ACTIVITY 4

To find the HCF of two given numbers, by paper cutting and pasting.

Learning Objective : To understand the concept of HCF of two umbers.

Pre-requisite : Comparison of two numbers, knowledge of

Division algorithm : Dividend = Divisor x Quotient + Reminder

Materials Required : Coloured grid papers (2 different colours say green and red), a pair of scissors, glue, a ruler, and a pencil.

Procedure :

Step 1. Take any two numbers say 24 and 16.

Step 2. Cut out a strip of length 24 units using green colour grid paper as shown in Fig.4(a).

Step 3. Cut out another strip of length 16 units using red colour grid paper as shown in Fig. 4(b).

Step 4. Place the red strip along the green strip as shown in the Fig. 4(c) and cut out the remaining part of the green strip.

Step 5. Observe that the remaining part of green strip cut out is of length 8 units and is smaller than the red colour strip i.e. the strip of length 16 units.

Step 6. Now place the smaller cut out strip (green) along the larger cut out strip (red) and cut out the extra part (red strip) as shown in Fig. 4(d).
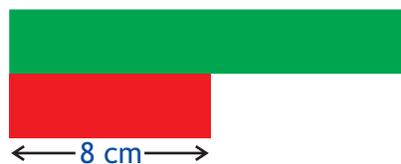
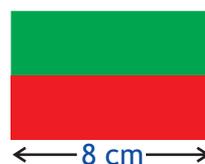**Step 7.** Repeat the activity till both strips are equal.

Fig. 4(a)

Fig. 4(b)

24 cm

8 cm

16 cm

Fig. 4(c)

8 cm

Fig. 4(d)

8 cm

Fig. 4(d)

Observations :

(i) In Step 4, the length of the green strip = ... units

(ii) In Step 6, the length of the red strip = ... units

(iii) Is there any part of any strip left when green strip of length 8 units was placed on the red strip?.......... Yes / No

HCF of 24 and 16 = ...

Extension : (i) Find the HCF of (i)   40 and 16,   (ii)   12, 15 and 6.

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