STD IV   MATHEMATICS

CHAPTER 9   FRACTIONS

Do the following assignment in your Maths copy.

1. Subtract the following :

Eg. $\dfrac{8}{9}$ - $\dfrac{5}{9}$

Solu: $\dfrac{8-5}{9}$

= $\dfrac{3}{9}$

= $\dfrac{3 \div 3}{9 \div 3}$

= $\dfrac{1}{3}$

a) $\dfrac{16}{17}$ - $\dfrac{14}{17}$ b) $\dfrac{16}{28}$ - $\dfrac{8}{28}$ c) $\dfrac{23}{47}$ - $\dfrac{13}{47}$

2. Fill in the blanks :

Eg.1 $\dfrac{10}{19}$ - $\dfrac{\overline{}}{19}$ = $\dfrac{2}{19}$

Solu : $\dfrac{10}{19}$ - $\dfrac{2}{19}$

= $\dfrac{10-2}{19}$

= $\dfrac{8}{19}$

Ans. 8

Eg.2 : $\dfrac{\overline{}}{15}$ - $\dfrac{2}{15}$ = $\dfrac{6}{15}$

Solu : $\dfrac{6}{15}$ + $\dfrac{2}{15}$

= $\dfrac{6 + 2}{15}$

= $\dfrac{8}{15}$

Ans. <mark>8</mark>

a) $\dfrac{11}{17}$ - $\dfrac{\overline{}}{17}$ = $\dfrac{8}{17}$

b) $\dfrac{21}{43}$ - $\dfrac{\overline{}}{43}$ = $\dfrac{16}{43}$

c) $\dfrac{\overline{}}{28}$ - $\dfrac{5}{28}$ = $\dfrac{15}{28}$

3. Subtract the following :

Eg. : $\dfrac{5}{6}$ - $\dfrac{8}{15}$

Solu : L.C.M of 6 and 15 = 30

$\dfrac{5}{6}$ = $\dfrac{5 \times 5}{6 \times 5}$ = $\dfrac{25}{30}$

$\dfrac{8}{15}$ = $\dfrac{8 \times 2}{15 \times 2}$ = $\dfrac{16}{30}$

ROUGH

2	6		3	15
3	3		5	5
	1			1

6 = 2X3

15 = 3X5

L.C.M = 2X3X5

= 30

$$\frac{25}{30} - \frac{16}{30}$$

$$= \frac{25 - 16}{30}$$

$$= \frac{9}{30}$$

$$= \frac{9 \div 3}{30 \div 3}$$

$$= \frac{3}{10}$$

a) $\frac{7}{9} - \frac{11}{15}$ b) $\frac{11}{36} - \frac{2}{9}$ c) $\frac{17}{25} - \frac{7}{15}$

4. Solve the following sums:

Eg.   In a container $3\frac{1}{2}$ litres of milk was kept . If

$1\frac{1}{2}$ litres of milk was used . Find how much

milk is left over?

Solu: Litres of milk kept in a container $= 3\frac{1}{2}$ or $\frac{7}{2}$

Litres of milk was used $= 1\frac{1}{2}$ or $\frac{3}{2}$

Litres of milk left $= \frac{7}{2} - \frac{3}{2}$

$= 2$

Ans. <u>2 litres</u> of milk is left.

<u>Working</u>

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

a) Two strings of length $4\frac{1}{2}$ m and $3\frac{1}{2}$ m are joined. What is the total length of the joined string ?

b) Mr. Sharma spent $\frac{5}{7}$ of his income. Find how money did he save?

Hint : $1 - \frac{5}{7}$ or $\frac{1}{1} - \frac{5}{7}$

L.C.M of 1 and 7 is 7

$$\frac{1 X 7}{1 X 7} - \frac{5 X 1}{7 X 1}$$

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

$$= \frac{2}{7}$$