

Mathematics

(www.tiwariacademy.net)

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

(Class – IX)

Exercise 2.1

Write the correct answer in each of the following:

Question 14:

One of the factors of $(25x^2 - 1) + (1 + 5x)^2$ is

(A) $5 + x$

(B) $5 - x$

(C) $5x - 1$

(D) $10x$

Answer 14:

(D) $10x$

Solution:

Given polynomial: $p(x) = (25x^2 - 1) + (1 + 5x)^2$

$$p(x) = (25x^2 - 1) + (1 + 25x^2 + 10x)$$

$$= 50x^2 + 10x$$

$$= 10x(5x + 1)$$

$\Rightarrow 10x$ and $5x + 1$ are the factors of given polynomial.



Hence, the option (D) is correct.

