ACTIVITY 8

(a)To represent the fractions $\frac{1}{2},\frac{1}{3},\frac{1}{4},\frac{1}{5}$ etc. by paper folding using rectangular strips of paper.

(b)To represent the fractions $\frac{1}{2},\frac{1}{4},\frac{3}{4}$, etc. of a circular region by paper folding.

Learning Objective : To understand fraction as a part of whole.

Pre-requisite : Knowledge of fractions. $\frac{1}{2},\frac{1}{3},\frac{3}{4},\frac{3}{5}$ etc.

Materials Required : A few paper strips of uniform width and circular cutouts of paper of same size.

Procedure : **8(a)**

Step 1. Take a paper strip (say 10 cm long approx). Fold it in the middle so that the two parts overlap each other. Unfold and colour one part. Each part represents half of $\frac{1}{2}$ of the whole strip. [Fig. 8(a)]

Fig. 8(a)

Step 2. Take another strip and fold it as in Step 1 and again fold it in the middle so that the two parts of the folded strip are exactly equal. Open the folds again.

Shade or colour one part. [Fig. 8(b)]

Fig. 8(b)

Step 3. Take a strip and fold it in three equal parts, unfold it.

Step 4. Shade/Colour one part [Fig. 8(c)]

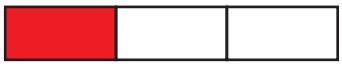

Fig. 8(c)

Step 5. Similarly take one more strip and fold it into 5 equal parts and shade one of the parts.

Observation :

(i) Shaded/coloured part in Fig. 8(a) represents the fraction .....

(ii) Shaded/coloured part in Fig 8(b) represents the fraction .....

(iii) Shaded/coloured part in Fig 8(c) represents the fraction .....

(iv) Shaded/coloured part in the figure obtained in Step 5 represents the fraction .....

Extension :

(a) Try to represent the fractions $\frac{1}{8}$ and $\frac{1}{10}$.

(b) Shade the parts to represent $\frac{2}{3}, \frac{2}{5}$ and $\frac{2}{8}$.

Procedure : 8(b)

Step 1. Take a circular cutout of a paper. Fold it in the middle so that the two parts exactly overlap each other. Unfold and mark the crease. Shade or colour one part Fig. 8(d).

Step 2. Take another circular cutout. Fold it as in Step 1 and again fold it to get four equal parts. Shade or colour one part

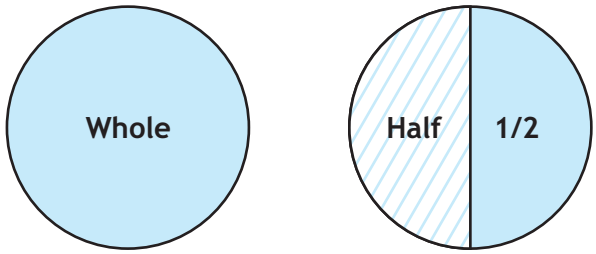

Fig. 8(d)

Observation :

(i) Shaded/coloured part in Fig. 8(d) represents the fraction .....

(ii) unshaded/uncoloured part in Fig. 8(d)represents the fraction .....

(iii) Shaded/coloured part in the figure obtained in the Step 2 represents the fraction .....

(iv) Unshaded/uncoloured part in the figure obtained in Step 2 represents the fraction .....

Extension : Try to represent th fraction $\frac{1}{3}, \frac{2}{3}, \frac{1}{5}$.