

Mathematics

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(Chapter – 1) (Real Numbers)(Exemplar Problems)
(Class – X)

Exercise 1.1

Choose the correct answer from the given four options in the following questions:

Question 10:

The decimal expansion of the rational number $\frac{14587}{1250}$ will terminate after

- (A) one decimal place (B) Two decimal places
(C) three decimal places (D) four decimal places

Answer 10:

(D) four decimal places

Solution:

Given rational number



$$\begin{aligned} &= \frac{14587}{1250} = \frac{14587}{2^1 \times 5^4} \\ &= \frac{14587}{10 \times 5^3} \times \frac{(2)^3}{(2)^3} \\ &= \frac{14587 \times 8}{10 \times 1000} \\ &= \frac{116696}{10000} = 11.6696 \end{aligned}$$

Hence, given rational number will terminate after four decimal places.

