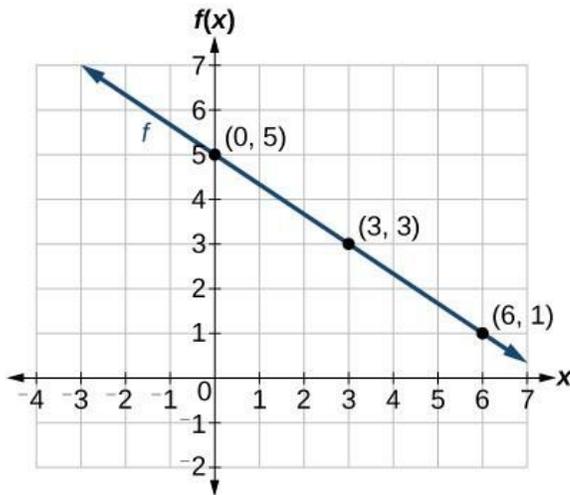
Math 8

1. What is the y-intercept of the following equations?

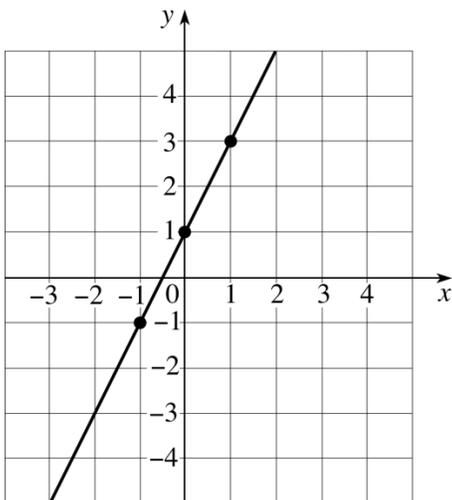
$$4y = 8x + 12$$

$$2y - 4x = 16$$

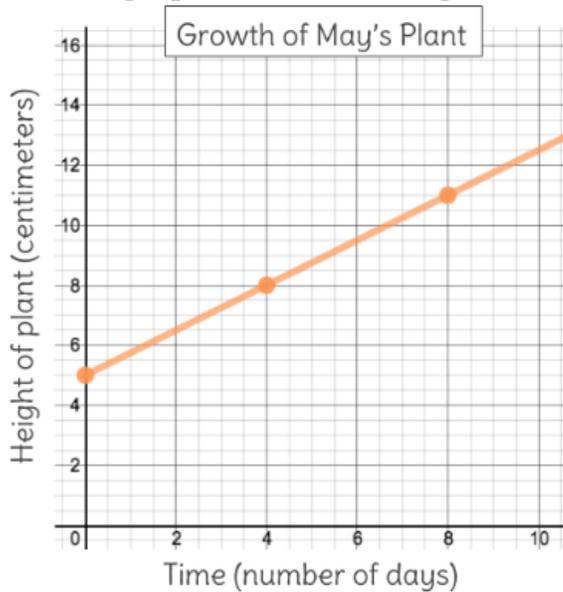
2. What is the equation of line f pictured below?



3. What is the equation of the linear equation drawn below?



4. The graph shows the height, in centimeters, of a certain plant after a number of days.



a) After how many days will the plant be 8 centimeters tall?

b) What was the height of the plant at the start of the experiment?

5. Match the equation in the left column with its equivalent equation in slope-intercept form in the right column.

a) $2y + 4x = 20$

i) $y = -3x + 1$

b) $6y = 3x - 42$

ii) $y = \frac{1}{2}x - 7$

c) $9x + 3y = 3$

iii) $y = x + 3$

d) $8y - 8x = 24$

iv) $y = -2x + 10$

6. Gino and Tony walked 1500 feet from their house to a local pizzeria. Then, they walked to a cannoli shop at a rate of 200 feet per minute. Write an equation that represents the total distance, y , the two boys walked for x minutes.

7. Match the expression in the left column with a possible representation of that expression in the right column.

a) $4h + 2$

i) Leah's total cost to make party hats is \$4 for materials and \$2 per hat.

b) $4h$

ii) Leah made \$2 for every hermit crab she sold, and then spent \$4 of the money she made on food.

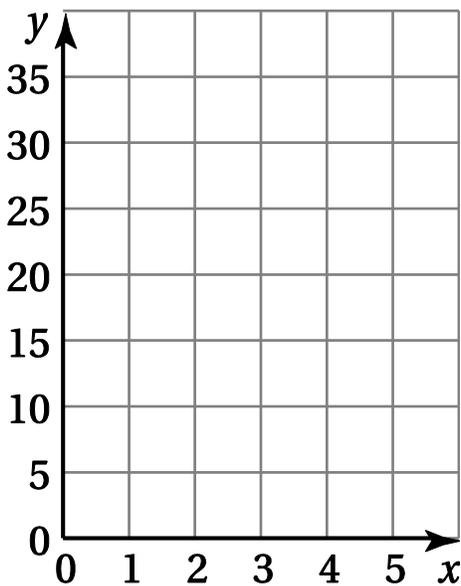
c) $4 + 2h$

iii) Leah makes horseshoes. It takes her 4 minutes to make each horseshoe.

d) $2h - 4$

iv) Leah bought one softcover book for \$2 and h hardcover books for \$4.

8. Graph the function represented by the table below, then write a function to represent the table and graph.



x	y
1	30
3	20
5	10

Function:

9. Write equations of lines given the following information.

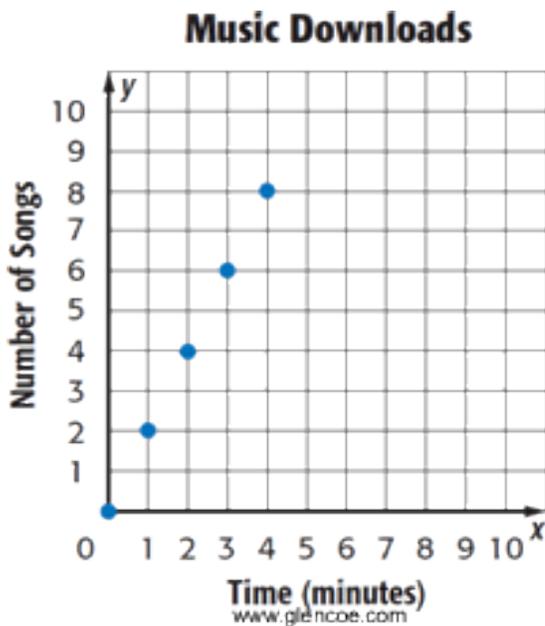
a) A slope of 5 and a y-intercept of -2

b) A y-intercept of 4 and a slope of -4

c) A slope of $m = 6$ and a y-intercept of $b = 2$

d) A slope of 0 and a y-intercept of 8

10. Use the graph to answer the following questions.



a) Find the y-intercept of the graph, and explain what it means in the context of the situation.

b) Find the slope of the graph, and explain what it means in the context of the situation.