

LESSON

Practice B**6-2 Solving Systems by Substitution**

Solve each system by substitution. Check your answer.

1.
$$\begin{cases} y = x - 2 \\ y = 4x + 1 \end{cases}$$

2.
$$\begin{cases} y = x - 4 \\ y = -x + 2 \end{cases}$$

3.
$$\begin{cases} y = 3x + 1 \\ y = 5x - 3 \end{cases}$$

4.
$$\begin{cases} 2x - y = 6 \\ x + y = -3 \end{cases}$$

5.
$$\begin{cases} 2x + y = 8 \\ y = x - 7 \end{cases}$$

6.
$$\begin{cases} 2x + 3y = 0 \\ x + 2y = -1 \end{cases}$$

7.
$$\begin{cases} 3x - 2y = 7 \\ x + 3y = -5 \end{cases}$$

8.
$$\begin{cases} -2x + y = 0 \\ 5x + 3y = -11 \end{cases}$$

9.
$$\begin{cases} \frac{1}{2}x + \frac{1}{3}y = 5 \\ \frac{1}{4}x + y = 10 \end{cases}$$

Write a system of equations to represent the situation. Then, solve the system by substitution.

10. The length of a rectangle is 3 more than its width. The perimeter of the rectangle is 58 cm. What are the rectangle's dimensions?

11. Carla and Benicio work in a men's clothing store. They earn commission from each suit and each pair of shoes they sell. For selling 3 suits and one pair of shoes, Carla has earned \$47 in commission. For selling 7 suits and 2 pairs of shoes, Benicio has earned \$107 in commission. How much do the salespeople earn for the sale of a suit? for the sale of a pair of shoes?
