

Lesson 2 - Adding and Subtracting Polynomials

Mathematical operations with polynomials involves the concept of like terms. You have to know the definition of like terms!!

Simplify each by collecting the like Terms:

$$m^2 - 17 + 3m^2 - 12$$

$$-a^2 + 14a - a^2 + 8 - 6a + 3 + 2$$

$$3g + 12 - 32 + 2g^3 - 2$$

Adding Polynomials:

You can add horizontally or vertically.

$$(3b^3 - 12) + (-2b^3 + 11b^2 + 21) =$$

Horizontally is what we have been doing:

Vertically:

$$(3b^3 - 12) + (-2b^3 + 11b^2 + 21) =$$

-stack like terms above each other

-keep the operation (+ or -) with the term it precedes.

Subtracting Polynomials:

Again, you can subtract horizontally or vertically. Be careful of the change in signs subtraction may cause!!!

$$12m^2 + 3m - 7 - (-6m^2)$$

$$(12h^2 + 2h - 11) - (-4h^2 + 5h - 3) =$$

$$(12h^2 + 2h - 11) - (-4h^2 + 5h - 3) =$$

Remember the following:

- Keep the sign (+ or -) with the term it precedes
- Pay attention to how the sign of the terms would change when subtracting
- Remember there is a hidden 1 (either + or -) outside every bracket. It gets distributed **TO ALL TERMS**