DAY 1 — Full Theory (From Absolute Basics)

◆ 1. Counting Numbers

Counting numbers are simply the numbers you use to count things.

Things" = any objects, items, people, animals, or units that you want to count.
Counting numbers (1, 2, 3, 4, …) are used to count **how many** of something exists.
☞ **A "thing" is anything you want to count.**
If you can ask "How many?", that is a *thing*.
Examples:

- How many chocolates?
- How many students?
- How many days?
- How many chairs?
- How many goals?

✔ Start from:

0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11…

✔ Key ideas:

- They continue forever (infinite)
- You always count by adding 1
- They help you understand ordering and quantity

What does "infinite" mean?

Infinite = something that never ends.
It goes on and on and on…
There is **no last number**.

Class 1 Level Explanation

When you count:
0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12…
You can always ask:
☞ "What comes next?"
And there will **always** be another number.
So numbers never finish → this is called infinite.

Is there a last number in mathematics?

In math, **there is NO last number.**
This is a universal truth.

1.1 Numbers have NO last number

Because you can **always add 1**.
Example:
If someone says the last number is **1000** →
you can do:
1000 + 1 = **1001**
So 1001 is bigger.
If they say **1001 is the last**,
you do:
1001 + 1 = **1002**
And this continues forever.
So **there is no final, biggest, or last number**.

1.2 Why is there no last number?

Because the number system is built on a rule:
☞ **You can always create a new number by adding 1.**
That means:

- No highest
- No final
- No ending point

Numbers are **infinite**.

✔ Practice:

Cou**nt obj**ects:

- 5 pens
- 7 cups
- 10 steps
- 12 chairs

Your brain must get comfortable with seeing number quantities quickly — **this is called number sense**.

◆ 2. Place Value (Ones, Tens, Hundreds)

This is the **heart of mathematics**.
Understanding place value makes *all later math easier* — addition, subtraction, percentages, algebra, everything.

✔ What is place value?

Every digit in a number has a different value based on its **position**.
Example: 345

- 5 is in **ones** place = 5
- 4 is in **tens** place = 40
- 3 is in **hundreds** place = 300

✔ Place Value Chart (for up to 999)

Hundreds	Tens	Ones
3	4	5

This means:
3 hundreds + 4 tens + 5 ones
= 300 + 40 + 5
= **345**

2.1**Is place value unlimited?

Yes. Place value also goes on forever.**
Just like counting numbers are infinite,
place values also continue without any limit.

2.2 How place value grows

A number grows by adding new places to the left:

- Ones
- Tens
- Hundreds
- Thousands
- Ten-thousands
- Lakhs
- Ten-lakhs
- Crore
- Ten-crore
- Hundreds of crore

… and continues forever.

There is **no last place value.**

? Example to understand

Number: **3 4 5**

- 5 → Ones = 5
- 4 → Tens = 40
- 3 → Hundreds = 300

But if the number becomes **2 3 4 5**,
then:

- 5 → Ones
- 4 → Tens
- 3 → Hundreds
- 2 → Thousands (2000)

Add one more digit:
1 2 3 4 5
Then:

- 1 → Ten-thousands (10000)

You can keep adding digits forever.

2.3 Why place value is unlimited

Because:

☞ **Numbers are unlimited**

☞ **So digits can extend unlimited**

☞ **So place values also extend unlimited**

There is no rule that says:

"Stop after crore"

or

"Stop after millions."

Mathematically, you can write **10,000 digits**.

Or **1 lakh digits**.

Or **1 crore digits**.

✔ Why place value is important?

Because:

- $72 \neq 27$ only due to position
- $305 \neq 350$
- $908 \neq 980$

One digit changed position → value totally changed.

◆ 3. Understanding Tens

10 ones = 1 ten

20 ones = 2 tens

30 ones = 3 tens

…

90 ones = 9 tens

Example:

57

= 5 tens + 7 ones

= 50 + 7

◆ 4. Understanding Hundreds

100 ones = 1 hundred

200 ones = 2 hundreds

300 ones = 3 hundreds

Example:

645

= 6 hundreds + 4 tens + 5 ones

= 600 + 40 + 5

◆ 5. Read & Write Numbers up to 999

✔ **How to read numbers:**

Rule:

Start from the leftmost digit → name the largest place value first.

Examples:

1) 243

= "Two hundred forty-three"

2) 906

= "Nine hundred six"

(no tens → no need to say "zero tens")

3) 590

= "Five hundred ninety"

4) 719

= "Seven hundred nineteen"

✔ **How to write numbers from words:**

Example:

"Four hundred sixty-two"

Step 1: Four hundred → 4 _ _

Step 2: Sixty → _ 6 _

Step 3: Two → _ _ 2

So, **462**

Another:

"Eight hundred three"

= 803

? DAY 1 PRACTICE (5 minutes)

Try these:

A. Break the number:

1. 528 = ___ hundreds + ___ tens + ___ ones
2. 307 = ___ hundreds + ___ tens + ___ ones

B. Write the number in words:

1. 471
2. 809
3. 256

C. Convert words to numbers:

1. Six hundred thirty-four
2. Nine hundred two

💡 How you become STRONG on Day 1:

✔ Step 1: Watch 5–10 min videos on place value (optional)

✔ Step 2: Read this theory once

✔ Step 3: Do 10 practice questions
✔ Step 4: Test yourself the next day for 2 mins
✔ Step 5: Repeat for 3–4 days → **permanent memory**