

2.3 Polynomials

Refer to second half of the Handout: "Algebraic Expressions", for definitions.

Do P. 54 Act. 1 and read the green box that follows.

A **POLYNOMIAL** is the sum or difference of many unlike **MONOMIALS**.

Write the terms in decreasing order of degrees.

Ex: $12x^7 + 6x^4 - 7x^2 + 7$

1

P(x) is just the notation to name the polynomial

Ex 1: Simplify:

$$P(x) = 2x^2 + 5x^3 + 3x + 6 + 3x + 4x^2 + 7 - 5x^3$$

Ex 2: Evaluate the above trinomial for $x = 2$

(ie. Evaluate $P(2)$)

$$P(2) =$$

2

Ex 3: Rewrite each polynomial and give its degree.

a) $4xy^2 + 3x^2y^2$

b) $2 - 5y^2 + 6y$

Ex 4: If $P(x,y) = -3x^2y + 2xy^2 - 2x + 3y - 5$; evaluate

$$P(-2,1)$$

3

Ex 5: A mother is 5 times as old as her daughter.

a) If the girl is x years old, how old is the mother?

b) How old will each be in 13 years?

	Mother	Girl
Now		
In 13 years		

c) What will their total age be in 13 years?

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Practice:

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(6,9,11,12 all, the rest a,c only)



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