

## Ch-1 Rational Numbers

① Multiply  $\frac{6}{13}$  by the reciprocal of  $-\frac{7}{16}$

Sol Reciprocal of  $-\frac{7}{16} = -\frac{16}{7}$

$$\therefore \frac{6}{13} \times -\frac{16}{7} = \frac{6 \times (-16)}{13 \times 7} = -\frac{96}{91}$$

② Write  $\rightarrow$  The rational number that does not have a reciprocal

Ans Zero (0) has no reciprocal

③ The rational numbers that are equal to their reciprocals

Ans 1 and -1 are equal to their reciprocals

④ The rational number that is equal to its negative

Ans 0 (Zero) is equal to its negative

⑤ Compare the following  $\frac{5}{3}$ ,  $\frac{4}{5}$

Sol  $\frac{5}{3}$ ,  $\frac{4}{5}$  LCM of 3, 5 = 15

$$\frac{5 \times 5}{3 \times 5} = \frac{25}{15} \quad \text{and} \quad \frac{4 \times 3}{5 \times 3} = \frac{12}{15}$$

$$25 > 12 \quad \therefore \frac{25}{15} > \frac{12}{15} \Rightarrow \frac{5}{3} > \frac{4}{5}$$

⑥  $-\frac{1}{5}$ ,  $\frac{1}{5}$  Sol  $\rightarrow -\frac{1}{5}$ ,  $\frac{1}{5}$  As  $-1 < 1 \Rightarrow -\frac{1}{5} < \frac{1}{5}$

⑦ Find two rational numbers between the given rational numbers

(\*)  $\frac{7}{5}$  and  $\frac{6}{5}$  Sol  $\rightarrow \frac{7 \times 3}{5 \times 3} = \frac{21}{15}$  and  $\frac{6 \times 3}{5 \times 3} = \frac{18}{15}$

Required rational numbers are  $\frac{20}{15}$ ,  $\frac{19}{15}$

⑧ The additive inverse of  $(-4+3) =$  Sol  $-4+3 = -1$

$\therefore$  Additive inverse of  $-1 = 1$

Q9 Find the sum  $\rightarrow \frac{2}{9} + \frac{4}{9} \Rightarrow$  Sol  $\frac{2+4}{9} = \frac{6}{9} = \frac{2}{3}$  ⑩  $\frac{1}{9} + \frac{11}{9} = \frac{12}{9}$   
 $\Rightarrow \frac{1+11}{9} = \frac{12}{9}$

H.W

- ① Multiply  $-\frac{7}{9} \times -\frac{10}{21}$  ②  $-\frac{9}{15} \times -\frac{10}{6}$  ③ Compare  $\rightarrow -\frac{3}{5}$  and  $-\frac{5}{4}$
- ④ Which is greater?  $\rightarrow -\frac{3}{5}$ ,  $-\frac{5}{4}$  ⑤ Find the absolute value of  $-\frac{8}{23}$
- ⑥ Find two rational nos b/w  $\frac{3}{5}$  and  $\frac{5}{4}$  ⑦ Find the sum  $\frac{2}{5} + \frac{7}{5} + \frac{9}{5}$
- ⑧ Write 3 equivalent rational no of  $-\frac{4}{5}$  ⑨  $\frac{2}{10}$  ⑩ Subtract  $8 - \frac{2}{5}$
- ⑪ Write the 3 negative rational numbers