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CLASS :- VIII Class

NAME OF THE LESSON : Rational numbers

TITLE:- FRACTION VS RATIONAL NUMBER

AIM: Identifying the differences between Fractions and Rational Numbers.

OBJECTIVE: 1)To know about fractions.

2)To know about Rational numbers.

MATERIAL USED: Scale , pencil ,pen etc ...

TOOLS: Collection of the data (Survey method)

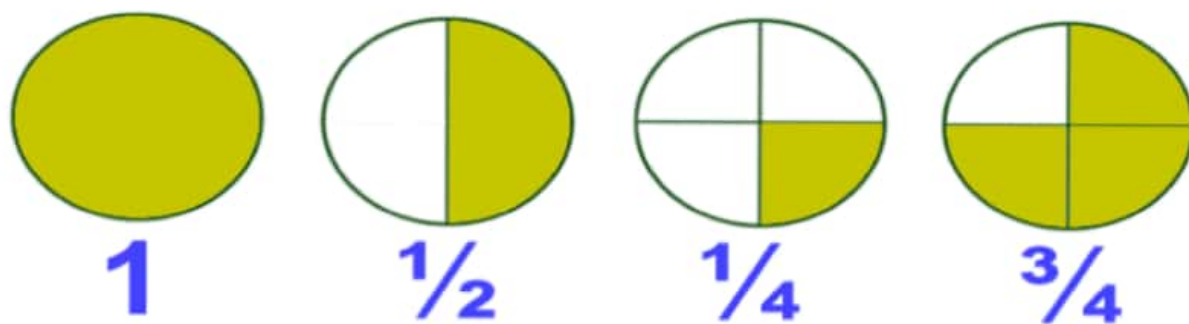
PROCEDURE: The definition of fraction is taken from VI and VII class Maths text books.

Basic concept of a fraction.:- Fraction is “a part of whole” or a collection

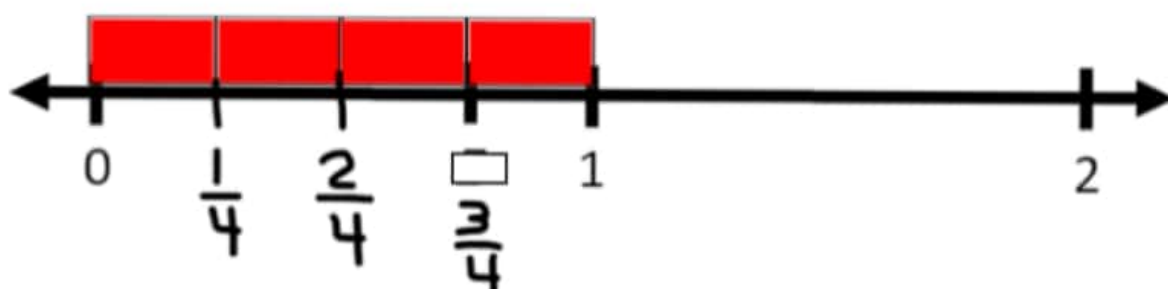
“A Fraction is represented as

Example: $\frac{1}{3}$, $\frac{2}{7}$, $\frac{5}{6}$, $\frac{7}{5}$, $\frac{12}{7}$

In $\frac{1}{3} \Rightarrow 1$ is called - **Numerator** , 3 is called - **Denominator**



Representing Fractions on a **Number line**



DEFINITION:- A number of the form $\frac{a}{b}$, where a and b are whole numbers and $b \neq 0$, is called a fraction.

DOUBT:-1) Is '0' is a fraction?

2) If a and b are negative integers what we call those numbers?

LOCATING FRACTIONS :- When ' a ' and ' b ' are negative then the numbers on number line



OBSERVATIONS:- Left side of the Number line contains fractions in the form of negative numerators.

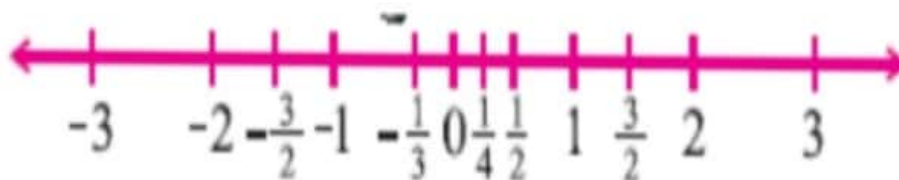
QUESTION: Are they fractions?

Case(ii) Fractions which contain either negative numerator or negative denominator are not fractions, they are called Rational numbers.

Rational Number: A Rational Number is a number that can be represented by a fraction a/b , where a and b integers and $b \neq 0$.

Example: $-1/2$, $-3/4$, -2 , 0 , 1 , $+5/4$,

Representation of Rational Numbers on the Number Line



ANALYSATION:-

FRACTIONAL NUMBERS	RATIONAL NUMBERS
1)Written in the form of p/q	1)written in the form of p/q
2)P and Q are whole numbers	2)P and Q are integers
3)Q is not equal to zero	3)Q is not equal to zero
4)All fractions can be reffered as Rational Numbers. Ex: $1/2$, $25/5$, $9/7$,	4)All Rational numbers cannot be referred as fractions.only rational numbers where p/q have positive integer can be reffered to as fraction. Ex: $-1/2$, $-5/8$, $-22/23$, $-25/5$...

EXPERIENCE OF THE STUDENT:-I thought that every Rational number is a fraction.

RESULT :- All Fractions are Rational Numbers but all Rational Numbers are not Fractions.

ACKNOWLEDGMENT:-

- 1) My sincere thanks to our group members who cooperated a lot.
- 2) My sincere thanks to our Maths teacher for guiding us in making this project.

REFERENCE BOOKS / RESOURCES:

1. VIII, IX, VI, VII th Maths State Text books.
2. IX, VIII, class CBSE text book.