

Do Now

Evaluate when $x=-1$ and $y=1$

1) $\frac{5-y}{2-x}$

2) $\frac{y-4}{x-2}$

3) $\frac{y-(-4)}{x-(-2)}$

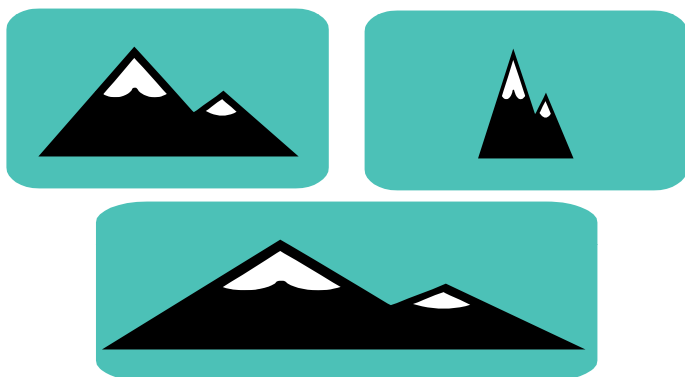
4) $\frac{1-y}{x-1}$

8.3

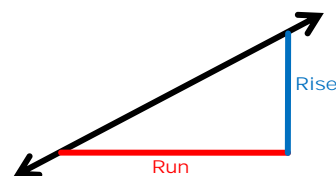
SLOPE OF A LINE

SLOPE

This is the measure of steepness

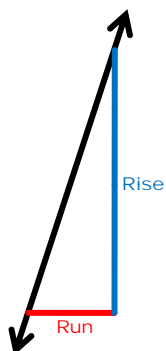


SLOPE OF A LINE



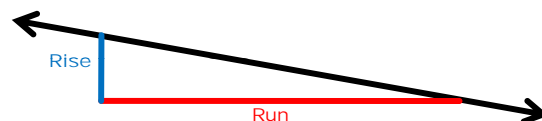
$$\text{slope} = \frac{\text{rise}}{\text{run}}$$

SLOPE OF A LINE



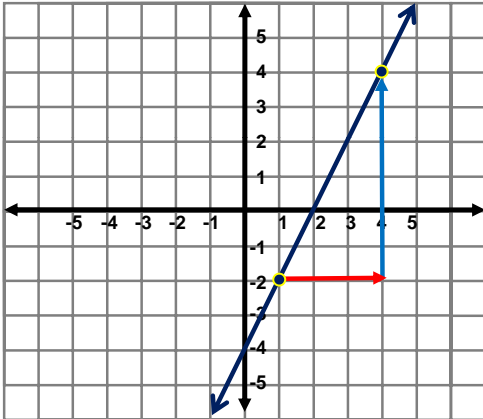
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SLOPE OF A LINE



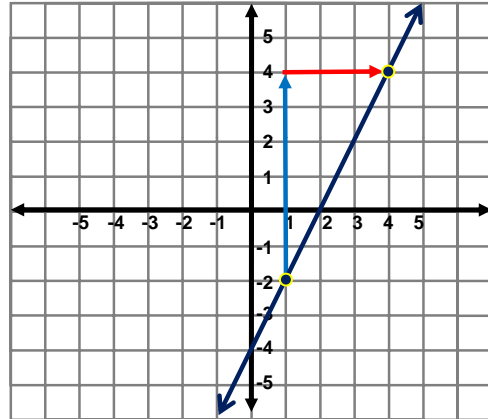
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SLOPE OF A LINE



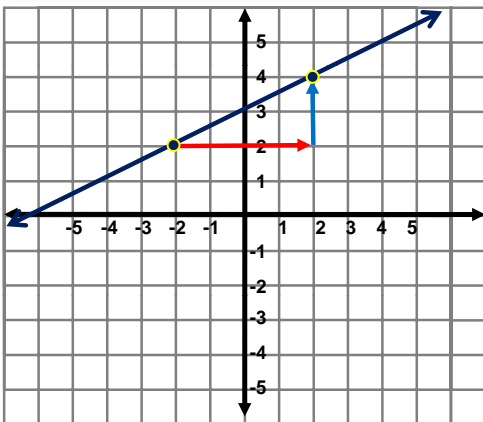
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SLOPE OF A LINE



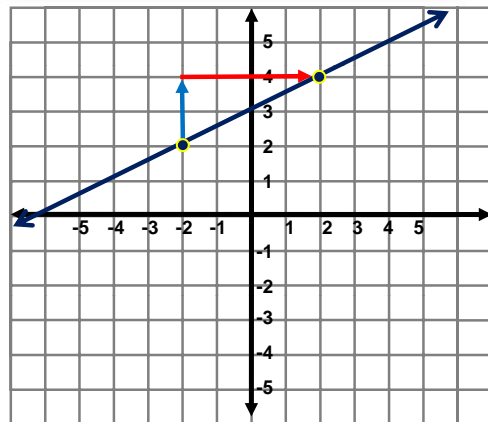
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SLOPE OF A LINE



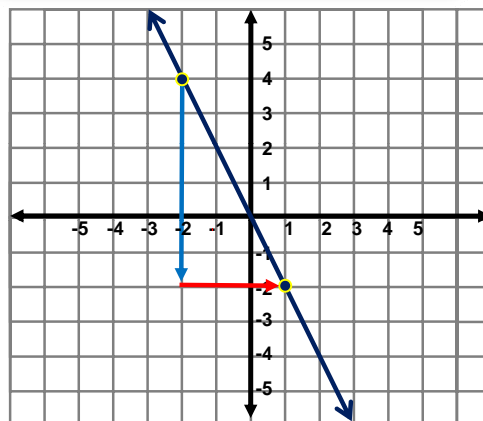
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SLOPE OF A LINE



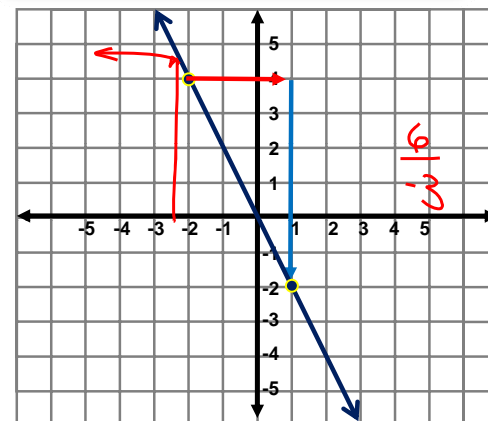
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SLOPE OF A LINE



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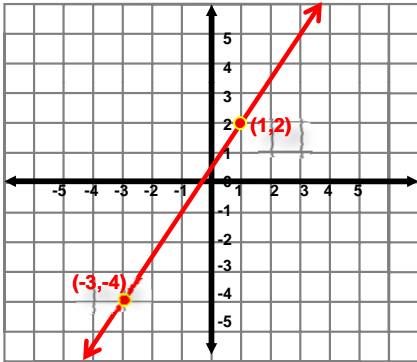
SLOPE OF A LINE



$$\text{slope} = \frac{\text{rise}}{\text{run}}$$

SLOPE FORMULA

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



SLOPE FORMULA

$(-3, -4)$ and $(1, 2)$
 (x_1, y_1) (x_2, y_2)

If you do not have the graph of a line use...

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

SLOPE FORMULA

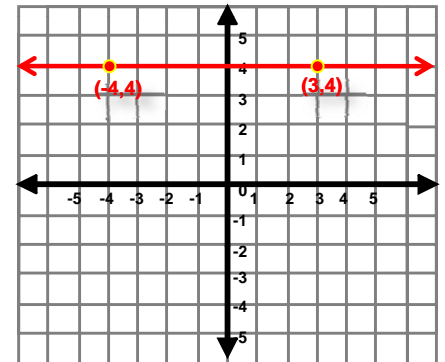
$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

Find the slope between the two points:

- 1) $(7, -6)$ and $(-5, 2)$
- 2) $(-2, 3)$ and $(4, 8)$
- 3) $(6, 3)$ and $(2, 0)$

SLOPE OF VERTICAL AND HORIZONTAL LINES

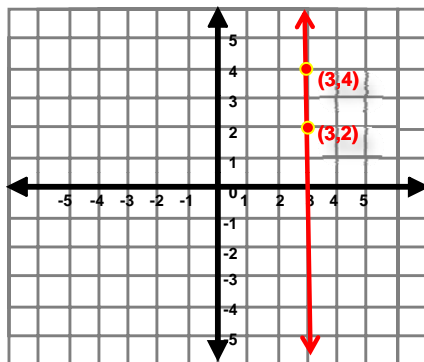
$$y = 4$$



All horizontal lines have a slope of 0.

SLOPE OF VERTICAL AND HORIZONTAL LINES

$$x = 4$$



All vertical lines have no slope.

Find the slope from linear equations

$$4) \quad 2x + 4y = 12$$

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

x	y

Find the slope from linear equations

5) $x - 3y = 9$

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

x	y

GUIDE TO SLOPE

