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Tender Heart High School, Sec-33B, Chandigarh.

Class:- V

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Subject:- Mathematics

Teacher:- MS. Sushma

Exercise 4.5

Solve the sums.

1. $\frac{4}{5} - \frac{2}{5}$

$$\frac{4-2}{5} = \frac{2}{5}$$

2. $\frac{1}{2} - \frac{3}{8}$

The LCM of 2 and 8 is
 $= 2 \times 2 \times 2 = 8$

$$\begin{array}{r|l} 2 & 2-8 \\ 2 & 1-4 \\ 2 & 1-2 \\ & 1-1 \end{array}$$

$$\frac{1}{2} \times \frac{4}{4} = \frac{4}{8}$$

Now, $\frac{4}{8} - \frac{3}{8} = \frac{4-3}{8} = \frac{1}{8}$

3. $3 - \frac{3}{4}$

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

The LCM of (1, 4) = 4

$$\frac{3}{1} \times \frac{4}{4} = \frac{12}{4} \quad \text{and} \quad \frac{3}{4} \times \frac{1}{1} = \frac{3}{4}$$

$$\frac{12}{4} - \frac{3}{4} = \frac{12-3}{4} = \frac{09}{4} = 2\frac{1}{4}$$

4. $2 - 1\frac{1}{4}$

Soln:- $\frac{2}{1} - 1\frac{1}{4}$

$$\frac{2}{1} - \frac{5}{4}$$

The LCM of (1, 4) = 4

$$\frac{2}{1} \times \frac{4}{4} - \frac{5}{4}$$

$$\frac{8}{4} - \frac{5}{4} = \frac{8-5}{4} = \frac{3}{4}$$

5. $2\frac{3}{8} - 1\frac{1}{4}$

Soln:- $2\frac{3}{8} - 1\frac{1}{4}$

$$\frac{19}{8} - \frac{5}{4}$$

The LCM of (8, 4) = $2 \times 2 \times 2$
= 8

2	8-4
2	4-2
2	2-1
	1-1

$$\frac{19}{8} - \frac{5}{4} \times \frac{2}{2}$$

$$\frac{19}{8} - \frac{10}{8} = \frac{19-10}{8} = \frac{9}{8} = 1\frac{1}{8}$$

6. $12\frac{1}{5} - 3\frac{1}{4} + 2\frac{1}{20}$

Soln:- $12\frac{1}{5} - 3\frac{1}{4} + 2\frac{1}{20}$

$$\frac{61}{5} - \frac{13}{4} + \frac{41}{20}$$

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The LCM of $(5, 4, 20) = 2 \times 2 \times 5 = 20$

$$\begin{array}{r|l} 2 & 5-4-20 \\ 2 & 5-2-10 \\ 5 & 5-1-5 \\ & 1-1-1 \end{array}$$

$$\frac{61}{5} \times \frac{4}{4} = \frac{244}{20}$$

$$\frac{13}{4} \times \frac{5}{5} = \frac{65}{20}$$

$$\frac{41}{20} \times \frac{1}{1} = \frac{41}{20}$$

$$\frac{244}{20} - \frac{65}{20} + \frac{41}{20}$$

$$\frac{244 - 65 + 41}{20} = \frac{285 - 65}{20} = \frac{220}{20} = 11 \text{ Ans}$$

Exercise 4.6

Solve these story sums.

1. Amina bought $\frac{3}{8}$ m of red ribbon and $\frac{1}{2}$ m of green ribbon. What is the total length² of ribbon that she bought?

Soln: $\rightarrow$ Length of red ribbon = $\frac{3}{8}$ m

Length of green ribbon = $\frac{1}{2}$ m

Total length of ribbon = $\left(\frac{3}{8} + \frac{1}{2}\right)$ m

The LCM of $(8, 2) = 2 \times 2 \times 2$
 $= 8$

$$= \frac{3}{8} + \frac{1}{2} \times \frac{4}{4}$$

$$= \frac{3}{8} + \frac{4}{8}$$

$$= \frac{3+4}{8} = \frac{7}{8} \text{ m}$$

2	8-2
2	4-1
2	2-1
	1-1

So, The total length of ribbon $= \frac{7}{8} \text{ m}$.

2. Raj shared a basket of apples with his sister. He ate $1\frac{1}{2}$ apples and his sister ate $\frac{3}{4}$ of an apple. How many apples did they eat together?

Soln: $\rightarrow$ Apples eaten by Raj $= 1\frac{1}{2} = \frac{3}{2}$

Apples eaten by His sister $= \frac{3}{4}$

Apples eaten by Raj and his sister $= \frac{3}{2} + \frac{3}{4}$

The LCM $(2, 4) = 2 \times 2 = 4$

$$= \frac{3}{2} \times \frac{2}{2} + \frac{3}{4}$$

$$= \frac{6}{4} + \frac{3}{4} = \frac{6+3}{4} = \frac{9}{4}$$

$$= 2\frac{1}{4}$$

2	2-4
2	1-2
	1-1

3. Ali read $\frac{1}{8}$ of the book on Monday, $\frac{1}{4}$ of the book on Tuesday and $\frac{1}{2}$ of the book on Wednesday. What fraction of the book did he read during these three days?

Soln:- Fraction of the book read on Monday = $\frac{1}{8}$

Fraction of the book read on Tuesday = $\frac{1}{4}$

Fraction of the book read on Wednesday = $\frac{1}{2}$

Fraction of the book read during three days
 $= \frac{1}{8} + \frac{1}{4} + \frac{1}{2}$

The LCM of (8, 4, 2) = $2 \times 2 \times 2 = 8$

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

Now,

$$\begin{aligned} & \frac{1}{8} + \frac{1}{4} \times \frac{2}{2} + \frac{1}{2} \times \frac{4}{4} \\ &= \frac{1}{8} + \frac{2}{8} + \frac{4}{8} \\ &= \frac{1+2+4}{8} = \frac{7}{8} \text{ Ans.} \end{aligned}$$

4. A store had $\frac{2}{3}$ dozen eggs. $\frac{1}{6}$ dozen eggs were used to bake a cake. What fraction of a dozen eggs were left?

Soln:- Eggs in a store = $\frac{2}{3}$ dozen

Eggs used to bake a cake = $\frac{1}{6}$ dozen

Eggs left = $(\frac{2}{3} - \frac{1}{6})$ dozen

$$\text{The LCM (3, 6)} = 2 \times 3 = 6$$

$$\begin{array}{r|l} 2 & 3-6 \\ 3 & 3-3 \\ \hline & 1-1 \end{array}$$

$$= \frac{2}{3} \times \frac{2}{2} - \frac{1}{6}$$

$$= \frac{4}{6} - \frac{1}{6} = \frac{4-1}{6} = \frac{3}{6} = \frac{1}{2}$$

Ans:- $\frac{1}{2}$ fraction of a dozen eggs were left.

5. There was 40L of milk in a store on a Sunday morning. At night, only $1\frac{1}{4}$ L of milk was left. How much milk was sold?

Soln:- Milk in a store on a Sunday Morning = 40L
Milk in a store left = $1\frac{1}{4}$ L
= $\frac{5}{4}$ L

$$\text{Milk sold} = (40 - \frac{5}{4}) \text{ L}$$

$$= (\frac{40 \times 4}{4} - \frac{5}{4}) \text{ L} = (\frac{160 - 5}{4}) \text{ L}$$

$$= \frac{155}{4} \text{ L} = 38 \frac{3}{4} \text{ L}$$

So, $38 \frac{3}{4}$ L milk was sold.

6. A carton had $20 \frac{1}{2}$ kg of rice. If $4 \frac{1}{4}$ kg of rice was left, how much rice was sold?

Soln:- Amount of rice in a carton = $20 \frac{1}{2}$ kg

$$= \frac{41}{2} \text{ kg}$$

Amount of rice left = $4 \frac{1}{4}$ kg

$$= \frac{17}{4} \text{ kg}$$

Amount of rice sold = $\frac{41}{2} - \frac{17}{4}$

$$= \frac{41}{2} \times \frac{2}{2} - \frac{17}{4}$$
$$= \frac{82}{4} - \frac{17}{4}$$
$$= \frac{82-17}{4}$$
$$= \frac{65}{4} = 16 \frac{1}{4} \text{ kg}$$

So, $16 \frac{1}{4}$ kg rice was sold.