Practice

The Distributive Property

Use the Distributive Property to write each expression as an equivalent expression. Then evaluate the expression.

1. $6(80 + 1)$ **2.** $7(70 - 4)$ **3.** $(300 + 6)4$ **4.** $(100 + 10)9$

5. $5(400 - 90)$ **6.** $-8(700 - 3)$ **7.** $4(20 - 9)$ **8.** $(100 - 3)(-7)$

9. $-1(75 - 9)$ **10.** $14(21 - 11)$ **11.** $-25(80 + 2)$ **12.** $31(450 - 18)$

Use the Distributive Property to write each expression as an equivalent algebraic expression.

13. $7(y + 11)$ **14.** $-6(t - 1)$ **15.** $-8(u - 2)$ **16.** $(r + 9)(-4)$

17. $-1(-h + 5)$ **18.** $-2(f + 3)$ **19.** $-4(b - 1)$ **20.** $1(7 - v)$

21. $-2(d - 5)$ **22.** $22(n + 10)$ **23.** $-50(z - 1)$ **24.** $-12(g + 12)$

25. $17(p + 4)$ **26.** $(k - 21)(-8)$ **27.** $(-32 - s)(-9)$ **28.** $-28(a - 5)$

29. $-20(19 - a)$ **30.** $33(d + 4)$ **31.** $-18(-q - 5)$ **32.** $-16(c + 45)$

33. $-19(v - 1)$ **34.** $-1(r + 27)$ **35.** $53(x + 11)$ **36.** $-17(-n + 1)$

37. PLANTS A planter weighs 2 pounds and holds 3 pounds of soil. Write two equivalent expressions for the total weight of nine planters. Then find the weight.

38. UNIFORMS A uniform costs $42 for the sweater and $29 for the slacks. Write two equivalent expressions for the total cost of six uniforms. Then find the cost.

Skills Practice

Simplifying Algebraic Expressions

Identify the terms, like terms, coefficients, and constants in each expression.

1. $7a + a$

2. $3k + g - k$

3. $m + 3m + 8$

4. $10b - bc + 1 + 3bc$

5. $9j + 8j - 4 - 7j$

6. $6y + 3x + 6y - 2x$

7. $3q + 2 - 7p$

8. $18 + 7x - 12 + 5x$

9. $12a + 3b + 18 - 9a$

Simplify each expression.

10. $13c - 7 + c - d$

11. $5h + h - 4h + 1 - 2h$

12. $2(v - 5) + 7v + 4$

13. $5(r + 9) - 5$

14. $1 - 4(u - 1)$

15. $-7(w - 4) + 3w - 27$

16. $-8 - 7(y + 2)$

17. $-18(c - 1) - 18$

18. $12(n - 4) - 3n$

19. $5m - 9 + 4m$

20. $-7 + g + 1 - 6g$

21. $x - 9x + 3 + 8x - 3$

22. $6(r - 4) + r + 30 - 7r$

23. $-5 + 5a - 4 - 2a + 3a$

24. $21 - 8(v + 3) + 3 + 7v$

25. $4x - 9 + 3x + 6 - 9x - 4$

26. $p - 2 + 1 - p + 1 + 2p$

27. $-11f + 6 - f + 4 + 13f - 9$

28. $3(d - 4) + 2 - 2d + 1 - d$

29. $1 - s + 2 + 2s - 3s + 1$

30. $5 - 9k + 1 + k - 2(7 - k)$