

## Adding and Subtracting Polynomials

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

**Simplify each expression.**

1)  $(a - 3a^2) + (3a^2 - 5a)$

2)  $(4b^2 - 5b^3) - (4b^3 + 5b^2)$

3)  $(3n^4 + 4n^3) + (4n^3 - 2n^4)$

4)  $(4p - p^2) - (p + 3p^2)$

5)  $(4v^4 - v^2) - (v^2 + 2v^4)$

6)  $(-n^5 - 13n + 1) + (11n - 3 + 14n^5)$

7)  $(-9v^4 - v^2 + 3v) - (-11v - 4v^2 - 10v^4)$

8)  $(-6x^4 - 8x^3 + 9x^5) + (11x^5 - 7x^4 + 12)$

9)  $(4x^2 + 14x^4 - 11) + (-3 - 4x^2 + 4x^4)$

10)  $(10p^5 - 11p^4 - 14p^2) + (8p^4 + 11p^2 + 5p^5)$

11)  $(9a^5b^4 - 14a^4b^4 - 4a^4b) + (8a^2b^3 + 7a^4b^4 + 13a^4b)$

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

$$13) (12xy^2 + 10y^3 + 5x^3y^4) - (-7y^3 - 5x^3y^4 + 8xy^2)$$

$$14) (6 + b^2 + 9a^4b) + (13a^4b - 2 - 4b^2)$$

$$15) (12m^2n^3 + 6m^3 + n^5) + (6m^3 + 13m^2n^3 + 11n^5)$$

$$16) (10n^3 - 7m^2n^4) - (2m^3n^4 - 12n^2 - 5n^3) + (3n^3 + 11m^3n^4)$$

$$17) (12a^2b^3 + 8a^3b^3) - (-a - 9a^2b^3 + 7a^4b^2) + (14a^4b^2 + 8a^2b^3)$$

$$18) (v^4 - 6uv^4) - (4u^2v - 3u^2v^4 - 6uv^4) + (11v^4 - 5uv^4)$$

$$19) (-12x + 14x^3y^3) + (-12x^3y^3 - 8x + 3y) + (9x^3y^3 - 11x)$$

$$20) (-7m^3n^2 - 7m) - (8m + 6n^3 + n^4) + (-11n^4 + 3m)$$