

Real Numbers

Activity – 1

1. What we have to do?

To calculate the HCF of two given numbers using Euclid's division algorithm

2. What is required?

Paper strips of one unit each, glue stick, geometry box, a pair of scissors

3. Time required: 20 min

4. What do we need to know?

Meaning of HCF of two numbers, Euclid's division algorithm

5. How will you proceed?

- 1) Take a rectangular sheet of 20 cm × 20 cm.
- 2) Cut one unit wide strip of to get one strip each of length 16 units, 10 units and 2 strips each of 6 units, 4 units and 3 strips of 2 units.
- 3) Arrange them on the rectangular sheet using Euclid's division algorithm with $a = 16$ and $b = 10$ units.(see the figure below)

6. What have you observed?

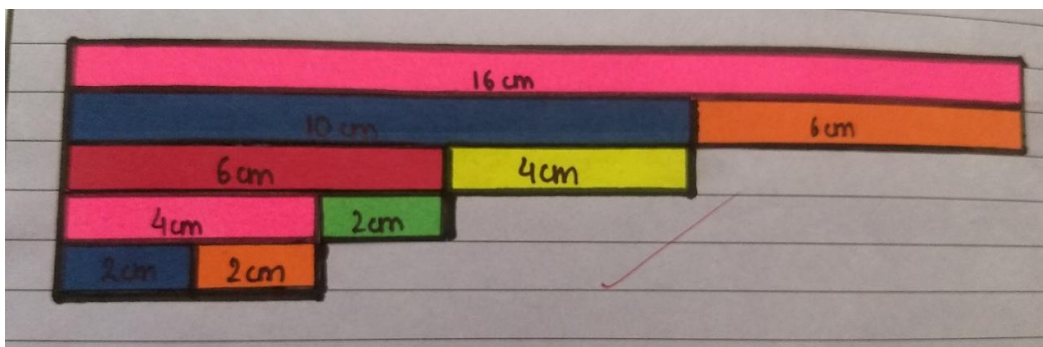
From the above activity it is observed that $\text{HCF}(16, 10) = \underline{\hspace{2cm}}$ using division algorithm.

7. What have you learnt?

It is verified that for any two positive real numbers a and b ($a > b$) there exists unique q and r such that $a = \underline{\hspace{2cm}}$ where $\underline{\hspace{1cm}}$. If $r = \underline{\hspace{1cm}}$, then $q = \underline{\hspace{2cm}}$

8. What would you be interested in doing?

Using the above activity find the HCF of 25 and 14.



Real life Applications:

The above concept is used in our day-to-day life incidents viz. market place, shopping mall, games, birthday parties etc...
