**GREENWOOD PUBLIC SCHOOL, DD NAGAR, GWALIOR**

**OUR MOTTO- DEVELOPMENT WITH DELIGHT**

**Session: (2020-2021)**

**CLASS - 5th**

**SUBJECT - MATHS**

**CHAPTER - 1**

**Number System**

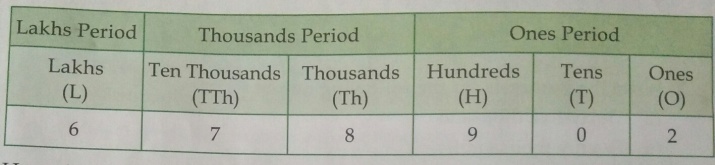
|  |
| --- |
| **Greatest number. Smallest number** |
| **(O**ne digit ) 9. + 1. =10. (Two digit ) |
| (Two digit ) 99. + 1. =100. (Three digit ) |
| (Three digit ) 999. + 1. =1000. (Four digit ) |
| (Four digit ) 9999. + 1. =10000. (Five digit ) |
| (Five digit ) 99999 + 1. =100000. (Six digit ) |
| (Six digit ) 999999 + 1. =1000000(Seven digit ) |

so on........

**Indian system of numeration**

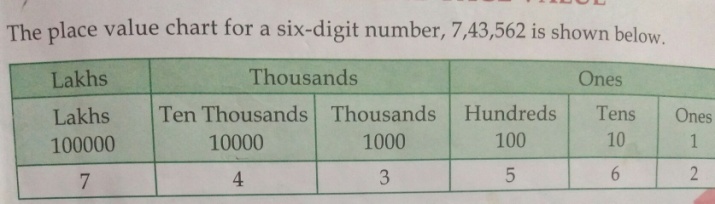
The Indian numbering system is used in the Indian subcontinent to express large numbers.

We can read a 6 digit number sa. 6 7 8 9 0 2 using the place value chart as shown below



We can we can read it as "six lakh seventy eight thousand nine hundred two. "

**Place value and face value**



**Roman numerals**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Roman Numerals** | **I** | **V** | **X** | **L** | **C** | **D** | **M** |
| **Hindu -Arabic Numerals** | **1** | **5** | **10** | **50** | **100** | **500** | **1000** |

**Fraction**

**A fraction is A quantity which expresses a part of the whole quantity**

**Fraction =**Numerator /Denominator

Types of fraction

(a) Proper fraction :-- a fraction in which the numerator is less than the denominator is called a proper fraction.

Exa. 1/2, 6/13,

(b) Improper fraction:- a fraction in which the numerator is greater than the denominator is called an improper fraction .

Exa. 25/6, 16/7

(c) Mixed fraction :-- fraction in fraction which is the combination of natural number and proper fraction is called a mixed fraction.

Exa. 2\*1/6

L**ike and unlike fractions**:- fractions with the same denominators are called like fractions and fractions with different denominators are called unlike fractions.

I. e. 1/2 and 6/2 are like fractions

1/2 and 1/3 are unlike fractions

**Factors and multiples**

Factors :-- A factor is a number which divides the given number exactly .

Example 1,2,3,6,9 and 18 are factor of 18 .

Multiples :-- A multiple of a number is obtained by multiplying it by a natural number.

Example : the multiples of 3 are 3,6,9,12......

**LCM and HCF**

**Least Common factor (LCM)**

**LCM is a least common number which is divided by all given all numbers**

**For exa.**

**Consider the numbers 4 and 6**

Multiple of 4: 4,8,12,16,20,24,28,32,36,......

Multiple of 6: 6,12,18,24,30,36,42,48,........

Common multiple of 4 and 6 are 12,24 ,36,.....

LCM =12

**Highest common factor :-The number which divides each of the given numbers completely.**

**For exa.**

consider the numbers 42 and 56

Factors of 42: 1,2, 3,7,14, 21, 42

factors of 56 : 1,2,4,7,8 ,14 ,28, 56

Common factors of 42 and 56 are. 1,2, 7 and 14

HCF=14

**Decimal**

**A decimal number can be defined as a number whose whole number part and the fractional part is separated by a decimal we use decimal for Express Mani quantity etc**

For example : 45.6 (forty-five point six )

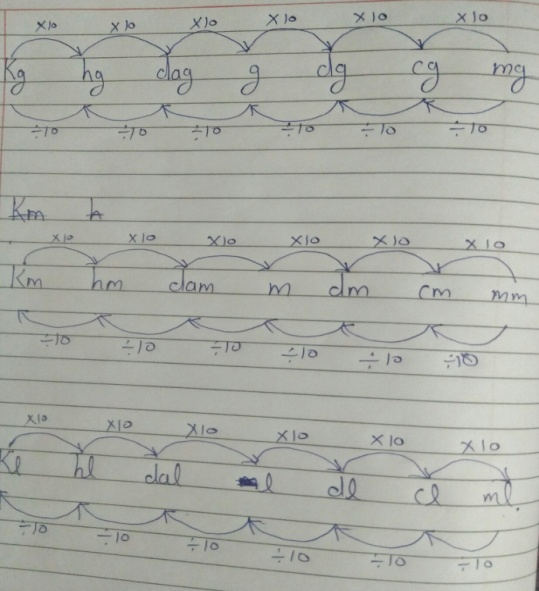
Study the number 9742.412

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Thousands | Hundreds | Tens | Ones | Decimal point | Tenths | Hundredths | Thousandths |
| 1000 | 100 | 10 | 1 | . | 1/10 | 1/100 | 1/1000 |
| 9 | 7 | 4 | 2 | . | 4 | 1 | 2 |

**Measurement**

|  |  |  |
| --- | --- | --- |
| **Largest unit** | **Standard unit** | **Smallest unit** |
| **Kilogram** | **Gram** | **Milligram** |
| **Kilometre** | **Metre** | **Millilitre** |
| **Kilolitre** | **Litre** | **Millilitre** |

**Conversion of units.**

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**1kg =1000g. 1km =1000m. 1kl = 1000L**

**1g = 1000mg. 1m = 1000mm. 1 L = 1000ml**

**1g = 100cg. 1m = 100cm. 1L = 100 cl**

**Geometry**

**Square** : A polygon which has four equal sides and all angles have 90 degree

**Parameter of square :**  4x side

**Area of square :**  side X. side

**Rectangle :** A polygon which opposite sides are equal and all angles have measure 90 degree

Parameter of rectangle : 2(length + breadth)

Area of rectangle : length X breadth

**Circle :- A. simple closed curve in which every point have same distance from the centre o.**

**Diameter = 2r**