Rational Numbers Ex 1.1 Q4

Answer :

(i)

We have $\frac{-12}{5} + \frac{43}{10}$.

L.C.M. of the denominators 5 and 10 is 10.

Now, we will express $\frac{-12}{5}$ in the form in which it takes the denominator 10.

$\frac{-12 \times 2}{5 \times 2} = \frac{-24}{10}$

$\therefore \frac{-12}{5} + \frac{43}{10} = \frac{-24}{10} + \frac{43}{10}$

$= \frac{-24+43}{10}$

$= \frac{19}{10}$

$= 1\frac{9}{10}$

(ii)

We have $\frac{24}{7} + \frac{-11}{4}$.

L.C.M. of the denominators 7 and 4 is 28.

Now, we will express $\frac{24}{7}$ and $\frac{-11}{4}$ in the form in which they take the denominator 28.

$\frac{24 \times 4}{7 \times 4} = \frac{96}{28}$

$\frac{-11 \times 7}{4 \times 7} = \frac{-77}{28}$

$\therefore \frac{24}{7} + \frac{-11}{4} = \frac{96}{28} + \frac{-77}{28}$

$= \frac{96-77}{28}$

$= \frac{19}{28}$

(iii)

We have $\frac{-31}{6} + \frac{-27}{8}$.

L.C.M. of the denominators 6 and 8 is 24.

Now, we will express $\frac{-31}{6}$ and $\frac{-27}{8}$ in the form in which they take the denominator 24.

$\frac{-31 \times 4}{6 \times 4} = \frac{-124}{24}$

$\frac{-27 \times 3}{8 \times 3} = \frac{-81}{24}$

$\therefore \frac{-31}{6} + \frac{-27}{8} = \frac{-124}{24} + \frac{-81}{24}$

$= \frac{-124-81}{24}$

$= \frac{-205}{24}$

$= -8\frac{13}{24}$

(iv)

We have $\frac{101}{6} + \frac{7}{8}$.

L.C.M. of the denominators 6 and 8 is 24.

Now, we will express $\frac{101}{6}$ and $\frac{7}{8}$ in the form in which they take the denominator 24.

$$\frac{101 \times 4}{6 \times 4} = \frac{404}{24}$$

$$\frac{7 \times 3}{8 \times 3} = \frac{21}{24}$$

$$\therefore \quad \frac{101}{6} + \frac{7}{8} = \frac{404}{24} + \frac{21}{24}$$

$$= \frac{404 + 21}{24}$$

$$= \frac{425}{24}$$

$$= 17\frac{17}{24}$$