

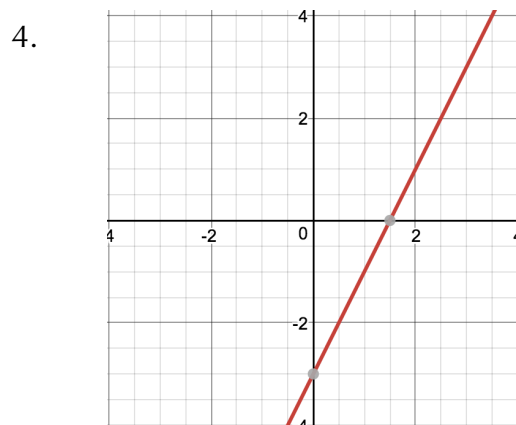
Unit 2 Test Review

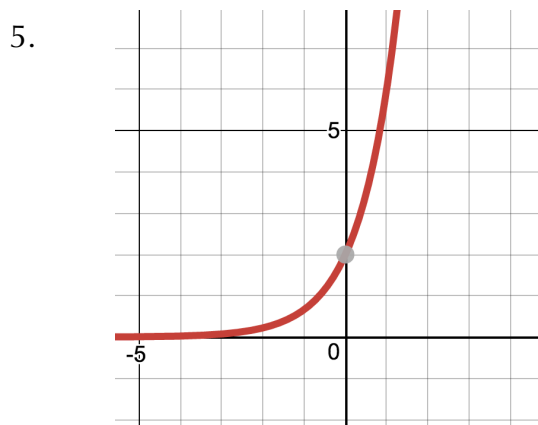
Write the generic form of each type of equation:

- 1. Slope-Intercept
- 2. Point-Slope

- 3. Exponential

Write an equation for each, then label the parts of the equation:

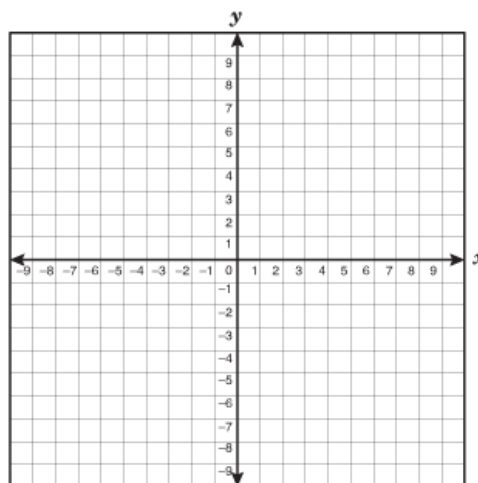




6. Write an equation and graph

$$m = -2, \quad b = 5$$

Equation:



Label each of these and as **linear or exponential**, if linear describe the slope, if exponential give the type of graph.

7. $f(x) = 4\left(\frac{1}{2}\right)^x$ _____

How do you know?

8. $f(x) = 3x - 2$ _____

How do you know?

9. Max earns \$40 for chopping wood. For every truck he loads, he gets an additional \$8.

Write an equation:

Would your graph be discrete or continuous? Why?

Would your graph be linear or exponential? Why?

10. Your college savings account is currently \$24,000. Each year it grows by 3%

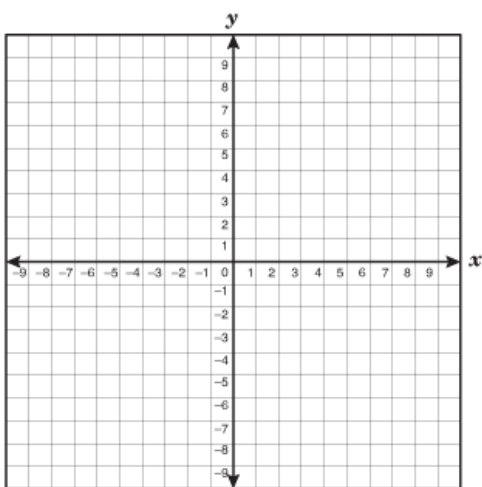
Write an Equation:

Would your graph be discrete or continuous? Why?

Would your graph be linear or exponential? Why?

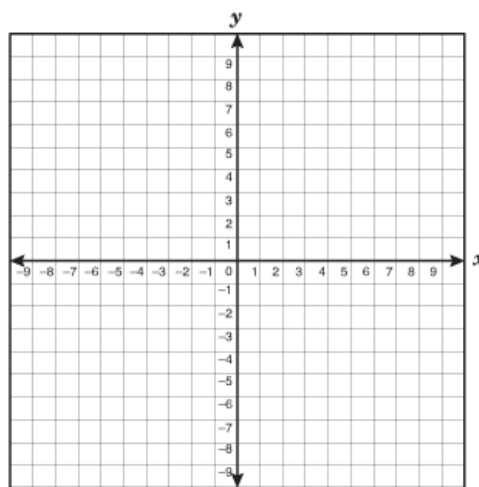
Write an equation from the given information and graph.

11. A linear graph that goes through (-2, -3) and (8, 2).



- 12.

x	f(x)
-2	2
-1	6
0	18
1	54



13. What is the slope and the point found in the following equation?

$$y = -1(x - 6) + 2$$

slope: _____ point: _____

14. What is the slope and the point found in the following equation?

$$y = \frac{2}{3}(x + 4) - 5$$

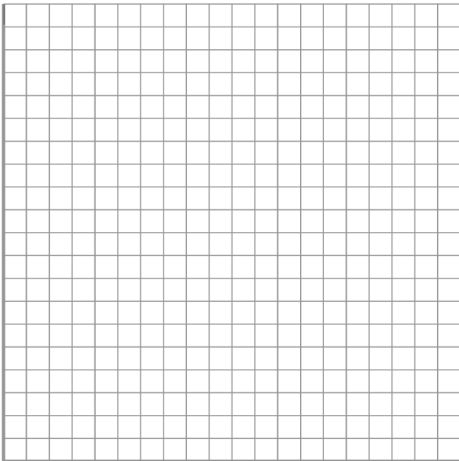
slope: _____ point: _____

15. You have accepted a job at the Dairy Queen that pays \$12.00 per hour. You got a starting bonus of \$35 for agreeing to start the next day. Show how much money you will make based on hours worked.

Table:

Equation:

Graph:

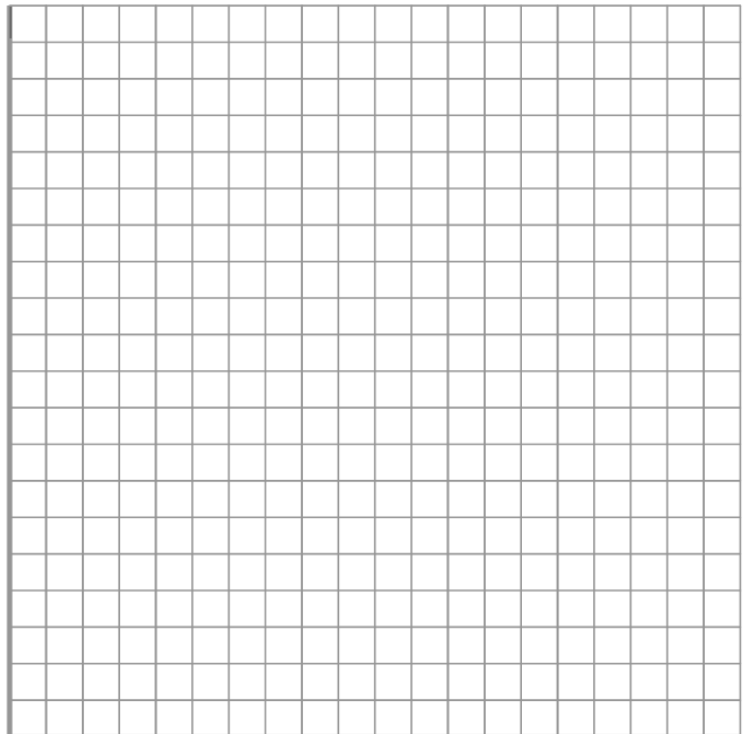


How much money will you have earned if you worked 50 hours?

16. Create a table and equation for each scenario, then graph both on the same graph. Answer the questions about the two scenarios.

Scenario A: Yum Factory is a new company that made \$20,000 in 2015. They plan to increase their earnings by \$10,000 per year.

Scenario B: Sweet Treats is also a new company and they made \$10,000 in 2015. They plan to increase their earnings by 20% per year.



- a. Which company had the highest starting value?
- b. Which company has exponential growth? How do you know? What is the common ratio?
- c. At approximately what year will the earnings be equal?
- d. If you were going to invest for 5 years, which company would be the best choice? Why?
- e. If you were going to invest for 20 years, which company would be the best choice?
- f. Label the parts of each equation (starting value, constant rate, common ratio, number of years, earnings).

Yum Factory

Sweet Treats