



SpeedLabs

MATHS

ICSE 8th

TEEVRA EDUTECH PVT. LTD.

1. A shopkeeper purchased a book for Rs. 345, a pencil box for Rs. 62, a note book for Rs. 21 and a pen for Rs. 79. He sold the book for Rs. 376, pencil for Rs. 55, notebook for Rs. 25 and a pen for Rs. 67. What is his gain or loss?

Ans. Total Cost in Rs. = $345 + 62 + 21 + 79 = 507$
Total Sales in Rs. = $376 + 55 + 25 + 67 = 523$
Gain = Total Sales - Total Cost = $523 - 507 = \text{Rs. } 16$

2. The sum of the two integers is -29 . If one of the integer is 182 , find the other.

Ans. Let one integer = a
 $a + 182 = -29$
 $a = -29 - (182)$
 $= -211$

3. The difference of an integer a and -37 is -14 . Find the value of a .

Ans. $a - (-37) = -14$
 $a = -14 + (-37) = -51$

4. Find the Sum.

(i) $\frac{-7}{17} + \frac{6}{17} = \frac{-1}{17}$

(ii) $\frac{-5}{12} + \frac{7}{-12} = \frac{-12}{12} = -1$

(iii) $\frac{8}{15} + \frac{5}{12} = \frac{32+25}{60} = \frac{19}{20}$ (Note: LCM of 15 and 12 is 60)

(iv) $\frac{-11}{18} + \frac{5}{-12} = \frac{-22-15}{36} = \frac{-37}{36}$ (Note: LCM of 18 and 12 is 36)

5. Subtract.

(i) $\frac{2}{3}$ from $\frac{5}{6}$

Ans. $\frac{5}{6} - \frac{2}{3} = \frac{5}{6} - \frac{4}{6} = \frac{1}{6}$

(ii) $\frac{-2}{5}$ from $\frac{-5}{7}$

Ans. $\frac{-2}{5} - \left(\frac{-5}{7}\right) = \frac{-25}{35} + \frac{14}{35} = \frac{-11}{35}$

(iii) $\frac{4}{9}$ from $\frac{-7}{8}$

Ans. $\frac{-7}{8} - \frac{4}{9} = \frac{-53}{72} - \frac{32}{72} = \frac{-95}{72}$

(iv) $\frac{-11}{6}$ from $\frac{8}{3}$

Ans. $\frac{8}{3} - \left(\frac{-11}{6}\right) = \frac{16}{6} + \frac{11}{6} = \frac{9}{2}$

6. The sum of two rational numbers is $\frac{-4}{9}$. If one of them is $\frac{13}{6}$ then find the other.

Ans. $\frac{13}{6} + a = \frac{-4}{9}$

$$a = \frac{-4}{9} - \frac{13}{6} = \frac{-47}{18}$$

7. What number should to be added to $\frac{-2}{3}$ to get $\frac{-1}{7}$.

Ans. $\frac{-2}{3} + a = \frac{-1}{7}$

$$a = \frac{-1}{7} + \frac{2}{3} = \frac{11}{21}$$

8. What number should to be subtracted to -2 to get $\frac{7}{11}$

Ans. $-2 - a = \frac{7}{11}$

$$a = -2 - \frac{7}{11} = \frac{-29}{11}$$

9. By what number must $\frac{1}{26}$ be divided to get $\frac{-8}{39}$?

Ans. $\frac{1}{26} \div a = \frac{-8}{39}$

$$\frac{1}{26} \times \frac{1}{a} = \frac{-8}{39}$$

$$a = \frac{-1}{26} \times \frac{39}{8} = \frac{-3}{16}$$

10. Find the quotient:

(i) $\frac{17}{8} \div \frac{51}{4}$

Ans. $\frac{17}{8} \div \frac{51}{4} = \frac{17}{8} \times \frac{4}{51} = \frac{4}{24} = \frac{1}{6}$

(ii) $\frac{-16}{35} \div \frac{15}{14}$

Ans. $\frac{-16}{35} \div \frac{15}{14} = \frac{-16}{35} \times \frac{14}{15} = \frac{-32}{75}$

(iii) $\frac{-12}{7} \div (-16)$

Ans. $\frac{-12}{7} \div (-16) = \frac{-12}{7} \times \frac{-1}{16} = \frac{3}{28}$

(iv) $-9 \div \left(\frac{-5}{18}\right)$

Ans. $-9 \div \left(\frac{-5}{18}\right) = -9 \times \frac{18}{-5} = \frac{162}{5}$