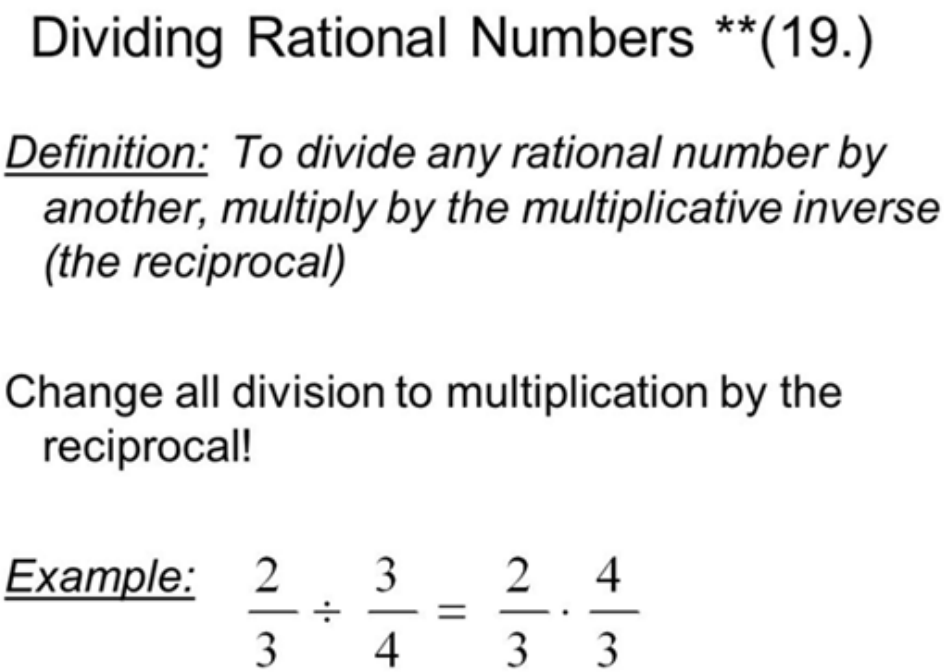
NCERT Class 7 Mathematics Solutions: Chapter 9 – Rational Numbers Exercise 9.2 Part 1



1. Find the sum:

(i) $\frac{4}{5}+\left(-\frac{11}{4}\right)$

(ii) $\frac{5}{3}+\frac{3}{5}$

(iii) $-\frac{9}{10}+\frac{22}{15}$

(iv) $-\frac{3}{-11}+\frac{5}{9}$

(v) $-\frac{8}{19}+\frac{(-2)}{57}$

(vi) $-\frac{2}{3}+0$

(vii) $-2\frac{1}{3}+4\frac{3}{5}$

Answer:

(i) $\frac{5}{4}+\left(-\frac{11}{4}\right)$

$=\frac{5}{4}-\frac{11}{4}$

$=\frac{5-11}{4}$

$=-\frac{6}{4}$

$=-\frac{3}{2}$

(ii) $\frac{5}{3}+\frac{3}{5}$

L. C. M of $3 \text{and} 5 \text{is} 15$

$\frac{5}{3}+\frac{3}{5}=\frac{5\times5}{3\times5}+\frac{3\times3}{5\times3}$

$=\frac{25}{15}+\frac{9}{15}$

$=\frac{34}{15}$

(iii) $-\frac{9}{10}+\frac{22}{15}$

L. C. M of $10 \text{and} 15 \text{is} 30$

$=-\frac{9}{10}+\frac{22}{15}=-\frac{9\times3}{10\times3}+\frac{22\times2}{15\times2}$

$=-\frac{27}{30}+\frac{44}{30}$

$=\frac{17}{30}$

(iv) $-\frac{3}{-11}+\frac{5}{9}$

$\frac{3}{11}+\frac{5}{9}$

L. C. M of 11and9is99

$$\frac{3}{11}+\frac{5}{9}=\frac{3\times 9}{11\times 9}+\frac{5\times 11}{9\times 11}$$

$$=\frac{27}{99}+\frac{55}{99}$$

$$=\frac{82}{99}$$

(v) $-\frac{8}{19}+\frac{-2}{57}$

$$-\frac{8}{19}-\frac{2}{57}$$

L. C. M of 19and57is99

$$\frac{8}{19}-\frac{2}{57}=-\frac{8\times 3}{19\times 3}-\frac{2\times 1}{57\times 1}$$

$$=-\frac{24}{57}-\frac{2}{57}$$

$$=-\frac{26}{57}$$

(vi) $-\frac{2}{3}+0$

$$=-\frac{2}{3}$$

(vii) $-2\frac{1}{3}+4\frac{3}{5}$

$$=-\frac{7}{3}+\frac{23}{5}$$

L. C. M of 3and5is15

$$-\frac{7}{3}+\frac{23}{5}=-\frac{7\times 5}{3\times 5}+\frac{23\times 3}{5\times 3}$$

$$=-\frac{35}{15}+\frac{69}{15}$$

$$=\frac{34}{15}$$