# 3-2

#### **Skills Practice**

## Solving Equations by Using Addition and Subtraction

Solve each equation. Then check your solution.

$$1.y - 7 = 8$$

$$2. w + 14 = -8$$

$$3. p - 4 = 6$$

$$4. -13 = 5 + x$$

5. 
$$98 = b + 34$$

6. 
$$y - 32 = -1$$

7. 
$$s + (-28) = 0$$

8. 
$$y + (-10) = 6$$

9. 
$$-1 = s + (-19)$$

**10.** 
$$j - (-17) = 36$$

11. 
$$14 = d + (-10)$$

**12.** 
$$u + (-5) = -15$$

13. 
$$11 = -16 + y$$

**14.** 
$$c - (-3) = 100$$

**15.** 
$$47 = w - (-8)$$

$$16. x - (-74) = -22$$

17. 
$$4 - (-h) = 68$$

18. 
$$-56 = 20 - (-e)$$

Write an equation for each problem. Then solve the equation and check your solution.

- 19. A number decreased by 14 is -46. Find the number.
- **20.** Thirteen subtracted from a number is -5. Find the number.
- **21.** The sum of a number and 67 is equal to -34. Find the number.
- **22.** What number minus 28 equals -2?
- 23. A number plus -73 is equal to 27. What is the number?
- **24.** A number plus -17 equals -1. Find the number.
- 25. What number less 5 is equal to -39?

# 3-3

### **Skills Practice**

# Solving Equations by Using Multiplication and Division

Solve each equation. Then check your solution.

1. 
$$12z = 108$$

3. 
$$18e = -216$$

$$5. -6d = -42$$

7. 
$$\frac{c}{4} = 16$$

**9.** 
$$-84 = \frac{d}{3}$$

11. 
$$\frac{t}{4} = -13$$

13. 
$$-6 = \frac{2}{3}z$$

$$15. \, \frac{5}{9}p = -10$$

$$17. -0.4b = 5.2$$

2. 
$$-7t = 49$$

4. 
$$-22 = 11v$$

**6.** 
$$96 = -24a$$

$$8. \frac{a}{16} = 9$$

10. 
$$-\frac{d}{7} = -13$$

12. 
$$31 = -\frac{1}{6}n$$

14. 
$$\frac{2}{7}q = -4$$

16. 
$$\frac{a}{10} = \frac{2}{5}$$

18. 
$$1.6m = -4$$

Write an equation for each problem. Then solve the equation.

19. The opposite of a number is -9. What is the number?

**20.** Fourteen times a number is -42. Find the number.

21. Eight times a number equals 128. What is the number?

**22.** Negative twelve times a number equals -132. Find the number.

23. Negative eighteen times a number is -54. What is the number?

**24.** One sixth of a number is -17. Find the number.

**25.** Negative three fifths of a number is -15. What is the number?