

7-2 Adding and Subtracting Polynomials

1. Write each polynomial in parentheses.
2. SUM = add
DIFFERENCE = subtract
3. Apply the Distributive Property
4. Combine like terms
5. Write in standard form.

EXAMPLES:

$$x^2 + 5x - 4$$

$$2x^2 - 11x + 9$$

1. Find the sum of the polynomials above.

$$\begin{aligned} & 1(x^2 + 5x - 4) + 1(2x^2 - 11x + 9) \\ & \cancel{x^2} + 5x - 4 + \cancel{2x^2} - 11x + 9 \\ & \boxed{3x^2 - 6x + 5} \end{aligned}$$

2. Find the difference of the polynomials above.

$$\begin{aligned} & 1(x^2 + 5x - 4) - 1(2x^2 - 11x + 9) \\ & \cancel{x^2} + 5x - 4 - \cancel{2x^2} + 11x - 9 \\ & \boxed{-x^2 + 16x - 13} \end{aligned}$$