

Vocabulary

Polynomial – An expression that can be written in the form $ax^n + bx^{n-1} + cx^{n-2} + \dots + z$

** Coefficients must be _____

** Exponents must be _____

<u>Polynomial</u>	<u># of Terms</u>	<u>Degree</u>	<u>Not Polynomials!!</u>
$25x^3 + 10x^2 - 3x + 5$			$\log x$
$172x^{99}$			\sqrt{x}
7			$\frac{5}{x+2}$
$x - 12$			
$\sqrt{6}x^5 - \frac{3}{2}x^7$			

Term – An expression that can be written _____

Degree – The value of the _____

Standard Form – Terms are in order from highest degree to lowest degree

Leading Coefficient – Coefficient of the _____

Constant Term – Number by itself (no x , degree 0)

Example: $10x^2 + 5 + 3x + 25x^3$

Roots – The zeros of a function (the ___-values when _____)

Finite Differences

Example #1:

x	y
-1	7
0	10
1	13
2	16
3	19

Example #2:

x	y
3	0
4	2
5	5
6	9
7	14
8	20

Example #3:

x	y
-4	0
-2	16
0	-24
2	-72
4	-80
6	0