

MPM 1DI

Unit 2 Polynomials

Day 6 - Simplifying Polynomials Part II (Adding and Subtracting Polynomials)

Adding and Subtracting Polynomials

Part 1 - Adding Polynomials

When adding polynomials, remove the brackets, collect like terms, then simplify.

Example #1: Simplify

1. $(3x + 2) + (5x + 3)$

2. $(-3n + 5) + (n - 4)$

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

Part 2 - Subtracting Polynomials

When subtracting polynomials, we add the opposite.

Opposites add to give 0.

So the opposite of 5 is -5.

The opposite of $-4x$ is $4x$.

Example #2: State the opposite of each of the following polynomials.

1. $3x^2 + 2x - 1$

2. $-4x^3 + 2x^2 - 1$

3. $(-3r^2 + 4r + 6)$

Example #3: Simplify

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

2. $(4d - 1) - (-3d - 1)$

3. $(6m^2 - 5mn - 5n^2) - (-6m^2 + 4mn + 7n^2)$