Another way to refer to **rate of change** is _____.

It tells us how the _____ variable changes as the _____ variable _____.

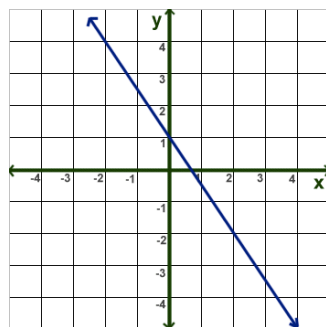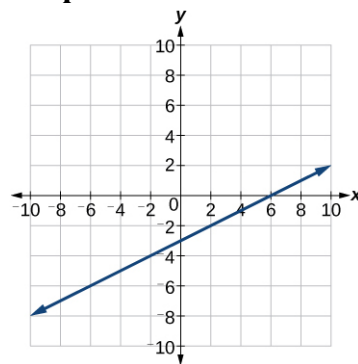| Tables: | Graphs: | Formula: |

Tables:

X	Y
-6	-6
-2	-4
2	-2
6	0

X	Y
-2	4
0	1
2	-2
4	-5

<u>Steps</u>
1) Find the pattern for each variable.
2) Write as a ratio.

Graphs:

<u>Steps</u>
1) Choose 2 points on your line AND on the gridline.
2) Find the _____ change.

3) Find the _____ change.
4) Write as a ratio.

Formula:

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$(-6, -6)$ & $(2, -2)$

$(-2, 4)$ & $(4, -5)$

<u>Steps</u>
1) Label your points, (x_1, y_1) & (x_2, y_2).
2) Substitute your points into the formula.
3) Reduce if necessary.

1) A server's wage is the amount earned per hour, excluding tips. After a shift of 6 hours serving, a waitress has earned $52.80 in wages and tips. She continues to work to finish the shift, but she earns no more tips. After the 8-hour shift, she has earned $60.40. What is her wage?

Steps
1) Identify the dependent and independent variables.
2) Write the ordered pairs.
3) Use the slope formula.

2) Sam's Uber ride cost $7.60 to go 3.1 miles. Danielle took another Uber that had the same cost per mile, and she paid $9.75 for a 4.3-mile ride. What was the cost per mile for Uber at the time of Sam's and Danielle's trips?

3) Ms. Draper set her odometer at the beginning of a road trip. On her way home, the odometer read 540 miles after 1.25 hours of driving. After 2.5 hours of driving, the odometer read 591 miles. How fast was Ms. Draper driving on her way home, in miles per hour?

Key Ideas
- You can find slope in multiple ways.

- Slope is ALWAYS the change in the _____ variable divided by the change in the _____ variable.

- The _____ of your points matters!

- Increasing graphs will always have _____ slope.

- Decreasing graphs will always have _____ slope.