6.1 Polynomial Functions

Monomial - one term.
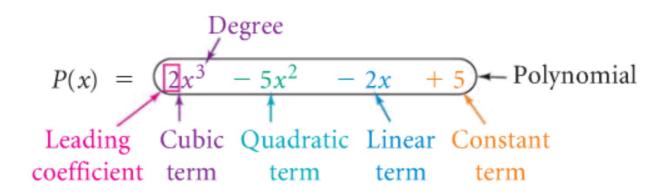**Binomial - two terms.**
Trinomial - three terms.
Polynomial - many terms.

Degree - the exponent of a term.
(In a polynomial terms are listed in *decending* order by the degree.)

Degree of a Polynomial - (used to classify polynomials) the largest degree of any term of a polynomial.

*Standard form of a polynomial is written in decending degree order.

Degree

$$P(x) \ = \ 2x^3 \ - 5x^2 \ - 2x \ + 5 \leftarrow \text{Polynomial}$$

Leading   Cubic   Quadratic   Linear   Constant
coefficient   term   term   term   term

Degree	Name Using Degree	Polynomial Example	Number of Terms	Name Using Number of Terms
0	constant	6	1	monomial
1	linear	$x + 3$	2	binomial
2	quadratic	$3x^2$	1	monomial
3	cubic	$2x^3 - 5x^2 - 2x$	3	trinomial
4	quartic	$x^4 + 3x^2$	2	binomial
5	quintic	$-2x^5 + 3x^2 - x + 4$	4	polynomial of 4 terms