

LESSON
5-4

Practice A
The Slope Formula

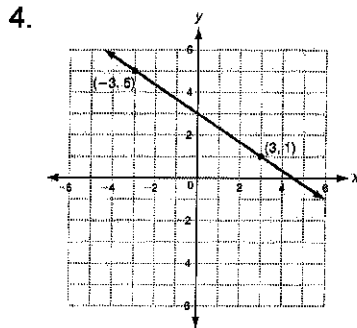
Find the slope of the line that contains each pair of points.

1. (3, 1) and (9, 2)
 x_1, y_1 x_2, y_2
 $m = \frac{y_2 - y_1}{x_2 - x_1}$
 $= \frac{2 - 1}{9 - 3} = \frac{1}{6}$

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

3. (4, 6) and (0, -2)
 x_1, y_1 x_2, y_2
 $m = \frac{y_2 - y_1}{x_2 - x_1}$
 $= \frac{-2 - 6}{0 - 4} = \frac{-8}{-4} = 2$

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

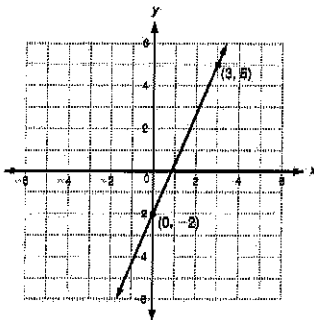


$(-3, 5)$ $(3, 1)$
 x_1, y_1 x_2, y_2

5.

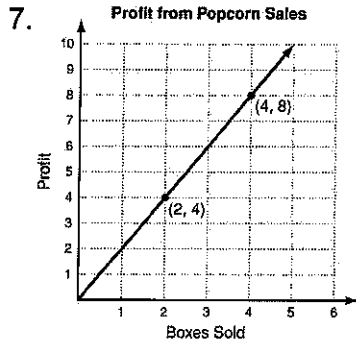
x	y
0	82
3	76
6	70
9	64
12	58

6.



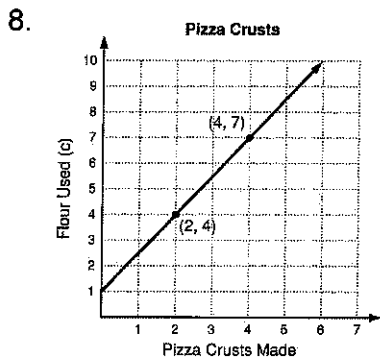
$(0, -2)$ $(3, 5)$
 x_1, y_1 x_2, y_2

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



$$\begin{matrix} (2, 4) & (4, 8) \\ x_1, y_1 & x_2, y_2 \end{matrix}$$

The slope represents _____



$$\begin{matrix} (2, 4) & (4, 7) \\ x_1, y_1 & x_2, y_2 \end{matrix}$$

The slope represents _____

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

9. a. Find the x-intercept.

Let $y = 0$

$$2x + 5(0) = -10$$

$$2x = -10$$

$$\div \text{_____} \div \text{_____}$$

$$x = \text{_____}$$

b. Find the y-intercept.

Let $x = 0$

$$2(0) + 5y = -10$$

$$5y = -10$$

$$\div \text{_____} \div \text{_____}$$

$$y = \text{_____}$$

c. The line contains (____, 0)

and (0, ____). Use the

slope formula.

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

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