<u>Adding Polynomials</u>

Steps:

1. Write each polynomial in standard form.

2. Combine like terms using ***one*** of two possible methods:

    a. If adding ***horizontally***, group like terms together.

    b. If adding ***vertically***, line up like terms.

3. Add the coefficients.

*Like terms are terms whose variables **and** their exponents are the same.*

Example: $(-7x^2 - 180x + 5800) + (21x^2 - 140x + 1900)$

> **Adding Horizontally:**

> > > > Group like terms together.
> > > > Add the coefficients.

> **Adding Vertically:**

> > > > Line up terms vertically.
> > > > Add the coefficients.

<u>Subtracting Polynomials</u>

Steps:

1. Write each polynomial in standard form.

2. Distribute the negative sign to each term in the 2nd set of parenthesis.

3. Combine like terms by adding horizontally or vertically.

4. Add the coefficients.

Example: $(x^3 - 3x^2 + 5x) - (7x^3 + 5x^2 - 12)$

> > > > Distribute the negative sign.

> **Adding Horizontally:**

> > > > Group like terms together.
> > > > Add the coefficients.

> **Adding Vertically:**

> > > > Line up terms vertically.
> > > > Add the coefficients.