

Rational Numbers

Handout 2/3

- Rational numbers between two rational numbers:
- Between two rational numbers there exists infinitely many rational numbers.
- Steps to find Rational numbers between two rational numbers with the same denominator :
 - *The first step in determining the rational numbers between any two rational numbers is to check the value of denominators.*
 - *If the denominators are the same, check the value of numerators*
 - *If the numerators differ by a large value ,then the rational numbers can be written in the increments of one for numerator without altering the value of denominator.*

- **COMPARISION OF RATIONAL NUMBERS:**

Any two rational numbers can be compared using the following steps.

- *Obtain the given Rational Number .*
- *Write the given rational numbers with positive denominator*
- *Find the L C M of the denominators of the rational numbers so obtained.*
- *Express each rational number obtained with the L C M as common denominator.*
- *Compare the numerators of rational numbers so obtained, the greater numerator has its corresponding rational number is greater.*
- **Addition of rational numbers**
 - *while adding rational numbers with same denominators, add the the numerators keeping the denominators same*
 - *If the denominators of the rational numbers are different, find the L C M of denominators and convert the rational numbers into equivalent rational numbers with this L C M as positive . Now add the numerators keeping the denominators same*
- **Additive Inverse of a Rational Number.**

If $\frac{a}{b}$ is a rational number $\frac{-a}{b}$ is its additive inverse
- **Subtraction of rational number:**

while subtracting two rational numbers, we add the additive inverse of a rational number that has to be subtracted to the given number and apply the rules of addition.