**Lesson 2**

**AN4** Demonstrate an understanding of the multiplication of polynomial expressions (limited to monomials, binomials and trinomials), concretely, pictorially and symbolically

Multiplying Binomials & Trinomials

The distributive property can also be used to multiply binomials by trinomials and trinomials by trinomials.

Example:

 (x + 3) ( 2x2 +3x -4)

x ( 2x2 + 3x -4) + 3( 2x2 + 3x -4) Both terms of the binomial are multiplied by the trinomial

2x3 + 3x2 -4x + 6x2 + 9x -12

2x3 +3x2 + 6x2 -4x +9x -12 Put like terms together

2x3 + 9x2 +5x -12

Two trinomials can also be multiplied using the distributive rule

Example:

(x2 -2x -5)( -3x2 + 7x -2)

X2( -3x2 + 7x -2) -2x (-3x2 + 7x -2) -5( -3x2 +7x -2)

-3x4 + 7x3 – 2x2 + 6x3 -14x2 + 4x + 15x2 -35x + 10

-3x4 +7x3 + 6x3- 2x2 -14x2 + 15x2 +4x -35x + 10 (Put Like Terms together)

-3x4 + 13x3 – x2 -31x + 10

Practice Questions from textbook- p.186 #8,9 13 & 14