



# Exercise 4B

Correct order:  $\frac{-7}{18} > \frac{-5}{12} > \frac{-4}{9} > \frac{-2}{3}$

$$(iv) \frac{17}{-30}, \frac{11}{-15}, \frac{-7}{10}, \frac{3}{5}$$

First, we need to convert each negative denominator into positive.

$$\frac{17 \times -1}{-30 \times -1}, \frac{11 \times -1}{-15 \times -1}, \frac{-7}{10}, \frac{3}{5}$$

$$\frac{-17}{30}, \frac{-11}{15}, \frac{-7}{10}, \frac{3}{5}$$

$$\begin{array}{r|l} 5 & 5, 10, 15, 30 \\ \hline 2 & 1, 2, 3, 6 \\ \hline 3 & 1, 1, 3, 3 \\ \hline & 1, 1, 1, 1 \end{array}$$

L. C. M. of 30, 15, 10 and 5 is 30.

$$\frac{-17 \times 1}{30 \times 1} = \frac{-17}{30},$$

$$\frac{-11 \times 2}{15 \times 2} = \frac{-22}{30},$$

$$\frac{-7 \times 3}{10 \times 3} = \frac{-21}{30},$$

$$\frac{3 \times 6}{5 \times 6} = \frac{18}{30},$$

Correct order:  $\frac{3}{5} > \frac{17}{-30} > \frac{-7}{10} > \frac{11}{-15}$

Q8

Answer :

L. C. M. of 2 and 3 is 6.

$$-3 = \frac{-3 \times 6}{1 \times 6} = \frac{-18}{6}$$

$$-2 = \frac{-2 \times 6}{1 \times 6} = \frac{-12}{6}$$

Therefore,  $\frac{-17}{6}, \frac{-16}{6}, \frac{-15}{6}, \frac{-14}{6}$  and  $\frac{-13}{6}$  are the five rational number between  $-3$  and  $-2$ .

Q9.

Answer :

$$-1 = \frac{-1 \times 5}{1 \times 5}, 1 = \frac{1 \times 5}{1 \times 5}$$

$$\frac{-5}{5} \text{ and } \frac{5}{5}$$

Hence, the five rational numbers between  $-1$  and  $1$  are  $\frac{-4}{5}, \frac{-3}{5}, \frac{-2}{5}, \frac{-1}{5}$  and  $\frac{1}{5}$ .

Q10

Answer :

$$\frac{-3}{5} \text{ and } \frac{-1}{2}$$

L. C. M. of 5 and 2 is 10.

$$\frac{-3 \times 2}{5 \times 2} = \frac{-6 \times 4}{10 \times 4} = \frac{-24 \times 2}{40 \times 2} = \frac{-48}{80},$$

$$\frac{-1 \times 5}{2 \times 5} = \frac{-5 \times 4}{10 \times 4} = \frac{-20 \times 2}{40 \times 2} = \frac{-40}{80},$$

Hence, the five rational numbers between  $\frac{-3}{5}$  and  $\frac{-1}{2}$  are  $\frac{-45}{80}, \frac{-44}{80}, \frac{-43}{80}, \frac{-42}{80}$  and  $\frac{-41}{80}$ .

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