

Geometry

February 4, 2020

Name _____

CLASSWORK: Slope $m = \frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - x_1}$

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

1) $(-15, 6), (20, 9)$

$x_1 \ y_1 \ x_2 \ y_2$

2) $(-20, 14), (11, 6)$

$$m = \frac{9 - 6}{20 - (-15)} = \frac{3}{35}$$

Find the slope of each line.

$$y = mx + b$$

9) $y = -\frac{7}{2}x - 3$

10) $y = x$

$$m = -\frac{7}{2}$$

11) $x + 5y = -15$

12) $x + 3$

$$\begin{array}{r} x + 5y = -15 \\ -x \quad \downarrow \quad -x \\ \hline 5y = -x - 15 \\ \frac{5y}{5} = \frac{-x}{5} - \frac{15}{5} \end{array}$$

$$m = -\frac{1}{5}$$

$$y = -\frac{1}{5}x - 3$$

13) $7x - 4y = 16$

14) $x - 5$

$$\begin{array}{r} 7x - 4y = 16 \\ -7x \quad \downarrow \quad -7x \\ \hline -4y = -7x + 16 \\ \frac{-4y}{-4} = \frac{-7x}{-4} + \frac{16}{-4} \end{array}$$

$$m = \frac{7}{4}$$

$$y = \frac{7}{4}x - 4$$