

A. Adding Polynomials

When adding polynomials, remove the brackets then collect _____ to simplify.

Example 1: Simplify.

a) $(3x + 2) + (5x + 3)$

b) $(-3n + 5) + (n - 4)$

c) $(6r + 5) + (4r - 1) + (-3r - 2)$

Note: You cannot add the $8x$ with the 5 since they are not like terms... you may not simplify $8x + 5$ any further.

B: Subtracting Polynomials

When subtracting polynomials, we _____ the _____.

Opposites add to give 0.

So, the opposite of 5 is _____.

The opposite of $-4x$ is _____.

Example 2: State the opposite of each polynomial.

Polynomial	Opposite
$3x^2 + 2x - 1$	
$-4x^3 + 2x^2 - 1$	
$(-3r^2 + 4r + 6)$	

Example 3: Simplify.

a) $(6r + 5) - (4r + 1)$

b) $(4d - 1) - (-1 - 3d)$

c) $(6m^2 - 5mn - 5n^2) - (-6m^2 + 4mn - 7n^2)$

Is $4 + 2r$ the same or different from $2r + 4$? ... They are _____ ... But, we usually write polynomials with the variable term first.