

**Practice**

Form G

## Solving Multi-Step Equations

**Solve each equation. Check your answer.**

1.  $19 - h - h = -13$

2.  $14 + 6a - 8 = 18$

3.  $25 = 7 + 3k - 12$

4.  $5n - 16 - 8n = -10$

5.  $-34 = v + 42 - 5v$

6.  $x - 1 + 5x = 23$

7.  $42j + 18 - 19j = -28$

8.  $-49 = 6c - 13 - 4c$

9.  $-28 + 15 - 22z = 31$

**Write an equation to model each situation. Then solve the equation.**

10. General admission tickets to the fair cost \$3.50 per person. Ride passes cost an additional \$5.50 per person. Parking costs \$6 for the family. The total costs for ride passes and parking was \$51. How many people in the family attended the fair?

11. Five times a number decreased by 18 minus 4 times the same number is  $-36$ . What is the number?

**Solve each equation. Check your answer.**

12.  $6(3m + 5) = 66$

13.  $3(4y - 8) = 12$

14.  $-5(x - 3) = -25$

15.  $42 = 3(2 - 3h)$

16.  $-10 = 5(2w - 4)$

17.  $3p - 4 = 31$

18.  $-3 = -3(2t - 1)$

19.  $x - 2(x + 10) = 12$

20.  $-15 = 5(3q - 10) - 5q$

21. Angela ate at the same restaurant four times. Each time she ordered a salad and left a \$5 tip. She spent a total of \$54. Write and solve an equation to find the cost of each salad.

**Practice** (continued)

Form G

## Solving Multi-Step Equations

**Solve each equation. Choose the method you prefer to use. Check your answer.**

22.  $\frac{a}{7} + \frac{5}{7} = \frac{2}{7}$

23.  $6v - \frac{5}{8} = \frac{7}{8}$

24.  $\frac{j}{6} - 9 = \frac{5}{6}$

25.  $\frac{x}{3} - \frac{1}{2} = \frac{3}{4}$

26.  $\frac{g}{5} + \frac{5}{6} = 6$

27.  $\frac{b}{9} - \frac{1}{2} = \frac{5}{18}$

28.  $0.52y + 2.5 = 5.1$

29.  $4n + 0.24 = 15.76$

30.  $2.45 - 3.1t = 21.05$

31.  $-4.2 = 9.1x + 23.1$

32.  $11.3 - 7.2f = -3.82$

33.  $14.2 = -6.8 + 4.2d$

34. **Reasoning** Suppose you want to solve  $-5 = 6x + 3 + 7x$ . What would you do as your first step? Explain.

35. **Writing** Describe two different ways to solve  $-10 = \frac{1}{4}(8y - 12)$ .

**Solve each equation. Round to the nearest hundredth if necessary.**

36.  $5 + \frac{2a}{-3} = \frac{5}{11}$

37.  $\frac{3}{5}(p - 3) = -4$

38.  $11m - (6m - 5) = 25$

39. The sum of three integers is 228. The second integer is 1 more than the first, and the third integer is 2 more than the first. Write an equation to determine the integers. Solve your equation. Show your work.

40. Can you solve the equation  $\frac{2}{3}(4x - 5) = 8$  by using the Division Property of Equality? Explain.