



### Exercise 5F

$$\{[30 \div 6 = 5, 5 \times 37 = 185], [30 \div 5 = 6, 6 \times 26 = 156], \text{ and } [30 \div 3 = 10, 10 \times 10 = 100]\}$$

$$= \frac{(285 - 156)}{30} = \frac{129}{30} = 4\frac{3}{10}$$

Q21

**Answer :**

We have:

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

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

$$5 \mid 5, 3, 15$$

$$3 \mid 1, 3, 3$$

$$\mid 1, 1, 1$$

$$\text{L.C.M. of 1, 5, 3 and 15} = (5 \times 3) = 15$$

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

$$\{[15 \div 1 = 15, 15 \times 3 = 45], [15 \div 5 = 3, 3 \times 6 = 18],$$

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

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

Q22

**Answer :**

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

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

Thus, we have :

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

$$= \frac{19}{1} - \frac{29}{3}$$

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

L.C.M. of 1 and 3 is 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 :

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

$$= \frac{41}{5} - \frac{97}{15}$$

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

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

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

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

Q24

**Answer :**

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

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

$$2 \overline{) 6, 9, 3}$$

$$3 \overline{) 3, 9, 3}$$

$$3 \overline{) 1, 3, 1}$$

$$\overline{) 1, 1, 1}$$

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

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

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

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

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

Q25

**Answer :**

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

$$3 \times 7 = 21 \text{ and } 4 \times 5 = 20$$

Clearly,  $21 > 20$

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

Required difference:

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

$$\text{L.C.M. of 4 and 7} = (2 \times 2 \times 7) = 28$$

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

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

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

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

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

$$= \frac{15}{2} - \frac{23}{4}$$

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

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

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

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

$\therefore$  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

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

$$= \left(\frac{10}{3} - \frac{7}{4}\right) \text{ hours}$$

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

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

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

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

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

$$= \text{Rs } \left(137\frac{1}{2} - 56\frac{3}{4}\right)$$

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

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

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

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

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)

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

$$= \left(\frac{11}{4} - \frac{5}{8}\right) \text{ m}$$

$$\text{L.C.M. of 4 and 8} = (2 \times 2 \times 2) = 8$$

$$= \left(\frac{22 - 5}{8}\right) \text{ m}$$

$$\{[8 \div 4 = 2, 2 \times 11 = 22] \text{ and } [8 \div 8 = 1, 1 \times 5 = 5]\}$$

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

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

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