

# Review

Name \_\_\_\_\_  
Date \_\_\_\_\_ Period \_\_\_\_\_

*Write the slope formula below:*

Slope formula =

**Finding slope using two points:**

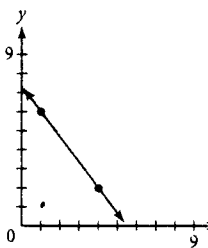
1.)  $(3, -1), (4, -3)$

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

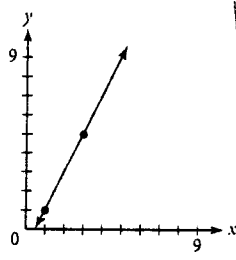
3.)  $(-4, -5), (4, 1)$

**Finding slope using a graph:**

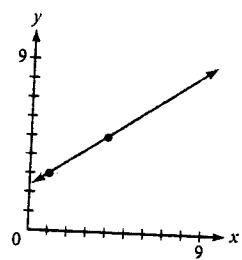
1.)



2.)



3.)



**Using slope to determine whether points land on the same line:**

*Do the points lie on the same line?*

**Sample:** A(1, 3), B(4, 2), C(-2, 4)

$$\text{Slope AB} = \frac{2-3}{4-1} = -\frac{1}{3}$$

$$\text{Slope BC} = \frac{4-2}{-2-4} = \frac{2}{-6} \text{ (be sure to reduce)} = -\frac{1}{3}$$

Lines AB and BC have the same slope. So, the points lie on the same line.

1. A(3, 5), B(6, 5), C(7, 5)

2. P(1, 3), Q(3, -1), R(0, 5)

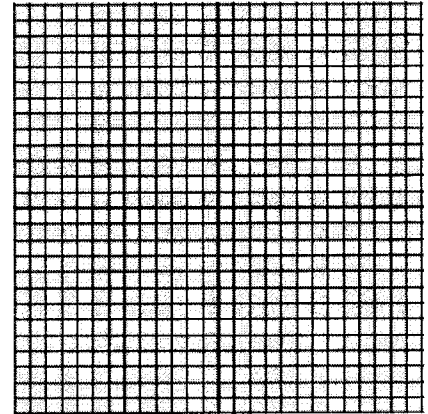
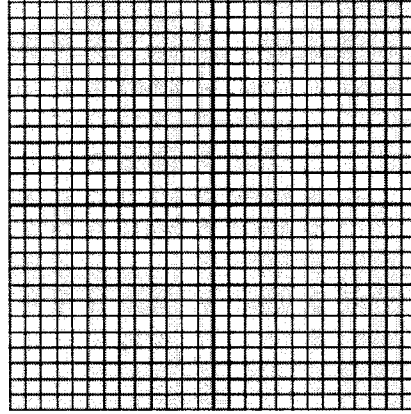
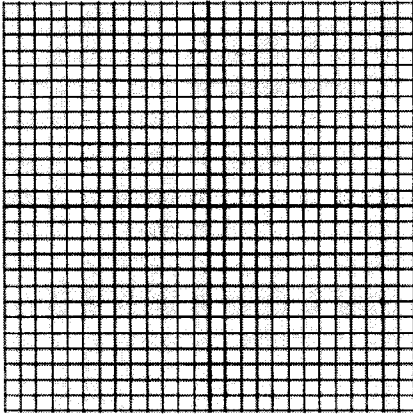
3. P(-4, -5), Q(0, -2), R(4, 5)

**Finding a line on a graph using the given point and the given slope.**

1.)  $(1, -3)$ ; Slope =  $-\frac{2}{3}$

2.)  $(2, 5)$ ; Slope =  $-\frac{4}{3}$

3.)  $(-1, 5)$ ; Slope = Undefined



*Write the slope-intercept equation below:*

$y =$

Where  $b =$  and  $a =$

**Find the slope and the Find the slope and the  $y$  – intercept of each equation:**

1.)  $y = -5 - \frac{3x}{4}$

2.)  $3x - 9 = y$

3.)  $2x = y + 7$

**Write an equation of a line through the given point with the given slope.**

1.)  $(0, 3)$ ;  $b = 1$

2.)  $(-1, 5)$ ;  $b = -\frac{3}{5}$

3.)  $(-5, 2)$ ;  $b = 0$

4.)  $(2.8, 10.5)$ ;  $b = 0.25$

**Write an equation of a line through the given points.**

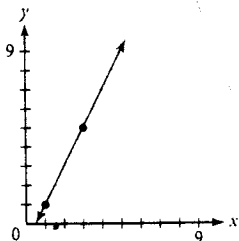
1.)  $(2, 4), (4, 7)$

2.)  $(6, -1), (2, 5)$

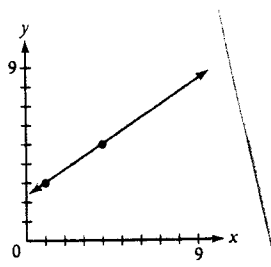
3.)  $(-2, 4), (8, 4)$

**Write an equation of each line.**

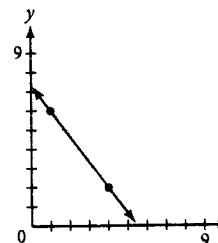
1.)



2.)



3.)



**Critical Thinking:**

The number of recreational visits to National Parks in the United States increases by about 9.3 million visits each year. In 1990 there were about 263 million visits.

a.) Write an equation to model the relationship between the number of visits and time in years. Let 90 correspond to 1990.

b.) Suppose the number of recreational visits to National Parks continued to increase at the same rate. How many visits would there have been in 1999?