

Simplify

$$1) \quad \underline{12x} - \underline{3x^2} + \underline{4x} - \underline{5x^3} - \underline{x^2}$$

$$16x - 4x^2 - 5x^3$$

$$\underline{-5x^3 - 4x^2 + 16x}$$

$$2) \quad \underline{17xy} - \underline{14y} + \underline{3yx} - \underline{1xy^2}$$

$$\underline{xy^2 + 2yx + 14y}$$

$$\underline{17yx} - \underline{14y} + \underline{3yx} - 1xy^2$$

Homework Questions?

Example 4: Subtract Polynomials

Find the difference. Write the answer in standard form.

$$(11x^4 + x^3 - x + 5) - (x^4 + x^2 + 2x + 8)$$

$$11x^4 + x^3 - x + 5 + x^4 + x^2 - 2x - 8$$

$$12x^4 + x^3 + x^2 - 3x - 3$$

Try It Find the sum or difference.

$$1. (2x^6 - x^5 + 3x^3 - 14x^2 + 13) + (7x^5 - x^4 + 9x^3 + 13x^2 + 2)$$

$$2x^6 + 6x^5 - x^4 + 12x^3 - 1x^2 + 15$$

$$2. (3x^5 + 7x^3 - 13x^2 - 10x + 9) - (x^5 + 4x^4 + 11x^2 - 2x + 7)$$

$$\underline{3x^5} + \underline{7x^3} - \underline{13x^2} - \underline{10x} + \underline{9} - \underline{x^5} + \underline{4x^4} - \underline{11x^2} + \underline{2x} - \underline{7}$$

$$2x^5 + 4x^4 + 7x^3 - 24x^2 - 8x + 16$$

Summary

EQ: What is the difference between naming polynomials by degree vs. by terms?

look at
Highest
Exponent

look at
terms

monomial (1)
binomial (2)
trinomial (3)
polynomial (4+)

10.1 Homework

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