

Practice 3-4

Mixed Exercises

Solve and check each equation.

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|-------------------------------------|-------------------------------------|----------------------------|
| 1. $4(2r + 8) = 88$ | 2. $-3(b - 5) = -21$ | 3. $3(f + 2) = -15$ |
| 4. $6h + 5(h - 5) = 52$ | 5. $-5d + 3(2d - 7) = -5$ | 6. $7 + 2(4x - 3) = 33$ |
| 7. $2(3h + 2) - 4h = -16$ | 8. $-3(4 - y) = -27$ | 9. $3(2n - 4) - 2n = 24$ |
| 10. $-w + 4(w + 3) = -12$ | 11. $4 = 0.4(3d - 5)$ | 12. $-4d + 2(3 + d) = -14$ |
| 13. $2x + \frac{3}{4}(4x + 16) = 7$ | 14. $2(3a + 2) = -8$ | 15. $5(t - 3) - 2t = -30$ |
| 16. $5(b + 4) - 6b = -24$ | 17. $\frac{2}{5}(5k + 35) - 8 = 12$ | 18. $0.4(2s + 4) = 4.8$ |
| 19. $\frac{2}{3}(9b - 27) = 36$ | 20. $\frac{1}{2}(12n - 8) = 26$ | 21. $0.5(2x - 4) = -17$ |

Simplify each expression.

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| 22. $3.5(3x - 8)$ | 23. $4(x + 7)$ | 24. $-2.5(2a - 4)$ |
| 25. $\frac{2}{3}(12 - 15d)$ | 26. $-(2k - 11)$ | 27. $-\frac{1}{3}(6h + 15)$ |
| 28. $(2c - 8)(-4)$ | 29. $-3(4 - 2b)$ | 30. $2(3x - 9)$ |

Use an equation to model and solve each problem.

31. The attendance at a ball game was 400 people. Student tickets cost \$2 and adult tickets cost \$3. If \$1050 was collected in ticket sales, how many of each type of ticket were sold?
32. Find two consecutive integers such that the sum of the first and 3 times the second is 55.
33. An angle and its complement always have a sum of 90° . The sum of the measures of an angle and five times its complement is 298° . What is the measure of the angle?
34. The perimeter of a pool table is 30 ft. It is twice as long as it is wide. What is the length of a pool table?
35. Suppose you have a coin collection of nickels and dimes containing 63 coins. If you have \$5.05, how many of each type of coin do you have?

Solve and check each equation.

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| 36. $2(a - 4) + 15 = 13$ | 37. $7 + 2(a - 3) = -9$ | 38. $13 + 2(5c - 2) = 29$ |
| 39. $5(3x + 12) = -15$ | 40. $4(2a + 2) - 17 = 15$ | 41. $2(m + 1) = 16$ |
| 42. $-4x + 3(2x - 5) = 31$ | 43. $-6 - 3(2k + 4) = 18$ | 44. $3(t - 12) = 27$ |