Exercise 4B

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

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

$\frac{-2\times8}{3\times8} = \frac{-16}{24}$

$\frac{-5\times3}{8\times3} = \frac{-15}{24}$

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

2	8,3
2	4,3
2	2,3
3	1,3
	1,1

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

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

$\frac{0\times1}{1\times5} = \frac{0}{5}$

$\frac{3\times1}{5\times1} = \frac{3}{5}$

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

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

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

$\frac{-8\times10}{9\times10} = \frac{-80}{90}$

$\frac{-9\times9}{10\times9} = \frac{-81}{90}$

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

3	9,10
3	3,10
5	1,10
2	1,2
	1,1

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

5	5,10,15,30
2	1,2,3,6
3	1,1,3,3
	1,1,1,1

$\frac{2\times6}{5\times6} = \frac{12}{30}$

$\frac{7\times3}{10\times3} = \frac{21}{30}$

$\frac{8\times2}{15\times2} = \frac{16}{30}$

$\frac{13\times1}{30\times1} = \frac{13}{30}$

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 **********