



Rational Numbers Ex 1.4 Q1

Answer :

(i)

$$\begin{aligned} & \frac{3}{4} + \frac{5}{6} + \frac{-7}{8} \\ &= \frac{18}{24} + \frac{20}{24} + \frac{-21}{24} \\ &= \frac{18+20+(-21)}{24} \\ &= \frac{18+20-21}{24} \\ &= \frac{17}{24} \end{aligned}$$

(ii)

$$\begin{aligned} & \frac{2}{3} + \frac{-5}{6} + \frac{-7}{9} \\ &= \frac{12}{18} + \frac{-15}{18} + \frac{-14}{18} \end{aligned}$$

$$= \frac{12 + (-15) + (-14)}{18}$$

$$= \frac{12 - 15 - 14}{18}$$

$$= \frac{-17}{18}$$

(iii)

$$\begin{aligned}& \frac{-11}{2} + \frac{7}{6} + \frac{-5}{8} \\&= \frac{-132}{24} + \frac{28}{24} + \frac{-15}{24} \\&= \frac{(-132) + 28 + (-15)}{24} \\&= \frac{-132 + 28 - 15}{24} \\&= \frac{-119}{24}\end{aligned}$$

(iv)

$$\begin{aligned}& \frac{-4}{5} + \frac{-7}{10} + \frac{-8}{15} \\&= \frac{-24}{30} + \frac{-21}{30} + \frac{-16}{30} \\&= \frac{(-24) + (-21) + (-16)}{30} \\&= \frac{-24 - 21 - 16}{30} \\&= \frac{-61}{30}\end{aligned}$$

$$\left(\mathbf{v} \right)$$

$$\begin{aligned} & \frac{-9}{10} + \frac{22}{15} + \frac{13}{-20} \\ &= \frac{-54}{60} + \frac{88}{60} + \frac{-39}{60} \\ &= \frac{(-54)+88+(-39)}{60} \\ &= \frac{-54+88-39}{60} \\ &= \frac{-5}{60} \\ &= \frac{-1}{12} \end{aligned}$$

$$\left(\mathbf{vi} \right)$$

$$\begin{aligned} & \frac{5}{3} + \frac{3}{-2} + \frac{-7}{3} + 3 \\ &= \frac{10}{6} + \frac{-9}{6} + \frac{-14}{6} + \frac{18}{6} \\ &= \frac{10+(-9)+(-14)+18}{6} \\ &= \frac{10-9-14+18}{6} \\ &= \frac{5}{6} \end{aligned}$$

***** END *****