Do Now

Simplify

1) $8x + 2 - 7x - 8$

$x - 6$

2) $4x^2 - 8x + 2x - 7x^2 + 4$

$-3x^2 - 6x + 4$

Mar 3-10:15 AM

Homework Answers

1. Terms: 7x, -8, -4x, 8

Like Terms: 7x & -4x; -8 & 8

Coefficients: 7, -4

Constants: -8, 8

2. Terms: 15a, 6b, -6a, -9b

Like Terms: 15a & -6a, 6b & -9b

Coefficients: 15, 6, -6, -9

Constants: None

3. Terms: 6x, -18, 2x, 5

Like Terms: 6x & 2x; -18 & 5

Coefficients: 6 & 2

Constants: -18 & 5

1) x + 8

2) 7w - 16

3) -x - 6y + 3

4) 13x - 10

5) -x

6) 13x + 18

7) -x - 3y - 6

8) 5b - 7c + 9

9) 0

10) 9y - 4 $-5y - 4$

Mar 9-6:56 AM

Classifying Polynomials and Polynomial Operations

Naming polynomials and performing operations with them

POLYNOMIALS

Definition: an expression with several terms separated by addition and subtraction

Standard form: must be written in alphabetical order, highest exponents first

Example: $2x^3 + 5x^2 - 4x + 7$

* The highest exponent is called the degree

DEGREE	
0	Constant
1	Linear
2	Quadratic
3	Cubic
4	Quartic

NUMBER OF TERMS	
1	Monomial
2	Binomial
3	Trinomial
4 or more	Polynomial

Oct 21-8:22 AM

Classify the polynomial according to its degree and number of terms:

1) $7x + 1$ — 2 terms, Binomial; Degree = 1, Linear

2) $w^2 + 2w - 5$ — 3 terms, Trinomial; Degree = 2, Quadratic

3) $4a^3 - 8$ — 2 terms, Binomial; Degree = 3, Cubic

4) $2x^4 - 7x^2 - 5x + 1$ — 4 terms, Polynomial; Degree = 4, Quartic

Sep 16-1:10 PM

Write the following polynomials in standard form:

1) $\cancel{b^2} + \cancel{64} - \cancel{b} + \cancel{7b^3}$ $7b^3 + b^2 - b + 64$

2) $y^3 + 5y^2 + 28 - 4y$ $y^3 + 5y^2 - 4y + 28$

3) $24 - n^3 + n$ $-n^3 + n + 24$

4) $13 - 3xy + 5y^2 - 7x^2y^2$ $-7x^2y^2 - 3xy + 5y^2 + 13$

Oct 21-8:33 AM

- **To ADD polynomials,** drop parenthesis
  Combine like terms

$(3x^2 + 5x - 4) + (2x^2 - 7x + 1)$

$3x^2 + 5x - 4 + 2x^2 - 7x + 1$

$5x^2 - 3 - 2x$

$\boxed{5x^2 - 2x - 3}$

Oct 21-8:39 AM

Find the sum. Write your answers in standard form

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

$6x^2 + 4x + 8$

3) $(3p^2 + 1) + 6(p^2 - 8) + (p^2 + 2)$

$3p^2 + 1 + 6p^2 - 48 + p^2 + 2$

$10p^2 - 45$

Oct 21-8:40 AM