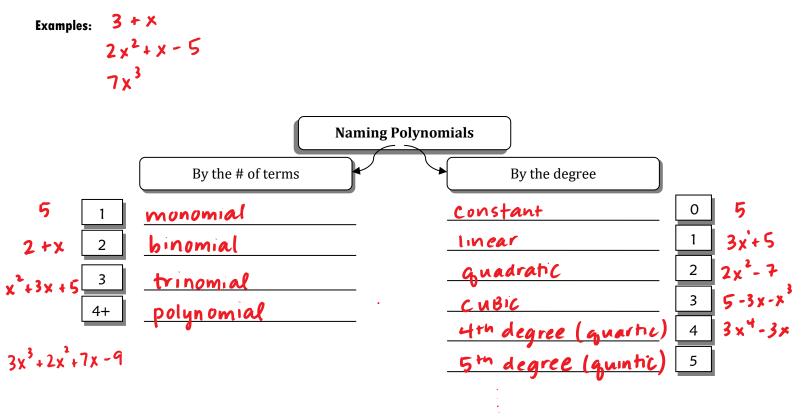


## **An Introduction to Polynomials**

**Monomial:** is a number, variable, or the product of a number and one or more variables with whole number exponents (a monomial will never have addition, subtraction, division, or a negative exponent) (matters)

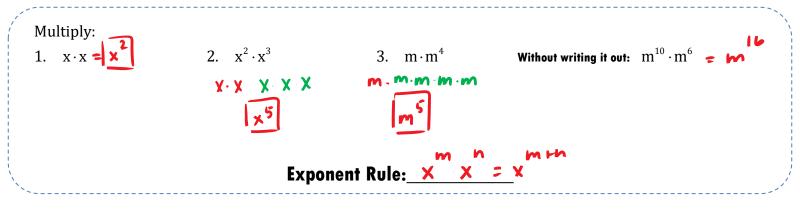


**Polynomial:** is a monomial or sum/difference of monomials, each called a *term* of the polynomial

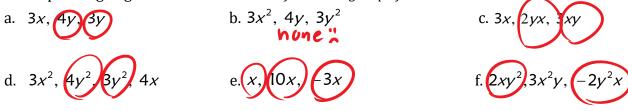


## Fill out the following table :

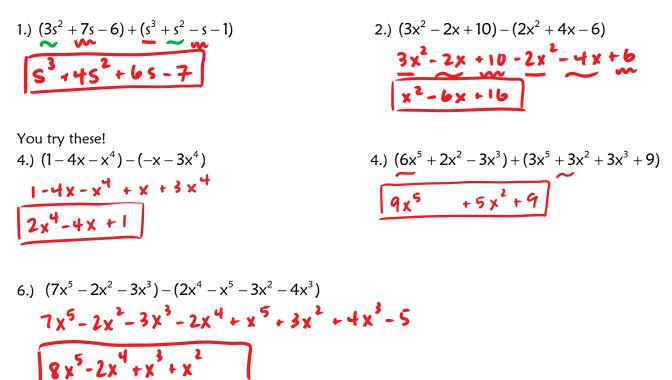
	Polynomial	Standard Form	Leading Coefficient	Name by Degree	Name by # of Terms
1.	$x - 3x^3 + 2x^2 + 7$	$-3x^{3}+2x^{2}+x+7$	- 3	CUBIC	polynomial
2.	4w - 6w <sup>2</sup>	$-6w^{2}+4w$	-6	quadratic	binomial
3.	5+ y	y+5	I	linear	binomial
4.	$3y^5 - 7y + 1$	3y <sup>5</sup> -7y +1	3	5th degree	trinomial
5.	7	7	7	constant	monomial
6.	** 5x <sup>2</sup> y <sup>3</sup>	5x²y³	5	2+3=5 5th	monomial
L			1	d cgr ce	



Like Terms: A "term" is a monomial. Like terms must have the same variables with the same corresponding degree. *Circle the like terms from each group of terms.* 



Simplify: Combine Like Terms. Write your answer in decreasing order (standard form).



Be the teacher: Your mom is an Algebra teacher, and you are helping her grade papers. Correct this student's work: Classify the following polynomials. Name each polynomial and identify the degree and leading coefficient. 1)  $7s - 3s^2 - 6$ 

Monomial trinomial Dearee: 2 Leading Coefficient: 🗙 - 3 2)  $5x^4 - 3x^6$ 

Trinamial binomial Degree: -3 6 Leading Coefficient: & - 3