Algorithm to add two polynomials together.

1. Check which Polynomial has the highest degree.

2. Create a new Poly with highest possible degree.

3. Copies highest degree polynomial to new Poly.

4. Adds coefficients from smaller degree polynomial to new Poly.

Algorithm to multiply two polynomials together

1. Adds the highest degrees from both polynomials to store highest degree of new Poly.

2. Creates a new Poly of highest degree possible.

3. Use nested for loops to multiply the terms together and add exponents.

Algorithm to Evaluate a Polynomial at a given x value.

1. Plugs an x value into the polynomial and outputs the result as a float variable.

2. Use nested for loops to raise the x value to exponent.

3. Multiply the result by the coefficient and store the result.

Create Poly P1: -4x^5 +7x^4 -10x^3 +5x^2 +2x^1 +3x^0

Create Poly P2: 6x^7 -3x^6 +9x^5 -7x^4 +2x^3 +8x^2 -4x^1 +5x^0

Evaluate Poly P1 at x=2: -4x^5 +7x^4 -10x^3 +5x^2 +2x^1 +3x^0 =-69.000000

Add Polys:(-4x^5 +7x^4 -10x^3 +5x^2 +2x^1 +3x^0 )+(6x^7 -3x^6 +9x^5 -7x^4 +2x^3 +8x^2 -4x^1 +5x^0 )

Result:=(6x^7 -3x^6 +5x^5 0x^4 -8x^3 +13x^2 -2x^1 +8x^0 )

Multiply Polys:(-4x^5 +7x^4 -10x^3 +5x^2 +2x^1 +3x^0 )(6x^7 -3x^6 +9x^5 -7x^4 +2x^3 +8x^2 -4x^1 +5x^0)

Result:=(-24x^12 +54x^11 -117x^10 +151x^9 -150x^8 +109x^7 +26x^6 -105x^5 +98x^4 -48x^3 +41x^2 -2x^1

+15x^0 )