

# Lesson 16

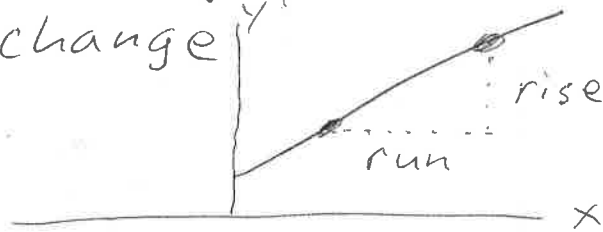
Linear equations  $y = 3x - 1$

$$2x + 5y = 7 \quad 2x = 20$$

- They do have  $x$  or  $y$  exponents other than 1.

rise - Vertical change

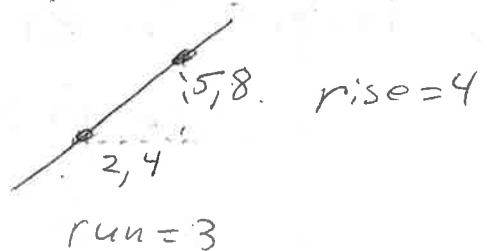
run - horizontal change



Finding slope of a line

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

$$\text{Slope} = \frac{8-4}{5-2} = \boxed{\frac{4}{3}}$$



Slope of a horizontal line =  $\frac{0}{\text{run}} = 0$

Slope of a vertical line =  $\frac{\text{rise}}{0} = \text{undefined}$

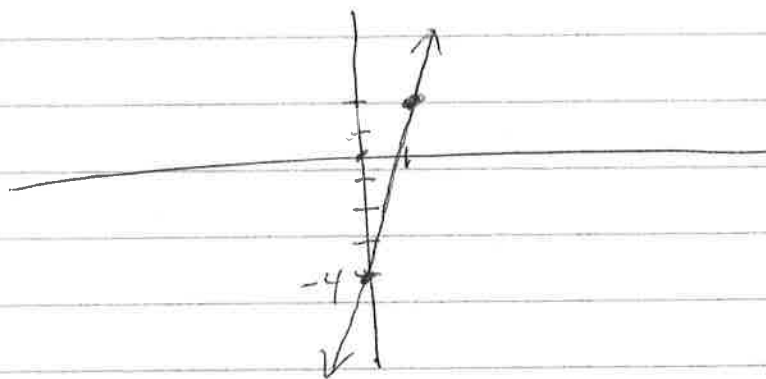


# Lesson 16 continued

Graph  $y = 2x - 4$

$$\text{slope} = \frac{2}{1} \begin{array}{l} \text{rise} \\ \text{run} \end{array}$$

$$y\text{-intercept} = -4$$



Graph  $5x - 3y = 9$

$$-3y = -5x + 9$$

$$y = \frac{-5}{-3}x + \frac{9}{-3}$$

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

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

