

2.2

SLOPE steepness of a line

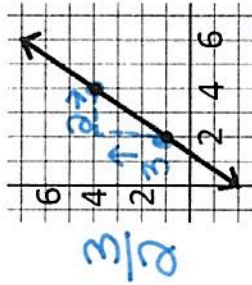
$$m = \frac{\text{Rise}}{\text{Run}}$$

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

$$m = \frac{\text{Change in } y}{\text{Change in } x}$$

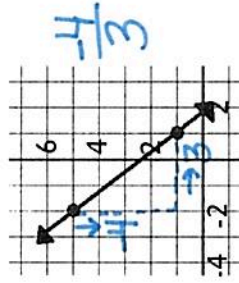
Types of Slope

Positive



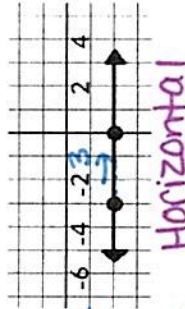
Increase L to R

Negative



Decrease L to R

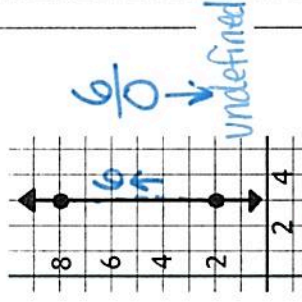
Zero



Horizontal

$$\frac{N}{0} \frac{0}{K}$$

Undefined



Vertical

Find the slope of the line that passes between the two points.

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

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

$$m = \frac{2}{4}$$

$$m = \frac{1}{2}$$

$(1, -2)$ and $(1, 3)$

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

$$m = \frac{5}{0}$$

$$m = \text{Undefined}$$

Find the slope of the line represented by the table.

x	y
-7	-11
-4	-13
-1	-15
2	-17

$$m = \frac{-2}{3}$$

Find the slope represented by the situation.

Two tickets to a concert costs \$28 and five tickets to the same concert costs \$70.

$$m = \frac{70 - 28}{5 - 2}$$

$$m = \frac{42}{3}$$

$$m = \frac{14}{1}$$