

4.9 Simplify Polynomials using Addition and Subtraction

Date _____

Simplify each expression.

1) $(2b^4 + b^3) - (5b^3 - b^4)$

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

3) $(3v^3 - 2) + (2 + 3v^3)$

4) $(b^5 - 5b^4 + 2b) - (-7b + 7b^2 - 7b^4)$

5) $(-13m^3 + 6 + 10m^4) + (-12m^3 + 12m^4 + 7)$

6) $(-14a^3 + 6a^2 - 12a^5) + (-4a^5 + 11 + 2a^2)$

7) $(11m^4n^4 - 6) + (12m^2n^3 - 9 - 11m^4n^2) + (6m^4n^4 + 10m^4n^2)$

8) $(-4x^2 + 3x^3y^3) - (10x^3y^3 + 7y^4 - 9x^4y^2) - (9x^3y^3 - 11y^4)$

9) $(-4m^2n^2 + 6m^2n^4) + (m^2n^4 - 8m^4n - 13m^3n^4) - (-11m^3n^4 - 6m^2n^4)$

10) $(10 + 8x^2y^4) + (12x^2y^4 - 2 + 6x^2y) - (-x^2y^4 + 6x^2y)$

11) $(-6b^4 + 9a^2) + (-10b^4 - 8a^2b^4 + 5a^2) - (-2b^4 - 14a^2)$

12) $(4x^2y^2 + 7x^2) - (-14x^2y + 3y - 12x^2) + (2x^2y - 4y)$

13) $(m^4 - 8m^2n^2) - (3m^4 - n^3 + 4m^2n^2) + (-4m^4 + 10m^2n^2)$

14) $(12x^2 + 2y) - (-9x^4y^2 - 7x^2 + 3y) - (10x^4y^2 - 6xy^4)$

15) $(6x^3y^4 - 5x^4y^3) - (11x^4y^3 + 8x^3y^4 + 11xy^3) + (3xy^3 - 7x^4y^3)$