



# Exercise 4B

$$(iv) \frac{-2}{3} < \frac{-5}{8}$$

L. C. M. of 8 and 3 is 24.

$$\frac{-2 \times 8}{3 \times 8} = \frac{-16}{24}$$

$$\frac{-5 \times 3}{8 \times 3} = \frac{-15}{24}$$

$$\frac{-16}{24} < \frac{-15}{24}$$

$$\begin{array}{r|l} 2 & 8,3 \\ \hline 2 & 4,3 \\ 2 & 2,3 \\ 3 & 1,3 \\ \hline & 1,1 \end{array}$$

$$(v) 0 < \frac{3}{5}$$

L. C. M. of 1 and 5 is 5.

$$\frac{0 \times 1}{1 \times 5} = \frac{0}{5}$$

$$\frac{3 \times 1}{5 \times 1} = \frac{3}{5}$$

$$\frac{0}{5} < \frac{3}{5}$$

$$(vi) \frac{-8}{9} > \frac{-9}{10}$$

L. C. M. of 9 and 10 is 90.

$$\frac{-8 \times 10}{9 \times 10} = \frac{-80}{90}$$

$$\frac{-9 \times 9}{10 \times 9} = \frac{-81}{90}$$

$$\frac{-80}{90} > \frac{-81}{90}$$

$$\begin{array}{r|l} 3 & 9,10 \\ \hline 3 & 3,10 \\ 5 & 1,10 \\ 2 & 1,2 \\ \hline & 1,1 \end{array}$$

Q5

**Answer :**

$$(i) \frac{2}{5}, \frac{7}{10}, \frac{8}{15}, \frac{13}{30}$$

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

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

$$\frac{2 \times 6}{5 \times 6} = \frac{12}{30}$$

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

$$\frac{8 \times 2}{15 \times 2} = \frac{16}{30}$$

$$\frac{13 \times 1}{30 \times 1} = \frac{13}{30}$$

Required order:  $\frac{2}{5} < \frac{13}{30} < \frac{8}{15} < \frac{7}{10}$

$$(ii) \frac{-3}{4}, \frac{5}{-12}, \frac{-7}{16}, \frac{9}{-24}$$

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

$$\frac{-3}{4}, \frac{5 \times -1}{-12 \times -1}, \frac{-7}{16}, \frac{9 \times -1}{-24 \times -1}$$

$$\frac{-3}{4}, \frac{-5}{12}, \frac{-7}{16}, \frac{-9}{24}$$

\*\*\*\*\* END \*\*\*\*\*

