📄 Math Day 3

Topics:-

1. Simple Addition (Single Digit)
2. Carry Addition – Introduction

◆ 1. Simple Addition (Single Digit)

✔ What is Addition?

Addition means putting things together.

We use the **+ (plus)** sign.

Think like this:

- You have **2 apples**
- You get **3 more apples**
- Total apples = **2 + 3 = 5**

✏ Examples:

- 1 + 1 = 2
- 2 + 3 = 5
- 4 + 5 = 9
- 6 + 2 = 8

☞ **Rule:**

When numbers are **small (0–9)** and the total is **less than 10**, it is **simple addition**.

◆ 2. Carry Addition (Introduction)

✔ What is Carry Addition?

Sometimes the answer becomes two numbers instead of one that's called carry addition. **OR**
When we add numbers and the answer becomes bigger than 9.

Example:

8 + 5

Let's count:

8 → 9 → 10 → 11 → 12 → 13

So,

8 + 5 = 13

☞ The answer has **two digits**.

☞ This type of addition is called **carry addition**.

2.1 🔑 Easy Understanding Rule

- **Answer < 10** → Simple addition
- **Answer ≥ 10** → Carry concept starts 🚀

◆ **Simple Addition**

1. 3 + 2 = ___
2. 4 + 1 = ___
3. 6 + 3 = ___

◆ **Carry Concept**

4. 7 + 5 = ___
5. 8 + 4 = ___

3.Carry Addition (Single Digit – Understanding)

Focus: *What really happens when answer is 10+*
Topics:

- Making **10 first**
- Breaking numbers

  ☞ Example: 8 + 5 → 8 + 2 + 3 = 13
- More counting practice
- No columns yet.

3.1 Making 10 First

✔ What does "Making 10" mean?

It means:
We try to reach 10 first, because 10 is easy to add.

Why 10 is special?

- After 10, counting is easy
- 10 + anything = very simple

✏ Example 1:

8 + 5
Ask yourself:
How many does **8** need to become **10**?
Answer:
2
So break **5** into:

- 2
- 3

Now add step by step:

- 8 + 2 = 10
- 10 + 3 = 13

 Final answer: **13**

✏ Example 2:

7 + 6

- 7 needs **3** to become 10
- Break 6 into **3 + 3**

Steps:

- 7 + 3 = 10
- 10 + 3 = 13

3.2 Breaking Numbers

✔ What does “breaking numbers” mean?

It means:

Cutting a number into smaller parts to make addition easy.

✏ Examples:

- 5 → 2 + 3
- 6 → 3 + 3
- 9 → 1 + 8

Example:

9 + 6

- 9 needs **1** to become 10
- Break 6 → 1 + 5

Steps:

- 9 + 1 = 10
- 10 + 5 = 15

3.3 More Counting Practice

✔ Why counting is important?

Because addition is counting forward.

Or even simpler:

If you can count, you can add.

Explain with One Example

Example: 6 + 4

Say this:

Start from **6**

Count **4 steps forward**

Steps:

- 7 (1)
- 8 (2)
- 9 (3)
- 10 (4)

So,
6 + 4 = 10

Another Example

8 + 3

- Start from 8
- Count 3 steps:
  9 → 10 → 11

So,
8 + 3 = 11

📝 Practice (For Students)

1. Start from 5, count 2 steps → _7__
2. Start from 7, count 3 steps → _10__
3. Start from 9, count 1 step → __10_

Part 2

❓ Day 4: Carry Addition (Column Method – Ones Only)

Focus: *How to write carry*
Topics:

- Writing addition **one below another**
- Ones column only
- Small carry (1)
- Example:

```
 8
+ 5
----
 13.
```

4.1 ✍️ Writing Addition One Below Another

✔ What does this mean?

It means:
We write numbers one under the other to make addition easy.

Example:
Instead of writing:
8 + 5
We write:

```
 8
+ 5
----
```

4.2 Ones Column Only

✔ What does “ones column” mean?

For now:

We only add single digits (0–9).

No tens. No hundreds.

Example:

```
 7
+ 6
----
```

Both numbers are **ones numbers**.

4.3 Small Carry (1)

✔ What is Carry? (Very Simple)

When the answer becomes 10 or more, we get extra 1.

That extra **1** is called **carry**.

Example:

8 + 5

Steps:

1 Add numbers:

- 8 + 5 = 13

2 Write **3** below the line

3 The **1** is the carry

```
 8
+ 5
----
 13
```

👉 Carry = **1** **(how ?)**

👉 Written together as **13**

Carry comes only from the column you are adding, not from the whole number.

4.4 Full Example

Example: 7 + 6

Step 1: Add

- 7 + 6 = 13

Step 2: Write answer

```
 7
+ 6
----
 13
```

Test - Carry Addition — Check Your Understanding

◆ **Question 1**

Add:

```
  8
+ 7
----
```

What is the **carry**?

What is the **final answer**?

◆ Question 2

Add:

```
 16
+ 5
----
```

From **which digits** does the carry come?

◆ Question 3

True or False:

Carry is decided from the **final answer**.

◆ Question 4

Add:

```
 27
+ 8
----
```

What do you write in the **ones place**?

What is the **carry**?

◆ Question 5

Fill in the blank:

In small carry addition, the carry value is always ___.

Step-by-Step Explanation

Take **16 + 5** as an example:

```
 16
+  5
----
```

Step 1: Add right-side digits

- 6 + 5 = 11
- Write **1** in the ones place
- Carry = **1** (this is **from the column**, not the final answer)

Step 2: Add left-side digits + carry

- Left digit: 1 + carry 1 = 2

Step 3: Final answer

- Write left-side sum: 2
- Ones place: 1
- Final answer = **21**

🔑 Key Point

- Carry is **created first** from the column addition
- Then it is **added to the next column**
- Only after **all columns are added**, the final answer comes

So:

Carry is not decided from the final answer

It is decided **during column addition**, step by step.

---

5. 🟫 Carry Addition (Two-Digit + One-Digit) — THEORY

Two-Digit + One-Digit Addition

A two-digit number has two digits.

A one-digit number has one digit.

In this type of addition, we add a one-digit number to a two-digit number.

Examples:

- 14 + 6
- 27 + 5

5.1 Order of Addition

Addition starts from the **right side**.

5.2 Carry in Two-Digit + One-Digit Addition

When the right-side addition becomes **10 or more**, the extra **1** is added to the next digit on the left.

5.3 Example: 14 + 6

- Add the right-side digits: 4 + 6 = 10
- Write 0
- Add the carry 1 to the left digit
- Final answer: 20

5.4 Example: 27 + 5

- Add the right-side digits: 7 + 5 = 12
- Write 2
- Add the carry 1 to the left digit
- Final answer: 32

5.5 Key Rule

If the right-side addition is **less than 10**, no carry is needed.
If the right-side addition is **10 or more**, carry is added to the next digit.

❓ Day 6: Carry Addition (Two-Digit + Two-Digit)

Focus

Full use of carry in addition.

6.1. Two-Digit + Two-Digit Addition

In this type of addition, both numbers have two digits.
Addition is done from the **right side first**, then the left side.

6.2. Carry in Two-Digit + Two-Digit Addition

When the addition on the right side becomes **10 or more**, the extra **1** is carried to the left side.
Only **one carry** is used in this stage.

6.3. Example: 24 + 18

- Add right-side digits: 4 + 8 = 12
- Write 2 and carry 1
- Add left-side digits: 2 + 1 + 1 = 4
- Final answer: 42

6.4. Example: 36 + 27

- Add right-side digits: 6 + 7 = 13
- Write 3 and carry 1
- Add left-side digits: 3 + 2 + 1 = 6
- Final answer: 63

6.5. Key Rule

If the right-side addition is **less than 10**, no carry is needed.
If the right-side addition is **10 or more**, one carry is added to the left side.

6.6. Learning Outcome

Students can correctly add two-digit numbers using one carry.

📓 Day 8: Multiple Carry (Advanced Intro) — THEORY

Focus
Understanding addition with carry in more than one step.

8.1. Multiple Carry Addition
Multiple carry happens when addition creates a carry in the **right side** and again in the **left side**.

8.2. Order of Addition
Addition is done from the **right side first**, then the left side.

8.3. Example: 58 + 47
- Add right-side digits: 8 + 7 = 15
- Write 5 and carry 1
- Add left-side digits: 5 + 4 + 1 = 10
- Write 0 and carry 1
- Final answer: 105

8.4. Key Rule
If an addition step becomes **10 or more**, a carry is created.
Carry can happen more than once in the same addition.

8.5. Learning Outcome
Students understand that carry can occur in both ones and tens during addition.

Practice Sets: Multiple Carry Addition

◆ Practice Set 1: Identify Carry
(Add and observe where carry happens.)

1. 58 + 47 = _____
2. 69 + 36 = _____
3. 78 + 29 = _____

◆ Practice Set 2: Step-by-Step Carry
(Solve step by step.)

4. 67 + 58 = _____
5. 86 + 47 = _____
6. 59 + 68 = _____

◆ Practice Set 3: Carry in Both Steps

(Add carefully. Carry will occur more than once.)

7. 75 + 36 = _____
8. 88 + 27 = _____
9. 96 + 19 = _____

◆ Practice Set 4: Mixed Difficulty

(Some have single carry, some have multiple carry.)

10. 54 + 38 = _____
11. 72 + 29 = _____
12. 65 + 47 = _____

◆ Practice Set 5: Think Before Adding

(Check if carry will happen.)

13. 48 + 59 = _____
14. 79 + 26 = _____
15. 87 + 35 = _____

? Practice Goal

- Understand how carry moves
- Notice when carry happens once or more
- Stay slow and accurate