

Name _____

Date _____

Chapter 4 Review

Math 8

1. Write an equation of a line parallel to $y = -5x + 8$?

2. What is the slope and y-intercept of each of the following equations:

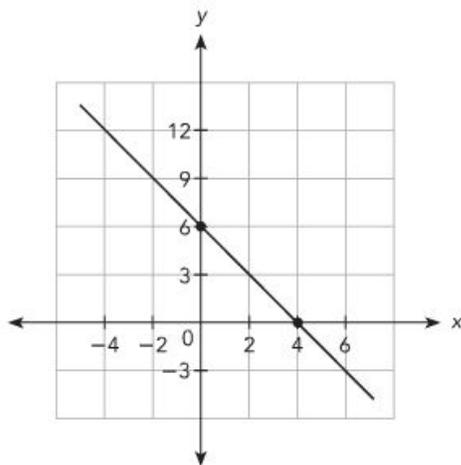
a. $2y = 6x - 10$

b. $y = 6x$

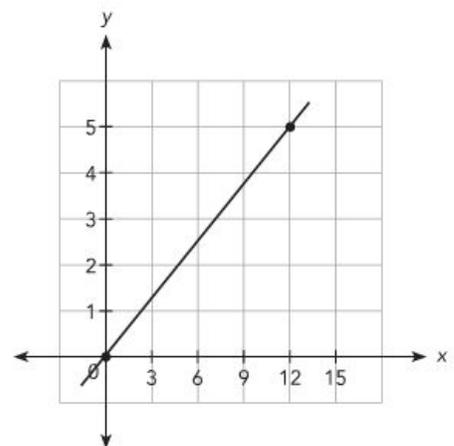
c. $y = 6$

3. Find the slope of each line below:

a)



b)



4. Find the slope of the line that passes through each pair of points below.

a) M (3, 7) and N (1, 5)

b) H (0, -5) and K (3, 0)

5. Use the given slope and y-intercept of a line below to write an equation in slope-intercept form. (2 points each)

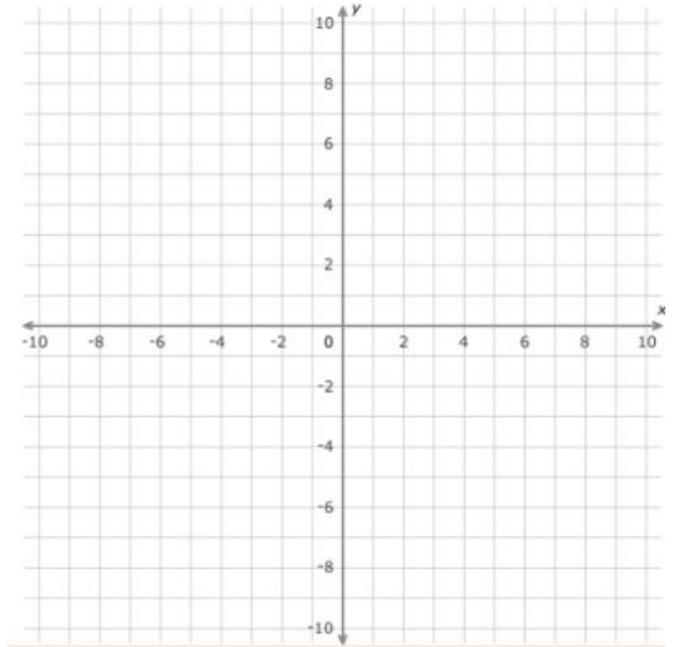
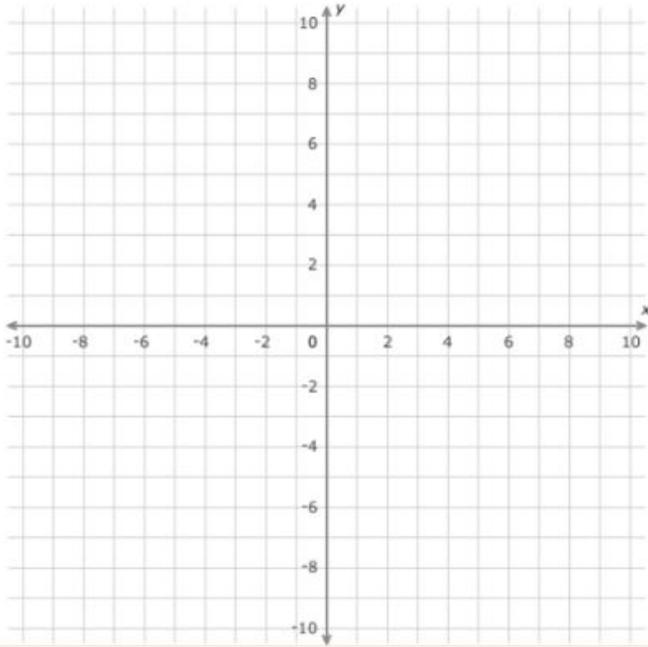
a. Slope, $m = 5$
y-intercept, $b = 0$

b. Slope, $m = -6$
y-intercept, $b = -7$

6. Graph the following equations on the coordinate planes provided. (2 points each)

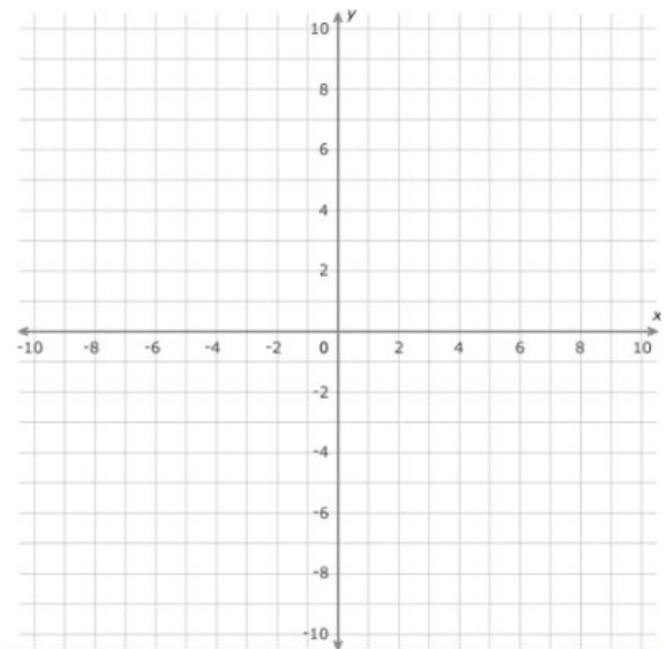
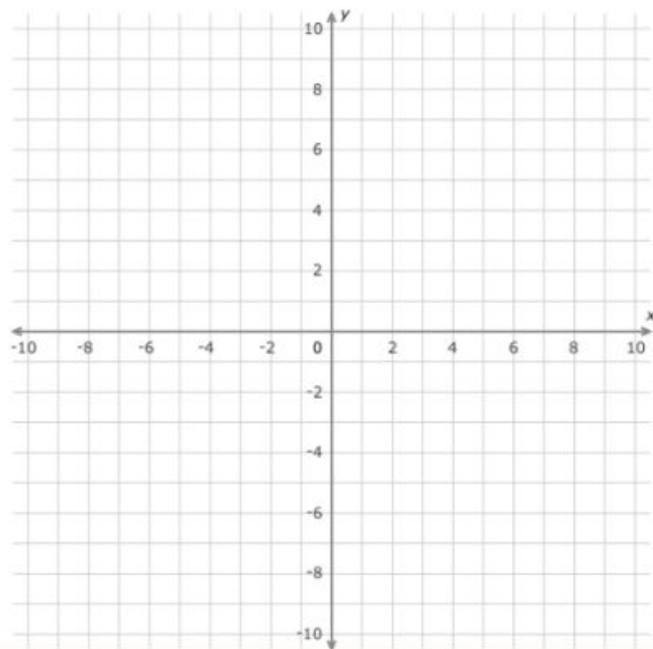
a. $y = \frac{1}{2}x - 7$

b. $x = 5$



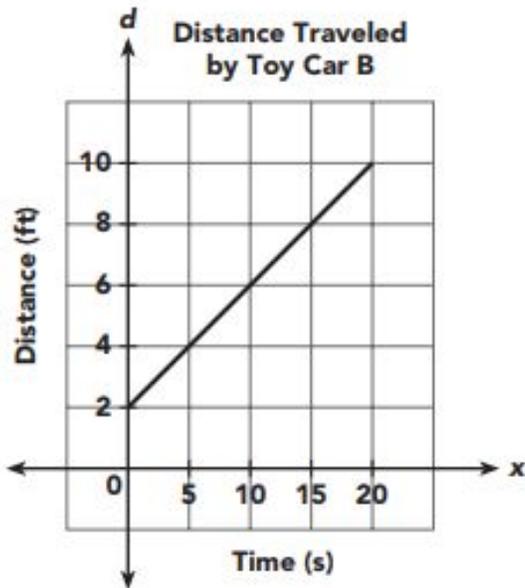
c. $y = -\frac{3}{4}x$

d. $y = 3$



7. In an experiment, Toy cars A and B are rolled down a slightly inclined plane. Each car starts at a different point from the top of the inclined plane. **Car A's** distance, d feet, from the top of the inclined plane after x minutes is given by the equation $d = 0.5x + 4$. The graph shows Car B's distance, d feet, from the top after x minutes.

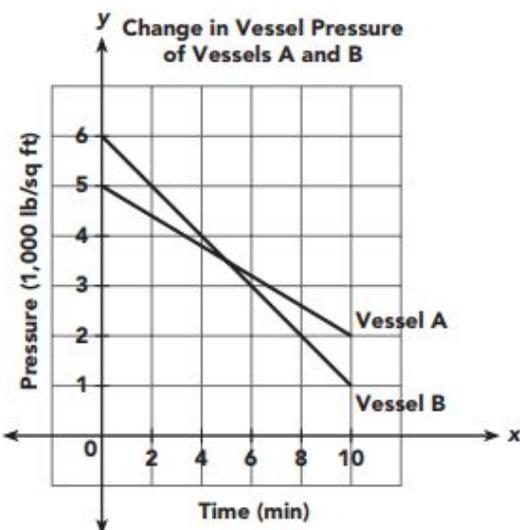
Car B:



a) Which car starts from a higher position on the inclined plane? Explain.

b) Which car rolls down the inclined plane at a faster rate? Explain.

8. A maintenance engineer turns on the relief valves of two pressure vessels in order to reduce the pressure within each vessel. The graphs show the change in vessel pressure, P in pounds per square inch, after x minutes



a) Find the initial pressure of each vessel.

b) Predict how many minutes it will take for the pressure within the two vessels to measure the same.

c) Find the slope of each graph and explain what information it gives about the situation.