✅ Check Your Understanding

Examples 1–3
pp. 97–98

Solve each equation. Check your solution.

1. $13x + 2 = 4x + 38$

2. $\frac{2}{3} + \frac{1}{6}q = \frac{5}{6}q + \frac{1}{3}$

3. $6(n + 4) = -18$

4. $7 = -11 + 3(b + 5)$

5. $5 + 2(n + 1) = 2n$
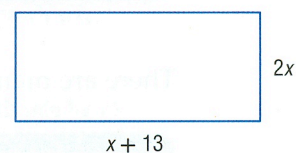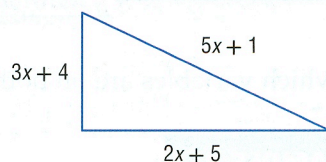
6. $7 - 3r = r - 4(2 + r)$

7. $14v + 6 = 2(5 + 7v) - 4$

8. $5h - 7 = 5(h - 2) + 3$

Example 4
p. 99

9. MULTIPLE CHOICE Find the value of x so that the figures have the same perimeter.

A 4   B 5   C 6   D 7

Practice and Problem Solving

● = **Step-by-Step Solutions** begin on page R12.
Extra Practice begins on page 815.

Examples 1–3
pp. 97–98

Solve each equation. Check your solution.

10. $7c + 12 = -4c + 78$

11. $2m - 13 = -8m + 27$

12. $9x - 4 = 2x + 3$

⑬ $6 + 3t = 8t - 14$

14. $\frac{b - 4}{6} = \frac{b}{2}$

15. $\frac{5v - 4}{10} = \frac{4}{5}$

16. $8 = 4(r + 4)$

17. $6(n + 5) = 66$

18. $5(g + 8) - 7 = 103$

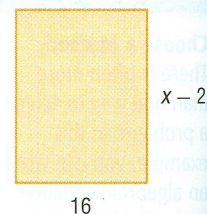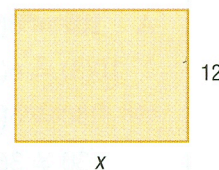**19.** $12 - \frac{4}{5}(x + 15) = 4$

20. $3(3m - 2) = 2(3m + 3)$

21. $6(3a + 1) - 30 = 3(2a - 4)$

Example 4
p. 99

22. GEOMETRY Find the value of x so the rectangles have the same area.

23. NUMBER THEORY Four times the lesser of two consecutive even integers is 12 less than twice the greater number. Find the integers.

24. NUMBER THEORY Two times the least of three consecutive odd integers exceeds three times the greatest by 15. What are the integers?

Solve each equation. Check your solution.

25. $2x = 2(x - 3)$

26. $\frac{2}{5}h - 7 = \frac{12}{5}h - 2h + 3$

27. $-5(3 - q) + 4 = 5q - 11$

28. $2(4r + 6) = \frac{2}{3}(12r + 18)$

29. $\frac{3}{5}f + 24 = 4 - \frac{1}{5}f$

30. $\frac{1}{12} + \frac{3}{8}y = \frac{5}{12} + \frac{5}{8}y$

31. $\frac{2m}{5} = \frac{1}{3}(2m - 12)$

32. $\frac{1}{8}(3d - 2) = \frac{1}{4}(d + 5)$

33. $6.78j - 5.2 = 4.33j + 2.15$

34. $14.2t - 25.2 = 3.8t + 26.8$

35. $3.2k - 4.3 = 12.6k + 14.5$

36. $5[2p - 4(p + 5)] = 25$