

Public Central School

Sub - Maths, Topic - Rational Number

Std - VIII (2020-21)

Notes chapter - 1 Rational Numbers.

* What is Rational Number?

Ans:- A number is called rational if we can write the number in the form of $\frac{p}{q}$, where 'p' and 'q' are integers and $q \neq 0$.

ex - $\frac{7}{2}$, $-\frac{7}{2}$, 5, 4, 0 etc

* All integers are rational numbers.

* Between two rational numbers 'x' and 'y' there exist a rational number $(\frac{x+y}{2})$

* There are infinite rational numbers exists between two rational numbers.

* Rational numbers may be positive or negative.

* Decimal expression of Rational number is terminating or repeating.

* $-\frac{x}{y}$ is called the additive inverse of $\frac{x}{y}$ and vice versa.

e.g. $-\frac{7}{5}$ is additive inverse of $\frac{7}{5}$

Sol $-\frac{7}{5} + \frac{7}{5} = \frac{-7+7}{5} = \frac{0}{5} = 0$

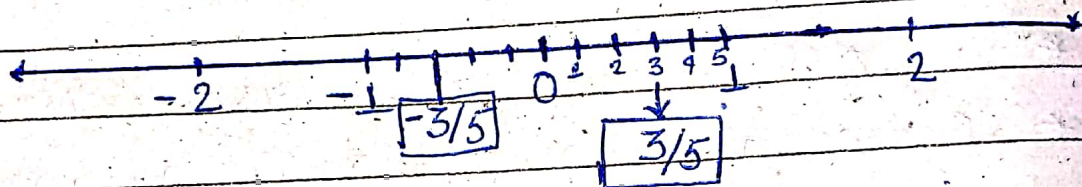
* $\frac{y}{x}$ is called multiplicative inverse or reciprocal of $\frac{x}{y}$.

e.g. $\frac{7}{5} \times \frac{5}{7} = 1$

* Rational number 0 is the additive identity for all rational numbers. because a number does not change when '0' is added to it.

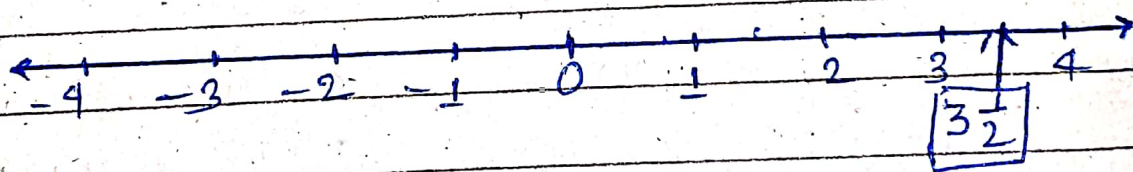
* 1 is the multiplicative Identity for all rational numbers.

* Rational number can be represented on a number line. like $\frac{3}{5}$ or $-\frac{3}{5}$



* Note:- all the proper fraction lies between 0 and 1

ex-2. $\frac{7}{2}$ or $3\frac{1}{2}$



WORK FOR Students:-

* Learn all the above property related to Rational number.

* Represent all the following rational number on number line:-

a) $-\frac{3}{8}$ ii) $\frac{7}{6}$ iii) $-\frac{5}{4}$ iv) $\frac{11}{2}$ v) $-\frac{15}{4}$

☒ In next class we will learn about properties on Rational Number.