

Mathematics

(www.tiwariacademy.net)

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

(Class – IX)

Exercise 2.1

Write the correct answer in each of the following:

Question 20:

If $49x^2 - b = (7x + \frac{1}{2})(7x - \frac{1}{2})$, then the value of b is

(A) 0 (B) $\frac{1}{\sqrt{2}}$ (C) $\frac{1}{4}$ (D) $\frac{1}{2}$

 **Answer 20:**

(C) $\frac{1}{4}$

Solution:

Given that: $49x^2 - b = (7x + \frac{1}{2})(7x - \frac{1}{2})$

$$\Rightarrow 49x^2 - b = (7x)^2 - \left(\frac{1}{2}\right)^2$$

$$\Rightarrow 49x^2 - b = 49x^2 - \frac{1}{4}$$

$$\Rightarrow b = \frac{1}{4}$$



Hence, the option (C) is correct.

