

10.1 Adding + Subt.
Polynomials

April 16, 2007

Monomial: a number, a variable,
or any combination of
a number with 1 or more variables.

1, a, 1a, -1ab, 2ab²

Polynomial: a monomial or the
sum of monomials.

5x² + 3x - 4xy²

Degrees of Monomials:

Recall: $8^0 = 1$
 $x^0 = 1$

$$8 \cdot x^0 = 8 \cdot \underline{1} = 8 \quad \underline{\underline{\text{Constant}}}$$

$$5x \quad \underline{\underline{\text{Linear}}}$$

$$5x^2 \quad \underline{\underline{\text{Quadratic}}}$$

$$7y^3 \quad \underline{\underline{\text{Cubic}}}$$

Standard form of Polynomials

- The Monomial (term) with the Largest Degree goes First!

→ But in A, B, C order.

$$\cancel{5xy} + \cancel{5x} + 7y$$

$$5x + 5xy + 7y$$

$$\cancel{7x^2} - 3xy + \cancel{4x^3} - \cancel{5xy^2}$$

$$\underline{\underline{4x^3 + 7x^2 - 5xy^2 - 3xy}}$$

Identifying Polynomials:

Poly	Degree	# of Terms
7	<u>Constant</u>	<u>Monomial</u>
$7x - 2$	<u>Linear</u>	<u>Binomial</u>
$4y^2 - 3y + 5$	<u>Quadratic</u>	<u>Trinomial</u>
$7a^3 + 10$	<u>Cubic</u>	<u>Binomial</u>

$$8x$$

Linear Monomial

$$10x - 5$$

Linear Binomial

$$x^2 - 4x + 4$$

Quadratic Trinomial

$$-24 - x$$

Linear Binomial



→ This is Not in S.F.

$$\underline{\underline{-x - 24}}$$

O.T.L.

pg 571 : 1-8 (all)

24-32 (all)