

Name _____

Date _____

Homework

Directions: Please answer all questions. Make sure you **SHOW ALL WORK!**

Multiple Choice

Identify the choice that best completes the statement or answers the question.

1. Which function has the greatest rate of change.
 - a. $y = -5x$
 - b. $\{(-1, -2), (1, 2), (3, 6), (5, 10), (7, 14)\}$
 - c. A fitness club charges a \$200 membership fee plus monthly fees of \$25.
 - d. $y = 3x - 16$

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2. Which function has the least rate of change.

- a. $y = 3x - 16$

- b.

x	0	1	2	3	4
y	3	4	5	6	7

- c. Helga earns \$12 per hour working at a restaurant.
- d. $\{(-2, -4), (0, 0), (2, 4), (4, 8), (6, 12)\}$

Turn Over

3. Which best compares the slopes and y -intercepts of the linear functions f and g , where $f = \frac{1}{3}x + 3$ and g is shown in the table?

x	0	1	2	3
$g(x)$	3	6	9	12

- The slope of f is less than the slope of g . The y -intercept of f is greater than the y -intercept of g .
- The slope of f is greater than the slope of g . The y -intercept of f is the same as the y -intercept of g .
- The slope of f is the same as the slope of g . The y -intercept of f is less than the y -intercept of g .
- The slope of f is less than the slope of g . The y -intercept of f is the same as the y -intercept of g .

Essay

1. Compare the slopes of the two given functions. Justify your reasoning.

Function 1

$$y = 1x + 1$$

Function 2

