

# Multiplying Polynomials

Eg 1)

$$(x+3)(x-1)$$

\* Distributive Property

$$= x^2 - x + 3x - 3$$

$$= x^2 + 2x - 3$$

2)

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

$$= 6x^2 - 8x + 9x - 12$$

$$= 6x^2 + x - 12$$

3)

$$2(x+7)(x-4)$$

$$= 2(x^2 - 4x + 7x - 28)$$

$$= 2(x^2 + 3x - 28)$$

$$= 2x^2 + 6x - 56$$

4)

$$(2x+1)(x^2-3x+4)$$

$$= 2x^3 - 6x^2 + 8x + x^2 - 3x + 4$$

$$= 2x^3 - 5x^2 + 5x + 4$$

5)

$$(2x^2+3x-1)(x^2-4x+5)$$

$$= 2x^4 - 8x^3 + 10x^2 + 3x^3 - 12x^2 + 15x - x^2 + 4x - 5$$

$$= 2x^4 - 5x^3 - 3x^2 + 19x - 5$$