-Notes 7.1 Polynomials

_____: an expression that is a number, a variable, or a number and variable multiplied together.

Examples:
12   y   -5x²y   3y

_____: found by adding the exponents of only the variables.

Find the degree of each:
4x³y²   5m²c   12x⁷m⁵p   15

_____: two or more monomials being added or subtracted

Examples:

$3x^4 + 5x^2 - 7x + 1$ $\qquad$ $4y^5 - 6y^3 + 2y$

The degree of a polynomial is the degree of the largest monomial. What degree do these polynomials have?

polynomial	Degree	Name by Degree	Terms	Name by Terms
$7x + 4$				
$3x^2 + 2x + 1$				
$4x^3$				
$9x^4 + 11x^3 - 5x + 9$				
5				

_____ two monomials being added or subtracted

Examples:

$7x - 2$ $\qquad$ $3x^2 - 4x$ $\qquad$ $5m^3 + 12m$

What degree does each binomial have?

_____ three monomials being added or subtracted

Examples:

$3x^2 + 2x - 5$ $\qquad$ $-7x^4y^2 + 6x^2y - 10x$

What degree does each trinomial have?

Standard Form of a Polynomial: we order the monomials from left to right based on their degrees.

Write the following polynomials in Standard Form:

$6x^2 + 7 - 9x^4$

$3y - 4 - y^3$

$8 + 7m$

$-10 + 4p^4 - 8p + 3p^2$