

Subtracting Polynomials

The subtraction of polynomials is basically the same as the addition of polynomials, with one exception (you have to deal with the subtraction sign). We accomplish this by remembering how to subtract signed numbers – change the subtraction to addition and change the sign of everything after the minus sign.

Ex.

$$\begin{aligned}(3x^2 + 2x + 4) - (-2x^2 + 3x + 1) & \quad \text{change to} \\ (3x^2 + 2x + 4) + (2x^2 - 3x - 1) & \quad \text{combine like terms} \\ (3x^2 + 2x^2) + (2x - 3x) + (4 - 1) & \quad \text{perform operations} \\ 5x^2 - 1x + 3 & \end{aligned}$$

Ex.

$$\begin{aligned}(3xy - 4y + 3xz) - (3y - 3xy + xz) & \quad \text{change to} \\ (3xy - 4y + 3xz) + (-3y + 3xy - xz) & \quad \text{combine like terms} \\ (3xy + 3xy) + (-4y + 3y) + (3xz - xz) & \quad \text{perform operations} \\ 6xy - y + 2xz & \end{aligned}$$