$\{[30 \div 6 = 5, 5 \times 37 = 185], [30 \div 5 = 6, 6 \times 26 = 156], \text{ and } [30 \div 3 = 10, 10 \times 10$

$= \frac{(285 - 156)}{30} = \frac{\cancel{120}^{43}}{\cancel{30}_{10}} = 4\frac{3}{10}$

Q21

Answer:

We have:

$3 + 1\frac{1}{5} + \frac{2}{3} - \frac{7}{15}$

$= \frac{3}{1} + \frac{6}{5} + \frac{2}{3} - \frac{7}{15}$

$$
\begin{array}{c|ccc}
5 & 5, & 3, & 15 \\
\hline
3 & 1, & 3, & 3 \\
\hline
& 1, & 1, & 1
\end{array}
$$

L.C.M. of $1, 5, 3$ **and** $15 = \left(5 \times 3\right) = 15$

$= \frac{(45 + 18 + 10 - 7)}{15}$

$\{[15 \div 1 = 15, 15 \times 3 = 45], [15 \div 5 = 3, 3 \times 6 = 18],$
$[15 \div 3 = 5, 5 \times 2 = 10] \text{ and } [15 \div 15 = 1, 1 \times 7 = 7]\}$

$= \frac{(73 - 7)}{15} = \frac{\cancel{66}^{22}}{\cancel{15}_{5}} = \frac{22}{5} = 4\frac{2}{5}$

Q22

Answer:

Let x be added to $9\frac{2}{3}$ to get 19.

$\therefore 9\frac{2}{3} + x = 19$

Thus, we have:

$x = 19 - 9\frac{2}{3}$

$= \frac{19}{1} - \frac{29}{3}$ **L.C.M. of** 1 **and** 3 **is** 3.

$= \frac{(57 - 29)}{3}$

$\{[3 \div 1 = 3, 3 \times 19 = 57] \text{ and } [3 \div 3 = 1, 1 \times 29 = 29]\}$

$= \frac{28}{3} = 9\frac{1}{3}$

Q23

Answer:

Let x be added to $6\frac{7}{15}$ to get $8\frac{1}{5}$.

$\therefore 6\frac{7}{15} + x = 8\frac{1}{5}$

Therefore, we have:

$x = 8\frac{1}{5} - 6\frac{7}{15}$

$= \frac{41}{5} - \frac{97}{15}$ L.C.M. of 5 and 15 $= (5 \times 3) = 15$

$= \frac{(123 - 97)}{15}$

$\{[15 \div 5 = 3, 3 \times 41 = 123]$ and $[15 \div 15 = 1, 1 \times 97 = 97]\}$

$= \frac{26}{15} = 1\frac{11}{15}$

Q24

Answer:

$\left(5\frac{5}{6} + 4\frac{1}{9}\right) - \left(3\frac{5}{9} + 3\frac{1}{3}\right)$

$= \left(\frac{35}{6} + \frac{37}{9}\right) - \left(\frac{32}{9} + \frac{10}{3}\right)$

$\begin{array}{c|ccc} 2 & 6, & 9, & 3 \\ \hline 3 & 3, & 9, & 3 \\ \hline 3 & 1, & 3, & 1 \\ \hline & 1, & 1, & 1 \end{array}$

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

$= \frac{[105 + 74] - [64 + 60]}{18}$

$\{[18 \div 6 = 3, 3 \times 35 = 105]$ and $[18 \div 9 = 2, 2 \times 37 = 74]\}$

$\{[18 \div 9 = 2, 2 \times 32 = 64]$ and $[18 \div 3 = 6, 6 \times 10 = 60]\}$

$= \frac{[179] - [124]}{18} = \frac{55}{18} = 3\frac{1}{18}$

Q25

Answer :

Let us compare $\frac{3}{4}$ and $\frac{5}{7}$.

$3 \times 7 = 21$ and $4 \times 5 = 20$

Clearly, $21 > 20$

$\therefore \frac{3}{4} > \frac{5}{7}$

Required difference:

$= \frac{3}{4} - \frac{5}{7}$ L.C.M. of 4 and 7 $= (2 \times 2 \times 7) = 28$

$= \frac{21 - 20}{28}$

$\{[28 \div 4 = 7, 7 \times 3 = 21]$ and $[28 \div 7 = 4, 4 \times 5 = 20]\}$

$= \frac{1}{28}$

Hence, $\frac{3}{4}$ is greater than $\frac{5}{7}$ by $\frac{1}{28}$.

Q26

Answer :

Amount of milk left with Mrs. Soni = Total amount of milk bought by her — Amount of milk consumed

$\therefore$ Amount of milk left with Mrs. Soni

$= 7\frac{1}{2} - 5\frac{3}{4}$

$= \frac{15}{2} - \frac{23}{4}$ L.C.M. of 2 and 4 $= (2 \times 2) = 4$

$= \frac{(30 - 23)}{4}$

$\{[4 \div 2 = 2, 2 \times 15 = 30]$ and $[4 \div 4 = 1, 1 \times 23 = 23]\}$

$= \frac{7}{4} = 1\frac{3}{4}$ litres

$\therefore$ Milk left with Mrs. Soni $= 1\frac{3}{4}$ litres

Q27

Answer :

Actual duration of the film = Total duration of the show — Time spent on advertisements

$= \left(3\frac{1}{3} - 1\frac{3}{4}\right)$ hours

$= \left(\frac{10}{3} - \frac{7}{4}\right)$ hours   L.C.M. of 3 and 4 $= (2 \times 2 \times 3) = 12$

$= \left(\frac{40 - 21}{12}\right)$ hours

$\{[12 \div 3 = 4, 4 \times 10 = 40]$ and $[12 \div 4 = 3, 3 \times 7 = 21]\}$

$= \left(\frac{19}{12}\right)$ hours $= 1\frac{7}{12}$ hours

Thus, the actual duration of the film was $1\frac{7}{12}$ hours.

Q28

Answer :

Money left with the rickshaw puller = Money earned by him in a day — Money spent by him on food

$= Rs \left(137\frac{1}{2} - 56\frac{3}{4}\right)$ L.C.M. of 2 and 4 $= (2 \times 2) = 4$

$= Rs \left(\frac{275}{2} - \frac{227}{4}\right)$

$\{[4 \div 2 = 2, 2 \times 275 = 550]$ and $[4 \div 4 = 1, 1 \times 227 = 227]\}$

$= Rs \left(\frac{550 - 227}{4}\right) = Rs \left(\frac{323}{4}\right) = Rs\ 80\frac{3}{4}$

Hence, Rs $80\frac{3}{4}$ is left with the rickshaw puller.

Q29

Answer :

The length of the other piece = (Length of the wire — Length of one piece)

$= \left(2\frac{3}{4} - \frac{5}{8}\right)$ m

$= \left(\frac{11}{4} - \frac{5}{8}\right)$ m   L.C.M. of 4 and 8 $= (2 \times 2 \times 2) = 8$

$= \left(\frac{22 - 5}{8}\right)$ m $\{[8 \div 4 = 2, 2 \times 11 = 22]$ and $[8 \div 8 = 1, 1 \times 5 = 5]\}$

$= \left(\frac{17}{8}\right)$ m $= 2\frac{1}{8}$ m

Hence, the other piece is $2\frac{1}{8}$ m long.

********** END *********