

Excel Cheat Sheet for Beginners

A printable guide to formulas, functions, cell references, data tools, tables, charts, and everyday spreadsheet workflows.



Excel basics and formula rules

Understand workbook structure, cell references, operators, and the rules that make formulas work.

Cells, ranges, sheets, and entries

TERM	MEANING	EXAMPLE
Workbook	An Excel file	Budget.xlsx
Worksheet	A tab inside a workbook	Sheet1
Cell	One row-column intersection	B4
Range	A group of cells	A2:D20
Formula	A calculation beginning with =	=B2*C2
Function	A built-in named calculation	=SUM(D2:D10)

Operators and calculation order

TASK	OPERATOR	EXAMPLE
Add / subtract	+ -	=B2+C2-D2
Multiply / divide	* /	=B2*C2/100
Power	^	=A2^2
Percent	%	=B2*15%
Compare	= > < >= <= <>	=B2>=100
Join text	&	=A2&" "&B2

TIP Excel calculates parentheses first, then powers, multiplication or division, and finally addition or subtraction. Use parentheses whenever the intended order could be unclear.

Cell references and essential functions

Choose the right reference type, then use the core functions that solve most everyday calculations.

03 - CELL REFERENCES

Relative, absolute, and mixed references

TYPE	REFERENCE	BEHAVIOR	EXAMPLE
Relative	A2	Changes by row and column when copied	=B2 * C2
Absolute	\$A\$2	Always points to the same cell	=B2 * \$F\$1
Mixed column	\$A2	Column fixed; row can change	=\$A2 * B\$1
Mixed row	A\$2	Row fixed; column can change	=A\$2 * B3
Other sheet	Sheet2!A1	References a different worksheet	=SUM(Sales!B2:B20)

04 - ESSENTIAL FUNCTIONS

The everyday calculation toolkit

FUNCTION	USE	EXAMPLE
SUM	Adds values	=SUM (B2 : B12)
AVERAGE	Returns the arithmetic mean	=AVERAGE (B2 : B12)
MIN / MAX	Returns the smallest or largest value	=MAX (B2 : B12)
COUNT	Counts cells containing numbers	=COUNT (B2 : B12)
COUNTA	Counts non-empty cells	=COUNTA (A2 : A12)
ROUND	Rounds to a specified digit count	=ROUND (B2 , 2)
SUBTOTAL	Summarizes filtered lists	=SUBTOTAL (9 , B2 : B12)

TIP

Press F4 while editing a reference to cycle through A1, \$A\$1, A\$1, and \$A1. On some laptops you may need Fn+F4.

Logical and conditional calculations

Test conditions, handle errors, and calculate only the rows that meet your criteria.

05 - LOGICAL FUNCTIONS

Return different results from conditions

FUNCTION	USE	EXAMPLE
IF	One condition and two outcomes	=IF(C2>=60, "Pass", "Review")
IFS	Several conditions in order	=IFS(C2>=90, "A", C2>=80, "B", TRUE, "C")
AND	TRUE only when every test is true	=AND(B2>=10, C2="Yes")
OR	TRUE when at least one test is true	=OR(B2="High", C2>100)
IFERROR	Replaces an error with a fallback	=IFERROR(A2/B2, 0)

06 - CONDITIONAL TOTALS

Count, sum, and average matching rows

FUNCTION	USE	EXAMPLE
COUNTIF	Count one condition	=COUNTIF(C2:C50, "Paid")
COUNTIFS	Count several conditions	=COUNTIFS(B:B, "East", C:C, ">=100")
SUMIF	Sum using one condition	=SUMIF(A:A, "East", D:D)
SUMIFS	Sum using several conditions	=SUMIFS(D:D, A:A, "East", C:C, ">=100")
AVERAGEIF	Average matching values	=AVERAGEIF(B:B, ">0", B:B)

TIP In SUMIFS and COUNTIFS, every criteria range must cover the same number of rows. Put text and comparison criteria such as >=100 inside quotation marks.

Lookups and text functions

Retrieve matching records and turn inconsistent text into clean, usable spreadsheet data.

07 - LOOKUP FUNCTIONS

Find a value and return related information

FUNCTION	USE	EXAMPLE
XLOOKUP	Modern exact-match lookup	=XLOOKUP(A2, IDs, Prices, "Not found")
VLOOKUP	Looks in first column of a table	=VLOOKUP(A2, \$F\$2:\$H\$100, 3, FALSE)
INDEX	Returns a value by position	=INDEX(C2:C100, MATCH(A2, A2:A100, 0))
MATCH	Returns a match position	=MATCH(A2, A2:A100, 0)
FILTER	Returns rows meeting a condition	=FILTER(A2:D100, D2:D100="Open")

08 - TEXT FUNCTIONS

Combine, extract, and standardize text

FUNCTION	USE	EXAMPLE
TEXTJOIN	Combines values with a separator	=TEXTJOIN(" ", TRUE, A2:C2)
LEFT / RIGHT	Extracts characters from either end	=LEFT(A2, 3)
MID	Extracts text from a position	=MID(A2, 4, 5)
TRIM	Removes extra spaces	=TRIM(A2)
SUBSTITUTE	Replaces matching text	=SUBSTITUTE(A2, "-", " ")
TEXT	Formats a value as text	=TEXT(B2, "dd-mm-yyyy")

TIP

Prefer XLOOKUP when available: it can look left or right, uses exact match by default, and includes a built-in not-found result.

Dates, tables, sorting, filtering, and charts

Use structured data tools to keep lists reliable, analyze them quickly, and present the result clearly.

09 - DATES AND TIME

Calculate with real Excel dates

FUNCTION	USE	EXAMPLE
TODAY	Current date	=TODAY()
NOW	Current date and time	=NOW()
DATE	Builds a date from year, month, day	=DATE(2026,9,1)
YEAR / MONTH / DAY	Extracts part of a date	=YEAR(A2)
WORKDAY	Moves by working days	=WORKDAY(A2,10,Holidays)
NETWORKDAYS	Counts working days	=NETWORKDAYS(A2,B2,Holidays)

10 - TABLES AND DATA TOOLS

Build a dependable list

TOOL	ACTION	BEST PRACTICE
Excel Table	Select data, then Insert > Table	Automatic filters and expanding ranges
Sort	Order rows by one or more columns	Expand the selection to keep rows together
Filter	Temporarily show matching rows	Clear filters to reveal every record
Data Validation	Restrict allowed entries	Use a drop-down for consistent categories
Remove Duplicates	Delete repeated records	Work on a backup before removing rows
Freeze Panes	Keep headings visible	Select the cell below and right of fixed areas

11 - CHART CHECKLIST

Turn a summary into a clear visual

CHART	BEST USE
Column or bar	Compare categories
Line	Show change over time
Scatter	Compare two numeric variables
Pie or doughnut	Use only for a few parts of one whole

Formula errors and a faster workflow

Recognize common Excel errors, protect your source data, and continue with the full interactive guide online.

12 - ERROR GUIDE

What the message usually means

ERROR	LIKELY CAUSE	WHAT TO TRY
#DIV/0!	Formula divides by zero or an empty cell	Check the denominator or use IFERROR
#N/A	A lookup cannot find a match	Check spaces, spelling, and data types
#VALUE!	A value has the wrong type	Look for text inside numeric calculations
#REF!	A referenced cell or range was deleted	Undo or rebuild the broken reference
#NAME?	Excel does not recognize text in a formula	Check function names and quotation marks
#####	Column is too narrow or date/time is negative	Widen the column and inspect the value
#SPILL!	A dynamic array result is blocked	Clear cells in the expected spill range

13 - SAFE WORKFLOW

Practical habits that prevent mistakes

HABIT	WHY IT MATTERS
Keep raw data separate	Import or paste source data on its own sheet before cleaning or calculating.
Use one header row	Give each column one clear field name and avoid merged cells inside data lists.
Convert lists to tables	Tables keep filters, formulas, and ranges synchronized as data grows.
Check formula results	Test a few rows manually before filling a formula through a large dataset.
Save versions	Keep a recoverable copy before sorting, removing duplicates, or changing formulas.

Continue learning online

Open the complete interactive Excel guide for expanded explanations, examples, and related spreadsheet resources.

cheatsheetsilo.com/excel-cheat-sheet/

Free to use. No sign-up required.

