



## 7-1 Additional Practice

### Adding and Subtracting Polynomials

What is the name of each polynomial, based on the degree and the number of terms?

1.  $-4x^2y$

2.  $3x^4 - 2x^3 + 5x^2 + 6x - 12$

3.  $x^2 + 5x - 4$

Write each polynomial in standard form.

4.  $3x^2 - 5x - 4 + x^3$

5.  $-7 + 2x - x^5 + 4x^4 + 2x^3$

6.  $9 - x^2 + 5x$

Combine like terms and write each expression in standard form.

7.  $-5y + 3y^2 + 2y - 2y^2 - 9$

8.  $-2x^2 + x + 5x^3 + 4x + 2x^2$

9.  $x^2 - 5 + 2x + x^2$

Add or subtract. Write each answer in standard form.

10.  $(4x^3 - 5x^2 + 3x - 8) + (2x^3 - 2x^2 + 6x + 12)$

11.  $(x^4 - 3x^3 + 5x^2 + x - 4) - (x^3 - 4x^2 - 11x + 10)$

12. Suppose you add or subtract two quadratic trinomials that use the same variable. What are the possible classifications for the sum or difference? Explain.

13. The total length of the fence around a quadrilateral-shaped garden shown is  $3a^2 + 15a + 9$ . What expression represents the missing fence length?

