

UNIT -1

NUMBERS UP TO 999999.

You know that

$$1 \text{ more than } 9 = 9 + 1 = 10$$

$$1 \text{ more than } 99 = 99 + 1 = 100$$

$$1 \text{ more than } 999 = 999 + 1 = 1000. \text{ and so on}$$

Greatest 4-digit number = 9999.

Smallest 5-digit number = 10000.

▣ Place value chart

The smallest place (ones) is on the extreme right.

Each place on the left has a value 10 times more than the value of the place on the right side.

The place value of a digit in a numeral is the product of the digit and its place in the numeral.

Example :- 235782 $\boxed{\rightarrow}$ The place of digit 7 is hundreds

So the place value of 7 is $7 \times 100 = 700$.

PERIOD:- As the size of a number increases, we find it difficult to read the number. So, to read numerals without any difficulty, we group the places into periods.

Ex.- The six places are grouped into three PERIODS. (Lakhs, Thousands and Ones)

Ex.- Divide 754823 into periods.

Solution:- Ones Period $\boxed{\rightarrow}$ 823

Thousands Period $\boxed{\rightarrow}$ 54

Lakhs Period $\boxed{\rightarrow}$ 7

In order to separate the periods, we leave a little space insert commas in between the period.

▣ There are two systems of reading and writing numbers. The Indian system and the International system of numeration.

The Indian place value chart

Observe carefully. See that :

- ☆ The smallest place (ones) is on the extreme right.
- ☆ Each place on the left has a value 10 times more than the value of the place on the right side.
- ☆ The place value of a digit in a numeral is the product of the digit and its place in the numeral.

Ex.- 345297 $\boxed{\rightarrow}$ The place of digit 2 is hundreds. So the place value of 2 is $2 \times 100 = 200$ or 2 hundreds.

Ex. What is the period and place of 1 in 3,58,017?

Solution:-

Period= Ones. Place = Tens

▀ **Expanded Form** :- Expanded form of a numeral is the sum of the place values of each digit of the numeral.

Ex.- Expanded form :- $300+60+5= 365$ $\boxed{\leftarrow}$ Standard form

Ex.- $7,000+500+30+1 = 7531$ $\boxed{\leftarrow}$ Standard form.

UNIT-2

ADDITION AND SUBTRACTION

There are four basic operations that we can perform on large numbers they are Addition, Subtraction, Multiplication and Division

Addition:-

The numbers which we add are called Addends.

Ex.- $2+3=5$

2 and 3 are addends

Sum = 5.

Properties of addition

1. When we change the order of the addends ,the sum remains the same.
Ex- $76+45 = 45+76 = 121$.
2. The sum remains the same ,even after changing the order of the addends.
3. When zero is added to a number or a number is added to zero, the sum is the number itself.
Ex- $0 + 50 = 50 + 0 = 50$.

▀ Properties of subtraction

1. When we subtract zero from a number ,we get the number itself.
Ex. $7- 0 = 7$. $5 - 0 = 5$.