Multiples: When a number is multiplied by a *natural number*, we get a natural multiple of that number. The multiples of 8 are: 8 × 1,   8 × 2, 8 × 3, 8 × 4, . . .

$$8, \quad 16, \quad 24, \quad 32, ...$$

Multiples of any number are infinite (un countable). Each number is a multiple of itself. Every number is a multiple of 1 & first multiple of every number is the number itself. So a multiple of a number cannot be less than the number.

Factors: When a divisor compeletely divides the dividend , leaving remainder as zero,divisor is called factor. Factors of 8 are1,2,4 & 8.Factors of any number are finite (countable*). The least factor of every number is 1 & highest factor is number itself. 1is factor of every number.

HCF(Highest Common Factor): The greatest number which divides two or more numbers exactly ,leaving remainder zero.

LCM(Least common multiple) : The smallest number which is divisible by two or more numbers is called LCM.

1. Read each statement carefully & judge according to the statements whether to find HCF & LCM.

(i) A baker wants to arrange 24 chocolate cakes& 18 vanilla cakes in a display shelf. How many should he put in each line so that each line has same flavor cakes & there is equal number of cakes in each line.   _____

(ii) Sandwiches are sold in packs of 6 & juices are sold in packs of 8. If we wish to buy equal number of sandwiches and juices how many packs do we need to buy? _____

(iii) At a train station, a train leaves every 10 minutes & a time clock rings after 15 minutes, if a train leaves & clock rings at 11:00 am ,after how much time the train leaves and the clocks rings at the same time again?   _____

(iv) A man has a rectangular field whose sides are 180m & 150 m long. He wants to plant trees around and inside the field such that the distance between each tree is the same. Find the greatest possible distance between two trees._____

(v) Three different group of scientist with 12,30 and 42 members respectively will go to japan for research conference. an equal number of scientist from the same group will stay in each hotel room, with no scientist left over.   _____

(vi)A man has rectangular field whose side is 100 meters and 85 meter long. He want to plant trees around the field such that the distance between each tree is the same._____
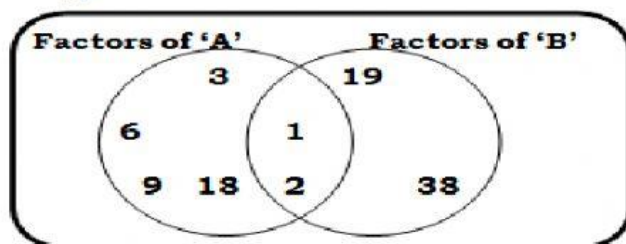
(vii)The sacks contain 48 KG and 56 KG of hazelnuts respectively. The hazelnuts in each sack need to put into bags with equal weights, without mixing the sack and with no hazelnuts left over._____

(viii)Two sacks contain 24KG and 28 KG of Chickpeas respectively. The chickpeas in each sack need to put into bags of equal size, without mixing the sacks and with no bags left over. _____

(ix)Three pieces of fabric that are 39 meters, 52 meters and 78 Meters long need to be cut into stripes which are all the same length. The strips must be as long as possible and no fabrics must be left over._____

2.

_____

The diagram below shows the factors of Two numbers A & B . Find A & B.

Factors of 'A'   Factors of 'B'

3   19

6   1

9   18   2   38

A = _____

B = _____