

## MAT0028 ~ Lesson 26

Work the following examples as you listen to the recorded lecture.

### Adding and Subtracting Polynomials

**Remember:**

Terms are separated by addition and subtraction signs.

The number of terms determines the name of the polynomial.  
For example, binomials have 2 terms and trinomials have 3 terms

The largest exponent determines the degree of the polynomial.  
For example, if the largest exponent is 3, it is a third degree polynomial.

Example 1:

$$9x - 20x$$

Example 2:

$$14x^2 + 9x^2$$

Example 3:

$$15x^2 - 3x^2 - x$$

Example 4:  $6a^2 - 4ab + 7b^2 - a^2 - 5ab + 9b^2$

Example 5:  $(2x + 5) - (3x - 9)$

Example 6:  $(x^2 + 2x + 1) - (3x^2 - 6x + 2)$

Example 7:  $(5u^5 - 4u^2 + 3u - 7) - (3u^5 + 6u^2 - 8u + 2)$

Example 8:  $(7x^2 + 2x - 9) + (-3x^2 + 5)$