

Key

**FINDING SLOPE GIVEN TWO POINTS:**

Remember: Slope =  $\frac{\text{vertical change}}{\text{horizontal change}} = \frac{\text{change in } y}{\text{change in } x}$

**SLOPE FORMULA:**

Given the points  $(x_1, y_1)$  and  $(x_2, y_2)$ ,  
 $(-2, 4)$  and  $(1, 2)$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{2 - 4}{1 - (-2)} = \frac{-2}{3}$$

Find the slope given the points

1.  $(-2, -2)$  and  $(4, 1)$

$$\frac{1 - (-2)}{4 - (-2)} = \frac{3}{6} = \frac{1}{2}$$

4.  $(3, 5)$  and  $(-1, 4)$

$$\frac{4 - 5}{-1 - 3} = \frac{-1}{-4} = \frac{1}{4}$$

2.  $(2, 1)$  and  $(5, -3)$

$$\frac{-3 - 1}{5 - 2} = \frac{-4}{3}$$

5.  $(-5, 3)$  and  $(2, -4)$

$$\frac{-4 - 3}{2 - (-5)} = \frac{-7}{7} = -1$$

3.  $(9, -2)$  and  $(10, 7)$

$$\frac{7 - (-2)}{10 - 9} = \frac{9}{1} = 9$$

6.  $(12, -4)$  and  $(-10, -6)$

$$\frac{-6 - (-4)}{-10 - 12} = \frac{-2}{-22} = \frac{1}{11}$$