

Monomial - an expression that is a Number<sup>a</sup> variable or a product of a number and one or more variables

12 y - 5x<sup>2</sup> y <sup>4/3</sup>  
 - a monomial or the sum or difference of two or more monomials

6x + 5 8y - 5 + 13y

Simplify each expression.

a)  $6x + 13x$  19x  
 b)  $2h - 6 + 9h$  11h - 6  
 c)  $4n^2 - 7n^2$   $-3n^2$

d)  $-2x + 8x^2$   $x^3 + 5x^2$

f)  $(5w^2 + 3w) - (2w^2 + w - 4)$   
 $5w^2 + 3w - 2w^2 - w + 4$

$3w^2 + 2w + 4$

degree 4

$3x^4 + 5x^2 - 7x + 1$

degree 4  
 4 2 1 0  
 ↑ ↑ ↑ ↑  
 standard form

The polynomial shown above is in standard form which means that the degree of its monomial terms decrease from left to right.

The degree of a polynomial in one variable is the same

As the degree of the monomial with the greatest exponent

Fill in the following chart. Polynomial Degree Name Using Degree # of Terms N

Fill in the following chart.

Polynomial	Degree	Name Using Degree	# of Terms	Name Using Number of Terms
5	0	constant	1	Monomial
7x + 4	1	Linear	2	Binomial
3x <sup>2</sup> + 2x + 1	2	Quadratic	3	Trinomial
4x <sup>3</sup>	3	cubic	1	Monomial
9x <sup>4</sup> - 2x <sup>2</sup> + x <sup>2</sup> - 11x	4	quartic	4	
2x <sup>5</sup> + x <sup>2</sup>	5	quintic	2	Binomial