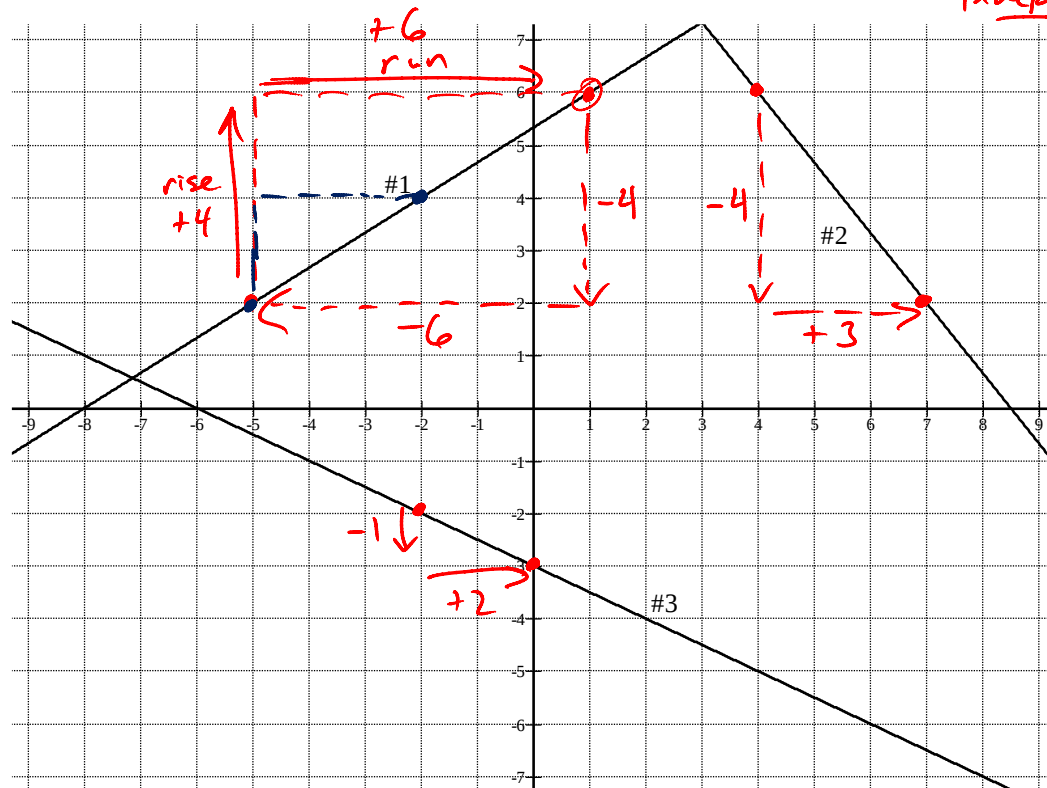


Unit 7 Linear Relations

7.4 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

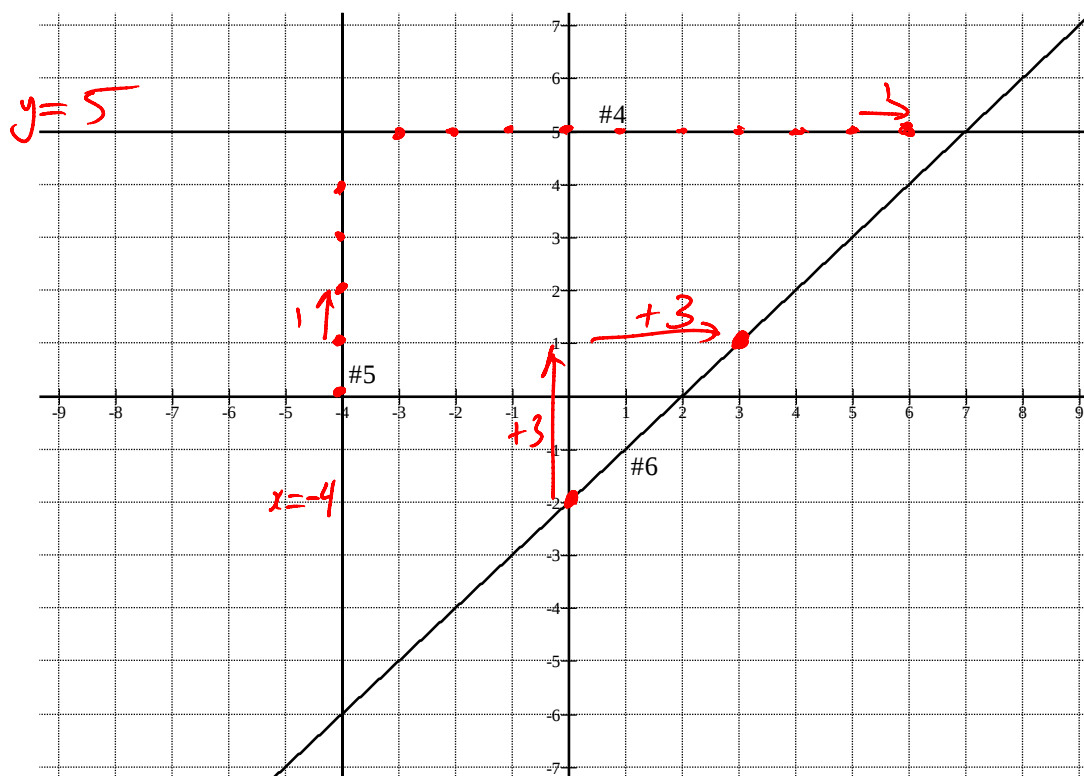


$$m = \text{slope} = \frac{\text{rise} \updownarrow}{\text{run} \leftrightarrow}$$

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

$$m_2 = \boxed{\frac{-4}{3}}$$

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



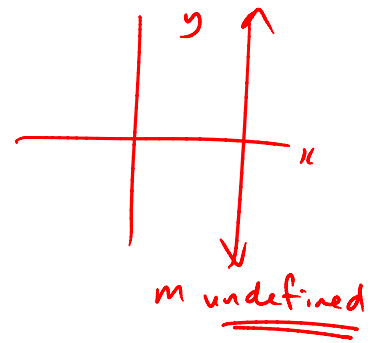
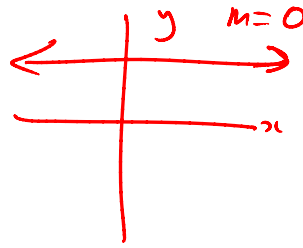
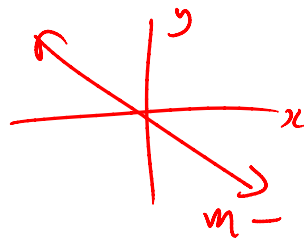
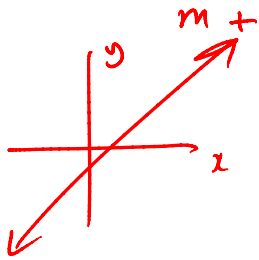
$$m_4 = \frac{0}{1} = \boxed{0}$$

all horizontal line

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

all vertical line

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



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

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

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

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

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

