## 1-3 Skills Practice

### *Open Sentences*

Find the solution of each equation if the replacement sets are $A = \{4, 5, 6, 7, 8\}$ and $B = \{9, 10, 11, 12, 13\}$.

**1.** $5a - 9 = 26$

**2.** $4a - 8 = 16$

**3.** $7a + 21 = 56$

**4.** $3b + 15 = 48$

**5.** $4b - 12 = 28$

**6.** $\dfrac{36}{b} - 3 = 0$

Find the solution of each equation using the given replacement set.

**7.** $\dfrac{1}{2} + x = \dfrac{5}{4}; \left\{\dfrac{1}{2}, \dfrac{3}{4}, 1, \dfrac{5}{4}\right\}$

**8.** $x + \dfrac{2}{3} = \dfrac{13}{9}; \left\{\dfrac{4}{9}, \dfrac{5}{9}, \dfrac{2}{3}, \dfrac{7}{9}\right\}$

**9.** $\dfrac{1}{4}(x + 2) = \dfrac{5}{6}; \left\{\dfrac{2}{3}, \dfrac{3}{4}, \dfrac{5}{4}, \dfrac{4}{3}\right\}$

**10.** $0.8(x + 5) = 5.2; \{1.2, 1.3, 1.4, 1.5\}$

Solve each equation.

**11.** $10.4 - 6.8 = x$

**12.** $y = 20.1 - 11.9$

**13.** $\dfrac{46 - 15}{3 + 28} = a$

**14.** $c = \dfrac{6 + 18}{31 - 25}$

**15.** $\dfrac{2(4) + 4}{3(3 - 1)} = b$

**16.** $\dfrac{6(7 - 2)}{3(8) + 6} = n$

Find the solution set for each inequality using the given replacement set.

**17.** $a + 7 < 13; \{3, 4, 5, 6, 7\}$

**18.** $9 + y < 17; \{7, 8, 9, 10, 11\}$

**19.** $x - 2 \leq 2; \{2, 3, 4, 5, 6, 7\}$

**20.** $2x > 12; \{0, 2, 4, 6, 8, 10\}$

**21.** $4b + 1 > 12; \{0, 3, 6, 9, 12, 15\}$

**22.** $2c - 5 \leq 11; \{8, 9, 10, 11, 12, 13\}$

**23.** $\dfrac{y}{2} \geq 5; \{4, 6, 8, 10, 12\}$

**24.** $\dfrac{x}{3} > 2; \{3, 4, 5, 6, 7, 8\}$

**Lesson 1-3**