

October 14, 2015

$$p(x) = 2 - 3x$$

$$\frac{p(x+h) - p(x)}{h}$$

$$\frac{2 - 3(x+h) - (2 - 3x)}{h}$$

$$\frac{2 - 3x - 3h - 2 + 3x}{h}$$

$$\frac{-3h}{h} = \boxed{-3}$$

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Slope of a line:

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

Vertical Chg. / Horizontal Chg.

$(x_1, y_1) = (-3, 8)$  &  $(x_2, y_2) = (2, 5)$

Steps

① Plot & Graph

② Finding "m"

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{5 - 8}{2 - (-3)} = \frac{-3}{5} = \boxed{-\frac{3}{5}}$$

\* Direction of Line

Increasing slope \* Positive fraction

Decreasing slope \* Negative fraction

Oct 14-10:17 AM

$(-2, -6)$  &  $(4, -5)$

$x_1, y_1$  &  $x_2, y_2$

$$m = \frac{(-5) - (-6)}{(4) - (-2)}$$

$$= \frac{1 \text{ V. Chg.}}{6 \text{ H. Chg.}}$$

Pos.

$(3, -11)$ ,  $(4, -5)$ ,  $(5, 1)$

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$(\frac{1}{2}, 4)$  &  $(3, -\frac{1}{3})$

①

neg.

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

$$= \frac{-1 - 12}{6 - 1}$$

$$= -\frac{13}{5} \text{ K}$$

$$\frac{5}{2} \text{ P}$$

$$= -\frac{13}{5} \cdot \frac{2}{5} = \boxed{-\frac{26}{25}}$$

Oct 14-10:35 AM