

Vocabulary

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

** Coefficients must be real #s

** Exponents must be whole #s & positive
0, 1, 2, 3, ...

<u>Polynomial</u>	<u># of Terms</u>	<u>Degree</u>	<u>Not Polynomials!!</u>
$25x^3 + 10x^2 - 3x + 5$ <i>constant term</i>	4	3	$\log x$
$172x^{99}$	1	99	\sqrt{x} $x^{1/2}$
$7x^0$ <i>constant term</i>	1	0	$\frac{5}{x+2}$
$x^4 - 12$ <i>constant term</i>	2	1	
$\sqrt{6}x^5 - \frac{3}{2}x^7$ $-\frac{3}{2}x^7 + \sqrt{6}x^5$ <i>leading coeff.</i>	2	7	

Term – An expression that can be written ax^n ex. $3x^2, 2x, 9$

Degree – The value of the highest exponent "the degree is..."

Standard Form – Terms are in order from highest degree to lowest degree *big exponent → small exp.*

Leading Coefficient – Coefficient of the highest degree ($-\frac{3}{2}$ ex.)

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

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

Roots – The zeros of a function (the x -values when $y=0$)

