

Homework #2 - Adding and Subtracting Polynomials

Date _____ 5K _____

Add and/or subtract the polynomials. Make sure your answer is in descending order.

1) $(x - x^4 + 8x^3) - (7x^2 - x^3 + x^4)$

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

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

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

5) $(6k^3 + 6k^4 - 4k + 3k^2) - (k^4 - 8 - k^3 - 5k)$

6) $(3.7p^2 - 5.3p^3) + (2.2p^2 - 5p^3)$

7) $(4.92 + 6n^2 + 2.71n) - (2.7n + 2.6n^2)$

8) $(v^4 - 3.1 + 5v) + (8v^4 - 7.4) - (5.6v^4 + 5.28)$

9) $(3x^2 - 3x^3) + (4x^2 - 7x^3 - 8x^4 + 3) + (6x^3 + 8)$

10) $(k^3 - 7 + 8k) + (5k + 5k^3 - 7)$

11) $\left(\frac{2}{3}x^4 - \frac{12}{7}\right) + \left(\frac{5}{8} + \frac{1}{2}x\right)$

Add and/or subtract the polynomials. No need to put these in descending order.

12) $(-7x^2y - 6xy) - (x^2y - 4y^4)$

$$13) (3x^4y - 2x^4y^3 - 1) - (-8x^4y - 4) + (6 - 5x^4y^3)$$

$$14) (x^2y^4 - 4x^4y^3) + (6x^2y + 2x^2y^4 - 3x^4y^3)$$

$$15) (-6x^2y^2 - 7x^3y + 7x^3y^2) + (-3x^3y + xy^3 - 7x^2y^2 + 5x^3y^2) + (4xy^3 + 8x^4y^3 + 5x^3y^2)$$

$$16) (n^3 - 8n + 5mn^3) + (7 + 5n^3 + 4mn^3) + (8n^3 - 1 - 4n)$$

Add and/or subtract the polynomials. Make sure your answer is in descending order.

$$17) (22n - 95n^2 + 79n^4) + (2n + 43n^4 + 14n^2) - (55n + 78n^4)$$

$$18) (48k^2 - 96k - 72k^3 - 79) - (58k^2 - 61 + 99k - 22k^3) + (45 + 62k - 88k^3 - 23k^2)$$

Subtract the polynomials. First write the algebraic expression.

$$19) \text{ Subtract } 8k + 2 + k^3 \text{ from } 2k - k^3 + 4$$

$$20) \text{ Subtract } 2 - 5r - 5r^3 - 8r^2 \text{ from } 7 - 2r$$

$$21) \text{ Subtract } 6n^2 - 5n^3 - 5 \text{ from } 3n^2 - 4n^3 - 2$$

$$22) \text{ Subtract } 7x^2 + 8x \text{ from } x^2 - 2x$$