

STD-IV (Enrichment Activities)

Fractions :-

E. Add :-

$$1. \frac{2}{5} + \frac{1}{5} = \frac{2+1}{5} = \frac{3}{5}$$

Ans. The required sum is $\frac{3}{5}$

$$2. \frac{4}{6} + \frac{3}{6} = \frac{4+3}{6} = \frac{7}{6} = 1\frac{1}{6}$$

Ans. The required sum is $1\frac{1}{6}$

$$3. 1\frac{2}{3} + 1\frac{1}{3}$$

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

$$= \frac{5}{3} + \frac{4}{3}$$

$$= \frac{5+4}{3}$$

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

Ans. The required sum is 3

$$4. 3\frac{2}{5} + \frac{4}{5}$$

$$= \frac{3 \times 5 + 2}{5} + \frac{4}{5}$$

$$= \frac{17}{5} + \frac{4}{5}$$

$$= \frac{17+4}{5}$$

$$= \frac{21}{5} = 4\frac{1}{5}$$

F) Subtract

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

Ans. The required difference is $\frac{1}{4}$

$$2. \quad \frac{7}{4} - \frac{4}{4} = \frac{7-4}{4} = \frac{3}{4}$$

Ans. The required difference is $\frac{3}{4}$.

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

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

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

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

$$= \frac{2}{3}$$

Ans. The required difference is $\frac{2}{3}$.

$$4. \quad 3\frac{5}{6} - 2\frac{4}{6}$$

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

$$= \frac{23}{6} - \frac{16}{6}$$

$$= \frac{23-16}{6}$$

$$= \frac{7}{6} = 1\frac{1}{6}$$

Ans. The required difference is $1\frac{1}{6}$.

Q. Solve these word problems.

$$1. \quad \text{Length of the ribbon} = 3\frac{1}{4} \text{ m} = \frac{3 \times 4 + 1}{4} \text{ m} = \frac{13}{4} \text{ m}$$

$$\begin{aligned} \text{Length of ribbon Mohan cut} &= 1\frac{1}{4} \text{ m} \\ &= \frac{(1 \times 4 + 1)}{4} \text{ m} \\ &= \frac{5}{4} \text{ m} \end{aligned}$$

$$\begin{aligned} \text{Length of ribbon left over} &= 13\frac{3}{4} \text{ m} - \frac{5}{4} \text{ m} \\ &= \frac{13-5}{4} \text{ m} \\ &= \frac{8}{4} \text{ m} = 2 \text{ m} \end{aligned}$$

Ans. 2m ribbon was left over.

$$\begin{aligned} 2. \text{ Weight of Mohit's sister} &= 27\frac{2}{5} \text{ kg} \\ &= \frac{27 \times 5 + 2}{5} \text{ kg} \\ &= \frac{135 + 2}{5} \text{ kg} \\ &= \frac{137}{5} \text{ kg} \end{aligned}$$

$$\begin{aligned} \text{Weight of Kundan's sister is more by} &= 1\frac{3}{5} \text{ kg} \\ &= \frac{1 \times 5 + 3}{5} \text{ kg} \\ &= \frac{8}{5} \text{ kg} \end{aligned}$$

$$\begin{aligned} \text{Required weight of Kundan's sister} &= \frac{137}{5} \text{ kg} + \frac{8}{5} \text{ kg} \\ &= \left(\frac{137 + 8}{5} \right) \text{ kg} \\ &= \frac{145}{5} \text{ kg} = \frac{145 \div 5}{5 \div 5} \text{ kg} = \frac{29}{1} \text{ kg} \\ &= 29 \text{ kg} \end{aligned}$$

Ans. The required weight of Kundan's sister is 29kg.