INDEX():

Purpose: Returns the value from a **specific position** in a given range.

Syntax: =INDEX(array, row_num, [column_num])

- array = the range of cells
- row_num = which row to pick from
- column_num = (optional) which column to pick from

Ex.

Use: =INDEX(A2:C4, 2, 3)

Result: Returns the value in the 2nd row, 3rd column of the range A2:C4.

MATCH():

Purpose: Returns the **position number** of a value within a range (not the value itself).

Syntax: =MATCH(lookup_value, lookup_array, [match_type])

- lookup_value = the value you're searching for
- lookup_array = the range to search in
- match_type:
  - 0 = exact match *(most commonly used)*
  - 1 = less than or equal (ascending sorted list)
  - -1 = greater than or equal (descending sorted list)

Ex.

Use: =MATCH("Apple", A2:A5, 0)

Result: Returns the position of "Apple" in the range A2:A5.

INDEX + MATCH (Together)

🔹 **Why use them together?**

- More **flexible** than VLOOKUP.
- Can **search left**, unlike VLOOKUP.
- Safer with **column insertions/deletions**.

Ex.

Imagine this table:

A	B
Product	Price
Apple	30
Banana	20
Mango	50

Find price of “Banana”:

=INDEX(B2:B4, MATCH("Banana", A2:A4, 0))

Explanation:

- MATCH("Banana", A2:A4, 0) returns position **2**
- INDEX(B2:B4, 2) returns value in the 2nd row of B2:B4 → **20**

Why Use INDEX + MATCH Instead of VLOOKUP?

Feature	VLOOKUP	INDEX + MATCH
Search direction	Only left → right	✅ Any direction
Breaks when columns change	❌ Yes	✅ No
Return multiple values	❌ Complicated	✅ Flexible
Better with large data	❌ Slower	✅ Faster