Fractions Ex 2.1 Q14

Answer :

Sum along columns and rows :

$\frac{4}{11}+\frac{9}{11}+\frac{2}{11}=\frac{15}{11}$

$\frac{3}{11}+\frac{5}{11}+\frac{7}{11}=\frac{15}{11}$

$\frac{8}{11}+\frac{1}{11}+\frac{6}{11}=\frac{15}{11}$

$\frac{4}{11}+\frac{3}{11}+\frac{8}{11}=\frac{15}{11}$

$\frac{9}{11}+\frac{5}{11}+\frac{1}{11}=\frac{15}{11}$

$\frac{2}{11}+\frac{7}{11}+\frac{6}{11}=\frac{15}{11}$

Sum along diagonals :

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

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

Since, all the sums in the square are equal along rows, columns and diagonals, it is a magic square.

Fractions Ex 2.1 Q15

Answer :

Cost of mathematics book $=\text{Rs } 25\frac{3}{4}=\frac{(25\times4)+3}{4}=\text{Rs }\frac{103}{4}$

Cost of Science book $=\text{Rs } 20\frac{1}{2}=\frac{(20\times2)+1}{2}=\frac{41}{2}=\frac{41}{2}\times\frac{2}{2}=\text{Rs }\frac{82}{4}$

We know

$82<103$

$\Rightarrow \frac{82}{4}<\frac{103}{4}$

Thus, Mathematics book costs more.

Difference in the cost of Mathematics and Science book = cost of Mathematics book − Cost of Science book

$=\frac{103}{4}-\frac{82}{4}$

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

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

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 **********