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## CLASS -IX

## CHAPTER 2 - NUMBER SYSTEMS

> Watch the online videos "NUMBER SYSTEMS -Lecture 1" from Optimum Online E-Learning Platform and try to comprehend the concepts of Representation of irrational numbers on Real Line. After that try to solve the questions given in your assignment.
$>$ Representation of irrational numbers on number line Lecture 3

- Representation of irrational number on number line Lecture 4

1. Complete the following sentences:
i. Every point on the number line corresponds to a ...... number which many be either $\qquad$ or
ii. The decimal form of an irrational number is neither ..... nor $\qquad$
iii. The decimal representation of a rational number is either $\qquad$ or $\qquad$
iv. Every real number is either $\qquad$ number or $\qquad$ number.
2. Represent $\sqrt{ } 3.5, \sqrt{ } 9.4, \sqrt{ } 10.5$ and on the real number line.
3. Represent $\sqrt{ } 6, \sqrt{ } 7$, $\sqrt{ } 8$ on the number line.
4. Find whether the following statements are true or false:
i. Every real number is either rational or irrational.
ii. $\pi$ is an irrational number.
iii. Irrational numbers cannot be represented by points on the number line.
5. Visualise 2.665 on the number line, using successive magnification.
6. Visualise the representation of $5.3 \overline{7}$ on the number line upto 5 decimal places, that is upto 5.37777 .
7. In the following equation, find which variables $x, y, z$ etc. represent rational or irrational numbers:
i. $\quad x^{2}=5$
ii. $\quad y 2=9$
iii. $\quad z^{2}=0.04$
iv. $u^{2}=174$
v. $v^{3}=3$
vi. $\quad w^{2}=27$
vii. $\quad t^{2}=0.4$

8: Is zero a rational number? Can you write it in the form $\mathrm{p} / \mathrm{q}$, where p and q are integers and $q \neq 0$ ?
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