CHAPTER-19

FUNDAMENTAL OPERATIONS

STUDY NOTE

In Mathematics, the operations addition (+), subtraction (-),

multiplication (x) and division (/) are the four fundamental operations.

Like Terms

<u>Like Terms</u> are **terms** whose variables (and their <u>exponents</u> such as the 2 in x^2) are the same.

In other words, terms that are "like" each other.

Note: the **coefficients** (the numbers you multiply by, such as "5" in 5x) can be different.

Example:

DUC7XTX A2X TXROU

are all **like terms** because the variables are all **x**

Example:

 $(1/3)xy^2 -2xy^2 6xy^2 xy^2/2$

are all like terms because the variables are all xy²

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- (i) ADDITION OF LIKE TERMS:
- The addition of like terms is a single term (like to the given terms) whose coefficient is equal to the sum of the coefficients of the given (like) terms.

For example: 1. 2xy + 5xy= 7xy

2. 3x + 9x = 12x

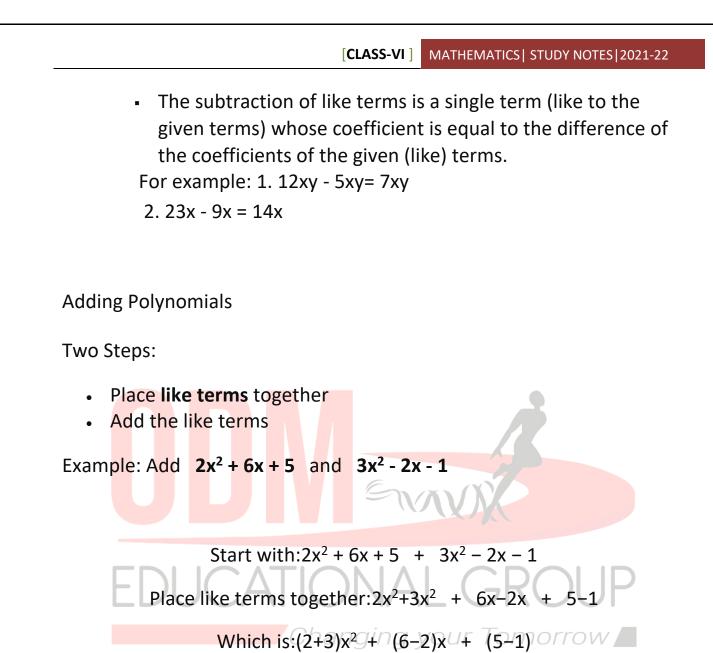
- (ii) ADDITION OF UNLIKE TERMS:
- As shown above, the sum of two or more like terms is a single like term, but two unlike terms cannot be added together to get a single term.
- For example: the unlike terms 2ab and 4bc cannot be added together to form a
- single term. All that can be done is to connect them by the
- sign of addition and leave
- the result in the form 2ab + 4bc.

Changing your Tomorrow

Example: These are NOT like terms because the variables and/or their exponents are different:

2x $2x^2$ 2y 2xy

(i) SUBTRACTION OF LIKE TERMS:



Add the like terms: $5x^2 + 4x + 4$
