

NOTES ON FACTORS & MULTIPLES

FACTOR :

- If a counting number divides another number exactly (without leaving any remainder), then the divisor is a factor of the dividend.
- Every number has at least two factors – 1 and the number itself.
- All the factors of a number are either less than or equal to the number.

PRIME NUMBER

- A prime number is any natural number which has exactly two factors- one and the number itself.
- e.g. 2,3,5,7,11,13.....

COMPOSITE NUMBER

- Any number which has more than two different factors is called composite number.
- e .g. 4,8,10,12.....

NOTE: 1 is neither Prime nor composite number

PRIME FACTORISATION: An expression written as a product of its prime factors is called the prime factorization of that number.

HIGHEST COMMON FACTOR (HCF)

- The Highest Common Factor (HCF) of two or more numbers is the greatest of the common factors.
- It is the greatest number which divides the given number exactly.

MULTIPLES :

- **A multiple** of a whole number is the product of the number and any counting numbers.
- Every number is a multiple of 1
- The smallest multiple of any number (other than zero) is the number itself.
- Every multiple of a number is greater than or equal to that number
- The number of multiples of a given number is infinite.

LEAST COMMON MULTIPLE (LCM)

- The smallest number (other than zero) that is a multiple of two or more counting numbers is the **Least Common Multiple (LCM)** of the number.
- It is the least number which is divisible by all the given numbers.