

LESSON
5.3**Practice***For use with pages 346–352***Find the sum or difference.**

- $(2y^2 - 5y + 1) + (y^2 - y - 4)$
- $(12x^2 + 8x - 3) - (11x^2 - x + 5)$
- $(6m^3 - 5) - (m^3 + 4m^2 - 9m - 2)$
- $(5s^4 - 2s^3 + 9) - (-2s^4 + 8s^2 - s + 2)$
- $(7q - 3q^3) + (16 - 8q^3 + 5q^2 - q)$
- $(-4z^4 + 6z - 9) + (11 - z^3 + 3z^2 + z^4)$
- $(10v^4 - 2v^2 + 6v^3 - 7) - (9 - v + 2v^4)$
- $(4x^5 + 3x^4 - 5x + 1) - (x^3 + 2x^4 - x^5 + 1)$

LESSON
5.3
Practice *continued*
For use with pages 346–352
Find the product.

9. $2x^3(5x - 1)$

10. $(w - 8)(w - 1)$

11. $(c + 4)(c + 10)$

12. $(g + 9)(g - 2)$

13. $(y - 1)(y^2 + 6y - 2)$

14. $(n + 5)(2n^2 - n - 7)$

15. $(x - 3)^2$

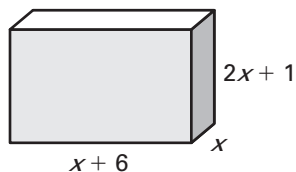
16. $(4t + 1)^2$

17. $(z - 5)^3$

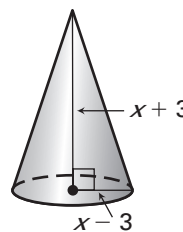
18. $(2f + 1)^3$

Write the volume of the figure as a polynomial in standard form.

19. $V = \ell wh$



20. $V = \frac{1}{3}\pi r^2 h$



21. **Bottled Water** From 1990 to 1999, the per person consumption B of bottled water (in gallons) and the population P of the United States (in thousands) can be modeled by

$$B = 0.0977t^2 + 0.186t + 7.86 \text{ and}$$

$$P = 3226t + 250,359$$

where t is the number of years since 1990. Write a model for the total consumption C of bottled water (in thousands of gallons). What was the total consumption of bottled water in 1998?