

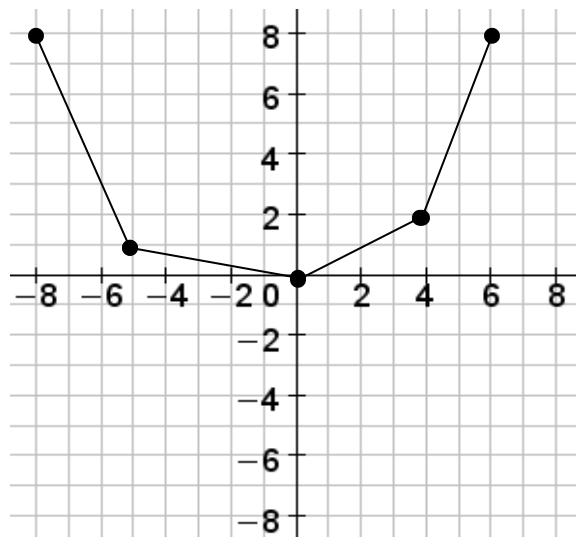
Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

**HW: Average Rate of Change**

1. Find the average rate of change between  $(-4,2)$  and  $(3,0)$
2. Find the average rate of change between  $(-6,-4)$  and  $(-3, 2)$
3. Find the average rate of change given the information.  $f(x) = -2x + 7$ ;  $x_1 = -4$  and  $x_2 = 4$
4. Find the average rate of change given the information.  $f(x) = (x-3)^2 - 1$ ;  $x_1 = -1$  and  $x_2 = 0$
5. Find the average rate of change given the information.  $f(x) = 5x - 4$ ;  $x_1 = -2$  and  $x_2 = -1$
6. Find the average rate of change given the information.  $f(x) = -2x^2 + 4x - 1$ ;  $x_1 = -1$  and  $x_2 = 3$

**FLIP TO BACK**

7. What is the rate of change between  $x = 0$  and  $x = 4$ ?



8. What is the rate of change between  $x = 4$  and  $x = 6$ ?

9. MULTIPLE CHOICE: Based on the graph, between what values is the rate of change the greatest?

- A.  $x = -8$  and  $x = -5$
- B.  $x = -5$  and  $x = 0$
- C.  $x = 0$  and  $x = 4$
- D.  $x = 4$  and  $x = 6$

10. Find the greatest rate of change. (Use the values you selected from the previous question)

11. MULTIPLE CHOICE: Based on the graph, between what values is the rate of change the least?

- A.  $x = -8$  and  $x = -5$
- B.  $x = -5$  and  $x = 0$
- C.  $x = 0$  and  $x = 4$
- D.  $x = 4$  and  $x = 6$

12. Find the smallest rate of change. (Use the values you selected from the previous question)