Fractions Ex 2.1 Q7

Answer :

(i)

$\frac{6}{7}-\frac{9}{11}$

$LCM\ of\ 7\ and\ 11\ is\ 77.$

$\Rightarrow \frac{6}{7}-\frac{9}{11} \Leftrightarrow \frac{(6\times11)-(9\times7)}{77} \Leftrightarrow \frac{3}{77}$

(ii)

$8-\frac{5}{9}$

$LCM\ of\ 1\ and\ 9\ is\ 9.$

$\Rightarrow \frac{8}{1}-\frac{5}{9} \Leftrightarrow \frac{(8\times9)-(5\times1)}{9} \Leftrightarrow \frac{67}{9}$

(iii)

$9-5\frac{2}{3} \Leftrightarrow \frac{9}{1}-\frac{(5\times3)+2}{3}$

$LCM\ of\ 1\ and\ 3\ is\ 3.$

$\Rightarrow \frac{9}{1}-\frac{17}{3} \Leftrightarrow \frac{(9\times3)-(17\times1)}{3} \Leftrightarrow \frac{10}{3}$

(iv)

$4\frac{3}{10}-1\frac{2}{15} \Leftrightarrow \frac{(4\times10)+3}{10}-\frac{(15\times1)+2}{15}$

$LCM\ of\ 10\ and\ 15\ is\ 30.$

$\Rightarrow \frac{43}{10}-\frac{17}{15} \Leftrightarrow \frac{(43\times3)-(17\times2)}{30} \Leftrightarrow \frac{95}{30} \Leftrightarrow \frac{19}{6}$

Fractions Ex 2.1 Q8

Answer :

(i)

$$\frac{2}{3}+\frac{1}{6}-\frac{2}{9}$$

LCM of 3.6 and 9 is 18.

$$=\frac{2}{3}+\frac{1}{6}-\frac{2}{9}$$

$$=\frac{(2\times6)+(1\times3)-(2\times2)}{18}$$

$$=\frac{11}{18}$$

(ii)

$$12-3\frac{1}{2}=\frac{12}{1}-\frac{(3\times2)+1}{2}$$

LCM of 2 and 1 is 2.

$$=\frac{12}{1}-\frac{7}{2}$$

$$=\frac{(12\times2)-(7\times1)}{2}$$

$$=\frac{17}{2}$$

(iii)

$$7\frac{5}{6}-4\frac{3}{8}+2\frac{7}{12}=\frac{(7\times6)+5}{6}-\frac{(4\times8)+3}{8}+\frac{(2\times12)+7}{12}$$

LCM of $6, 8$ and 12 is 24.

$$=\frac{47}{6}-\frac{35}{8}+\frac{31}{12}$$

$$=\frac{(47\times4)-(35\times3)+(31\times2)}{24}$$

$$=\frac{145}{24}$$

Fractions Ex 2.1 Q9

Answer :

Let x be the required fraction.

According to the question:

$$x+5\frac{3}{7}=12$$

$$\Rightarrow x+\frac{(5\times7)+3}{7}=12$$

$$\Rightarrow x=12-\frac{38}{7}$$

$$\Rightarrow x=\frac{(12\times7)-(38\times1)}{7}\Leftrightarrow\frac{46}{7}$$

********** END **********