# Problems on HCF and LCM

We can solve daily life problems by using the concept of HCF and LCM.

When to use LCM or HCF?

- When we have to find a number larger than given numbers, then we find LCM.
- If we have to find smaller number than given numbers, then we find HCF.

## Let us understand with some examples:

**Example:** Vijay's friend asked him to bring the same number of chocolates and biscuits. The store sells chocolates in packs of 50, biscuits in packs of 20. Find how many chocolates Vijay will buy from the store?

## Solution:

The store sells chocolates in packs of 50, biscuits in packs of 20.

Vijay has to buy the same number of chocolates and biscuits.

Now we have to find the LCM of Chocolates and Biscuits.

i.e. LCM (50,20)

$50 = 2 \times 5 \times 5 = 2 \times 5^2$

$20 = 2 \times 2 \times 5 = 2^2 \times 5$

LCM (50, 20) = $2^2 \times 5^2$

$= 4 \times 25 =$ **100**

**Example:** Find the least number of square tiles by which the floor of a room of dimensions 1223 cm, 634 cm can be covered completely?

## Solution:

We require the least number of square tiles, so each tile must be of maximum dimension.

To get the maximum dimension of tile, we have to find the largest number that exactly divides 1223 cm, 634 cm.

HCF (1223, 634) =1 cm

Hence, the side of a square tile is 1 cm.

**Required no. of tiles = Area of the floor/Area of a square tile**

$= \frac{1223 \times 634}{1 \times 1} = 775382$