

## CHAPTER 01

## Rational Numbers

**Representation of rational numbers on number line:****Step 1:**

Draw a line and mark a point '0' on it to represent '0'.

**Step 2:**

Mark points at equal distance on the left and right side of '0'.

Such that distance between two adjacent points is 1 unit.

**Step 3:**

Then divide the each unit into equal parts such that the number of parts is equal to the denominator of rational number.

**Step 4:**

The numerator tells the number of parts to be considered.

**Example:**

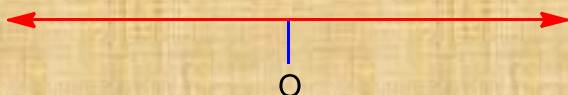
Represent  $\frac{4}{3}$  and  $\frac{-4}{3}$  on the number line.

**Sol.**

$\frac{4}{3}$  and  $\frac{-4}{3}$  can be written as  $1\frac{1}{3}$  and  $-1\frac{1}{3}$ .

**Step 1:**

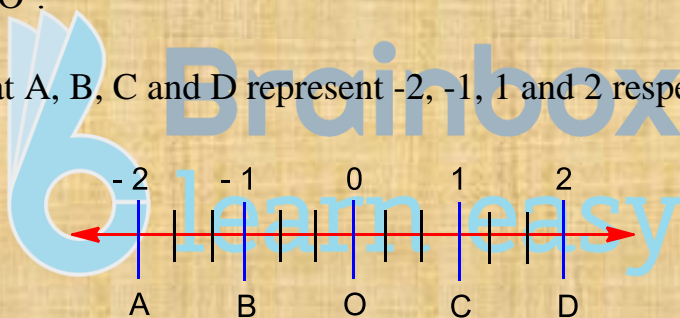
In order to represent  $\frac{4}{3}$  and  $-\frac{4}{3}$  on the number line. We draw a number line and mark a point 'O' on it to represent zero.

**Step 2:**

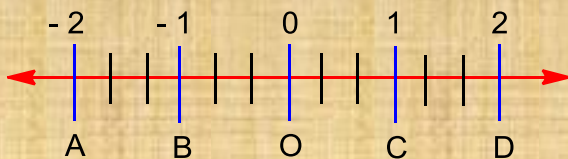
Since,  $1\frac{1}{3}$  and  $-1\frac{1}{3}$  lie between 1 & 2 and -1 & -2 respectively.

Therefore mark the points A and B on left side and C and D on right side of 'O'.

Such that A, B, C and D represent -2, -1, 1 and 2 respectively.

**Step 3:**

Now the denominator of rational number is '3'. Divide the intervals into three equal parts.

**Step 4:**

Since the numerator is '1', then mark 1<sup>st</sup> point on the parts 'P' and 'Q' are the required points.

