

A decorative graphic on the left side of the poster, consisting of a network of white lines and small circles on a blue gradient background, resembling a circuit board or a stylized tree structure.

# MATHS POSTER ON ALGEBRA

ALGEBRA IS ONE OF THE BROAD PARTS OF MATHEMATICS, TOGETHER WITH NUMBER THEORY, GEOMETRY AND ANALYSIS. IN ITS MOST GENERAL FORM, ALGEBRA IS THE STUDY OF MATHEMATICAL SYMBOLS AND THE RULES FOR MANIPULATING THESE SYMBOLS; IT IS A UNIFYING THREAD OF ALMOST ALL OF MATHEMATICS.

# EXPANDING BRACKETS

To expand a bracket means to multiply each term in the bracket by the expression outside the **bracket** . For example, in the expression  $3(x + 7)$ , multiply both  $x$  and  $7$  by  $3$ , so  $3x + 21$ . Letters can be used to stand for unknown values or values that can change. Formulas can be written and equations solved in a range of problems in science and engineering.

# SOLVING EQUATION

- In mathematics to **solve an equation** is to find its **solutions**, which are the values (numbers functions sets etc.

that fulfil the condition stated by the equation consisting generally of two expressions related by an equals sign. When seeking a solution, one or more variables are designated as *unknowns*. A solution is an assignment of values to the unknown variables that makes the equality in the equation true. In other words a solution is a value or a collection of values one for each unknown such that when substituted for the unknowns, the equation becomes an equality. A solution of an equation is often called a **root** of the equation, particularly but not only for polynomial equations. The set of all solutions of an equation is its solution set



