



# Macro Programming

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## Macro Programming

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### Lookup and Reference Functions

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# Macro Programming

## Introduction

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### INDEX Function

- The INDEX function in Excel is used to retrieve the value from a specific location in a range. It requires a reference to a range and the row and column numbers to specify the position of the desired value.

Syntax: INDEX(array, row\_num, [column\_num])

*Example:* If you have a table of sales data, you can use the INDEX function to find the sales figure for a specific month and product by specifying the row and column numbers



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## Introduction

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### MATCH Function

- The MATCH function searches for a specified item in a range and returns its relative position. It is often used in conjunction with the INDEX function to perform more complex lookups.

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

*Example:* Use MATCH to find the position of a specific product in a list, which can then be used with INDEX to retrieve related data



## INDEX Function

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The INDEX function in Excel returns the value from a cell located at a specific row and column within a given range.

Syntax:

`INDEX(array, row_num, [column_num])`

array: This is the range of cells or array from which you want to retrieve a value.

row\_num: The row number in the array from which you want to retrieve a value.

column\_num: (Optional) The column number in the array from which you want to retrieve a value. If the array is a single column, this argument can be omitted.



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## INDEX Function

*Example:*



	A	B	C
1	Product	Jan	Feb
2	Apples	100	120
3	Oranges	150	180
4	Bananas	130	160

=INDEX(B2:C4, 2, 2)



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## MATCH Function

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The MATCH function in Excel searches for a specific item in a range and gives you its position in that range.

### Syntax

`MATCH(lookup_value, lookup_array, [match_type])`

`lookup_value`: The value you want to find in the array.

`lookup_array`: The range of cells or array where you want to search for the `lookup_value`.

`match_type`: (Optional) Specifies how Excel matches the `lookup_value` with values in the `lookup_array`.



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## MATCH Function

*Example:*

	A
1	Product
2	Apples
3	Oranges
4	Bananas

=MATCH("Oranges", A2:A4, 0)





THANK YOU

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