

Mathematics

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(Chapter – 1) (Number Systems)(Exemplar Problems)

(Class – IX)

Exercise 1.3

Question 2:

Find three rational numbers between

(i) -1 and -2

(ii) 0.1 and 0.11

(iii) $\frac{5}{7}$ and $\frac{6}{7}$

(iv) $\frac{1}{4}$ and $\frac{1}{5}$

Answer 2:

(i) -1 and -2

Three rational number between -1 and -2 are -1.1 , -1.2 and -1.3 .

(ii) 0.1 and 0.11

Three rational number between 0.1 and 0.11 are 0.101 , 0.102 and 0.103 .

(iii) $\frac{5}{7}$ and $\frac{6}{7}$

We can write $\frac{5}{7} = \frac{5}{7} \times \frac{10}{10} = \frac{50}{70}$ and $\frac{6}{7} = \frac{6}{7} \times \frac{10}{10} = \frac{60}{70}$

So, three rational number between $\frac{5}{7}$ and $\frac{6}{7}$ are $\frac{51}{70}$, $\frac{52}{70}$ and $\frac{53}{70}$.

(iv) $\frac{1}{4}$ and $\frac{1}{5}$

LCM of 4 and 5 is 20 .

We can write $\frac{1}{4} = \frac{1}{4} \times \frac{5}{5} = \frac{5}{20}$ and $\frac{1}{5} = \frac{1}{5} \times \frac{4}{4} = \frac{4}{20}$

So, three rational number between $\frac{1}{4}$ and $\frac{1}{5}$ are $\frac{41}{200}$, $\frac{42}{200}$ and $\frac{43}{200}$.

