## **Practice 7-2**

**Solving Systems Using Substitution** 

Solve each system using substitution. Write *no solution* or *infinitely many solutions* where appropriate.

**1.** 
$$y = x$$
  $y = -x + 2$ 

**4.** 
$$x = -2y + 1$$
  $x = y - 5$ 

7. 
$$y = x - 7$$
  
 $2x + y = 8$ 

**10.** 
$$3x + y = 10$$
  
 $y = -3x + 4$ 

**13.** 
$$4x + 2y = 8$$
  
 $y = -2x + 4$ 

**16.** 
$$5x - 3y = -4$$
  
 $x + y = -4$ 

**19.** 
$$3x - y = 4$$
  
 $2x + y = 16$ 

**22.** 
$$2x + 5y = -6$$
  $4x + y = -12$ 

**25.** 
$$5x - 6y = 19$$
  
 $4x + 3y = 10$ 

**28.** 
$$3x + 4y = 8$$
  
 $4.5x + 6y = 12$ 

**31.** 
$$2x + 5y = 62$$
  
 $3x - y = 23.3$ 

**34.** 
$$5x + 6y = -76$$
  
 $x + 2y = -44$ 

**2.** 
$$y = x + 4$$
  $y = 3x$ 

**5.** 
$$y = 5x + 5$$
  
 $y = 15x - 1$ 

**8.** 
$$y = 3x - 6$$
  
 $-3x + y = -6$ 

**11.** 
$$y = 2x + 7$$
  $y = 5x + 4$ 

**14.** 
$$6x - 3y = 6$$
  
 $y = 2x + 5$ 

**17.** 
$$y = -\frac{2}{3}x + 4$$
  
  $2x + 3y = -6$ 

**20.** 
$$x + y = 0$$
  $x = y + 4$ 

**23.** 
$$4x + 3y = -3$$
  
 $2x + y = -1$ 

**26.** 
$$2x + y = 6.6$$

$$5x - 2y = 0.3$$

**29.** 
$$3x - 4y = -5$$
  $x = y + 2$ 

**32.** 
$$-5x + y = 6$$
  
 $2x - 3y = 60$ 

**35.** 
$$3x - 2y = 10$$
  
 $y = \frac{3}{2}x - 1$ 

**3.** 
$$y = 3x - 10$$
  $y = 2x - 5$ 

**6.** 
$$y = x - 3$$
  $y = -3x + 25$ 

**9.** 
$$x + 2y = 200$$
  $x = y + 50$ 

**12.** 
$$3x - 2y = 0$$
  
 $x + y = -5$ 

**15.** 
$$2x + 4y = -6$$
  
 $x - 3y = 7$ 

**18.** 
$$2x + 3y = 8$$
  
 $\frac{3}{2}y = 4 - x$ 

**21.** 
$$5x + 2y = 6$$
  
 $y = -\frac{5}{2}x + 1$ 

**24.** 
$$y = -\frac{2}{3}x + 1$$
  
 $4x + 6y = 6$ 

**27.** 
$$2x - 4y = 3.8$$
  $3x - y = 17.7$ 

**30.** 
$$y = \frac{1}{3}x + 10$$
  $x = 3y + 6$ 

**33.** 
$$x = \frac{3}{4}y - 6$$
  $y = \frac{4}{3}x + 8$ 

**36.** 
$$-3x + 2y = -6$$
  
 $-2x + y = 6$ 

- **37.** At an ice cream parlor, ice cream cones cost \$1.10 and sundaes cost \$2.35. One day, the receipts for a total of 172 cones and sundaes were \$294.20. How many cones were sold?
- **38.** You purchase 8 gal of paint and 3 brushes for \$152.50. The next day, you purchase 6 gal of paint and 2 brushes for \$113.00. How much does each gallon of paint and each brush cost?