Name:_____ Hour: _____ Date: _____

NOTES: Section 10.1 – Adding and Subtracting Polynomials

Goals: #1 - I can add and subtract polynomials.   😎   😬   😢

Homework: Section 10.1 Worksheet

Notes:

A _____ is an expression that is either a number, a variable, or

the product of a number and one or more variables.
        Examples:

A _____ is a monomial or a sum of monomials.
        Examples:

- A _____ is the sum of two monomials.
        Examples:

- A _____ is the sum of three monomials.
        Examples:

A polynomial function is in _____

if its terms are written in descending order of exponents form left to right.

The _____ of a polynomial is the _____ exponenet of that variable.

Common Polynomial Functions			
Polynomial	**Degree**	**Type**	**Identified By Number of Terms**

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Example #1: Identify the polynomial by degree and number of terms.

1. $8x$ 2. $10x - 5$ 3. $4 - 4x + x^2$

Example #2: Write the polynomial in standard form.

1. $-2x + 5x^3 - 6$ 2. $8 + 5y^2 - 3y$ 3. $-4b^2 + 7b^3$

You practice:

1. Identify the polynomial by degree and number of terms.
   a. $20m^3$ b. $-2x + 5x^2 - 6$

2. Write the polynomial in standard form.
   a. $x - x^3 + 3x^2 + 9$ b. $x - 3x^4 + 1$

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Notes:

To _____ or _____ polynomials, simply combine _____.

Example #3: Add or subtract the following polynomials.

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

2. $(2x^2 + x - 5) + (x + x^2 + 6)$

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

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

Example #3: Add or subtract the following polynomials.

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

2. $(12x - 8x^2 + 6) - (-8x^2 - 3x + 4)$