

① Find the reciprocal of (i) $-\frac{1}{4} \times \frac{7}{5}$ (ii) $-\frac{4}{5} \times \frac{2}{3}$

Sol: \rightarrow (i) $-\frac{1}{4} \times \frac{7}{5} = \frac{-7}{20} \rightarrow$ reciprocal of $\frac{-7}{20} = \frac{-20}{7}$

(ii) $-\frac{4}{5} \times \frac{2}{3} = \frac{-8}{15} \rightarrow$ reciprocal of $\frac{-8}{15} = \frac{-15}{8}$

② Multiply $\frac{5}{9}$ by the reciprocal of $-\frac{4}{7}$

Sol Reciprocal of $-\frac{4}{7} = \frac{-7}{4}$

$\therefore \frac{5}{9} \times \frac{-7}{4} = \frac{-35}{36}$

(3) Multiply and write the product in its lowest terms

$-\frac{2}{9} \times \left[-\frac{36}{5}\right] \times \left[-\frac{10}{9}\right] \times (-12)$

Sol $\Rightarrow -\frac{2}{9} \times \left[-\frac{36}{5}\right] \times \left[-\frac{10}{9}\right] \times (-12) = \frac{-2}{9} \times \frac{-36}{5} \times \frac{-10}{9} \times -12$

$= \frac{(-2) \times (-4) \times (-2) \times (-4)}{3} = \frac{64}{3}$ Ans

④ Evaluate $\rightarrow \left[\frac{5}{9} \div \frac{15}{36}\right] \div -\frac{5}{6}$

Sol: $\rightarrow \left[\frac{5}{9} \div \frac{15}{36}\right] \div -\frac{5}{6} \Rightarrow \left[\frac{5}{9} \times \frac{36}{15}\right] \div -\frac{5}{6}$
 $= \frac{4}{3} \div -\frac{5}{6} = \frac{4}{3} \times -\frac{6}{5}$
 $= \frac{4 \times -2}{5} = \frac{-8}{5}$

⑤ Simplify $\left[\frac{9}{16} \times \frac{4}{12}\right] + \left[\frac{9}{16} \times \frac{-3}{9}\right]$

Sol: $\rightarrow \left[\frac{9}{16} \times \frac{1}{3}\right] + \left[\frac{9}{16} \times \frac{-3}{9}\right]$
 $= \frac{3}{16} + \frac{-3}{16} = \frac{3+(-3)}{16}$
 $= \frac{0}{16} = 0$

H.W.

① Multiply $\frac{1}{7}$ by the reciprocal of $-\frac{3}{8}$

② Find the reciprocal of (i) $-\frac{3}{4} \times \frac{5}{2}$ (ii) $\frac{2}{5} \times \frac{1}{3}$

③ Divide $-\frac{2}{3}$ by $\frac{-8}{15}$

④ Find two rational numbers between $\frac{2}{3}$ and $\frac{1}{4}$

⑤ Evaluate $\rightarrow \left[-\frac{3}{29} \div \frac{9}{87}\right] \div -\frac{1}{7}$

⑥ Write any two positive rational numbers.