PRINCIPLES - LESSON 11A
CLASSIFYING, ADDING, & SUBTRACTING POLYNOMIALS

Definitions

"mono" =

monomial =

"poly" =

polynomial =

CLASSIFYING POLYNOMIALS BY NUMBER OF TERMS

# of terms	Polynomial	Name by # of terms
1	$4xy$	
2	$4xy + 3$	
3	$x^2 + 3x - 4$	
4	$r + x^2 + 3x - 4$	
5	$5z^2 + 3n - 2x + 11y + 6$	
6	$a + b - c + d - e + f$	

Remember: terms are separated by "+" or "-" signs.

CLASSIFYING POLYNOMIALS BY NUMBER OF TERMS

Classify each polynomial by the number of terms it contains.

ex1) $3x^4 - 27$

ex2) $abcd$

ex3) $8k^5 - 2k^4 + 3k^2 + 2k^3 - k$

ex4) $2x^2 - 5x + 2$

DEGREE OF A POLYNOMIAL

The degree of a polynomial with a single variable is equal to the highest exponent on a variable within the polynomial.

State the degree of each polynomial.

ex5) $2y^3 + 4y$

ex6) $4r^2 + 4r^3 - 3r + 5r^4$

ex7) $2g^3 - 9g^7 + 8$

ex8) $n + 2$

CLASSIFYING POLYNOMIALS BY DEGREE

Degree	Polynomial	Name by degree
0	7	
1	$3x + 4$	
2	$x^2 + 3x - 4$	
3	$y^3 - 1$	
4	$3j^4 - 2j^3 - 5$	
5	z^5	

CLASSIFYING POLYNOMIALS

Classify each polynomial by both degree and the number of terms it contains.

ex9) $n - 7$

ex10) 5

ex11) $8k^5 - 2k^4 + 3k^2$

STANDARD FORM OF A POLYNOMIAL

To write a polynomial in standard form means to write each term from left to right from the greatest exponent to the least.

Standard form is sometimes called descending order.

Write each polynomial in standard form.

ex12) $3a^2 + 2 - 2a^5$

ex13) $4r^2 + 4r^3 - 3r + 5r^4$