

Chapter 02

POLYNOMIALS

Formation of a cubic polynomial:

Let α, β be the roots (or) zeroes of cubic polynomial

$ax^3 + bx^2 + cx + d$ then,

$$P(x) = \lambda \left[x^3 - (\text{sum of zeroes})x^2 + (\text{sum of the product of zeroes taken two at a time})x - (\text{Product of zeroes}) \right]$$

Where ' λ ' is any non-zero real number.

$$P(x) = \lambda (x^3 - Sx^2 + S^1x - P)$$

Where,

$$S = \alpha + \beta + \gamma.$$

$$S^1 = \alpha\beta + \beta\gamma + \gamma\alpha.$$

$$P = \alpha\beta\gamma.$$