



Exercise 5F

Q1

Answer :

Difference of like fractions = Difference of numerator \div Common denominator

$$\frac{5}{8} - \frac{1}{8} = \frac{(5-1)}{8} = \frac{\cancel{4}^1}{\cancel{8}_2} = \frac{1}{2}$$

Q2

Answer :

Difference of like fractions = Difference of numerator \div Common denominator

$$\frac{7}{12} - \frac{5}{12} = \frac{(7-5)}{12} = \frac{\cancel{2}^1}{\cancel{12}_6} = \frac{1}{6}$$

Q3

Answer :

Difference of like fractions = Difference of numerator \div Common denominator

$$\begin{aligned} 4\frac{3}{7} - 2\frac{4}{7} &= \frac{31}{7} - \frac{18}{7} \\ &= \frac{(31-18)}{7} \\ &= \frac{13}{7} \end{aligned}$$

Q4

Answer :

$$\frac{5}{6} - \frac{4}{9}$$

$$\begin{array}{r} 3 \overline{) 6, 9} \end{array}$$

$$\begin{array}{r} 2 \overline{) 2, 3} \end{array}$$

$$\begin{array}{r} 3 \overline{) 1, 3} \end{array}$$

$$\begin{array}{r} \overline{) 1, 1} \end{array}$$

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

Now, we have:

$$\frac{5}{6} = \frac{5 \times 3}{6 \times 3} = \frac{15}{18}; \quad \frac{4}{9} = \frac{4 \times 2}{9 \times 2} = \frac{8}{18}$$

$$\therefore \frac{5}{6} - \frac{4}{9} = \frac{15}{18} - \frac{8}{18} = \frac{(15-8)}{18} = \frac{7}{18}$$

Q5

Answer :

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

L.C.M. of 2 and 8 = $(2 \times 2 \times 2) = 8$

Now, we have:

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

$$\therefore \frac{1}{2} - \frac{3}{8} = \frac{4}{8} - \frac{3}{8} = \frac{(4-3)}{8} = \frac{1}{8}$$

Q6

Answer :

$$\frac{5}{8} - \frac{7}{12}$$

$$2 \overline{) 8, 12}$$

$$2 \overline{) 4, 6}$$

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

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

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

L.C.M. of 8 and 12 = $(2 \times 2 \times 2 \times 3) = 24$

Now, we have:

$$\frac{5}{8} = \frac{5 \times 3}{8 \times 3} = \frac{15}{24}; \quad \frac{7}{12} = \frac{7 \times 2}{12 \times 2} = \frac{14}{24}$$

$$\therefore \frac{5}{8} - \frac{7}{12} = \frac{15}{24} - \frac{14}{24} = \frac{(15-14)}{24} = \frac{1}{24}$$

Q7

Answer :

$$2\frac{7}{9} - 1\frac{8}{15}$$
$$= \frac{25}{9} - \frac{23}{15}$$

$$3 \overline{) 9, 15}$$

$$3 \overline{) 3, 5}$$

$$5 \overline{) 1, 5}$$

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

L.C.M. of 9 and 15 = $\left(3 \times 3 \times 5\right) = 45$

$$\therefore \frac{25}{9} - \frac{23}{15} = \frac{(125-69)}{45} = \frac{56}{45} = 1\frac{11}{45}$$

{[45 ÷ 9 = 5, 5 × 25 = 125] and [45 ÷ 15 = 3, 3 × 23 = 69]}

***** END *****

