

Rational and Irrational Number**Lecture sheet – 6****Solution**

1. Separate the rational and irrational number form $1\frac{1}{2}$, $\sqrt{\frac{4}{25}}$, $\sqrt{\frac{27}{16}}$, 1.0563, $\sqrt{32}$, $\sqrt{121}$.

Solution: The following numbers: $1\frac{1}{2}$, $\sqrt{\frac{4}{25}}$, $\sqrt{\frac{27}{16}}$, 1.0563, $\sqrt{32}$, $\sqrt{121}$.

Now, $1\frac{1}{2} = \frac{3}{2}$, it can be expressed in fraction. So it is a rational number.

$\sqrt{\frac{4}{25}} = \frac{2}{5}$, it can be expressed in fraction. So it is a rational number.

$\sqrt{\frac{27}{16}}$ here 27 is not perfect square, so $\sqrt{\frac{27}{16}}$ is irrational number.

$1.0563 = \frac{10563}{10000}$, it can be expressed in fraction. So it is a rational number.

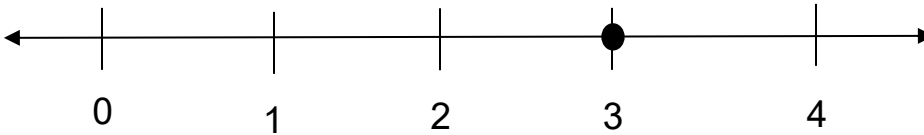
$\sqrt{32}$, here 32 is not perfect square number, so $\sqrt{32}$ is irrational number.

$\sqrt{121} = 11 = \frac{11}{1}$, it can be expressed in fraction. So it is a rational number.

2. Locate the numbers 3 , $\frac{3}{2}$, 1.455 on the number line.

Solution:

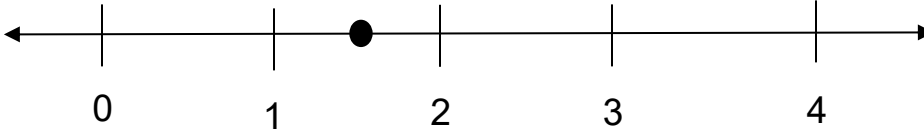
3 is a rational number. The number line is given below:



Here the black dot represent is the position of 3 in number line.

$\frac{3}{2}$ is a rational number where $\frac{3}{2} = 1.5$

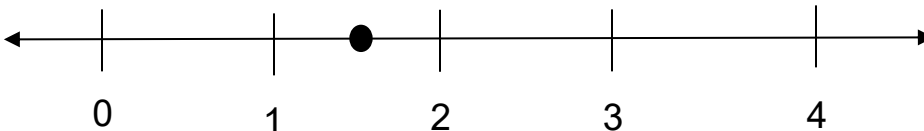
The number line is given below:



Here we divide 10 parts between 1 and 2 and mark the 5th part that represent the position of 1.5 or $\frac{3}{2}$.

1.455 is rational number where $1.455 = 1.5$ (approximate).

The number line is given below:



Here we divide 10 parts between 1 and 2 and mark the 5th part that represent the position of 1.5 or 1.455 .