

CHAPTER 01

Number System

Representing real numbers (Decimals) on the number line through successive magnification:

We know that natural numbers, whole numbers and integers can be represented on the number line. Similarly, decimal expansion (Rational number) can be represented on the number line.

The method of representing decimal numbers on number line is known as process of successive magnification. In this method, we divide the distance between two numbers again into 10 equal parts.

Let us take example for brief understanding.

Example:

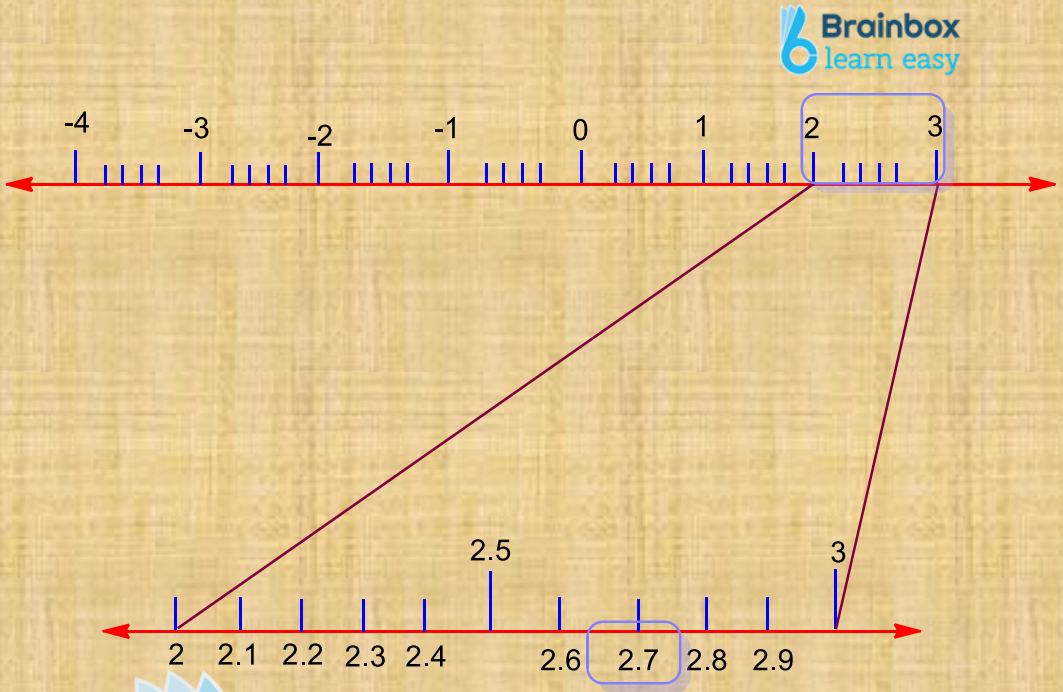
Visualise 2.776 on the number line, using successive magnification.

Sol.

2.776 lies between 2 and 3.

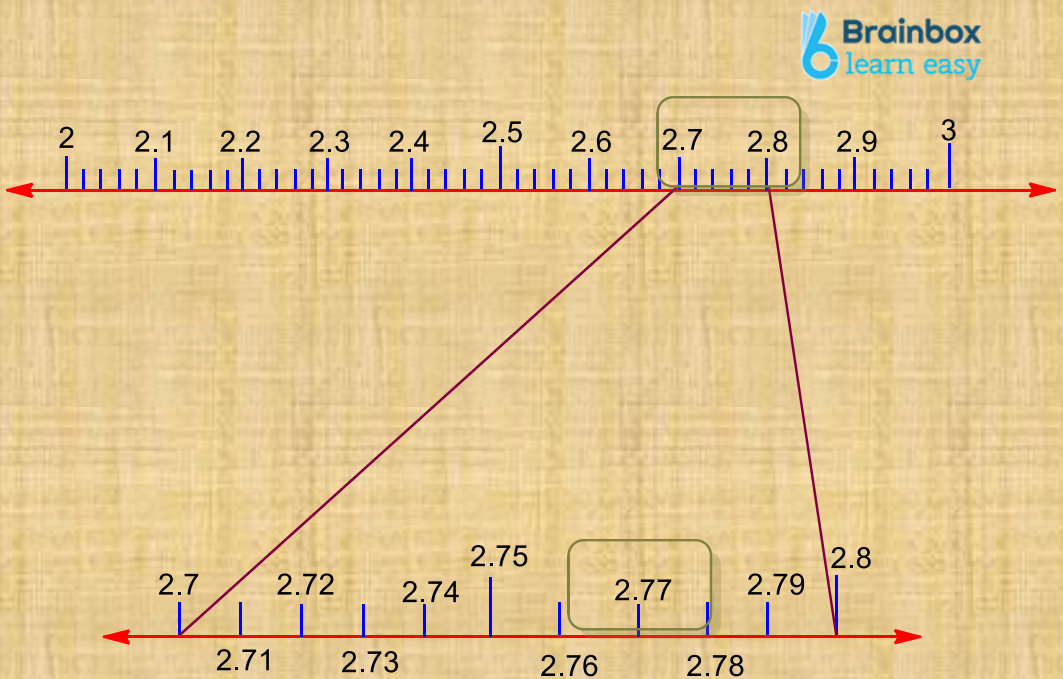
Step I:

Divide the distance 2 and 3 into 10 equal parts.



Step II:

2.7 lies between 2.7 and 2.8. Divide the distance into 10 equal parts.



Step III:

2.776 lies between 2.77 and 2.78. Divide the distance into 10 equal parts.

