

Mathematics

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(Chapter – 2) (Polynomials)(Exemplar Problems)

(Class – IX)

Exercise 2.1

Write the correct answer in each of the following:

Question 11:

If $x^{51} + 51$ is divided by $x + 1$, the remainder is

(A) 0

(B) 1

(C) 49

(D) 50

Answer 11:

(D) 50

Solution:

Given polynomial: $p(x) = x^{51} + 51$

Using remainder theorem, if $p(x) = x^{51} + 51$ is divided by $x + 1$, the remainder is given by

For zeroes, $p(-1) = (-1)^{51} + 51 = -1 + 51 = 50$

Hence, the option (D) is correct.

