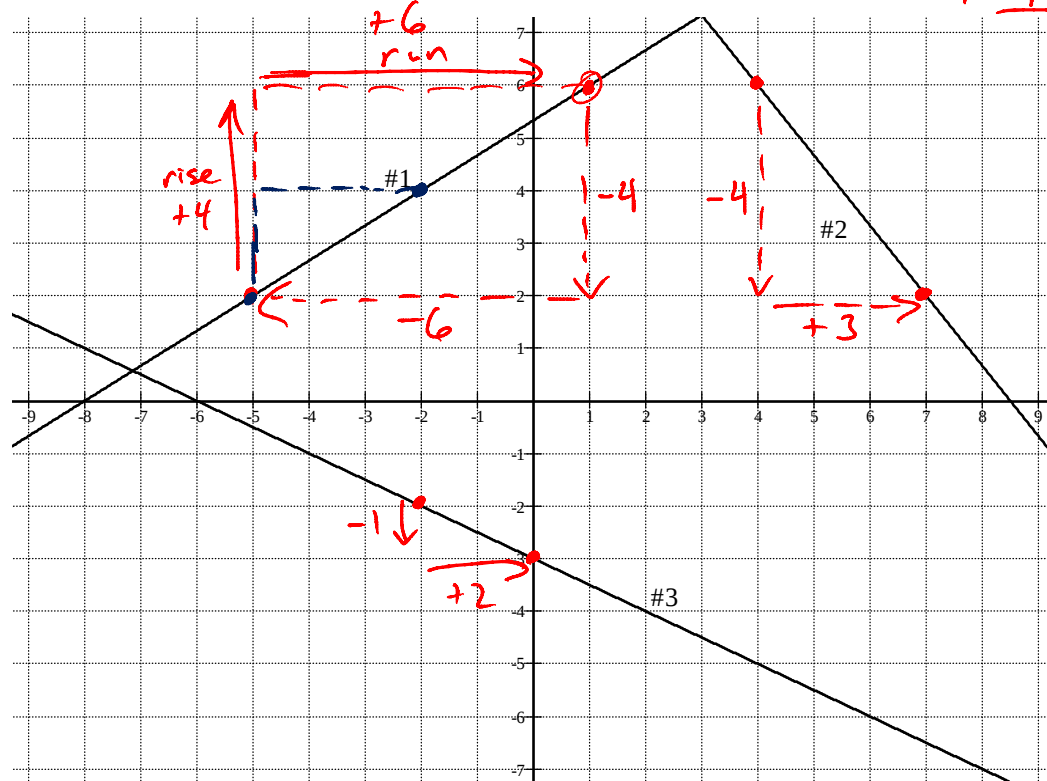


Unit 6 Linear Relations

6.4 Slope

Slope:

- measure of how steep a line is
- pattern between the points of a line
- rate of change of the dependent variable compared to the independent variable

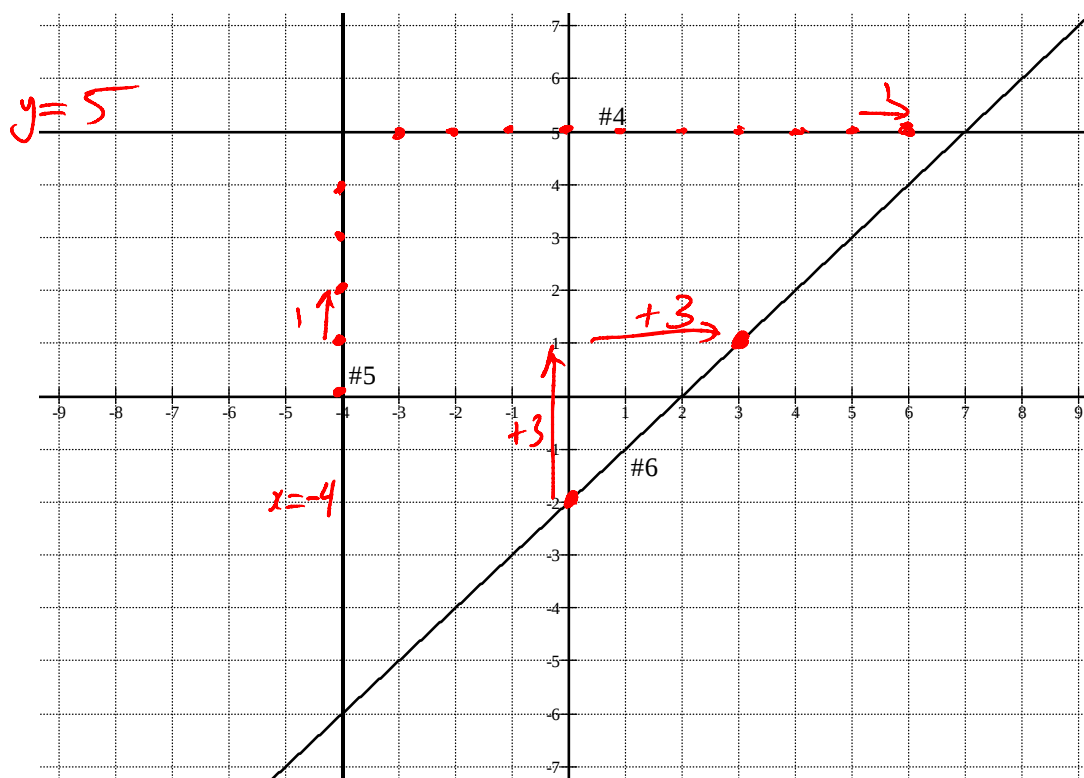


$$m = \text{slope} = \frac{\text{rise}}{\text{run}}$$

$$m_1 = \frac{4}{6} = \frac{2}{3}$$

$$m_2 = \frac{-4}{6} = \frac{-2}{3}$$

$$m_3 = \frac{-2}{2} = -1$$



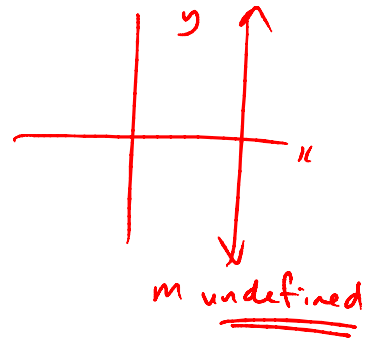
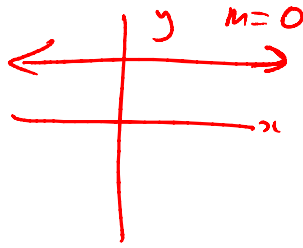
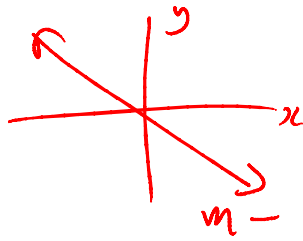
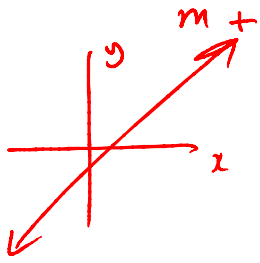
$$m_4 = \frac{0}{1} = 0$$

all horizontal line

$$m_5 = \frac{1}{0} = \text{undefined}$$

all vertical line

$$m_6 = \frac{3}{3} = 1$$



Ex. Determine the slope of the line passing through each pair of points:

a) $(-3, 6)$ & $(3, -6)$

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

$$m = \frac{-12}{6} = \boxed{-2 \text{ or } -\frac{2}{1}}$$

$$m = \frac{9}{6} = \boxed{\frac{3}{2}}$$

