LESSON
2.5 **Practice B**
For use with the lesson "Solve Equations with Variables on Both Sides"

Solve the equation and describe each step you use.

1. $5x + 11 = 4x + 18$ **2.** $11p - 4 = 6p + 1$ **3.** $-6 = 2(w + 5)$

Solve the equation, if possible.

4. $15x - 8 = 14x + 13$ **5.** $9n - 7 = 5n + 5$ **6.** $4z - 15 = 4z + 11$

7. $-7a + 9 = 3a + 49$ **8.** $4(w + 3) = w - 15$ **9.** $8(y - 5) = 6y - 18$

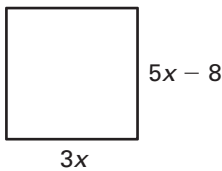**10.** $14m - 10 = 3(4 + m)$ **11.** $7 + x = \frac{1}{2}(4x - 2)$ **12.** $8b + 11 - 3b = 2b + 2$

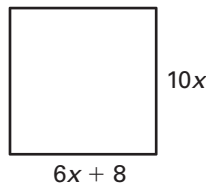**13.** $10d - 6 = 4d - 15 - 3d$ **14.** $16p - 4 = 4(2p - 3)$ **15.** $0.25(8z - 4) = z + 8 - 2z$

Find the perimeter of the square.

16.

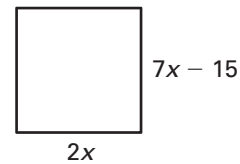$5x - 8$

$3x$

17.

$10x$

$6x + 8$

18.

$7x - 15$

$2x$

19. **Saving and Spending** Currently, you have $80 and your sister has $145. You decide to save $6 of your allowance each week, while your sister decides to spend her whole allowance plus $7 each week. How long will it be before you have as much money as your sister?

20. **Botanical Gardens** The membership fee for joining a gardening association is $24 per year. A local botanical garden charges members of the gardening association $3 for admission to the garden. Nonmembers of the association are charged $6. After how many visits to the garden is the total cost for members, including the membership fee, the same as the total cost for nonmembers?

21. **College Enrollment** Information about students' choices of majors at a small college is shown in the table. In how many years will there be 2 times as many students majoring in engineering than in business? In how many years will there be 2 times as many students majoring in engineering than in biology?

Major	Number of students enrolled in major	Average rate of change
Engineering	120	22 more students each year
Business	105	4 fewer students each year
Biology	98	6 more students each year