NUMBER SYSTEMS

REPRESENTING IRRATIONAL NUMBER ON THE NUMBER LINE

EXERCISE

Q.1 Find two irrational numbers between 0.12 and 0.13.

Q.2 Find two rational numbers between 0.232332333233332.... and 0.252552555255552......

Q.3 Find a rational number and also an irrational number between the numbers a and b given below:

a = 0.101001000100001....,

b = 0.1001000100001...

Q.4 Find one irrational number between the number a and b given below :

a = 0.1111..... = $0.\overline{1}$ and b = 0.1101

Q.5 Write two irrational numbers between 0.2 and 0.21.

Q.6 Write three irrational numbers between $\sqrt{3}$ and $\sqrt{5}$.

Q.7 Which of the following is

(i) rational   (ii) irrational number

(A) $(2+\sqrt{3})^2$ (B) $(3+\sqrt{4})^2$

Q.8 Express $\sqrt{3.5}$ geometrically.

Q.9 Express $\sqrt{5.42}$ geometrically and represent it on the number line.

ANSWER KEY

1. $c = 0.1201001000100001$ ......   and, $d = 0.12101001000100001$.......

2.   0.25 and 0.2525

3.   0.101 and 0.1002000100001......

4.   0.111101001000100001.....

5.   0.2010010001..........., 0.2020020002...........

6.   1.8010010001......., 1.9010010001......., 2.010010001.......

7.   (a) irrational   (b) rational

8.

9.