

Chapter 02

POLYNOMIALS

Value of a Polynomial $P(x)$ at $x = \alpha$:

The value of a polynomial $P(x)$ at $x = \alpha$ is obtained by substituting $x = \alpha$ in the given polynomial and it is denoted by $P(\alpha)$.

Example:

If $P(x) = 2x^3 + 3x^2 - 11x - 6$ find $P(-1)$.

Solution:

Given,

$$P(x) = 2x^3 + 3x^2 - 11x - 6$$

Put $x = -1$

$$P(-1) = 2(-1)^3 + 3(-1)^2 - 11(-1) - 6$$

$$= 2(-1) + 3(1) + 11 - 6$$

$$= -2 + 3 + 11 - 6$$

$$\therefore \boxed{P(-1) = 6}$$