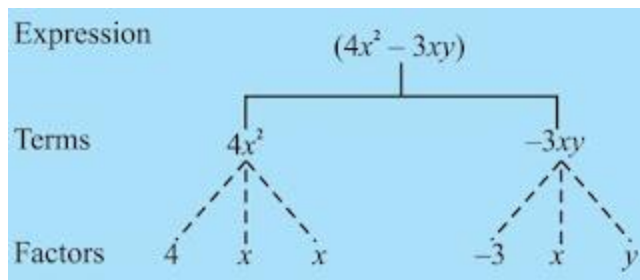


# Chapter 12

## Algebraic Expressions

- Algebraic expression is formed from variables and constants using different operations.
- Symbols which are used to represent or replace numbers. They are denoted as  $x, y, z, a, b, c, \dots$  and can take different numerical values. We generally use small letters to represent variables.
- The parts of an expression which are formed separately first and then added are known as terms. Terms are added to form expressions.



- Coefficient is the numerical factor in a term. Sometimes, any factor in a term is called the coefficient of the remaining part of the term.
- The terms having the same algebraic factors are called like terms.

- The terms having different algebraic factors are called unlike terms

## **Types of Algebraic Expressions**

- Expression with one term is called a Monomial.
- Expression with two unlike terms is called a Binomial.
- Expression with three unlike terms is called a Trinomial.
- In general, an expression with one or more than one term is called a 'Polynomial'. Thus a monomial, a binomial and a trinomial are all polynomials.

## **Addition and Subtraction of Algebraic Expressions**

- The sum of two like terms is a like term with coefficient equal to the sum of coefficients of the two like terms.
- When we add two algebraic expressions, the like terms are added and the unlike terms are written as they are.
- The difference of two like terms is a like term with coefficient equal to the difference of coefficients of the two like terms.

- When we subtract two algebraic expressions, the like terms are subtracted and the unlike terms are written as they are.