MASTER EXCEL LIKE A PRO

★ 2026 EDITION ★

Excel Tricks

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EXCEL FORMULAS GUIDE

The Ultimate Collection of
15 Essential Excel Formulas
with Examples & Real-Life Use Cases

- **15** Must-Know Excel Formulas
- **Easy** Examples & Explanations
- **Real-Life** Use Cases for Every Formula
- **Boost** Productivity & Save Time
- **Beginner** to Advanced Friendly

BEGINNER TO ADVANCED FRIENDLY

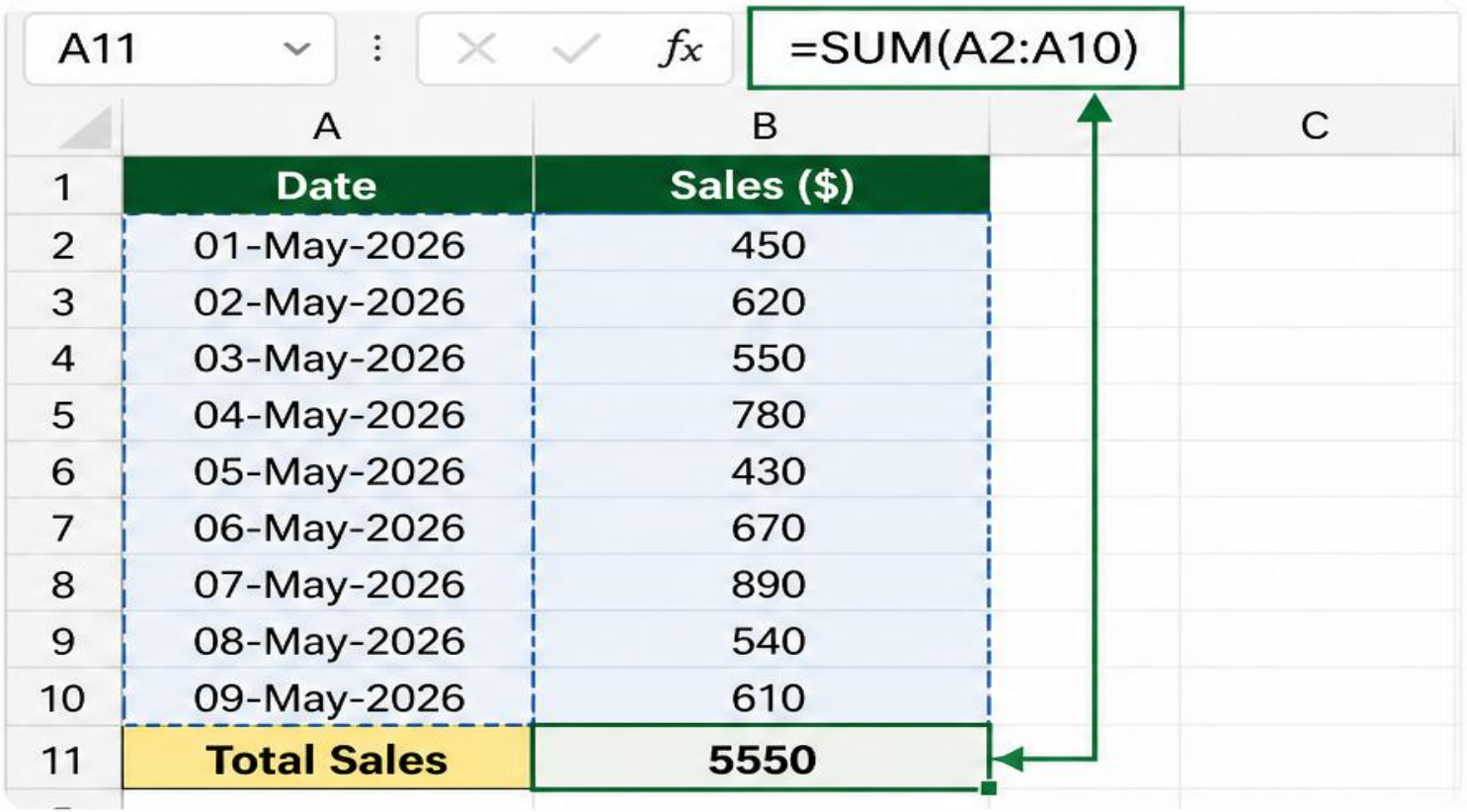
PRACTICAL EXAMPLES INCLUDED

USED BY **10,000+** LEARNERS

Excel Tricks
Smart Formulas. Smarter You.

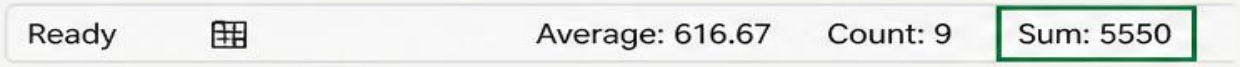
1. SUM Formula (Basic Calculation)

Formula: =SUM(A2:A10) | **Use Case:** Calculate total sales or expenses



	A	B	C
1	Date	Sales ($)	
2	01-May-2026	450	
3	02-May-2026	620	
4	03-May-2026	550	
5	04-May-2026	780	
6	05-May-2026	430	
7	06-May-2026	670	
8	07-May-2026	890	
9	08-May-2026	540	
10	09-May-2026	610	
11	**Total Sales**	**5550**	

Tip: You can quickly see the result in the status bar at the bottom when you select a range.



What it does?

The SUM formula adds all the numbers in the selected range and returns the total.

How it works?

=SUM(A2:A10) adds all values from cell A2 to A10.

- A2 = 450
- A3 = 620
- ...
- A10 = 610

Total = 5550

Real-Life Use Cases

- Calculate total sales
- Add monthly expenses
- Find total invoice amount
- Get total working hours

Why it's useful? Saves time, reduces errors, and makes calculations effortless.

2. IF Formula (Decision Making)

Formula: =IF(A1>50,"Pass","Fail") | **Use Case:** Student results, performance tracking

C2 : =IF(A2>50,"Pass","Fail")

	A	B	C
1	**Marks**	**Student Name**	**Result**
2	85	John	**Pass**
3	42	Emma	**Fail**
4	67	Michael	**Pass**
5	50	Sophia	**Fail**
6	91	William	**Pass**
7	36	Olivia	**Fail**
8	73	James	**Pass**
9	49	Ava	**Fail**
10	58	Daniel	**Pass**
11		**Pass Marks**	50

What it does?

The IF formula checks a condition. If the condition is TRUE, it returns "Pass". If FALSE, it returns "Fail".

How it works?

=IF(A1>50,"Pass","Fail")

- A1>50 → Condition to check
- "Pass" → If condition is TRUE
- "Fail" → If condition is FALSE

Real-Life Use Cases

- Student pass/fail results
- Sales target achievement (Yes/No)
- Employee performance tracking
- Loan approval (Eligible / Not Eligible)
- Attendance check (Present / Absent)

Example Explained

- If Marks are greater than 50 → Result is "Pass"
- If Marks are 50 or less → Result is "Fail"

Why it's useful? Helps in quick decision-making and automates result analysis.

3. VLOOKUP Formula (Data Search)

Formula: =VLOOKUP(A2,Sheet2!A:B,2,FALSE) | **Use Case:** Find employee or product details

HOW IT WORKS – EXAMPLE

Main Sheet

=VLOOKUP(A2,Sheet2!A:B,2,FALSE)

	A	B	C
1	Employee ID	Employee Name	
2	E101	John Smith	
3	E102		
4	E103		
5	E104		
6	E105		

Looks for "E101" in Sheet2 (table array) and returns the value from the 2nd column (Employee Name).

Lookup Table (Sheet2)

	A	B
1	Employee ID	Employee Name
2	E101	John Smith
3	E102	Emma Johnson
4	E103	Michael Brown
5	E104	Sophia Davis
6	E105	William Jones

VLOOKUP searches **vertically** in the first column (A) and returns the value from the specified column (2nd column).

TIP: Always use FALSE for exact match to avoid wrong results.

WHAT IT DOES?

VLOOKUP searches for a value in the first column of a table and returns a value in the same row from a column you specify.

FORMULA BREAKDOWN

=VLOOKUP(lookup_value, table_array, col_index_num, [range_lookup])

lookup_value	Value to search. (A2 → Employee ID)
table_array	Range of cells containing the data. (Sheet2!A:B)
col_index_num	Column number in the table array to return. (2 → Return from 2nd column i.e., Employee Name)
[range_lookup]	FALSE → Exact match (Recommended) TRUE → Approximate match

REAL-LIFE USE CASES

- Find employee name using Employee ID
- Get product price using Product ID
- Fetch customer details using Customer ID
- Retrieve department, salary, or other details

EXAMPLE RESULT

	A	B
1	Employee ID	Employee Name
2	E101	John Smith

→ VLOOKUP found "E101" and returned "John Smith" from Sheet2.

4. COUNT and COUNTA

COUNT Formula: =COUNT(A2:A10) | **COUNTA Formula:** =COUNTA(A2:A10) | **Use Case:** Count numeric or non-empty cells

HOW IT WORKS – EXAMPLE

	A	B
1	**Values**	**Remarks**
2	25	Number
3	50	Number
4	Text	Text
5		Blank Cell
6	100	Number
7	0	Number (Zero)
8	*(blank)*	Blank Cell
9	75	Number
10	120	Number
11	**COUNT (A2:A10)**	**6**
12	**COUNTA (A2:A10)**	**8**

=COUNT(A2:A10)

Counts only cells that contain numbers (including zero, dates, times, percentages, etc.).

=COUNTA(A2:A10)

Counts all non-empty cells (numbers, text, logical values, errors, dates, etc.).

WHAT DO THEY DO?

COUNT
Counts the number of cells that contain numbers.
(Ignores text and blank cells)

COUNTA
Counts the number of cells that are not empty.
(Includes text, numbers, dates, errors, etc.)

FORMULA BREAKDOWN

=COUNT(range)	Counts numeric values in the range.
=COUNTA(range)	Counts all non-empty cells in the range.
range	The range of cells you want to count.

REAL-LIFE USE CASES

- **COUNT:** Count how many sales entries are numeric.
- **COUNTA:** Count how many employees have filled their details.
- **COUNT:** Count how many payments are recorded.
- **COUNTA:** Count how many items are listed in inventory (no matter text or numbers).

KEY DIFFERENCES

Feature	COUNT	COUNTA
Counts Numbers Only?	✔ Yes	✘ No
Counts Text?	✘ No	✔ Yes
Counts Blank Cells?	✘ No	✘ No
Counts Zero (0)?	✔ Yes	✔ Yes
Counts Errors?	✘ No	✔ Yes

EXAMPLE RESULT

Formula	Result
=COUNT(A2:A10)	6
=COUNTA(A2:A10)	8

In the example:
There are 6 numeric values and 8 non-empty cells in the range A2:A10.

TIP: Use COUNT when you need only numbers. Use COUNTA when you want to count anything that is not blank.

5. TEXTJOIN Formula

Formula: =TEXTJOIN(" ",TRUE,A1,B1) | **Use Case:** Combine first and last names

HOW IT WORKS – EXAMPLE

	A	B	C
1	First Name	Last Name	Full Name
2	John	Smith	**John Smith**
3	Emma	Johnson	**Emma Johnson**
4	Michael	Brown	**Michael Brown**
5	Sophia	Davis	**Sophia Davis**
6	William	Jones	**William Jones**
7	Olivia	Miller	**Olivia Miller**
8	Daniel	Wilson	**Daniel Wilson**

In cell C2, enter the formula and copy down:

```
=TEXTJOIN(" ",TRUE,A2,B2)
```

Combines the values in A2 and B2 with a space in between.

PARAMETER VARIATIONS

Formula	Result
=TEXTJOIN(" ",TRUE,A1,B1)	John Smith
=TEXTJOIN(", ",TRUE,A1,B1)	John, Smith
=TEXTJOIN(" - ",TRUE,A1,B1)	John - Smith
=TEXTJOIN(" ",FALSE,A1,B1,"")	John Smith
=TEXTJOIN(" | ",TRUE,A1,B1,"Manager")	John Smith | Manager

WHAT DOES TEXTJOIN DO?

TEXTJOIN combines multiple text strings from a range or list into one text string, with a delimiter (separator) between them, and optionally ignores empty cells.

FORMULA BREAKDOWN

=TEXTJOIN(delimiter, ignore_empty, text1, [text2], ...)

delimiter	The separator you want between the text values. (" " for space, "," for comma, "-" for hyphen, etc.)
ignore_empty	TRUE to ignore empty cells. FALSE to include empty cells.
text1, [text2], ...	The text strings or cell references you want to combine.

REAL-LIFE USE CASES

- Combine first and last names (as in the example).
- Merge address components (Street, City, State, ZIP).
- Combine product name, color, and size.
- Create a list of multiple items into a single cell.

EXAMPLE RESULT

Formula Used in C2	Result in C2
=TEXTJOIN(" ",TRUE,A2,B2)	John Smith

TIP

Use TRUE in ignore_empty to automatically skip blank cells and avoid extra spaces or delimiters.

WHY IT'S USEFUL? Saves time and effort when combining multiple text values, especially in large datasets.

6. TODAY and NOW Formulas

TODAY Formula: =TODAY() | **NOW Formula:** =NOW() | **Use Case:** Daily reports, timestamps

HOW IT WORKS – EXAMPLE

	A	B	C
1	**Description**	**Formula**	**Result**
2	Today's Date	=TODAY()	20-May-2026
3	Current Date & Time	=NOW()	20-May-2026 10:45 AM
4	Report Date (Auto Update)	=TODAY()	20-May-2026
5	Report Timestamp	=NOW()	20-May-2026 10:45 AM

FORMULA BREAKDOWN

=TODAY()	• No arguments needed. • Returns the current system date in Excel.
=NOW()	• No arguments needed. • Returns the current system date and time.

EXAMPLE IN PRACTICE

	A	B	Result (Example)
1	Auto Date for Report	=Formula	20-May-2026
3	Auto Date & Time for Entry	=NOW()	20-May-2026 10:45 AM
4	Last Updated	=NOW()	20-May-2026 10:45 AM
5	Next Day (from today)	=TODAY()+1	21-May-2026
6	Yesterday (from today)	=TODAY()-1	19-May-2026

WHAT DO THEY DO?

TODAY()
Returns the current date.
Updates automatically every day when the file is opened.

NOW()
Returns the current date and time.
Updates continuously (date and time change).

REAL-LIFE USE CASES

- **Daily Reports:** Automatically show the current date on reports.
- **Timestamps:** Record exact date and time for entries or logs.
- **Data Tracking:** Track when data is entered or updated.
- **Project Management:** Show last updated date and time.
- **Invoices & Documents:** Display current date on invoices.

IMPORTANT NOTES

- These formulas are "volatile" – they update automatically.
- **Date format** depends on your system settings.
- Use **TODAY()** for dates only.
- Use **NOW()** when you need both.

EXAMPLE PREVIEW

=TODAY()

20-May-2026

=NOW()

20-May-2026 10:45 AM

TIP: Use TODAY() for reports, schedules, and deadlines. | Use NOW() for logs, timestamps, and tracking real-time activities.

7. INDEX-MATCH (Advanced Lookup)

Formula: =INDEX(B2:B10,MATCH(A2,A2:A10,0)) | **Use Case:** Look up values more flexibly than VLOOKUP

HOW IT WORKS – EXAMPLE

Lookup Value

	A
1	Product ID to Find
2	P103

Data Table

	A	B
1	Product ID	Product Name
2	P101	Laptop
3	P102	Printer
4	P103	Monitor
5	P104	Keyboard
6	P105	Mouse
7	P106	Headphones
8	P107	Webcam
9	P108	Speaker
10	P109	USB Cable

Result

Product Name
Monitor

Formula in Cell B2:
=INDEX(B2:B10,MATCH(A2,A2:A10,0))

Finds "P103" in A2:A10, gets its position (3), then returns the value from B2:B10 at that position → "Monitor".

WHAT IS INDEX-MATCH?

INDEX-MATCH is a powerful combination of two functions. It is more flexible and reliable than VLOOKUP, especially for lookups to the left or when columns change.

FORMULA BREAKDOWN

=INDEX(B2:B10 , MATCH(A2 , A2:A10 , 0))

INDEX(array, row_num, [column_num])	Returns the value from the specified row (and column) in an array.
B2:B10	The range/column from which you want the result (Product Name column).
MATCH(lookup_value, lookup_array, match_type)	Finds the position of the lookup value in the lookup array.
A2	The value to look for (Product ID to Find).
A2:A10	The range where you want to search (Product ID column).
0	Exact match. Returns the exact position or #N/A if not found.

WHY USE INDEX-MATCH?

- Works both left-to-right and right-to-left.
- More flexible than VLOOKUP.
- Doesn't break when columns are inserted or moved.
- Can return multiple columns and rows if needed.

MORE EXAMPLE SCENARIOS

Scenario	Formula Example
Lookup to the left	=INDEX(A2:A10,MATCH(D2,B2:B10,0))
Return multiple columns	=INDEX(B2:C10,MATCH(A2,A2:A10,0),2)
Entire row return	=INDEX(A2:C10,MATCH(A2,A2:A10,0),0)

EXAMPLE RESULT PREVIEW

A (Lookup ID)	Formula in B2	Result
P103	=INDEX(B2:B10, MATCH(A2,A2:A10,0))	Monitor

The formula finds "P103" and returns "Monitor" from the Product Name column.

PRO TIP: Use INDEX-MATCH when you need accuracy, flexibility, and better performance in large datasets.

8. LEN Formula (Text Length)

Formula: =LEN(A2) | **Use Case:** Count the number of characters in a text string

HOW IT WORKS – EXAMPLE

	A	B	
1	Text	Number of Characters	
2	Excel is amazing	=LEN(A2)	15
3	Data Analysis	=LEN(A3)	13
4	12345	=LEN(A4)	5
5	Leading space	=LEN(A5)	14
6	Trailing space	=LEN(A6)	14
7	Hello!	=LEN(A7)	6
8		=LEN(A8)	0

LEN counts every character including spaces and punctuation marks, but returns 0 for a completely blank cell.

MORE EXAMPLES

A (Text)	Formula	Result	Explanation
Apple	=LEN(A2)	5	Counts 5 letters
New York	=LEN(A3)	8	Counts 8 characters (including space)
Space at start	=LEN(A4)	14	Counts leading space + letters
End space	=LEN(A5)	10	Counts trailing space + letters
---Excel---	=LEN(A6)	11	Counts symbols and letters
	=LEN(A7)	0	Blank cell returns 0

WHAT DOES LEN DO?

LEN returns the total number of characters in a text string.
It counts letters, numbers, spaces, punctuation marks, and symbols.

FORMULA BREAKDOWN

=LEN(text)

LEN	The function that counts characters in a text string.
text	The cell reference or text string whose length you want to find.

REAL-LIFE USE CASES

- Validate data entry (e.g., check if a code is 5 characters long).
- Clean data (e.g., find entries with extra spaces or long text).
- Limit comment or feedback length.
- Extract or analyze text data based on length.

EXAMPLE RESULT PREVIEW

A (Text)	Formula in B	Result
Data Analysis	=LEN(A2)	13

The text "**Data Analysis**" has 13 characters (including the space).

TIP: Use LEN to ensure consistent text length, clean messy data, and improve data validation workflows.

9. TRIM Formula (Remove Extra Spaces)

Formula: =TRIM(A2) | **Use Case:** Clean text by removing extra spaces

HOW IT WORKS – EXAMPLE

	A		B
1	Text with Extra Spaces		Result (Trimmed Text)
2	Excel is awesome	=TRIM(A2)	Excel is awesome
3	. Data Cleaning Tips	=TRIM(A3)	Data Cleaning Tips
4	Multiple spaces here	=TRIM(A4)	Multiple spaces here
5	Leading and trailing spaces	=TRIM(A5)	Leading and trailing spaces
6	Already clean text	=TRIM(A6)	Already clean text
7	One space between words	=TRIM(A7)	One space between words
8		=TRIM(A8)	(blank)

TRIM removes all leading and trailing spaces and reduces multiple spaces between words to a single space.

MORE EXAMPLES

A (Text with Extra Spaces)	Formula	Result (Trimmed Text)	What Happens
" John Doe "	=TRIM(A2)	John Doe	Removes leading, trailing & extra spaces
" Hello World "	=TRIM(A3)	Hello World	Multiple spaces → one space
"NoExtraSpaces"	=TRIM(A4)	NoExtraSpaces	No change
" "	=TRIM(A5)	(blank)	Returns blank
" Excel Tips & Tricks "	=TRIM(A6)	Excel Tips & Tricks	Extra spaces cleaned

WHAT DOES TRIM DO?

TRIM removes all leading and trailing spaces from a text string. and replaces multiple spaces between words with a single space. It helps clean and standardize text data.

FORMULA BREAKDOWN

=TRIM(text)

TRIM	The function that removes extra spaces.
text	The cell reference or text string that contains extra spaces.

REAL-LIFE USE CASES

- Clean imported data from other systems (extra spaces).
- Standardize names, addresses, and product descriptions.
- Prepare data for reporting and analysis.
- Improve lookup accuracy (e.g., VLOOKUP, MATCH).

EXAMPLE RESULT PREVIEW

A (Original Text)	Formula in B	Result in B
Data Cleaning Made Easy	=TRIM(A2)	Data Cleaning Made Easy
Keep data clean	=TRIM(A3)	Keep data clean

Clean text = Better analysis, accurate lookups, and professional reports.

TIP: Use TRIM before other text functions or lookups to ensure your data is clean and consistent.

10. LEFT / RIGHT Formulas (Extract Text)

LEFT Formula: =LEFT(A2,4) | **RIGHT Formula:** =RIGHT(A2,4) | **Use Case:** Extract characters from start or end of text

HOW IT WORKS – EXAMPLE

	A	B	C	D	E
1	Original Text	LEFT (First 4 Characters)	Formula in B	RIGHT (Last 4 Characters)	Formula in D
2	ExcelTips123	Excel	=LEFT(A2,4)	s123	=RIGHT(A2,4)
3	Data_Analysis	Data	=LEFT(A3,4)	ysis	=RIGHT(A3,4)
4	Product-5678	Prod	=LEFT(A4,4)	5678	=RIGHT(A4,4)
5	SalesReport2025	Sale	=LEFT(A5,4)	2025	=RIGHT(A5,4)
6	ABCD	ABCD	=LEFT(A6,4)	ABCD	=RIGHT(A6,4)
7	Hi	Hi	=LEFT(A7,4)	Hi	=RIGHT(A7,4)

- LEFT returns the specified number of characters from the start (left) of a text string.
- RIGHT returns the specified number of characters from the end (right) of a text string.

REAL-LIFE USE CASES

- Extract department codes from employee IDs (e.g., "FIN-00125" → "FIN-").
- Get file extensions from filenames (e.g., "report.xlsx" → "xlsx").
- Extract area codes or last 4 digits from phone numbers.
- Extract year from dates stored as text (e.g., "Report_2025_Q1").

MORE EXAMPLES

A (Original Text)	Formula	Result	What It Does
Marketing-Team	=LEFT(A2,8)	Marketing	First 8 characters from the left
INV-2025-000789	=RIGHT(A3,6)	000789	Last 6 characters from the right
Customer_987654321	=RIGHT(A4,4)	4321	Last 4 digits
ReportFinal	=LEFT(A5,5)	Report	First 5 characters

WHAT DO THEY DO?

- **LEFT:** Extracts characters from the beginning (left side) of a text string.
- **RIGHT:** Extracts characters from the end (right side) of a text string.

FORMULA BREAKDOWN

=LEFT(text, num_chars)

LEFT	The function that returns characters from the left.
text	The cell reference or text string that contains the text.
num_chars	The number of characters you want to extract from the left.

=RIGHT(text, num_chars)

RIGHT	The function that returns characters from the right.
text	The cell reference or text string that contains the text.
num_chars	The number of characters you want to extract from the right.

EXAMPLE RESULT PREVIEW

A (Original Text)	LEFT(A2,4)	RIGHT(A2,4)
ExcelTips123	Excel	ps123
Data_Analysis	Data	ysis
Product-5678	Prod	5678

Use LEFT and RIGHT together with other functions (e.g., MID, FIND) for more powerful text manipulation.

TIPS

- If num_chars is greater than the length of the text, the entire text is returned.
- LEFT and RIGHT are case-sensitive and count all characters (including spaces and symbols).
- Use LEN() to find the length of a text before extracting.

PRO TIP: LEFT and RIGHT are simple but powerful tools for text parsing, data cleaning, and extracting key information quickly.

11. ROUND Formula (Round Numbers)

Formula: =ROUND(A2,2) | **Use Case:** Round numbers to a specified number of decimal places

HOW IT WORKS – EXAMPLE

	A	B	C
1	Original Number	Formula in B	Rounded to 2 Decimals
2	123.4567	=ROUND(A2,2)	123.46
3	98.1	=ROUND(A3,2)	98.10
4	45.6789	=ROUND(A4,2)	45.68
5	-12.3456	=ROUND(A5,2)	-12.35
6	100	=ROUND(A6,2)	100.00
7	0.0049	=ROUND(A7,2)	0.00

ROUND rounds a number to the specified number of decimal places.
If the next digit is 5 or greater, it rounds up; otherwise, it rounds down.

MORE EXAMPLES

A (Number)	Formula	num_digits	Result	What It Does
123.4567	=ROUND(A2,2)	2	123.46	Rounds to 2 decimal places
123.451	=ROUND(A3,2)	2	123.45	Next digit < 5, rounds down
123.455	=ROUND(A4,2)	2	123.46	Next digit ≥ 5, rounds up
123.4567	=ROUND(A5,1)	1	123.5	Rounds to 1 decimal place
123.4567	=ROUND(A6,0)	0	123	Rounds to nearest whole number
-2.345	=ROUND(A7,2)	2	-2.35	Works with negative numbers

WHAT DOES ROUND DO?

ROUND returns a number rounded to a specified number of digits.
It helps make numbers easier to read and report.

FORMULA BREAKDOWN

=ROUND(number, num_digits)

ROUND	The function that rounds a number.
number	The number you want to round.
num_digits	The number of decimal places to round to. Use 0 to round to the nearest whole number.

REAL-LIFE USE CASES

- Round financial amounts for reports and invoices.
- Standardize numbers for presentations and dashboards.
- Round unit prices, discounts, and tax calculations.
- Prepare data for summaries and comparisons.

EXAMPLE RESULT PREVIEW

A (Original Number)	Formula in B	Rounded to 2 Decimals (Result)
123.4567	=ROUND(A2,2)	123.46
98.1	=ROUND(A3,2)	98.10
45.6789	=ROUND(A4,2)	45.68

Rounded numbers improve readability and ensure consistency in analysis, reporting, and calculations.

PRO TIP: Use ROUND for normal rounding. For always rounding up, use ROUNDUP. For always rounding down, use ROUNDDOWN.

12. CONCAT Formula (Combine Text)

Formula: =CONCAT(A2,B2) | **Use Case:** Combine text from two or more cells

HOW IT WORKS – EXAMPLE

	A	B	C	D
1	First Name	Last Name	Formula in D	Combined Result
2	John	Doe	=CONCAT(A2,B2)	JohnDoe
3	Jane	Smith	=CONCAT(A3,B3)	JaneSmith
4	Data	Analytics	=CONCAT(A4,B4)	DataAnalytics
5	Excel	Tips	=CONCAT(A5,B5)	ExcelTips
6	Power	BI	=CONCAT(A6,B6)	PowerBI
7	Hello	World	=CONCAT(A7,B7)	HelloWorld

CONCAT joins text from multiple cells (or text strings) into one continuous text string without any separator.

MORE EXAMPLES

A (Text 1)	B (Text 2)	Formula	Result	What It Does
New	York	=CONCAT(A2,B2)	NewYork	Joins two words
Q1	2025	=CONCAT(A3,B3)	Q12025	Joins text and numbers
INV-	1001	=CONCAT(A4,B4)	INV-1001	Creates invoice number
Sales	Report	=CONCAT(A5,B5)	SalesReport	Joins words
User_	Admin	=CONCAT(A6,B6)	User_Admin	Creates username
ABC	123	=CONCAT(A7,B7)	ABC123	Joins text and numbers

WHAT DOES CONCAT DO?

CONCAT combines text from two or more cells or text strings into one single text string, in the order you specify.

FORMULA BREAKDOWN

=CONCAT(text1, [text2], [text3], ...)

CONCAT	The function that combines text strings.
text1	The first text string or cell reference.
text2, text3, ...	Additional text strings or cell references (up to 253 arguments in Excel).

REAL-LIFE USE CASES

- Combine first and last names to create full names.
- Combine product codes with descriptions.
- Create email addresses from usernames and domains.
- Combine text fields to create IDs, labels, or custom keys.

EXAMPLE RESULT PREVIEW

A (First Name)	B (Last Name)	Formula in D	Result in D
John	Doe	=CONCAT(A2,B2)	JohnDoe
Jane	Smith	=CONCAT(A3,B3)	JaneSmith
Data	Analytics	=CONCAT(A4,B4)	DataAnalytics

CONCAT does not add spaces or separators automatically. Add a space (" ") or other characters if needed.

TIP: Use CONCAT for quick text combination. For adding separators (like space, comma, dash), use CONCAT with text strings (e.g., =CONCAT(A2," ",B2) or use TEXTJOIN for more control).

13. AVERAGE Formula (Find the Mean)

Formula: =AVERAGE(A2:A10) | **Use Case:** Calculate the mean (average) of numbers

HOW IT WORKS – EXAMPLE

	A	B	C
1	Scores	Formula in B	Result (Average)
2	85	=AVERAGE(A2:A10)	85.89
3	90		
4	78		
5	92		
6	88		
7	76		
8	95		
9	80		
10	89		
11	Average	=AVERAGE(A2:A10)	85.89

AVERAGE calculates the arithmetic mean of the numbers in a range. It ignores blank cells and text values.

MORE EXAMPLES

Range / Values	Formula	Result	What It Does
A2:A10 (numbers)	=AVERAGE(A2:A10)	85.89	Average of numbers in A2 to A10
B2:B6 (numbers)	=AVERAGE(B2:B6)	72.60	Average of numbers in B2 to B6
C2, C4, C6	=AVERAGE(C2,C4,C6)	88.00	Average of selected cells
D2:D10, F2:F10	=AVERAGE(D2:D10,F2:F10)	91.25	Average across multiple ranges
E2:E10 (with blanks)	=AVERAGE(E2:E10)	77.33	Ignores blank cells
A2:A10 (with text)	=AVERAGE(A2:A10)	85.89	Ignores text values

WHAT DOES AVERAGE DO?

AVERAGE returns the arithmetic mean (average) of all numeric values in the specified range or references.

FORMULA BREAKDOWN

=AVERAGE(number1, [number2], ...)

AVERAGE	The function that returns the average (mean).
number1	The first number, cell reference, or range to average.
[number2], ...	Additional numbers, cell references, or ranges to average (up to 255 arguments in modern Excel).

REAL-LIFE USE CASES

- Calculate average sales, revenue, or expenses.
- Find average test scores or student performance.
- Analyze average attendance or feedback ratings.
- Summarize key metrics in reports and dashboards.

EXAMPLE RESULT PREVIEW

Scores (A)	Formula in B	Average (Result)	Notes
A2:A10	=AVERAGE(A2:A10)	85.89	Average of 9 scores
A2:A5	=AVERAGE(A2:A5)	86.60	Average of first 4 scores
A2:A10 (with blanks)	=AVERAGE(A2:A10)	85.89	Blanks are ignored
A2:A10 (with text)	=AVERAGE(A2:A10)	85.89	Text is ignored

Use AVERAGE to quickly summarize numeric data and find the central tendency of your dataset.

PRO TIP: Ensure your range contains numbers only for accurate results. Use AVERAGEIF or AVERAGEIFS to average data that meets specific criteria.

14. MAX / MIN Formula (Find Highest / Lowest)

MAX Formula: =MAX(A2:A10) | **MIN Formula:** =MIN(A2:A10) | **Use Case:** Find the highest or lowest value in a range

HOW IT WORKS – EXAMPLE

	A	B	C	C	D
1	Values	MAX Formula in B	MAX (Highest Value)	MIN Formula in D	MIN (Lowest Value)
2	23	=MAX(A2:A10)	90	=MIN(A2:A10)	12
3	67				
4	45				
5	89				
6	12				
7	90				
8	34				
9	56				
10	78				
11	Result	=MAX(A2:A10)	90	=MIN(A2:A10)	12

- **MAX** returns the largest (highest) value in the given range.
- **MIN** returns the smallest (lowest) value in the given range.

REAL-LIFE USE CASES

- Find the highest sales, profit, or score.
- Identify the lowest expense, stock price, or performance.
- Track best (maximum) and worst (minimum) results.
- Validate data by checking max and min limits.

MORE EXAMPLES

Range / Values	MAX Formula	MAX Result	MIN Formula	MIN Result	What It Does
A2:A10	=MAX(A2:A10)	90	=MIN(A2:A10)	12	Max and Min of A2 to A10
B2:B6	=MAX(B2:B6)	67	=MIN(B2:B6)	23	Max and Min of B2 to B6
C2:C6	=MAX(C2:C6)	89	=MIN(C2:C6)	34	Max and Min of C2 to C6
5, 15, 8, 22, 9	=MAX(5,15,8,22,9)	22	=MIN(5,15,8,22,9)	5	Max and Min of numbers
A2:D10	=MAX(A2:D10)	90	=MIN(A2:D10)	12	Max and Min across multiple columns

WHAT DO MAX / MIN DO?

- **MAX:** Returns the highest (largest) numeric value in a range.
- **MIN:** Returns the lowest (smallest) numeric value in a range.

FORMULA BREAKDOWN

=MAX(number1, [number2], ...)

MAX	The function that returns the highest value.
number1	The first number, cell reference, or range.
[number2], ...	Additional numbers, cell references, or ranges (up to 255 arguments in modern Excel).

=MIN(number1, [number2], ...)

MIN	The function that returns the lowest value.
number1	The first number, cell reference, or range.
[number2], ...	Additional numbers, cell references, or ranges (up to 255 arguments in modern Excel).

EXAMPLE RESULT PREVIEW

Values (A)	MAX(A2:A10)	MIN(A2:A10)	Explanation
23			
67			
45			Highest value in the range
89			
12	90	12	
90			
34			Lowest value in the range
56			
78			

MAX and MIN are fast and efficient ways to quickly identify extremes in your data.

PRO TIP: MAX and MIN ignore text, logical values, and blank cells. Ensure your range contains numbers for accurate results.

15. IFERROR Formula (Handle Errors Gracefully)

Formula: =IFERROR(A2/B2,"Error") | **Use Case:** Display a custom message instead of an error value

HOW IT WORKS – EXAMPLE

	A	B	C	D
1	Numerator	Denominator	Normal Formula (A2/B2)	IFERROR Formula (Handle Errors)
2			=A2/B2	=IFERROR(A2/B2,"Error")
3	10	2	5	5
4	20	4	5	5
5	15	0	#DIV/0!	Error
6	8	2	4	4
6	7	0	#DIV/0!	Error
7	12	3	4	4
8	9		#DIV/0!	Error
9	6	2	3	3
10	Average	(not needed)	#DIV/0!	Error

Without IFERROR, errors like #DIV/0!, #N/A, #VALUE!, etc., are shown.
IFERROR replaces any error with the value you specify (e.g., "Error" or "").

MORE EXAMPLES

Formula	Result (Normal)	Result (IFERROR)	What It Does
=A2/B2	#DIV/0!	Error	Handles division by zero
=VLOOKUP("X",A2:B6,2,FALSE)	#N/A	Not Found	Handles lookup not found
=A2/B2+C2	#DIV/0!	Error	Handles errors in complex formulas
=SQRT(-1)	#NUM!	Invalid	Handles invalid numeric operations
=A2/B2	#DIV/0!		Returns blank instead of error
=IFERROR(A2/B2,0)	#DIV/0!	0	Returns zero instead of error

WHAT DOES IFERROR DO?

IFERROR checks a formula (or expression). If it returns an error, it displays a custom value you specify (e.g., a message or blank).

FORMULA BREAKDOWN

=IFERROR(value, value_if_error)

IFERROR	The function that traps errors and returns a custom value.
value	The formula or expression you want to evaluate.
value_if_error	The value to return if the formula results in an error.

REAL-LIFE USE CASES

- Avoid #DIV/0! when dividing by zero.
- Hide errors in reports and dashboards for cleaner presentation.
- Display user-friendly messages instead of technical error codes.
- Improve user experience in templates and financial models.

EXAMPLE RESULT PREVIEW

Numerator (A)	Denominator (B)	A/B (Normal)	A/B with IFERROR
10	2	5	5
15	0	#DIV/0!	Error
9		#DIV/0!	Error
12	3	4	4

Use IFERROR to make your spreadsheets more professional, user-friendly, and easy to understand.

PRO TIP: Use "" (empty quotes) to return a blank cell, or a friendly message like "N/A", "Check Input", etc., depending on your needs.