

6.1 Adding & Subtracting Polynomials

Recall: 3 cases for removing parentheses:

★ Look at what is DIRECTLY in front of ()

1. $+$ → drop the parentheses
keep the signs
2. $-$ → drop the parentheses
change sign of each item in that ()
3. # or letter → distribute

Examples: Simplify.

$$1. \quad (3ab + 5b) - (ab + 4ab) - 2b$$
$$6ab + 3b$$

$$2. \quad (3x^2 - 6x + 5) + (6x^2 + 10x + 8)$$
$$(3x^2 - 6x + 5) + (6x^2 + 10x + 8)$$
$$9x^2 + 4x + 13$$

$$3. \quad (4y^2 + 2y - 3) - (2y^2 - 5y - 3)$$

change signs - IT'S GONE
NOT THE SAME SIGN

$$(4y^2 + 2y - 3) - (2y^2 - 5y - 3)$$
$$4y^2 + 2y - 3 - 2y^2 + 5y + 3$$
$$2y^2 + 7y$$

$$4. \quad (x^2 - x - 9) - (-2x^2 + x + 4)$$
$$(x^2 - x - 9) + (2x^2 - x - 4)$$
$$3x^2 - 2x - 13$$

$$5. \quad (2x^4 + 8x^3 + 4x^2 + 1) - (4x^4 - 5x^3 - x + 1)$$
$$(2x^4 + 8x^3 + 4x^2 + 1) - (4x^4 - 5x^3 - x + 1)$$
$$-2x^4 + 13x^3 + 4x^2 + x$$

★ Start with inner most ()

$$6. \quad m - [2 - (2 - m)]$$
$$m - [2 - 2 + m]$$
$$m - 2 + 2 - m$$
$$0$$

$$7. \quad 4x^2 - [2x^2 - (3x^2 - 6x - 7)]$$
$$4x^2 - [2x^2 - 3x^2 + 6x + 7]$$
$$4x^2 - 2x^2 + 3x^2 - 6x - 7$$
$$5x^2 - 6x - 7$$

HOMEWORK

Worksheet - HW 6.1

Add & Subtract Polynomials