



Exercise 5F

Q8

Answer :

$$3\frac{5}{8} - 2\frac{5}{12}$$

$$= \frac{29}{8} - \frac{29}{12}$$

$$2 \mid 8, 12$$

$$2 \mid 4, 6$$

$$2 \mid 2, 3$$

$$3 \mid 1, 3$$

$$1, 1$$

$$\text{L.C.M. of 8 and 12} = (2 \times 2 \times 2 \times 3) = 24$$

$$\therefore \frac{29}{8} - \frac{29}{12} = \frac{(87-58)}{24} = \frac{29}{24} = 1\frac{5}{24}$$

$$\{[24 \div 8 = 3, 3 \times 29 = 87] \text{ and } [24 \div 12 = 2, 2 \times 29 = 58]\}$$

Q9

Answer :

$$2\frac{3}{10} - 1\frac{7}{15}$$

$$= \frac{23}{10} - \frac{22}{15}$$

$$5 \mid 10, 15$$

$$2 \mid 2, 3$$

$$3 \mid 1, 3$$

$$1, 1$$

$$\text{L.C.M. of 10 and 15} = (2 \times 3 \times 5) = 30$$

$$= \frac{(69-44)}{30}$$

$$\{[30 \div 10 = 3, 3 \times 23 = 69] \text{ and } [30 \div 15 = 2, 2 \times 22 = 44]\}$$

$$= \frac{25}{30}$$

$$= \frac{5}{6}$$

Q10

Answer :

$$6\frac{2}{3} - 3\frac{3}{4}$$

$$= \frac{20}{3} - \frac{15}{4}$$

$$\text{L.C.M. of 3 and 4} = (2 \times 2 \times 3) = 12$$

$$= \frac{(80-45)}{12}$$

$$\{[12 \div 3 = 4, 4 \times 20 = 80] \text{ and } [12 \div 4 = 3, 3 \times 15 = 45]\}$$

$$= \frac{35}{12}$$

$$= 2\frac{11}{12}$$

Q11

Answer :

$$7 - 5\frac{2}{3}$$

$$= \frac{7}{1} - \frac{17}{3}$$

$$\text{L.C.M. of 1 and 3} = 3$$

$$= \frac{(21-17)}{3}$$

$$\{[3 \div 1 = 3, 3 \times 7 = 21] \text{ and } [3 \div 3 = 1, 1 \times 17 = 17]\}$$

$$= \frac{4}{3} = 1\frac{1}{3}$$

Q12

Answer :

$$10 - 6\frac{3}{8}$$

$$= \frac{10}{1} - \frac{51}{8}$$

$$\text{L.C.M. of 1 and 8} = 8$$

$$= \frac{(80-51)}{8}$$

$$\{[8 \div 1 = 8, 8 \times 10 = 80] \text{ and } [8 \div 8 = 1, 1 \times 51 = 51]\}$$

$$= \frac{29}{8}$$

$$= 3\frac{5}{8}$$

Q13

Answer :

We have:

$$\frac{5}{6} - \frac{4}{9} + \frac{2}{3}$$

$$\text{L.C.M. of 3, 6 and 9} = (2 \times 3 \times 3) = 18$$

$$= \frac{(15-8+12)}{18}$$

$$\{[18 \div 6 = 3, 3 \times 5 = 15], [18 \div 9 = 2, 2 \times 4 = 8] \text{ and } [18 \div 3 = 6, 6 \times 2 = 12]\}$$

$$= \frac{(27-8)}{18}$$

$$= \frac{19}{18}$$

$$= 1\frac{1}{18}$$

$$\begin{array}{l|l} 3 & 3, 6, 9 \\ \hline \end{array}$$

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

$$\begin{array}{r|l}
 & \underline{\hspace{2cm}} \\
 2 & 1, 2, 1 \\
 & \underline{\hspace{2cm}} \\
 & 1, 1, 1 \\
 & \underline{\hspace{2cm}}
 \end{array}$$

Q14

Answer :

We have:

$$\frac{5}{8} + \frac{3}{4} - \frac{7}{12}$$

$$\begin{array}{r|l}
 2 & 4, 8, 12 \\
 & \underline{\hspace{2cm}}
 \end{array}$$

$$\begin{array}{r|l}
 2 & 2, 4, 6 \\
 & \underline{\hspace{2cm}}
 \end{array}$$

$$\begin{array}{r|l}
 2 & 1, 2, 3 \\
 & \underline{\hspace{2cm}}
 \end{array}$$

$$\begin{array}{r}
 3 \overline{) \begin{array}{c} \overline{1, 1, 3} \\ 1, 1, 1 \end{array}}
 \end{array}$$

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