

Large Numbers

Indian place value chart for a 9-digit number:

Period	Crores		Lakhs		Thousands		Ones		
Place	T.C	C	T.L	L	T.Th	Th	H	T	O

International place value chart for a 9 digit number:

Period	Millions			Thousands			Ones		
Place	H.M	T.M	M	H.Th	T.Th	Th	H	T	O

- 1 million = 10 Lacks
- 10 million = 1 crore
- 100 million = 10 crores

Inserting commas:

- A comma is inserted after each period in both the systems of numeration.
- 1 lakh =1,00,000
- 1 million = 1,000,000

Place value of a digit:

- e.g., in 7308, 7 is in the thousands place.
- So, its place value is 7000.

Face value of a digit:

- Face value of a digit is the value of the digit itself.
- In 7308, face value of 7 is 7.
- In 390876, 9 is in ten thousands place.
- So, its place value is 90000.
- Its face value is 9.

Expanded form of a number:

A number written as the sum of the place values of its digits is said to be in its expanded form.

e.g., 90, 63, 52, 146

$$= 900000000 + 0 + 6000000 + 300000 + 50000 + 2000 + 100 + 40 + 6$$

Comparing numbers:

(a) Count the number of digits of the numbers to be compared. The number with more number of digits is greater and that with less number of digits is smaller.

e.g., $10612 > 621$

(b) If the number of digits is equal, compare the values of the digits from left to right in both the numbers.

e.g., $4261 > 4216$.

Fundamental operations:

The four basic mathematical operations are addition (+), subtraction (-), multiplication (x) and division (/).

Addition:

The numbers that are added are called addends. The number obtained on adding two numbers is called sum-

When any number is added to '0', the sum is the number itself.

e.g., $0 + 6 = 6$

The sum of two numbers is always greater than each of the addends (provided none of the addends is "0")

Subtraction:

The greater number in subtraction is called minuend. The smaller number being subtracted is called subtrahend. The number obtained on subtraction is called difference.

When '0' is subtracted from a number, the difference is the number itself.

e.g., $15 - 0 = 15$