

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

## Algebra 1

### Chapter 8.1 - 8.4 Quiz Review

#### Topics: Adding, Subtracting and Multiplying Polynomials

**Name each polynomial by the degree and the number of terms.**

1.  $-8x^5y^{10}$

2.  $6a^3 - 9a^2 + a - 7a^3$

3.  $-2x^4 + 18x^4 - 9x$

**Simplify each sum or difference.**

4.  $(4x^3 + 9x^2 + 11x) + (-10x^3 + x + 1)$

5.  $(-4a^2 - 7a + 10) - (3a^4 - 5a^2 + a - 9)$

**Simplify each product.**

6.  $5w(3w^2 - w)$

7.  $(2x + 7)(x + 6)$

8.  $(2a - 1)(a^2 + 3a - 4)$

9.  $(x^3 + x^2)(x^2 + 6x - 4)$

10.  $3x(4x^2 - 2)$

8.  $(a - 3b)(2a + b)$

9.  $(6a + 5)(2a + 10)$

10.  $(x - 4)(2x^2 + 5x - 1)$

11.  $(n + 5)^2$

12.  $(6x - 7)^2$

13.  $(m - n)^2$

14. Find the area of the shaded region  
(written as a simplified polynomial).

