

Fractions Ex 2.1 Q14

Answer:

Sum along columns and rows:

$$\begin{array}{c} \frac{4}{11} + \frac{9}{11} + \frac{2}{11} = \frac{15}{11} \\ \frac{3}{11} + \frac{5}{11} + \frac{7}{11} = \frac{15}{11} \\ \frac{8}{11} + \frac{1}{11} + \frac{6}{11} = \frac{15}{11} \\ \frac{4}{11} + \frac{3}{11} + \frac{8}{11} = \frac{15}{11} \\ \frac{9}{11} + \frac{5}{11} + \frac{1}{11} = \frac{15}{11} \\ \frac{2}{11} + \frac{7}{11} + \frac{6}{11} = \frac{15}{11} \\ \text{Sum along diagonals} : \\ \frac{4}{11} + \frac{5}{11} + \frac{6}{11} = \frac{15}{11} \\ \end{array}$$

$$\frac{4}{11} + \frac{5}{11} + \frac{6}{11} = \frac{15}{11}$$
$$\frac{2}{11} + \frac{5}{11} + \frac{8}{11} = \frac{15}{11}$$

 $\frac{2}{11}+\frac{5}{11}+\frac{8}{11}=\frac{15}{11}$ Since, all the sums in the square $\,$ are equal along rows, columns and diagonals, it is a magic square.

Fractions Ex 2.1 Q15

Cost of mathematics book = Rs 25 $\frac{3}{4} = \frac{(25 \times 4) + 3}{4} = \text{Rs} \frac{103}{4}$

Cost of Science book = Rs $20\frac{1}{2} = \frac{(20 \times 2) + 1}{2} = \frac{41}{2} = \frac{41}{2} \times \frac{2}{2} = \text{Rs} \frac{82}{4}$

We know

$$82 < 103$$

$$= > \frac{82}{4} < \frac{103}{4}$$

Thus, Mathematics book costs more.

Difference in the cost of Mathematics and Science book = cost of Mathematics book – Cost of Science book = $\frac{103}{4} - \frac{82}{4}$

$$= \frac{103}{4} - \frac{82}{4}$$
$$= \frac{21}{4} = \text{Rs } 5\frac{1}{4}$$

So, Mathematics book costs more by Rs $5\frac{1}{4}$

Fractions Ex 2.1 Q16

Answer:

(i)
$$\frac{2}{3} \times x = \frac{10}{30}$$

 $x = \frac{10}{30} \times \frac{3}{2} = \frac{1}{2}$

(ii)
$$\frac{3}{5} \times x = \frac{24}{75}$$
 $x = \frac{24}{75} \times \frac{5}{3} = \frac{8}{15}$

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