

## Section 9.1 Adding and Subtracting Polynomials

Date \_\_\_\_\_ Period \_\_\_\_\_

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

1)  $-3a^4 - 2a - 7$

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

3)  $x$

4)  $4r^5$

**Simplify each expression.**

5)  $(4n - 5) - (7 - 3n)$

6)  $(4n^4 + n^2) + (5n^4 + 2n^2)$

7)  $(4n + 4) + (5 - 4n)$

8)  $(2 + 5x^2) + (x^2 + 4)$

$$9) (6x^3 + 6x) + (2 + 8x) - (x + 6x^3 + 5)$$

$$10) (8r^2 + 6) - (5 + 3r^4) + (7r - 2r^4 + 6r^2)$$

$$11) (1 + 6x^4) - (6x + 2x^2) + (5x + 8x^4 - 5)$$

$$12) (4a^4 - 5a^3) + (a^4 + 6) + (8 - a^3 + 4a^4)$$

**Simplify each expression. (Remember like terms must have the exact same variables degrees)**

$$13) (2x^4 - 4xy^2 - 3x^4y^4 + 2x^3y) + (x^3y - 5x^4) + (3x^4 - 4y^4)$$