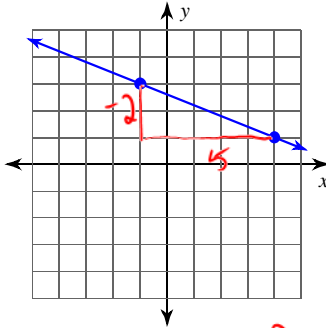


Slope

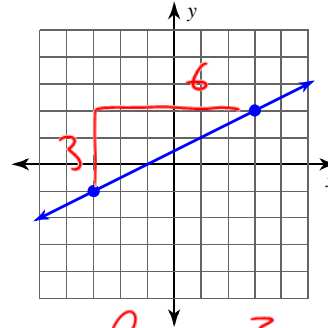
Find the slope of each line.

1)



$$m = \frac{\text{Rise}}{\text{Run}} = \frac{-2}{5}$$

2)



$$m = \frac{\text{Rise}}{\text{Run}} = \frac{3}{6} = \frac{1}{2}$$

Find the slope of the line through each pair of points.

$$3) (x_1, y_1), (x_2, y_2) \rightarrow (13, -13), (5, 7)$$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{7 - (-13)}{5 - 13} = \frac{20}{-8} = -\frac{5}{4}$$

$$4) (x_1, y_1), (x_2, y_2) \rightarrow (16, 6), (-8, -2)$$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-2 - 6}{-8 - 16} = \frac{-8}{-24} = \frac{1}{3}$$

Slope as a Rate of Change Average

5) After 30 baseball games, Jose Bautista had 25 hits. If after 100 games he had 80 hits, what is his average hits per baseball game?

$$\begin{aligned} x &= \text{games} \\ y &= \text{hits} \end{aligned}$$

$$\begin{aligned} (x_1, y_1) &= (30, 25) \\ (x_2, y_2) &= (100, 80) \end{aligned}$$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{80 - 25}{100 - 30} = \frac{55}{70} = \frac{11}{14}$$

$\rightarrow = 0.79 \text{ hits per game.}$