

Name: Key

Slope (vertical change over horizontal change) is represented by the letter "m."

$$m = \frac{\text{"rise"}}{\text{"run"}}$$

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

Slope represents the **rate of change**. Slope should be written as a fraction in simplest form.



Find the slope of each line below.

The slope of a line can be determined from a table, by counting units on a coordinate plane, or by subtracting coordinates.

# SLOPE

The slope of a horizontal line is 0.

The slope of a vertical line is No Slope.

Remember:

**UP** and **RIGHT** are positive movements;

**DOWN** and **LEFT** are negative movements.

Find the slope between the two points.

1. (3, -2) and (4, 4)

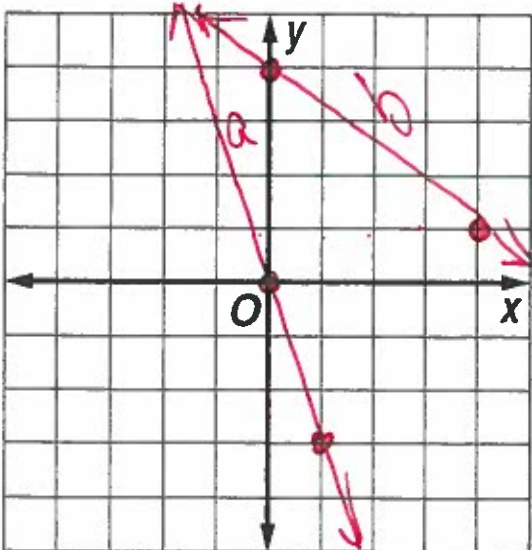
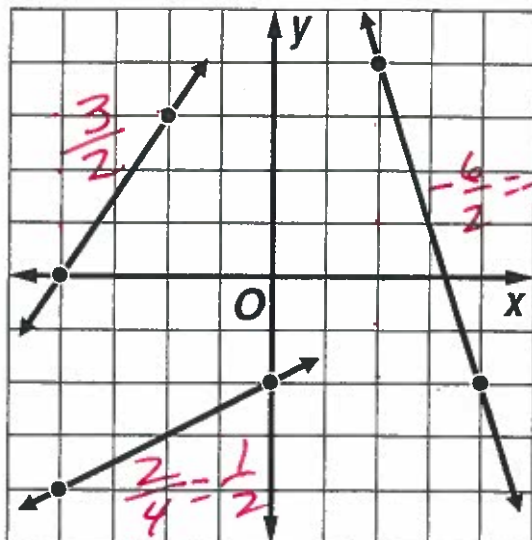
$$m = \frac{4 - (-2)}{4 - 3} = \frac{6}{1} \quad m = 6$$

2. (6, 0) and (-8, -1)

$$\frac{-1 - 0}{-8 - 6} = \frac{-1}{-14} \quad m = \frac{1}{14}$$

Plot a line that starts at the origin and has a slope of -3. Label it "a."

Plot a line that starts at (0, 4) and has a slope of  $-\frac{3}{4}$ . Label it "b."



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steeper slopes have greater