STD – 10 MATHS

CHAPTER - 1

REAL NUMBER

EXERCISE-1.4 (Q.3)

3. The following real numbers have decimal expansions as given below. In each case, decide whether they are rational or not. If they are rational, and of the form, p q what can you say about the prime factors of q?

(1) 43.123456789

- Since it has a terminating decimal expansion, it is a rational number in the form of $\frac{p}{q}$ and q has factors of 2 and 5 only.

(ii) 0.120120012000120000...

- Since, it has non-terminating and non-repeating decimal expansion, it is an irrational number.

(iii) $43.\overline{123456789}$

- Since it has non-terminating but repeating decimal expansion, it is a rational number in the form of $\frac{p}{q}$ and q has factors other than 2 and 5.

Thanks

For watching