Rational Numbers Ex 1.4 Q2

Answer :

(i)

$$\frac{-8}{3} + \frac{-1}{4} + \frac{-11}{6} + \frac{3}{8} - 3$$

$$= \frac{-64}{24} + \frac{-6}{24} + \frac{-44}{24} + \frac{9}{24} - \frac{72}{24}$$

$$= \frac{(-64) + (-6) + (-44) + 9 + (-72)}{24}$$

$$= \frac{-64 - 6 - 44 + 9 - 72}{24}$$

$$= \frac{-177}{24}$$

$$= \frac{-59}{8}$$

(ii)

$$\frac{6}{7} + 1 + \frac{-7}{9} + \frac{19}{21} + \frac{-12}{7}$$

$$= \frac{54}{63} + \frac{63}{63} + \frac{-49}{63} + \frac{57}{63} + \frac{-108}{63}$$

$$= \frac{54 + 63 + (-49) + 57 + (-108)}{63}$$

$$= \frac{54 + 63 - 49 + 57 - 108}{63}$$

$$= \frac{17}{63}$$

(iii)

$$\frac{15}{2} + \frac{9}{8} + \frac{-11}{3} + 6 + \frac{-7}{6}$$

$$= \frac{180}{24} + \frac{27}{24} + \frac{-88}{24} + \frac{144}{24} + \frac{-28}{24}$$

$$= \frac{180 + 27 + (-88) + 144 + (-28)}{24}$$

$$= \frac{180 + 27 - 88 + 144 - 28}{24}$$

$$= \frac{235}{24}$$

(iv)

$$\frac{-7}{4} + 0 + \frac{-9}{5} + \frac{19}{10} + \frac{11}{14}$$

$$= \frac{-245}{140} + \frac{-252}{140} + \frac{266}{140} + \frac{110}{140}$$

$$= \frac{(-245) + (-252) + 266 + 110}{140}$$

$$= \frac{-245 - 252 + 266 + 110}{140}$$

$$= \frac{-121}{140}$$

(v)

$$\frac{-7}{4} + \frac{5}{3} + \frac{-1}{2} + \frac{-5}{6} + 2$$

$$= \frac{-21}{12} + \frac{20}{12} + \frac{-6}{12} + \frac{-10}{12} + \frac{24}{12}$$

$$= \frac{(-21) + 20 + (-6) + (-10) + 24}{12}$$

$$= \frac{-21 + 20 - 6 - 10 + 24}{12}$$

$$= \frac{7}{12}$$

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