

**LESSON**  
**5-4**
**Practice A**  
**The Slope Formula**

Find the slope of the line that contains each pair of points.

1. (3, 1) and (9, 2)

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

3. (4, 6) and (0, -2)

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$= \frac{2 - 1}{9 - 3} = \frac{1}{6}$$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

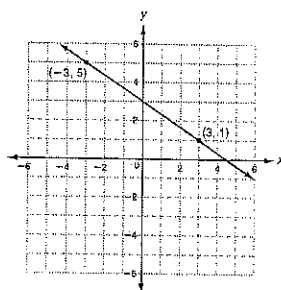
$$= \frac{-1 - 3}{2 - (-2)} = \frac{-4}{4} = -1$$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$= \frac{6 - (-2)}{4 - 0} = \frac{8}{4} = 2$$

Each graph or table shows a linear relationship. Find the slope.

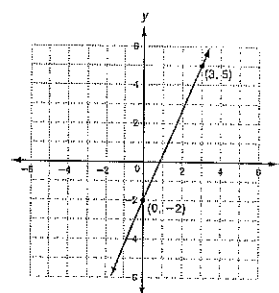
4.



5.

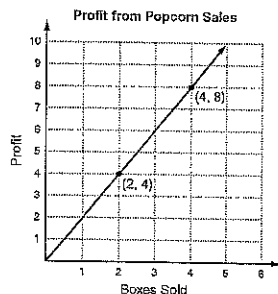
| x  | y  |
|----|----|
| 0  | 82 |
| 3  | 76 |
| 6  | 70 |
| 9  | 64 |
| 12 | 58 |

6.

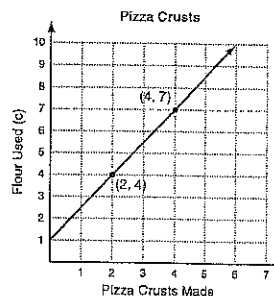


Find the slope of each line. Then tell what the slope represents.

7.



8.


Complete the steps to find the slope of the line described by  $2x + 5y = 10$ .

a. Find the x-intercept.

Let  $y = 0$

$2x + 5(\quad) = -10$

$\quad = -10$

$\div \quad \div \quad$

$x = \quad$

b. Find the y-intercept.

Let  $x = 0$

$2(\quad) + 5y = -10$

$\quad = -10$

$\div \quad \div \quad$

$y = \quad$

c. The line contains  $(\quad, 0)$  and  $(0, \quad)$ . Use the slope formula.

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$= \frac{\quad - 0}{0 - \quad} = \frac{\quad}{\quad}$$



# Practice B

## The Slope Formula

Find the slope of the line that contains each pair of points.

1. (2, 8) and (1, -3)

2. (-4, 0) and (-6, -2)

3. (0, -2) and (4, -7)

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$= \frac{\boxed{\phantom{00}} - \boxed{\phantom{00}}}{\boxed{\phantom{00}} - \boxed{\phantom{00}}}$$

$$= \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}} = \boxed{\phantom{00}}$$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$= \frac{\boxed{\phantom{00}} - \boxed{\phantom{00}}}{\boxed{\phantom{00}} - \boxed{\phantom{00}}}$$

$$= \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}} = \boxed{\phantom{00}}$$

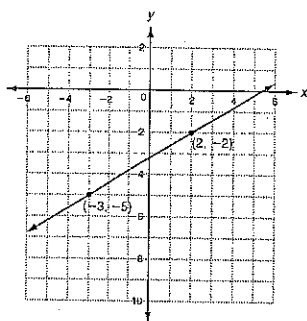
$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$= \frac{\boxed{\phantom{00}} - \boxed{\phantom{00}}}{\boxed{\phantom{00}} - \boxed{\phantom{00}}}$$

$$= \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}} = \boxed{\phantom{00}}$$

Each graph or table shows a linear relationship. Find the slope.

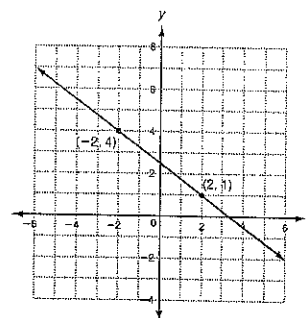
4.



5.

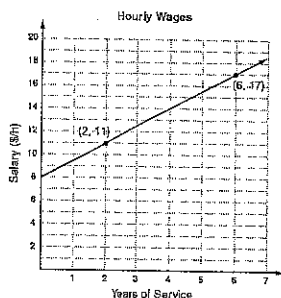
| x | y    |
|---|------|
| 1 | 3.75 |
| 2 | 5    |
| 3 | 6.25 |
| 4 | 7.50 |
| 5 | 8.75 |

6.

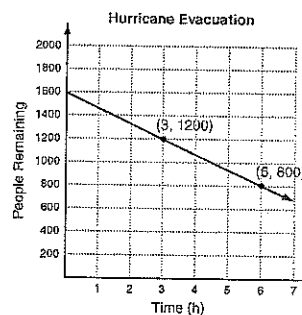


Find the slope of each line. Then tell what the slope represents.

7.



8.



Find the slope of the line described by each equation.

9.  $3x + 4y = 24$

10.  $8x = 48 + 3y$