Representation of Numbers upto 1 Lakh on the abacus

An Abacus: An abacus is a tool or device used to represent numbers using beads. It helps students understand place values easily.

Parts of an Abacus (Indian Place Value System):

For numbers up to 1 Lakh, we use 6 columns on the abacus:

Place Name	Short Form	Value
Lakhs	L	1,00,000
Ten Thousands	TTh	10,000
Thousands	Th	1,000
Hundreds	H	100
Tens	T	10
Ones	O	1

Each column shows how many beads are placed to represent digits.

Properties of Abacus Representation:

- Each bead stands for a digit.
- The position of the bead shows its place value.
- The abacus helps in visualizing large numbers easily.
- The maximum number of digits used for numbers up to 1 Lakh is 6.

Example 1:

Question: Show the number 38,416 on the abacus.

Solution:

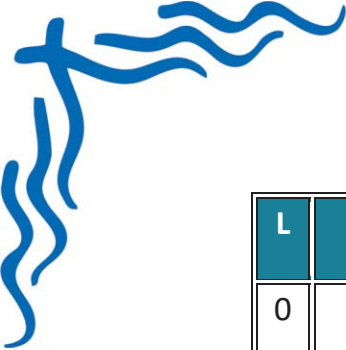Break the number into place values:

TTh = 3

Th = 8

H = 4

T = 1

O = 6

L	TTh	Th	H	T	O
0	3	8	4	1	6

Answer: Use 3 beads in Ten Thousands, 8 in Thousands, 4 in Hundreds, 1 in Tens, and 6 in Ones.

Example 2:

Question: A number is shown on an abacus as follows:
L = 1
TTh = 0
Th = 5
H = 2
T = 3
O = 9

What is the number?

Solution:

Form the number by writing digits from left to right:

- 1 (L) → 1,00,000
- 0 (TTh) → 0
- 5 (Th) → 5,000
- 2 (H) → 200
- 3 (T) → 30
- 9 (O) → 9
- ⇒ Number = 1,05,239

Answer: The number is 1,05,239

Summary Points:

- The abacus is a helpful tool to understand place values.
- For numbers up to 1 lakh, we use 6 columns: L, TTh, Th, H, T, O.
- Each bead = 1 unit in that place.
- Large numbers can be broken into parts and placed on the abacus.
- Helps in reading, writing, and forming large numbers easily.