

**Examples 1–3** Solve each equation. Check your solution.

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

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

5.  $5 + 2(n + 1) = 2n$

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

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

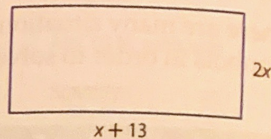
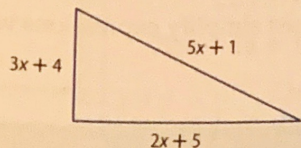
4.  $7 = -11 + 3(b + 5)$

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

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

**Example 4**

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

Extra Practice is on page 173

**Examples 1–3** Solve each equation. Check your solution.

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

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

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

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

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

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

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

13.  $6 + 3t = 8t - 14$

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

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

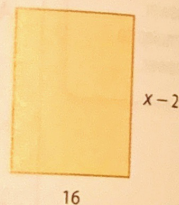
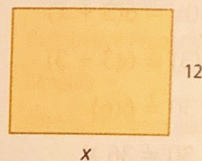
19.  $12 - \frac{4}{5}(x + 15) = 4$

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

**Example 4**

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. **CCSS SENSE-MAKING** 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.  $2x = 2(x - 3)$

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

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

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

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

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

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

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

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

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

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

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

