ANALYZING GRAPHS OF FUNCTIONS – Day 1

BELL WORK

A store manager begins each shift with the same total amount of money. She keeps $200 in a safe and distributes the rest equally to the 5 cashiers in the store. This situation can be represented by the function $y = \frac{x-200}{5}$. What does the variable x represent in this situation?

A. The total amount of money the manager has at the beginning of a shift.

B. The total amount of money the manager has at the end of the shift.

C. The amount of money each cashier has at the beginning of a shift.

D. The amount of money each cashier has at the end of a shift.

EXAMPLE 1: The sentences below describe the motion of 5 cars on a highway. Match each sentence with the graph that represents it best.

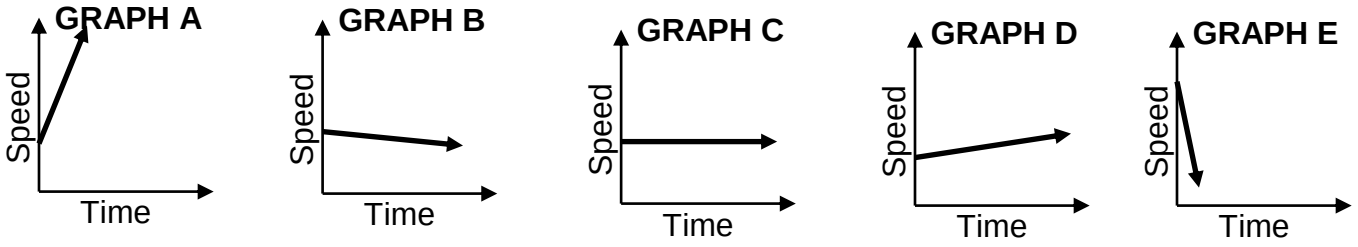
1. The car's speed remains constant. _____

2. The car's speed increases slowly but steadily. _____

3. The car's speed increases sharply. _____

4. The car's speed decreases gradually. _____

5. The car's speed decreases suddenly. _____

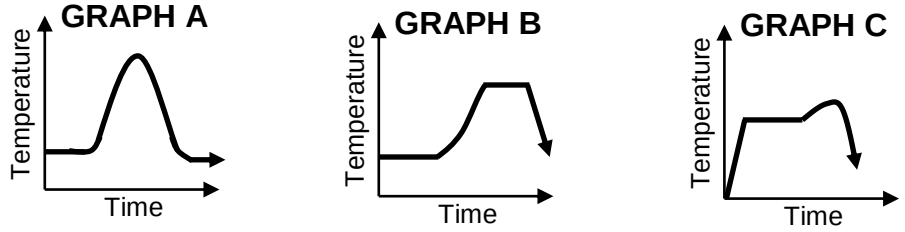


EXAMPLE 2: Choose the graph that best fits the situation.

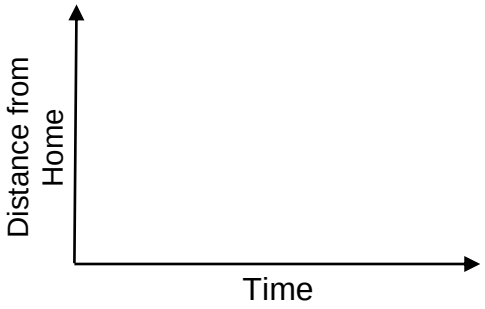
6. Stayed the same, rose steadily, remained constant, and dropped sharply. _____

7. Increased steadily, remained constant, rose slightly and dropped suddenly. _____

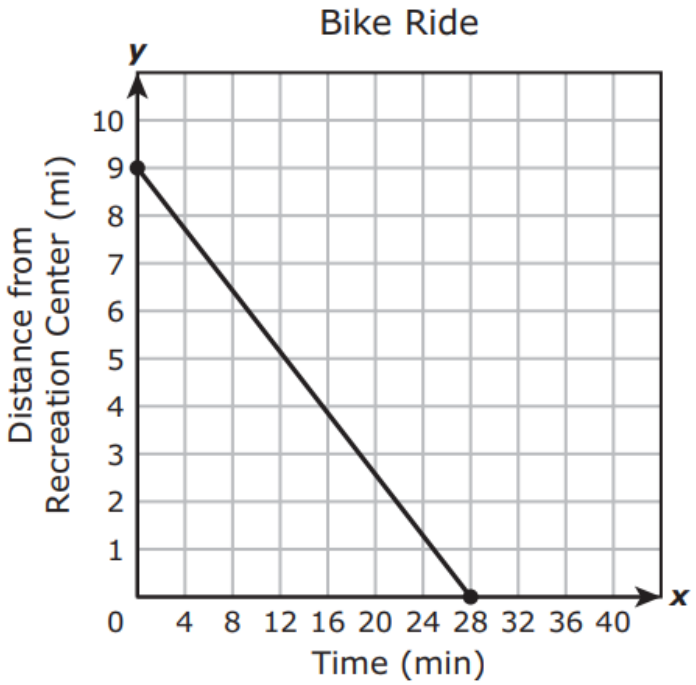
8. Remained steady, rose steadily, dropped steadily and remained the same. _____



EXAMPLE 3:
Matt walks to school at a steady pace.
His pace slows as he walks up a large hill.
He then runs down the other side.
Draw a sketch that represents Matt's distance from home as he walks to school.



EXAMPLE 4: Robert rode a bike from school to a recreation center. The graph shows Robert's distance in miles, y, from the recreation center after riding the bike for x minutes.



9. How far is the school from the recreation center? _____

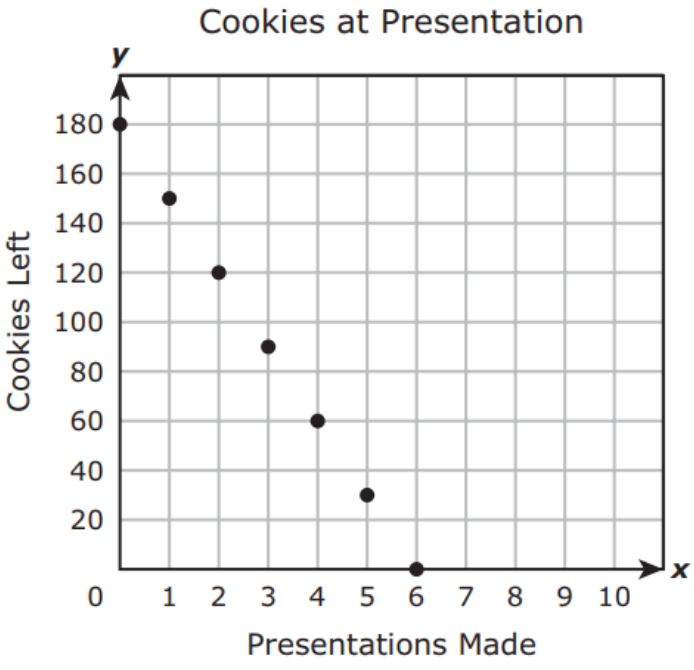
10. How long does it take Robert to bike from school to the rec center? _____

11. *Circle one:* Discrete or Continuous

12. Domain: _____

    Range: _____

EXAMPLE 5: The graph shows the relationship between y, the number of cookies a presenter at a convention had left to give away and x, the number of presentations she had made.



13. How many presentations can be made before running out of cookies? _____

14. How many cookies did she begin with? _____

15. How many cookies were left after 4 presentations? _____

16. *Circle one:* Discrete or Continuous

17. Domain: _____