

LESSON
3.4**Practice B**

For use with pages 154–160

LESSON 3.4

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. $14m - 10 = 3(4 + m)$

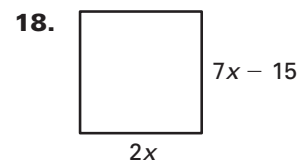
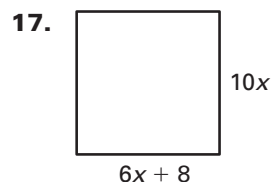
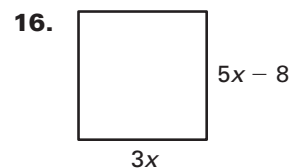
11. $7 + x = \frac{1}{2}(4x - 2)$

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.

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