

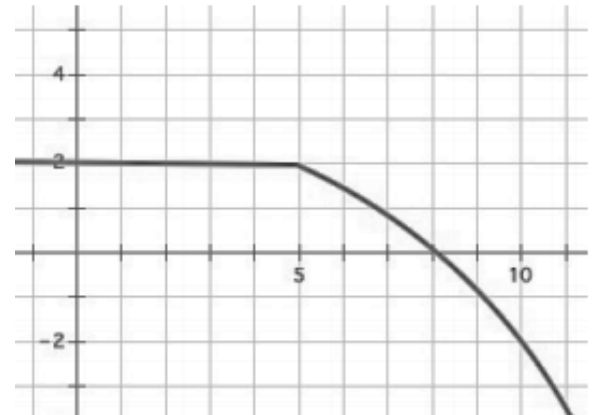
Name: \_\_\_\_\_ Period: \_\_\_\_\_

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**HW 2-7 HONORS: Average Rate of Change**

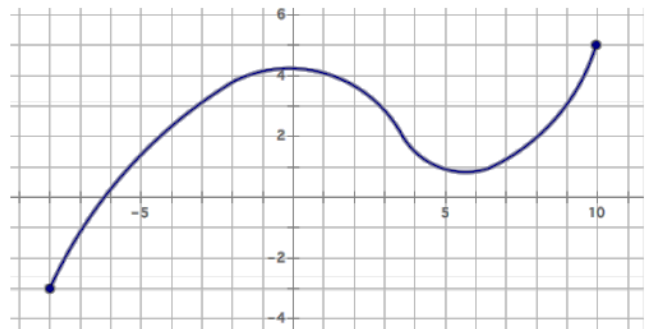
Use the given graph or table to identify the average rate of change on the given interval.

1. Average rate of change on the interval  $[5,9]$ .



2. Average rate of change on the interval  $[4,7]$ .

3. Average rate of change on the interval  $[-8,-3]$ .



4. Average rate of change on the interval  $[3,10]$ .

5. Average rate of change on the interval  $[8,10]$ .

| $x$ | $f(x)$ |
|-----|--------|
| 0   | 2      |
| 1   | -3     |
| 2   | 0      |
| 3   | 2      |
| 4   | 6      |
| 5   | 12     |
| 6   | 20     |

| $x$ | $f(x)$ |
|-----|--------|
| 1   | 4      |
| 2   | 10     |
| 3   | 5      |
| 4   | 8      |
| 5   | 3      |

| $n$ | $f(n)$ |
|-----|--------|
| 6   | 23     |
| 7   | 19     |
| 8   | 15     |
| 9   | 11     |

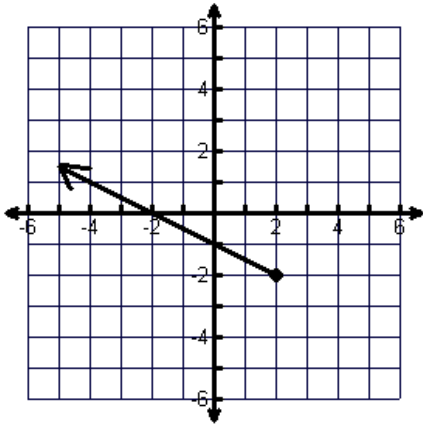
6. Average rate of change on the interval  $[1,4]$ .

7. Average rate of change on the interval  $[2,4]$ .

8. Average rate of change on the interval  $[7,8]$ .

Answer the following problems using INTERVAL NOTATION.

9. Is the graph below a function? \_\_\_\_\_ Why? \_\_\_\_\_



Domain: \_\_\_\_\_ Range: \_\_\_\_\_

Continuity: (circle your answer) Continuous, Non-Continuous, or Discrete?

Increasing: \_\_\_\_\_ Decreasing: \_\_\_\_\_

minimum: \_\_\_\_\_ maximum: \_\_\_\_\_

Positive: \_\_\_\_\_ Negative: \_\_\_\_\_

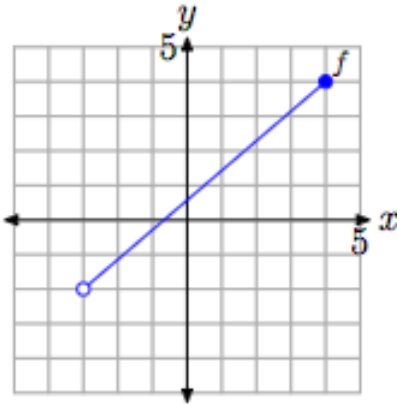
x-intercept: \_\_\_\_\_ y-intercept: \_\_\_\_\_

Use the graph above to answer the following:

10.  $f(4) =$  \_\_\_\_\_

11. Find  $x$  such that  $f(x) = 0$ ;  $x =$  \_\_\_\_\_

12. Is the graph below a function? \_\_\_\_\_ Why? \_\_\_\_\_



Domain: \_\_\_\_\_ Range: \_\_\_\_\_

Continuity: (circle your answer) Continuous, Non-Continuous, or Discrete?

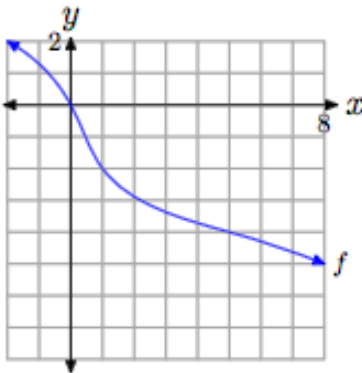
Increasing: \_\_\_\_\_ Decreasing: \_\_\_\_\_

minimum: \_\_\_\_\_ maximum: \_\_\_\_\_

Positive: \_\_\_\_\_ Negative: \_\_\_\_\_

x-intercept: \_\_\_\_\_ y-intercept: \_\_\_\_\_

13. Is the graph below a function? \_\_\_\_\_ Why? \_\_\_\_\_



Domain: \_\_\_\_\_ Range: \_\_\_\_\_

Continuity: (circle your answer) Continuous, Non-Continuous, or Discrete?

Increasing: \_\_\_\_\_ Decreasing: \_\_\_\_\_

minimum: \_\_\_\_\_ maximum: \_\_\_\_\_

Positive: \_\_\_\_\_ Negative: \_\_\_\_\_

x-intercept: \_\_\_\_\_ y-intercept: \_\_\_\_\_

Use the graph above to answer the following:

14.  $f(1) =$  \_\_\_\_\_

15. Find  $x$  such that  $f(x) = -3$ ;  $x =$  \_\_\_\_\_

16.  $f(5) =$  \_\_\_\_\_