7.1–7.4 Quiz

Check It Out
Progress Check
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Write the polynomial in standard form. Identify the degree and classify the polynomial by the number of terms. *(Section 7.1)*

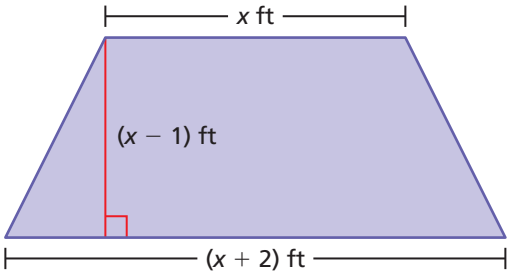
1. $-8q^3$
2. $-9 + d^2 - 3d$
3. $\frac{2}{3}m^4 - \frac{5}{6}m^6$
4. $-1.3z + 2z^4 + 7.4z^2$

Find the sum or difference. *(Section 7.2)*

5. $(2x^2 + 5) + (-x^2 + 4)$
6. $(-3n^2 + n) - (2n^2 + 7)$
7. $(-p^2 + 4p) - (p^2 - 3p + 15)$
8. $(a^2 - 3ab + b^2) + (-a^2 + ab + b^2)$

Find the product. *(Section 7.3 and Section 7.4)*

9. $(w + 6)(w + 7)$
10. $(y + 9)(y - 3)$
11. $(d - 2)(d - 5)$
12. $(2z - 3)(3z + 5)$
13. $(h - 1)(h + 1)$
14. $(p + 9)(p - 9)$
15. $(t + 5)^2$
16. $(q - 2)^2$



17. **WINDOW SEAT** A window seat is in the shape of a trapezoid. *(Section 7.3)*
    a. Write a polynomial that represents the area of the window seat.
    b. What is the area of the window seat when $x = 3$?

18. **COMPOUND INTEREST** You are saving for a guitar. You deposit \$100 in an account that earns interest compounded annually. The expression $100(1 + r)^2$ represents the balance after 2 years, where r is the annual interest rate in decimal form. *(Section 7.4)*
    a. Write a polynomial that represents the balance of your account.
    b. What is the balance of your account when the interest rate is 12%?
    c. How much more money do you need to save to buy the guitar?