



Exercise 5D

with denominator 30.

Now, we have:

$$\frac{2}{5} = \frac{2 \times 6}{5 \times 6} = \frac{12}{30}; \frac{7}{10} = \frac{7 \times 3}{10 \times 3} = \frac{21}{30}; \frac{11}{15} = \frac{11 \times 2}{15 \times 2} = \frac{22}{30}$$

$$\text{Clearly, } \frac{12}{30} < \frac{17}{30} < \frac{21}{30} < \frac{22}{30}$$

$$\therefore \frac{2}{5} < \frac{17}{30} < \frac{7}{10} < \frac{11}{15}$$

Hence, the given fractions can be arranged in the ascending order as follows:

$$\frac{2}{5}, \frac{17}{30}, \frac{7}{10}, \frac{11}{15}$$

Q21

Answer :

The given fractions are $\frac{3}{4}$, $\frac{7}{8}$, $\frac{11}{16}$ and $\frac{23}{32}$.

L.C.M. of 4, 8, 16 and 32 = $(2 \times 2 \times 2 \times 2 \times 2) = 32$

$$\begin{array}{r|l} 2 & 4, 8, 16, 32 \\ \hline 2 & 2, 4, 8, 16 \\ \hline 2 & 1, 2, 4, 8 \\ \hline 2 & 1, 1, 2, 4 \\ \hline 2 & 1, 1, 1, 2 \\ \hline & 1, 1, 1, 1 \end{array}$$

So, we convert each of the fractions whose denominator is not equal to 32 into an equivalent fraction with denominator 32.

Now, we have:

$$\frac{3}{4} = \frac{3 \times 8}{4 \times 8} = \frac{24}{32}; \frac{7}{8} = \frac{7 \times 4}{8 \times 4} = \frac{28}{32}; \frac{11}{16} = \frac{11 \times 2}{16 \times 2} = \frac{22}{32}$$

$$\text{Clearly, } \frac{22}{32} < \frac{23}{32} < \frac{24}{32} < \frac{28}{32}$$

$$\therefore \frac{11}{16} < \frac{23}{32} < \frac{3}{4} < \frac{7}{8}$$

Hence, the given fractions can be arranged in the ascending order as follows:

$$\frac{11}{16}, \frac{23}{32}, \frac{3}{4}, \frac{7}{8}$$

Q22

Answer :

The given fractions are $\frac{3}{4}$, $\frac{5}{8}$, $\frac{11}{12}$ and $\frac{17}{24}$.

L.C.M. of 4, 8, 12 and 24 = $(2 \times 2 \times 2 \times 3) = 24$

$$\begin{array}{r|l} 2 & 4, 8, 12, 24 \\ \hline 2 & 2, 4, 6, 12 \\ \hline 3 & 1, 2, 3, 6 \\ \hline 2 & 1, 2, 1, 2 \\ \hline & 1, 1, 1, 1 \end{array}$$

So, we convert each of the fractions whose denominator is not equal to 24 into an equivalent fraction with denominator 24.

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