

ARRANGED HOUR FOR MATH 50

Math 50 – Section 7.2

Rate of Change and Slope of a Line

Name _____

Instructor _____

Date _____

1. In 2003, about 79.7 percent of children drank a sugary beverage on any given day. That percentage dropped to 60.7 percent in 2014. Find the average rate of change of the percentage of children who drink a sugary drink per year. Round your answer to the nearest tenth, as needed.

2. Netflix had about 33.3 million subscribers in 2012. That number rose to about 57.4 million subscribers in 2014. Find the average rate of change of number of millions of Netflix subscribers per year.

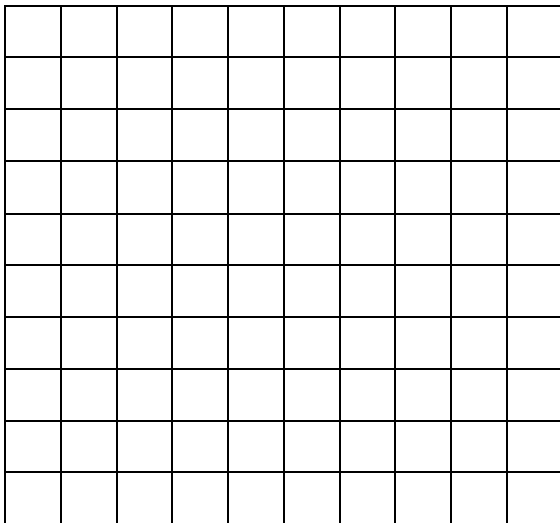
3. Use the slope formula to find the slope of the line that passes through the given points. State whether the line is increasing, decreasing, horizontal, or vertical.
 - a. $(1, 2), (5, -3)$ Slope and type of line: _____

 - b. $(2, 3), (-1, -2)$ Slope and type of line: _____

 - c. $(-1, -3), (-1, 2)$ Slope and type of line: _____

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4. A pool is being drained for cleaning. The capacity of the pool is 9,000 gallons. The water pump removes 1500 gallons of water per hour. Let G be the remaining gallons of water in the pool after the pump has worked t hours.
- Identify the explanatory and response variables.
 - Construct a table to describe the association between G and t for the following values of t : 0, 1, 2, 3, 4, 5, and 6.
 - Graph the ordered pairs. Draw and label your axes.



- Is the association positive, negative, or neither? What does that mean in this situation? Write your answer as a complete sentence.