Math 1 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Lesson 1-4 Average Rate of Change 2** Date\_\_\_\_\_\_\_\_

Learning Goals:

* *I can define and calculate the average rate of change of a function and explain the connection between average rate of change and slope.*
1. Use the graph to the right to answer the questions below.



1. Describe the pattern of change in the graph between each pair of points. Next, list the **overall** pattern between the points.

A-B: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Overall:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

A-C: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Overall:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

A-D: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Overall:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Calculate the average rate of change between the following pairs of points.

A-B: A-C:

A-D:

1. How do your answers to Part b help you explain your answers to Part a?
2. What relationship exists between the average rate of change and the pattern of the graph between those two points?
3. Suppose you found that the average rate of change between two points on a graph was -7. What does this tell you about the pattern of the graph between those two points?
4. Sketch a graph that matches the characteristics of the average rates of change given below.

![[image]]()

Between points A & B: Negative rate

Between points B & C: Small, positive rate

Between Points C & D: Large, positive rate

1. Sketch a graph that matches the characteristics of the average rates of change given below.

Between points Q & R: Large positive rate

Between points R & S: Small, negative rate

Between Points S & T: Small, positive rate

Between points T & U: Large, negative rate

![[image]]()