Extra Practice

Lesson 8-6

(pages 444–449)

Find each product. 7–12. See margin.

1. $-3(8x + 5)$ $-24x - 15$
2. $3b(5b + 8)$ $15b^2 + 24b$
3. $1.1a(2a + 7)$ $2.2a^2 + 7.7a$
4. $\frac{1}{2}x(8x - 6)$ $4x^2 - 3x$
5. $7xy(5x^2 - y^2)$ $35x^3y - 7xy^3$
6. $5y(y^2 - 3y + 6)$ $5y^3 - 15y^2 + 30y$
7. $-ab(3b^2 + 4ab - 6a^2)$
8. $4m^2(9m^2n + mn - 5n^2)$
9. $4st^2(-4s^2t^3 + 7s^5 - 3st^3)$
10. $-\frac{1}{3}x(9x^2 + x - 5)$
11. $-2mn(8m^2 - 3mn + n^2)$
12. $-\frac{3}{4}ab^2\left(\frac{1}{3}b^2 - \frac{4}{9}b + 1\right)$

Simplify. 13–21. See margin.

13. $-3a(2a - 12) + 5a$
14. $6(12b^2 - 2b) + 7(-2 - 3b)$
15. $x(x - 6) + x(x - 2) + 2x$
16. $11(n - 3) + 2(n^2 + 22n)$
17. $-2x(x + 3) + 3(x + 3)$
18. $4m(n - 1) - 5n(n + 1)$
19. $-7xy + x(7y - 3)$
20. $5(-c + 3a) - c(2c + 1)$
21. $-9n(1 - n) + 4(n^2 + n)$

Solve each equation.

22. $-6(11 - 2x) = 7(-2 - 2x)$ 2
23. $11(n - 3) + 5 = 2n + 44$ 8
24. $a(a - 6) + 2a = 3 + a(a - 2)$ -1.5
25. $q(2q + 3) + 20 = 2q(q - 3)$ $-\frac{20}{9}$
26. $w(w + 12) = w(w + 14) + 12$ -6
27. $x(x - 3) + 4x - 3 = 8x + x(3 + x)$ $-\frac{3}{10}$
28. $-3(x + 5) + x(x - 1) = x(x + 2) - 3$ -2
29. $n(n - 5) + n(n + 2) = 2n(n - 1) + 1.5$ -1.5

7. $-3ab^3 - 4a^2b^2 + 6a^3b$
8. $36m^4n + 4m^3n - 20m^2n^2$
9. $-16s^3t^5 + 28s^6t^2 - 12s^2t^5$
10. $-3x^3 - \frac{1}{3}x^2 + \frac{5}{3}x$
11. $-16m^3n + 6m^2n^2 - 2mn^3$
12. $-\frac{1}{4}ab^4 + \frac{1}{3}ab^3 - \frac{3}{4}ab^2$
13. $-6a^2 + 41a$
14. $72b^2 - 33b - 14$
15. $2x^2 - 6x$
16. $2n^2 + 55n - 33$
17. $-2x^2 - 3x + 9$
18. $4mn - 4m - 5n^2 - 5n$
19. $-3x$
20. $-2c^2 - 6c + 15a$
21. $-5n + 13n^2$