

Chapter 09

ALGEBRAIC EXPRESSION & IDENTITIES

Subtraction of Algebraic Expressions:

In order to subtract an algebraic expression from another, we change the signs (from '+' to '-' (or) from '-' to '+') of all the terms of the expression which is to be subtracted and then the two expressions are added.

Example:

Subtract $4x^2 - 5x - 3$ from $6 + x - 2x^2$.

Solution:

Step- 1:

Writing the given expressions in descending powers of 'x' in the form of rows with like term below each other.

$$\begin{array}{r}
 -2x^2 + x + 6 \\
 4x^2 - 5x - 3 \\
 \hline
 \end{array}$$

$\begin{matrix} (-) & (+) & (+) \end{matrix}$

Step- 2:

Change the signs.

Step- 3:

Simplify like terms.

$$\begin{array}{r}
 -2x^2 + x + 6 \\
 4x^2 - 5x - 3 \\
 \hline
 -6x^2 + 6x + 9
 \end{array}$$

Note: We can not do subtraction with different variables.