

OBJECTIVE

To multiply two fractions (say, $\frac{3}{4}$ and $\frac{5}{6}$)

MATERIAL REQUIRED

Cardboard, white chart paper, ruler, pencil, eraser, adhesive, sketch pens of different colours (say Blue and Red).

METHOD OF CONSTRUCTION

1. Take a cardboard of convenient size and paste a white paper on it.
2. Draw a rectangle ABCD of suitable dimensions (say 8 cm × 3 cm) as shown in Fig.1 on the cardboard.

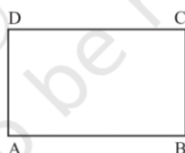


Fig. 1

3. Divide the rectangle ABCD into 4 equal parts (say along the length) and shade 3 parts in red colour using a sketch pen as shown in Fig. 2.

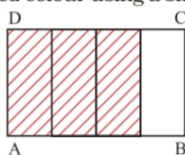


Fig. 2

4. Divide the rectangle ABCD along the breadth into 6 equal parts and shade 5 parts in blue colour as shown in Figure 3.

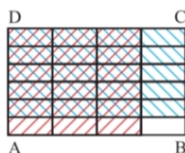


Fig. 3

DEMONSTRATION

1. In Fig. 2, portion shaded in red colour represents the fraction $\frac{3}{4}$.
2. In Fig. 3, portion shaded in blue colour represents the fraction $\frac{5}{6}$.
3. In Fig.3, portion shaded in both red and blue colour represents the fraction $\frac{15}{24}$. It also represents $\frac{5}{6}$ of $\frac{3}{4}$ or $\frac{5}{6} \times \frac{3}{4}$.

$$\text{Thus, } \frac{5}{6} \times \frac{3}{4} = \frac{15}{24}.$$

Repeat this activity for some other pairs of fractions.

OBSERVATION

1. In Fig. 2, the number of equal parts along the length = _____.
In Fig. 2, the number of parts shaded in red = _____.
Therefore, shaded part in Fig. 2 represents the fraction = _____.
In Fig. 3, the number of equal parts along the breadth = _____.
In Fig. 3, the number of parts shaded in blue = _____.
Therefore, in Fig. 3, shaded part in blue (along the breadth) represents the fraction = _____.
In Fig. 3, total number of equal parts = _____.
(along the length and breadth)