RATIONAL NUMBERS

MULTIPLICATION AND DIVISION OF RATIONAL NUMBERS

EXERCISE

Q.1   Multiply:

(i) $\dfrac{7}{11}$ by $\dfrac{5}{4}$ (ii) $\dfrac{5}{7}$ by $\dfrac{-3}{4}$

(iii) $\dfrac{-2}{9}$ by $\dfrac{5}{11}$ (iv) $\dfrac{-3}{17}$ by $\dfrac{-5}{-4}$

(v) $\dfrac{9}{-7}$ by $\dfrac{36}{-11}$ (vi) $\dfrac{-11}{13}$ by $\dfrac{-21}{7}$

(vii) $-\dfrac{3}{5}$ by $-\dfrac{4}{7}$ (viii) $-\dfrac{15}{11}$ by 7

Q.2   Multiply:

(i) $\dfrac{-5}{17}$ by $\dfrac{51}{-60}$ (ii) $\dfrac{-6}{11}$ by $\dfrac{-55}{36}$

(iii) $\dfrac{-8}{25}$ by $\dfrac{-5}{16}$ (iv) $\dfrac{6}{7}$ by $\dfrac{-49}{36}$

(v) $\dfrac{8}{-9}$ by $\dfrac{-7}{-16}$ (vi) $\dfrac{-8}{9}$ by $\dfrac{3}{64}$

Q.3   Simplify each of the following and express the result as a rational number in standard form:

(i) $\dfrac{-16}{21}\times\dfrac{14}{5}$ (ii) $\dfrac{7}{6}\times\dfrac{-3}{28}$

(iii) $\dfrac{-19}{36}\times16$ (iv) $\dfrac{-13}{9}\times\dfrac{27}{-26}$

(v) $\dfrac{-9}{16} \times \dfrac{-64}{-27}$ (vi) $\dfrac{-50}{7} \times \dfrac{14}{3}$

(vii) $\dfrac{-11}{9} \times \dfrac{-81}{-88}$ (viii) $\dfrac{-5}{9} \times \dfrac{72}{-25}$

Q.4   Simplify:

(i) $\left(\dfrac{25}{8} \times \dfrac{2}{5} \right) - \left(\dfrac{3}{5} \times \dfrac{-10}{9} \right)$

(ii) $\left(\dfrac{1}{2} \times \dfrac{1}{4} \right) + \left(\dfrac{1}{2} \times 6 \right)$

(iii) $\left(-5 \times \dfrac{2}{15} \right) - \left(-6 \times \dfrac{2}{9} \right)$

(iv) $\left(\dfrac{-9}{4} \times \dfrac{5}{3} \right) + \left(\dfrac{13}{2} \times \dfrac{5}{6} \right)$

(v) $\left(\dfrac{-4}{3} \times \dfrac{12}{-5} \right) + \left(\dfrac{3}{7} \times \dfrac{21}{15} \right)$

(vi) $\left(\dfrac{13}{5} \times \dfrac{8}{3} \right) - \left(\dfrac{-5}{2} \times \dfrac{11}{3} \right)$

(vii) $\left(\dfrac{13}{7} \times \dfrac{11}{26} \right) - \left(\dfrac{-4}{3} \times \dfrac{5}{6} \right)$

(viii) $\left(\dfrac{8}{5} \times \dfrac{-3}{2} \right) + \left(\dfrac{-3}{10} \times \dfrac{11}{16} \right)$