

Microsoft Excel

Complete Cheat Sheet

Screen tools, ribbon commands, Mac-first shortcuts, formula examples and all 522 current worksheet functions.

LARGE RECOGNITION SYMBOLS



IMPORTANT DISTINCTION Ribbon tools have visible buttons or symbols. Worksheet functions such as SUM, IF and XLOOKUP are typed formulas and do not each have a unique icon. This guide shows tool symbols first and lists formula functions separately.

Start with these five rules

- 1. **Select the result cell:** Click where the answer should appear before typing a formula.
- 2. **Begin with =:** Every Excel formula starts with an equal sign.
- 3. **Use references:** Refer to cells and ranges so the result updates when the data changes.
- 4. **Lock carefully:** Use \$ only for the row or column that must stay fixed when copied.
- 5. **Check the result:** Test a normal case, a blank, zero, text and any likely error before relying on the formula.

What this file contains

Part	Contents	Best use
Visual guide	Screen, ribbon, data tools, formulas, errors and shortcuts.	Learn what to click and why.
A to Z appendix	All 522 individual functions, category and plain-English purpose.	Search the PDF or use the printed index.
Companion workbook	Filterable function tables, examples, official links and wine formulas.	Search, filter and copy formulas in Excel.

VERSION NOTE This guide targets Microsoft 365 Excel, with Mac shortcuts first. Exact labels, positions and availability can vary by Mac, Windows, web, licence and update channel. Symbols are simplified recognition guides, not pixel-for-pixel Microsoft artwork.

02 The Excel screen

The active cell is where typing goes. The Formula Bar shows or edits the full cell content.

Symbo l	Control	May look like	What it does	Use it for
WORK AREA				
	Workbook	green workbook / grid	The entire Excel file; it can contain several worksheets.	Keeping related sheets in one file.
	Cell / active cell	outlined grid square	A cell stores one value, text item or formula; the active cell has the selection border.	Entering or editing data.
	Name Box	small address box	Shows the active address and can jump to a typed address or named range.	Going straight to B500 or a named range.
	Formula Bar	fx beside a long box	Displays and edits the active cell's complete value or formula.	Reviewing long formulas without editing inside the cell.
COMMON CONTROLS				
	Save	floppy-disk symbol	Saves the workbook.	After any material change; Mac Cmd+S, Windows Ctrl+S.
	Undo	curved arrow	Reverses the most recent action.	Recovering from an accidental edit; Mac Cmd+Z, Windows Ctrl+Z.
	Find	magnifying glass	Searches values, text or formulas in the sheet/workbook.	Locating a producer, product or formula quickly.
	Format Cells	grid with diagonal control	Opens number, alignment, font, border, fill and protection settings.	Mac Cmd+1; Windows Ctrl+1.

KEY TERMS Rows run horizontally and use numbers. Columns run vertically and use letters. A range such as B3:D10 includes every cell inside that rectangle.

03 Ribbon tabs

A tab groups related commands. Some tabs appear only when a table, chart, picture or PivotTable is selected.

Symbol	Tab	May look like	What it contains	Use it for
MAIN TABS				
	Home tab	house	Clipboard, font, alignment, number formats, styles, cells and editing.	Everyday editing and formatting.
	Insert tab	plus	Adds tables, PivotTables, charts, pictures, links and other objects.	Turning data into structured or visual output.
	Page Layout tab	page with handles	Controls themes, margins, orientation, size, print area, breaks and scaling.	Preparing a worksheet to print or export.
	Formulas tab	fx	Function library, names, formula auditing and calculation controls.	Building and checking formulas.
	Data tab	list of records	Imports, refreshes, sorts, filters, cleans, validates and outlines data.	Working with lists and external data.
	Review tab	comment/check mark	Spelling, accessibility, comments, notes and protection.	Reviewing and controlling changes.
	View tab	eye	Workbook views, gridlines/headings, zoom, Freeze Panes and window controls.	Changing how the workbook is displayed.

CONTEXTUAL TABS Table Design, PivotTable Analyse, Chart Design and Picture Format appear only when the relevant object is selected. Click the object first if a command seems to be missing.

04 Home tab tools

These are the everyday commands for entering, copying, formatting and summarising cells.

Symbol	Tool	May look like	What it does	Use it for
CLIPBOARD AND EDITING				
	Paste	clipboard	Inserts copied or cut content; its menu offers paste choices.	Pasting values, formulas, formats or transposed data.
	Copy	overlapping sheets	Copies the selected cells without removing the originals.	Mac Cmd+C; Windows Ctrl+C.
	Fill	cells with down arrow	Copies or extends a value, formula or pattern down, right, up or left.	Repeating formulas consistently.
	Find	magnifying glass	Finds or replaces text, numbers or formulas.	Mac Cmd+F; Windows Ctrl+F.
FORMATTING AND TOTALS				
	Format Cells	grid with control line	Controls number display, alignment, fonts, borders, fills and protection.	Dates, currency, percentages and text wrapping.
	Conditional Formatting	coloured grid	Applies formatting when a rule is TRUE.	Highlighting correct, incorrect, duplicate, high or low values.
	AutoSum	sigma	Suggests SUM and provides AVERAGE, COUNT, MAX and MIN.	Fast totals beneath or beside numeric data.

PASTE VALUES When copied cells contain formulas but you only want their current results, use Paste Special > Values. Ordinary Paste copies the formulas and may change their references.

05 Insert tools

Use Tables for reliable lists, PivotTables for summaries and Charts for visual comparisons or trends.

Symbol	Tool	May look like	What it does	Use it for
STRUCTURED DATA AND ANALYSIS				
	Excel Table	banded grid	Converts a range into a structured list with filters, automatic expansion and structured references.	Data that will grow, be filtered or feed formulas/charts.
	PivotTable	grid with rotating arrow	Summarises many rows by dragging fields into Rows, Columns, Values and Filters.	Totals by producer, country, vintage, salesperson or month.
	Chart	column bars	Turns selected data into a visual comparison, trend, relationship or composition.	Communicating patterns more clearly than a raw table.

Choose the right chart

Need	Usually choose	Avoid
Compare categories	Bar or column chart	Pie chart with many categories
Show change over time	Line chart	Unsorted category chart
Show part of a whole	100% stacked bar or a simple pie with few slices	Multiple pies that are hard to compare
Show relationship	Scatter chart	Line chart when x-values are numeric measurements

TABLE SHORTCUT Mac: Cmd+T or Ctrl+T outside formula-editing mode. Windows: Ctrl+T or Ctrl+L. Confirm My table has headers when the first row contains field names.

06 Data tab tools

These commands organise, clean, restrict and refresh lists. Work on a copy when an operation can permanently remove data.

Symbo l	Tool	May look like	What it does	Use it for
ORGANISE AND SELECT				
	Sort	A/Z with arrow	Reorders entire records by one or more fields.	Alphabetical, numeric, date or custom priority order.
	Filter	funnel	Temporarily shows only rows meeting selected conditions.	Focusing on one country, producer, status or vintage.
	Data Validation	box with tick	Restricts or guides what can be entered in cells.	Drop-down lists, whole-number limits, dates and input messages.
CLEAN AND TRANSFORM				
	Text to Columns	split cells	Splits one text column using a delimiter or fixed positions.	Separating producer, wine or code components.
	Flash Fill	lightning over grid	Learns a visible text pattern from examples and fills the column.	One-off text extraction or reformatting; check every result.
	Remove Duplicates	overlapping grids	Permanently deletes duplicate rows based on selected columns.	Cleaning a copied dataset after choosing the correct identity columns.
	Power Query	database with arrow	Imports and records repeatable cleaning/combining steps that can be refreshed.	Monthly files, large lists and repeatable transformations.

REMOVE DUPLICATES Excel keeps the first matching row and deletes later matches. Select every column that defines a true duplicate, and keep an untouched source copy.

07 Review and View tools

Comments discuss a cell; protection controls editing; Freeze Panes keeps headings visible while scrolling.

Symbol	Tool	May look like	What it does	Use it for
REVIEW				
	Comments	speech bubble	Starts a threaded discussion attached to a cell.	Questions and collaboration. Notes are different: they are simple cell annotations.
	Protect	padlock	Protects sheet structure or locked cells after you configure what remains editable.	Preventing accidental edits; it is not strong file encryption by itself.
VIEW				
	Freeze Panes	grid with frozen top/left	Keeps rows above and columns left of the active cell visible while scrolling.	Long datasets with headers or identifying columns.
	View tab	eye	Changes gridlines, headings, zoom, workbook view and window arrangement.	Making a sheet easier to inspect or print.

Freeze exactly what you need

- 1. **Top row only:** Use View > Freeze Panes > Freeze Top Row.
- 2. **First column only:** Use View > Freeze Panes > Freeze First Column.
- 3. **Rows and columns:** Select the cell below the rows and right of the columns to keep, then choose Freeze Panes.

EXAMPLE To keep rows 1-2 and columns A-B visible, select C3 before choosing Freeze Panes.

08 Formula anatomy and references

A formula can contain functions, references, operators and constants. Parentheses control calculation order.

EXAMPLE =IFERROR(XLOOKUP(A2,'Products'!\$A\$2:\$A\$500,'Products'!\$D\$2:\$D\$500),"Not found")

Reference	Type	What happens when copied	Use
A1	Relative	Column and row may move	Normal copied formulas
\$A\$1	Absolute	Column and row stay fixed	One fixed rate or control cell
A\$1	Mixed	Row fixed; column may move	Copying across columns
\$A1	Mixed	Column fixed; row may move	Copying down rows
'Sheet 2'!A1	Other sheet	Points to cell A1 on Sheet 2	Quotes are required around sheet names with spaces
Table1[Sales]	Structured	Expands with the Excel Table	Readable table formulas
A1#	Spill	Refers to the whole dynamic-array result	Charts or formulas using a spill range

Operator order

Order	Operators	Meaning
1	: space ,	Reference range, intersection and union
2	- then % then ^	Negation, percent, exponent
3	* and /	Multiply and divide, left to right
4	+ and -	Add and subtract, left to right
5	&	Join text
6	= <> < > <= >=	Comparisons returning TRUE or FALSE

USE PARENTHESES =5+2*3 returns 11; =(5+2)*3 returns 21. Add parentheses whenever the intended order is not obvious.

09 Essential totals, counting and rounding

These functions cover most everyday numeric summaries.

Function	What it does	Copyable example	Key point
SUM	Adds numbers or ranges.	=SUM(B2:B10)	Ignores text.
AVERAGE	Arithmetic mean.	=AVERAGE(B2:B10)	Blanks ignored; zeroes included.
MIN	Smallest numeric value.	=MIN(B2:B10)	Text ignored.
MAX	Largest numeric value.	=MAX(B2:B10)	Text ignored.
COUNT	Counts numeric cells.	=COUNT(B2:B10)	Text not counted.
COUNTA	Counts non-empty cells.	=COUNTA(A2:A10)	Counts formulas returning "" as non-empty.
COUNTBLANK	Counts blank cells.	=COUNTBLANK(A2:A10)	Includes some formulas returning "".
ROUND	Rounds to chosen digits.	=ROUND(B2,2)	2 means two decimal places.
ROUNDUP	Rounds away from zero.	=ROUNDUP(B2,0)	0 means whole number.
ROUNDDOWN	Rounds towards zero.	=ROUNDDOWN(B2,0)	0 means whole number.
ABS	Removes the sign.	=ABS(B2)	-12 becomes 12.
SUBTOTAL	Summary that respects filters.	=SUBTOTAL(9,B2:B100)	9=SUM; 109 also ignores manually hidden rows.

NUMBER STORED AS TEXT If SUM ignores a value, check whether the cell is text. VALUE can convert suitable numeric text, but first confirm decimal and thousands separators.

10 Logic and conditional calculations

Criteria text is normally inside quotation marks. SUMIFS and COUNTIFS require matching range sizes.

Function	What it does	Copyable example	Key point
IF	Chooses one of two results.	=IF(B2>=10,"Yes","No")	TRUE result first.
IFS	Tests several conditions in order.	=IFS(B2>=90,"A",B2>=80,"B",TRUE,"Other")	First TRUE test wins.
AND	TRUE only if every test is TRUE.	=AND(B2>0,C2<>"")	Useful inside IF.
OR	TRUE if any test is TRUE.	=OR(B2="Red",B2="White")	Useful inside IF.
NOT	Reverses TRUE/FALSE.	=NOT(B2="Closed")	Simple exclusion test.
IFERROR	Fallback for any error.	=IFERROR(A2/B2,0)	Do not hide unexpected errors blindly.
IFNA	Fallback only for #N/A.	=IFNA(XLOOKUP(...),"Not found")	Other errors remain visible.
SUMIF	Adds values meeting one condition.	=SUMIF(A2:A100,"South Africa",D2:D100)	One criterion.
SUMIFS	Adds values meeting all conditions.	=SUMIFS(E2:E100,A2:A100,"South Africa",B2:B100,"Benguela Cove")	Sum range comes first.
COUNTIF	Counts one condition.	=COUNTIF(D3:D1000,"Not on site")	Supports wildcards.
COUNTIFS	Counts multiple conditions.	=COUNTIFS(A2:A100,"South Africa",D2:D100,2025)	All criteria must match.
AVERAGEIFS	Averages matching records.	=AVERAGEIFS(E2:E100,A2:A100,"South Africa")	Ranges must align.

11 Lookups

Use exact matching for identifiers. XLOOKUP is usually clearer and safer than VLOOKUP.

Function	What it does	Copyable example	Key point
XLOOKUP	Finds a match and returns corresponding data.	=XLOOKUP(A2,'Products'!\$A\$2:\$A\$500,'Products'!\$D\$2:\$D\$500,"Not found")	Exact match is default.
XMATCH	Returns a match position.	=XMATCH(A2,'Products'!\$A\$2:\$A\$500,0)	0 requests exact match.
INDEX	Returns a value at a row/column position.	=INDEX(D2:D500,25)	Often paired with MATCH.
MATCH	Finds relative position in one dimension.	=MATCH(A2,A2:A500,0)	0 requests exact match.
INDEX+MATCH	Flexible legacy lookup pair.	=INDEX(D2:D500,MATCH(A2,A2:A500,0))	MATCH locates; INDEX returns.
VLOOKUP	Looks down first column and returns from a numbered column.	=VLOOKUP(A2,A2:D500,4,FALSE)	FALSE is exact; cannot look left.
HLOOKUP	Looks across first row and returns from a numbered row.	=HLOOKUP(B1,A1:M10,4,FALSE)	XLOOKUP is usually safer.
CHOOSE	Selects the nth item from a list.	=CHOOSE(B2,"Red","White","Rose")	B2 must identify a valid position.

LOOKUP CHECKS Trim unexpected spaces, confirm numbers are not stored as text, use the same data type on both sides, and test duplicate lookup keys before accepting the result.

12 Dynamic arrays

One formula can return many cells. Keep the spill area empty and refer to the whole result with the # spill operator.

Function	What it does	Copyable example	Key point
FILTER	Returns matching rows or columns.	=FILTER(A2:D100,A2:A100="South Africa","No matches")	Result spills.
SORT	Sorts an array by one of its columns/rows.	=SORT(A2:D100,2,1)	1 ascending; -1 descending.
SORTBY	Sorts using another corresponding array.	=SORTBY(A2:D100,D2:D100,-1)	Can use multiple sort keys.
UNIQUE	Returns distinct rows or columns.	=UNIQUE(B2:B1000)	Blanks may appear as one distinct item.
TAKE	Keeps rows/columns from an end.	=TAKE(A2:D100,10)	Use -10 for last 10.
DROP	Removes rows/columns from an end.	=DROP(A2:D100,1)	Negative removes from end.
CHOOSECOLS	Returns selected columns.	=CHOOSECOLS(A2:F100,1,3,6)	Column numbers are relative to the array.
CHOOSEROWS	Returns selected rows.	=CHOOSEROWS(A2:F100,1,5,10)	Row numbers are relative to the array.
VSTACK	Stacks arrays vertically.	=VSTACK(A2:D20,F2:I20)	Second array goes below.
HSTACK	Stacks arrays horizontally.	=HSTACK(A2:B20,D2:E20)	Second array goes beside.
TOCOL	Reshapes an array to one column.	=TOCOL(A2:D20,1)	1 ignores blanks.
TOROW	Reshapes an array to one row.	=TOROW(A2:D20,1)	1 ignores blanks.

#SPILL! Clear cells blocking the result. Dynamic arrays cannot spill inside an Excel Table's calculated column; place the formula outside the table if needed.

13 Text functions

Use TRIM and CLEAN on imported text, but remember that TRIM does not remove every Unicode space.

Function	What it does	Copyable example	Key point
LEFT	Characters from the start.	=LEFT(A2,4)	First four characters.
RIGHT	Characters from the end.	=RIGHT(A2,4)	Useful for a four-digit vintage.
MID	Characters from a chosen position.	=MID(A2,6,3)	Position 6, length 3.
LEN	Counts characters.	=LEN(A2)	Spaces count.
TRIM	Removes extra ordinary spaces.	=TRIM(A2)	Leaves single spaces between words.
CLEAN	Removes non-printing characters.	=CLEAN(A2)	Useful after imports.
PROPER	Title-style capitalisation.	=PROPER(A2)	May change brand styling.
TEXT	Formats a number/date as text.	=TEXT(B2,"£#,##0.00")	Result is text, not numeric.
VALUE	Converts suitable numeric text.	=VALUE(A2)	Check separators and locale.
TEXTJOIN	Joins with a chosen delimiter.	=TEXTJOIN(" ",TRUE,A2:C2)	TRUE ignores empty values.
SUBSTITUTE	Replaces matching text.	=SUBSTITUTE(A2,"Ltd","Limited")	Can target an occurrence.
TEXTSPLIT	Splits text into cells.	=TEXTSPLIT(A2," ")	Result spills.
TEXTBEFORE	Text before a delimiter.	=TEXTBEFORE(A2," - ")	Can choose occurrence.
TEXTAFTER	Text after a delimiter.	=TEXTAFTER(A2," - ")	Can choose occurrence.

14 Date and time functions

Excel stores dates as serial numbers. Apply a date format to display a date rather than its serial value.

Function	What it does	Copyable example	Key point
TODAY	Current date.	=TODAY()	Recalculates; not a fixed timestamp.
NOW	Current date and time.	=NOW()	Recalculates; not a fixed timestamp.
DATE	Builds a date from year/month/day.	=DATE(2026,8,4)	Avoids ambiguous typed dates.
YEAR	Extracts the year.	=YEAR(A2)	A2 must be a valid date/serial.
MONTH	Extracts month number 1-12.	=MONTH(A2)	Format does not change value.
DAY	Extracts day of month.	=DAY(A2)	Returns 1-31.
EDATE	Moves by whole months.	=EDATE(A2,6)	Six months after A2.
EOMONTH	Returns a month-end date.	=EOMONTH(A2,0)	0 means A2's month.
DATEDIF	Whole days/months/years between dates.	=DATEDIF(A2,B2,"y")	"y" means whole years.
DAYS	Calendar-day difference.	=DAYS(B2,A2)	End date first.
WORKDAY	Date N workdays away.	=WORKDAY(A2,10,'Holidays'!\$A\$2:\$A\$20)	Excludes weekends and listed holidays.
NETWORKDAYS	Counts working days between dates.	=NETWORKDAYS(A2,B2,'Holidays'!\$A\$2:\$A\$20)	Start/end count when workdays.

FIXED DATE/TIME To enter a fixed date on Mac or Windows use Ctrl+;. For a fixed time use Cmd+; on Mac or Ctrl+Shift+: on Windows. TODAY() and NOW() keep recalculating.

15 A reliable data workflow

Keep raw data separate, make one row equal one record, and avoid blank rows or merged cells inside a list.

- 1. **Use clear headers:** Give every column one unique field name; do not put totals or notes above the list.
- 2. **Store one kind of value per column:** Keep dates as dates, numbers as numbers and identifiers as text where required.
- 3. **Convert the range to a Table:** Filters, structured references and expansion become more reliable.
- 4. **Validate inputs:** Use a drop-down or limits where inconsistent typing would break analysis.
- 5. **Clean on a copy or in Power Query:** Preserve the raw source before splitting, replacing or removing duplicates.
- 6. **Test formulas:** Check normal, blank, zero, text, duplicate and no-match cases.
- 7. **Summarise:** Use formulas, PivotTables or charts only after the detail data is structurally sound.

Conditional formatting without row shifts

Step	Correct action	Why
1	Select the Applies to range, for example \$D\$3:\$D\$1000.	Defines the top-left cell as D3.
2	Write the rule as if it belongs to D3.	Relative row references then move correctly.
3	Lock columns only where needed, for example \$C3 and \$D3.	Columns stay fixed; each row still evaluates itself.
4	Check the first, middle and last rows.	Catches header highlighting and unformatted final rows.

DO NOT SORT ONE COLUMN ALONE Select the full data range or use an Excel Table. Sorting only one column separates values from the rest of their record.

16 PivotTables, charts and Power Query

These solve different problems: summary, communication and repeatable transformation.

Tool	Best for	Typical workflow	Refresh/change
PivotTable	Fast grouping and aggregation	Insert > PivotTable; drag fields into Rows, Columns, Values and Filters.	Refresh after source changes; verify Value Field Settings.
Chart	Communicating comparisons or trends	Select clean data or a PivotTable; choose a chart matching the relationship.	Update labels, axis scale and source range.
Power Query	Repeatable import, cleaning and combination	Data > Get Data; record steps; load the result to a sheet or data model.	Refresh reruns the recorded steps on new source data.

PivotTable field areas

Area	Put here	Example
Rows	Categories listed down the left	Producer
Columns	Categories across the top	Vintage or month
Values	Numbers to sum/count/average	Bottle quantity or sales value
Filters	A whole-report selection	Country or salesperson

COUNT INSTEAD OF SUM? If a PivotTable counts a numeric field, the source may contain text, blanks or mixed data types. Correct the source field and refresh.

17 Formula errors and first checks

An error is information. Fix its cause before wrapping the formula in IFERROR.

Display	Usually means	First check
#DIV/0!	Division by zero or blank denominator	Check the divisor.
#N/A	No matching value	Spelling, spaces, data types and lookup mode.
#NAME?	Unrecognised function, name or text token	Function spelling, quotation marks and version availability.
#NULL!	Invalid range intersection	Look for a stray space between references.
#NUM!	Invalid numeric input/result	Arguments, dates and iterative calculation.
#REF!	Deleted or invalid reference	Undo if possible; rebuild the reference.
#SPILL!	Dynamic result cannot expand	Clear obstructing or merged cells; move outside a Table.
#VALUE!	Wrong data type or incompatible argument	Text where a number/date is expected.
#CALC!	Unsupported dynamic-array result	FILTER with no matches and no fallback is one cause.
#####	Column too narrow, or sometimes negative date/time	Widen the column first; this is normally not a formula error.

Repair order

1. **Read the error:** Select the cell and inspect the formula bar.
2. **Check inputs:** Confirm data types, blanks, zeroes, spaces and dates.
3. **Check references:** Use coloured reference outlines or Formulas > Trace Precedents.
4. **Reduce the formula:** Test one part at a time until the failing section is clear.
5. **Add a fallback last:** Use IFERROR/IFNA only when the fallback represents an expected case.

18 Keyboard shortcuts

Mac first. Function keys may require Fn depending on macOS Keyboard settings.

Task	Mac	Windows
Save	Cmd+S	Ctrl+S
Undo / redo	Cmd+Z / Cmd+Y or Cmd+Shift+Z	Ctrl+Z / Ctrl+Y
Cut / copy / paste	Cmd+X / Cmd+C / Cmd+V	Ctrl+X / Ctrl+C / Ctrl+V
Paste Special	Cmd+Ctrl+V; Ctrl+Option+V; or Cmd+Option+V	Ctrl+Alt+V
Find / replace	Cmd+F / Ctrl+H or Cmd+Shift+H	Ctrl+F / Ctrl+H
Go To	Ctrl+G or F5	Ctrl+G or F5
Format Cells	Cmd+1	Ctrl+1
Create Table	Cmd+T or Ctrl+T	Ctrl+T or Ctrl+L
Edit cell	F2	F2
Function Builder	Shift+F3	Shift+F3
AutoSum	Shift+Cmd+T	Alt+=
Cycle A1/\$A\$1	Cmd+T or F4 while editing	F4 while editing
Show formulas	Ctrl+`	Ctrl+`
Fixed date	Ctrl+;	Ctrl+;
Fixed time	Cmd+;	Ctrl+Shift+:
Fill down / right	Cmd+D / Cmd+R	Ctrl+D / Ctrl+R
Toggle filters	Cmd+Shift+F or Ctrl+Shift+L	Ctrl+Shift+L
New line in cell	Cmd+Option+Return or Ctrl+Option+Return	Alt+Enter
Select column / row	Ctrl+Space / Shift+Space	Ctrl+Space / Shift+Space
New worksheet	Shift+F11	Shift+F11
Calculate workbook / sheet	F9 / Shift+F9	F9 / Shift+F9
Power Query Editor	Option+F12	Alt+F12

CONTEXT MATTERS On Mac, Cmd+T creates a Table when you are not editing a formula; while editing a selected reference it cycles relative/absolute forms. F4 is the alternative.

19 Wine data formulas for Keith

These formulas address your producer, wine and website-vintage checks without counting blank combinations.

Task	Formula / rule	Why
Unique producer + wine count	=ROWS(UNIQUE(FILTER(C17:C1000&" "&D17:D1000,(C17:C1000<>"")*(D17:D1000<>""))))	Excludes blank rows before UNIQUE.
Unique producer count	=ROWS(UNIQUE(FILTER(B3:B1000,B3:B1000<>"")))	Does not count a blank as an item.
Extract final four-digit vintage	=IFERROR(VALUE(RIGHT(C3,4)), "")	Blank if conversion fails.
Status result	=IF(D3="Not on site", "Not on site", IF(IFERROR(VALUE(RIGHT(C3,4))=D3, FALSE), "Correct", "Incorrect"))	Separates text and handles conversion errors.
Green CF rule	=AND(ISNUMBER(\$D3), IFERROR(VALUE(RIGHT(\$C3,4))=\$D3, FALSE))	Apply to \$D\$3:\$D\$1000.
Red CF rule	=AND(ISNUMBER(\$D3), IFERROR(VALUE(RIGHT(\$C3,4))<>\$D3, FALSE))	Apply to \$D\$3:\$D\$1000.
Not on site CF rule	=\$D3="Not on site"	Use a separate neutral/amber fill.
Clean producer name	=TRIM(CLEAN(B3))	Removes non-printing and ordinary extra spaces.
Show South African rows	=FILTER(A2:D1000,A2:A1000="South Africa", "No matches")	Result spills into clear cells.

CONDITIONAL FORMATTING If Applies to begins at row 3, the rule must refer to row 3. Lock the columns (\$C and \$D), not the row, so each row checks itself.

20 Using the complete function catalogue

The appendix contains 522 individual functions. Use the companion workbook when you want filters and clickable detail links.

COUNT METHOD Microsoft's alphabetical page contains 515 table rows. Seven rows combine paired functions: FIND/FINDB, LEFT/LEFTB, LEN/LENB, MID/MIDB, REPLACE/REPLACEB, RIGHT/RIGHTB and SEARCH/SEARCHB. Splitting the pairs produces 522 individual functions.

Version markers

Marker	Meaning in this guide
2010/2013/2016/2019/2021/2024	Microsoft's introduction marker; the function is unavailable in earlier perpetual versions.
Microsoft 365	Current subscription feature; platform/licence/update-channel availability can still differ.
Premium Copilot Beta	Premium Copilot feature in Beta; availability can change.
Compatibility category	Older name kept for older workbooks; use the modern replacement for new work where appropriate.
No marker	No introduction marker is shown on Microsoft's current alphabetical index.

Official Microsoft sources

Excel functions - alphabetical - support.microsoft.com/en-us/excel/excel-functions-alphabetical

Excel functions - by category - support.microsoft.com/en-US/Excel/excel-functions-by-category

Keyboard shortcuts in Excel - support.microsoft.com/en-us/accessibility/excel/keyboard-shortcuts-in-excel

Overview of formulas in Excel - support.microsoft.com/en-us/excel/get-started/overview-of-formulas-in-excel

Basic tasks in Excel - support.microsoft.com/en-US/Excel/basic-tasks-in-excel

ACCURACY DATE Content was checked on 4 August 2026. The appendix begins on the next page.

21 A to Z function catalogue: ABS to AREAS

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
ABS	Math & trigonometry	Removes the sign from a number and gives its non-negative magnitude.
ACCRINT	Financial	Gives the accrued interest for a security that pays periodic interest.
ACCRINTM	Financial	Gives the accrued interest for a security that pays interest at maturity.
ACOS	Math & trigonometry	Gives the arccosine of a number.
ACOSH	Math & trigonometry	Gives the inverse hyperbolic cosine of a number.
ACOT (2013)	Math & trigonometry	Gives the arccotangent of a number.
ACOTH (2013)	Math & trigonometry	Gives the hyperbolic arccotangent of a number.
ADDRESS	Lookup & reference	Produces a reference as text to a single cell in a worksheet.
AGGREGATE	Math & trigonometry	Produces an aggregate in a list or database.
AMORDEGRC	Financial	Gives the depreciation for each accounting period by using a depreciation coefficient.
AMORLINC	Financial	Gives the depreciation for each accounting period.
AND	Logical	TRUE only when every supplied condition is TRUE.
ARABIC (2013)	Math & trigonometry	Changes a Roman number to Arabic, as a number.
AREAS	Lookup & reference	Gives the number of areas in a reference.

22 A to Z function catalogue: ARRAYTOTEXT to BASE

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
ARRAYTOTEXT (2021)	Text	Produces an array of text values from any specified range.
ASC	Text	Transforms full-width (double-byte) English letters or katakana within a character string to half-width (single-byte) characters.
ASIN	Math & trigonometry	Gives the arcsine of a number.
ASINH	Math & trigonometry	Gives the inverse hyperbolic sine of a number.
ATAN	Math & trigonometry	Gives the arctangent of a number.
ATAN2	Math & trigonometry	Gives the arctangent from x- and y-coordinates.
ATANH	Math & trigonometry	Gives the inverse hyperbolic tangent of a number.
AVEDEV	Statistical	Gives the average of the absolute deviations of data points from their mean.
AVERAGE	Statistical	Arithmetic mean of the supplied numbers.
AVERAGEA	Statistical	Gives the average of its arguments, including numbers, text, and logical values.
AVERAGEIF	Statistical	Average of cells that meet one condition.
AVERAGEIFS	Statistical	Average of cells that meet all specified conditions.
BAHTTEXT	Text	Changes a number to text, using the ฿ (baht) currency format.
BASE	Math & trigonometry	Changes a number into a text representation with the given radix (base).

23 A to Z function catalogue: BESSELI to BINOM.INV

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
BESSELI	Engineering	Gives the modified Bessel function $I_n(x)$.
BESSELJ	Engineering	Gives the Bessel function $J_n(x)$.
BESSELK	Engineering	Gives the modified Bessel function $K_n(x)$.
BESSELY	Engineering	Gives the Bessel function $Y_n(x)$.
BETA.DIST (2010)	Statistical	Gives the beta cumulative distribution function.
BETA.INV (2010)	Statistical	Inverse of the beta cumulative distribution for a supplied probability.
BETADIST	Compatibility	Gives the beta cumulative distribution function.
BETAINV	Compatibility	Gives the inverse of the cumulative distribution function for a specified beta distribution.
BIN2DEC	Engineering	Changes a binary number to decimal.
BIN2HEX	Engineering	Changes a binary number to hexadecimal.
BIN2OCT	Engineering	Changes a binary number to octal.
BINOM.DIST (2010)	Statistical	Gives the individual term binomial distribution probability.
BINOM.DIST.RANGE (2013)	Statistical	Gives the probability of a trial result using a binomial distribution.
BINOM.INV (2010)	Statistical	Gives the smallest value for which the cumulative binomial distribution is less than or equal to a criterion value.

24 A to Z function catalogue: BINOMDIST to CHAR

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
BINOMDIST	Compatibility	Gives the individual term binomial distribution probability.
BITAND (2013)	Engineering	Produces a 'Bitwise And' of two numbers.
BITLSHIFT (2013)	Engineering	Produces a value number shifted left by shift_amount bits.
BITOR (2013)	Engineering	Produces a bitwise OR of 2 numbers.
BITRSHIFT (2013)	Engineering	Produces a value number shifted right by shift_amount bits.
BITXOR (2013)	Engineering	Produces a bitwise 'Exclusive Or' of two numbers.
BYCOL (2024)	Logical	Runs a LAMBDA once for each column and returns the column results.
BYROW (2024)	Logical	Runs a LAMBDA once for each row and returns the row results.
CALL	Add-in & automation	Runs a procedure in a dynamic link library or code resource.
CEILING	Compatibility	Rounds to a requested multiple using the older compatibility rules.
CEILING.MATH (2013)	Math & trigonometry	Rounds upward to an integer or chosen multiple, with optional control for negative numbers.
CEILING.PRECISE	Math & trigonometry	Rounds upward to the nearest integer or chosen multiple, regardless of the number's sign.
CELL	Information	Information about a cell's contents, address or formatting; unavailable in Excel for the web.
CHAR	Text	Gives the character specified by the code number.

AVAILABILITY CELL: Not available in Excel for the web.

25 A to Z function catalogue: CHIDIST to COLUMN

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
CHIDIST	Compatibility	Gives the one-tailed probability of the chi-squared distribution.
CHIINV	Compatibility	Gives the inverse of the one-tailed probability of the chi-squared distribution.
CHISQ.DIST (2010)	Statistical	Chi-square probability density or cumulative distribution.
CHISQ.DIST.RT (2010)	Statistical	Gives the one-tailed probability of the chi-squared distribution.
CHISQ.INV (2010)	Statistical	Inverse of the left-tailed chi-square probability.
CHISQ.INV.RT (2010)	Statistical	Gives the inverse of the one-tailed probability of the chi-squared distribution.
CHISQ.TEST (2010)	Statistical	Gives the test for independence.
CHITEST	Compatibility	Gives the test for independence.
CHOOSE	Lookup & reference	Selects a value from a list of values.
CHOOSECOLS (2024)	Lookup & reference	Returns only the column numbers you specify from an array.
CHOOSEROWS (2024)	Lookup & reference	Returns only the row numbers you specify from an array.
CLEAN	Text	Strips non-printing characters from text.
CODE	Text	Produces a numeric code for the first character in a text string.
COLUMN	Lookup & reference	Gives the column number of a reference.

26 A to Z function catalogue: COLUMNS to COSH

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
COLUMNS	Lookup & reference	Gives the number of columns in a reference.
COMBIN	Math & trigonometry	Gives the number of combinations for a given number of objects.
COMBINA (2013)	Math & trigonometry	Gives the number of combinations with repetitions for a given number of items.
COMPLEX	Engineering	Changes real and imaginary coefficients into a complex number.
CONCAT (2019)	Text	Joins text from strings or ranges without automatically adding a separator.
CONCATENATE	Text	Older text-joining function retained for compatibility; prefer CONCAT or TEXTJOIN.
CONFIDENCE	Compatibility	Gives the confidence interval for a population mean.
CONFIDENCE.NORM (2010)	Statistical	Gives the confidence interval for a population mean.
CONFIDENCE.T (2010)	Statistical	Gives the confidence interval for a population mean, using a Student's t distribution.
CONVERT	Engineering	Changes a number from one measurement system to another.
COPILOT (Copilot Beta)	Text	Uses Copilot to classify, summarise or generate text in cells; premium Beta feature.
CORREL	Statistical	Gives the correlation coefficient between two data sets.
COS	Math & trigonometry	Gives the cosine of a number.
COSH	Math & trigonometry	Gives the hyperbolic cosine of a number.

27 A to Z function catalogue: COT to COVAR

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
COT (2013)	Math & trigonometry	Cotangent of an angle supplied in radians.
COTH (2013)	Math & trigonometry	Hyperbolic cotangent of a number.
COUNT	Statistical	Counts cells or arguments containing numbers.
COUNTA	Statistical	Counts non-empty cells, including text, numbers, errors and logical values.
COUNTBLANK	Statistical	Counts blank cells in a range.
COUNTIF	Statistical	Counts cells that meet one condition.
COUNTIFS	Statistical	Counts rows or cells that meet all specified conditions.
COUPDAYBS	Financial	Gives the number of days from the beginning of the coupon period to the settlement date.
COUPDAYS	Financial	Gives the number of days in the coupon period that contains the settlement date.
COUPDAYSNC	Financial	Gives the number of days from the settlement date to the next coupon date.
COUPNCD	Financial	Gives the next coupon date after the settlement date.
COUPNUM	Financial	Gives the number of coupons payable between the settlement date and maturity date.
COUPPCD	Financial	Gives the previous coupon date before the settlement date.
COVAR	Compatibility	Provides covariance, the average of the products of paired deviations.

28 A to Z function catalogue: COVARIANCE.P to CUMPRINC

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
COVARIANCE.P (2010)	Statistical	Provides covariance, the average of the products of paired deviations.
COVARIANCE.S (2010)	Statistical	Gives the sample covariance, the average of the products deviations for each data point pair in two data sets.
CRITBINOM	Compatibility	Gives the smallest value for which the cumulative binomial distribution is less than or equal to a criterion value.
CSC (2013)	Math & trigonometry	Gives the cosecant of an angle.
CSCH (2013)	Math & trigonometry	Gives the hyperbolic cosecant of an angle.
CUBEKPIMEMBER	Cube	Produces a key performance indicator (KPI) name, property, and measure, and displays the name and property in the cell.
CUBEMEMBER	Cube	Produces a member or tuple in a cube hierarchy.
CUBEMEMBERPROPERTY	Cube	Gives the value of a member property in the cube.
CUBERANKEDMEMBER	Cube	Gives the nth, or ranked, member in a set.
CUBESET	Cube	Creates a calculated cube set from a server-side set expression.
CUBESETCOUNT	Cube	Gives the number of items in a set.
CUBEVALUE	Cube	Produces an aggregated value from a cube.
CUMIPMT	Financial	Gives the cumulative interest paid between two periods.
CUMPRINC	Financial	Gives the cumulative principal paid on a loan between two periods.

29 A to Z function catalogue: DATE to DEC2HEX

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
DATE	Date & time	Builds a valid Excel date from year, month and day numbers.
DATEDIF	Date & time	Whole days, months or years between two dates; often used for ages or service length.
DATEVALUE	Date & time	Changes a date in the form of text to a serial number.
DAVERAGE	Database	Gives the average of selected database entries.
DAY	Date & time	Day-of-month number from a date.
DAYS (2013)	Date & time	Number of calendar days between two dates.
DAYS360	Date & time	Works out the number of days between two dates based on a 360-day year.
DB	Financial	Gives the depreciation of an asset for a specified period by using the fixed-declining balance method.
DBCS (2013)	Text	Transforms half-width (single-byte) English letters or katakana within a character string to full-width (double-byte) characters.
DCOUNT	Database	Gives the count of the cells that contain numbers in a database.
DCOUNTA	Database	Gives the count of nonblank cells in a database.
DDB	Financial	Gives the depreciation of an asset for a specified period by using the double-declining balance method or some other method that you specify.
DEC2BIN	Engineering	Changes a decimal number to binary.
DEC2HEX	Engineering	Changes a decimal number to hexadecimal.

30 A to Z function catalogue: DEC2OCT to DPRODUCT

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
DEC2OCT	Engineering	Changes a decimal number to octal.
DECIMAL (2013)	Math & trigonometry	Changes a text representation of a number in a given base into a decimal number.
DEGREES	Math & trigonometry	Changes radians to degrees.
DELTA	Engineering	Checks whether two values are equal.
DETECTLANGUAGE (365)	Text	Identifies the language used in supplied text.
DEVSQ	Statistical	Gives the sum of squares of deviations.
DGET	Database	Pulls from a database a single record that matches the specified criteria.
DISC	Financial	Gives the discount rate for a security.
DMAX	Database	Gives the maximum value from selected database entries.
DMIN	Database	Gives the minimum value from selected database entries.
DOLLAR	Text	Changes a number to text, using the \$ (dollar) currency format.
DOLLARDE	Financial	Changes a dollar price, expressed as a fraction, into a dollar price, expressed as a decimal number.
DOLLARFR	Financial	Changes a dollar price, expressed as a decimal number, into a dollar price, expressed as a fraction.
DPRODUCT	Database	Computes the product of the values in a particular field of records that match the criteria in a database.

31 A to Z function catalogue: DROP to ERFC

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
DROP (2024)	Lookup & reference	Removes a specified number of rows or columns from either end of an array.
DSTDEV	Database	Provides an estimate of the standard deviation based on a sample of selected database entries.
DSTDEVP	Database	Works out the standard deviation based on the entire population of selected database entries.
DSUM	Database	Totals the numbers in the field column of records in the database that match the criteria.
DURATION	Financial	Gives the annual duration of a security with periodic interest payments.
DVAR	Database	Provides an estimate of variance based on a sample from selected database entries.
DVARP	Database	Works out variance based on the entire population of selected database entries.
EDATE	Date & time	Date a specified number of months before or after a starting date.
EFFECT	Financial	Gives the effective annual interest rate.
ENCODEURL (2013)	Web	Produces a URL-encoded string.
EOMONTH	Date & time	Last day of the month a specified number of months before or after a date.
ERF	Engineering	Gives the error function.
ERF.PRECISE (2010)	Engineering	Gives the error function.
ERFC	Engineering	Gives the complementary error function.

AVAILABILITY ENCODEURL: Not available in Excel for the web.

32 A to Z function catalogue: ERFC.PRECISE to F.TEST

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
ERFC.PRECISE (2010)	Engineering	Gives the complementary ERF function integrated between x and infinity.
ERROR.TYPE	Information	Produces a number corresponding to an error type.
EUROCONVERT	Add-in & automation	Converts between euros and participating legacy euro currencies, using euro triangulation when needed.
EVEN	Math & trigonometry	Rounds a number up to the nearest even integer.
EXACT	Text	Case-sensitive test of whether two text strings are identical.
EXP	Math & trigonometry	Provides e raised to the power of a given number.
EXPAND (2024)	Lookup & reference	Pads an array to requested dimensions, optionally using a chosen fill value.
EXPON.DIST (2010)	Statistical	Gives the exponential distribution.
EXPONDIST	Compatibility	Gives the exponential distribution.
F.DIST (2010)	Statistical	Gives the F probability distribution.
F.DIST.RT (2010)	Statistical	Gives the F probability distribution.
F.INV (2010)	Statistical	Gives the inverse of the F probability distribution.
F.INV.RT (2010)	Statistical	Gives the inverse of the F probability distribution.
F.TEST (2010)	Statistical	Gives the result of an F-test.

33 A to Z function catalogue: FACT to FLOOR.MATH

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
FACT	Math & trigonometry	Gives the factorial of a number.
FACTDOUBLE	Math & trigonometry	Gives the double factorial of a number.
FALSE	Logical	Gives the logical value FALSE.
FDIST	Compatibility	Gives the F probability distribution.
FILTER (2021)	Lookup & reference	Returns only rows or columns that satisfy a TRUE/FALSE test.
FILTERXML (2013)	Web	Provides specific data from the XML content by using the specified XPath.
FIND	Text	Position of one text string inside another; case-sensitive.
FINDB	Text	Byte-based variant of FIND for double-byte character sets.
FINV	Compatibility	Gives the inverse of the F probability distribution.
FISHER	Statistical	Gives the Fisher transformation.
FISHERINV	Statistical	Gives the inverse of the Fisher transformation.
FIXED	Text	Displays a number as text with a fixed number of decimals.
FLOOR	Compatibility	Rounds down towards zero to a requested multiple using the older compatibility rules.
FLOOR.MATH (2013)	Math & trigonometry	Rounds downward to an integer or chosen multiple, with optional control for negative numbers.

AVAILABILITY FILTERXML: Not available in Excel for the web.

34 A to Z function catalogue: FLOOR.PRECISE to GAMMA.DIST

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
FLOOR.PRECISE	Math & trigonometry	Rounds down to the nearest integer or specified multiple, regardless of the number's sign.
FORECAST	Statistical	Older linear-forecast function retained for compatibility; prefer FORECAST.LINEAR.
FORECAST.ETS (2016)	Statistical	Produces a future value based on existing (historical) values by using the AAA version of the Exponential Smoothing (ETS) algorithm.
FORECAST.ETS.CONFINT (2016)	Statistical	Produces a confidence interval for the forecast value at the specified target date.
FORECAST.ETS.SEASONALITY (2016)	Statistical	Gives the length of the repetitive pattern Excel detects for the specified time series.
FORECAST.ETS.STAT (2016)	Statistical	Produces a statistical value as a result of time series forecasting.
FORECAST.LINEAR (2016)	Statistical	Produces a future value based on existing values.
FORMULATEXT (2013)	Lookup & reference	Gives the formula at the given reference as text.
FREQUENCY	Statistical	Produces a frequency distribution as a vertical array.
FTEST	Compatibility	Gives the result of an F-test.
FV	Financial	Gives the future value of an investment.
FVSCHEDULE	Financial	Gives the future value of an initial principal after applying a series of compound interest rates.
GAMMA (2013)	Statistical	Gives the Gamma function value.
GAMMA.DIST (2010)	Statistical	Gives the gamma distribution.

AVAILABILITY FORECAST: Compatibility function; Microsoft recommends FORECAST.LINEAR for new work.

35 A to Z function catalogue: GAMMA.INV to HEX2BIN

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
GAMMA.INV (2010)	Statistical	Gives the inverse of the gamma cumulative distribution.
GAMMADIST	Compatibility	Gives the gamma distribution.
GAMMAINV	Compatibility	Gives the inverse of the gamma cumulative distribution.
GAMMALN	Statistical	Gives the natural logarithm of the gamma function, $\Gamma(x)$.
GAMMALN.PRECISE (2010)	Statistical	Gives the natural logarithm of the gamma function, $\Gamma(x)$.
GAUSS (2013)	Statistical	Provides 0.5 less than the standard normal cumulative distribution.
GCD	Math & trigonometry	Gives the greatest common divisor.
GEOMEAN	Statistical	Gives the geometric mean.
GESTEP	Engineering	Checks whether a number is greater than a threshold value.
GETPIVOTDATA	Lookup & reference	Provides data stored in a PivotTable report.
GROUPBY (365)	Lookup & reference	Groups records by selected fields and returns calculated summaries.
GROWTH	Statistical	Provides values along an exponential trend.
HARMEAN	Statistical	Gives the harmonic mean.
HEX2BIN	Engineering	Changes a hexadecimal number to binary.

36 A to Z function catalogue: HEX2DEC to IMAGE

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
HEX2DEC	Engineering	Changes a hexadecimal number to decimal.
HEX2OCT	Engineering	Changes a hexadecimal number to octal.
HLOOKUP	Lookup & reference	Looks across the top row and returns a value from a specified row; XLOOKUP is usually safer.
HOUR	Date & time	Changes a serial number to an hour.
HSTACK (2024)	Lookup & reference	Places arrays side by side to create a wider array.
HYPERLINK	Lookup & reference	Builds a shortcut or jump that opens a document stored on a network server, an intranet, or the Internet.
HYPGEOM.DIST	Statistical	Gives the hypergeometric distribution.
HYPGEOMDIST	Compatibility	Gives the hypergeometric distribution.
IF	Logical	Returns one result when a test is TRUE and another when it is FALSE.
IFERROR	Logical	Uses a fallback result when a formula produces any error.
IFNA (2013)	Logical	Uses a fallback result only when a formula produces #N/A.
IFS (2019)	Logical	Tests conditions in order and returns the result for the first TRUE condition.
IMABS	Engineering	Gives the absolute value (modulus) of a complex number.
IMAGE (2024)	Lookup & reference	Displays an image from a supported source URL inside a cell.

37 A to Z function catalogue: IMAGINARY to IMPOWER

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
IMAGINARY	Engineering	Gives the imaginary coefficient of a complex number.
IMARGUMENT	Engineering	Gives the argument theta, an angle expressed in radians.
IMCONJUGATE	Engineering	Gives the complex conjugate of a complex number.
IMCOS	Engineering	Gives the cosine of a complex number.
IMCOSH (2013)	Engineering	Gives the hyperbolic cosine of a complex number.
IMCOT (2013)	Engineering	Gives the cotangent of a complex number.
IMCSC (2013)	Engineering	Gives the cosecant of a complex number.
IMCSCH (2013)	Engineering	Gives the hyperbolic cosecant of a complex number.
IMDIV	Engineering	Gives the quotient of two complex numbers.
IMEXP	Engineering	Gives the exponential of a complex number.
IMLN	Engineering	Gives the natural logarithm of a complex number.
IMLOG10	Engineering	Gives the base-10 logarithm of a complex number.
IMLOG2	Engineering	Gives the base-2 logarithm of a complex number.
IMPOWER	Engineering	Produces a complex number raised to an integer power.

38 A to Z function catalogue: IMPRODUCT to INT

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
IMPRODUCT	Engineering	Gives the product of complex numbers.
IMREAL	Engineering	Gives the real coefficient of a complex number.
IMSEC (2013)	Engineering	Gives the secant of a complex number.
IMSECH (2013)	Engineering	Gives the hyperbolic secant of a complex number.
IMSIN	Engineering	Gives the sine of a complex number.
IMSINH (2013)	Engineering	Gives the hyperbolic sine of a complex number.
IMSQRT	Engineering	Gives the square root of a complex number.
IMSUB	Engineering	Gives the difference between two complex numbers.
IMSUM	Engineering	Gives the sum of complex numbers.
IMTAN (2013)	Engineering	Gives the tangent of a complex number.
INDEX	Lookup & reference	Value or reference at a specified row and column within a range or array.
INDIRECT	Lookup & reference	Produces a reference indicated by a text value.
INFO	Information	Provides information about the current operating environment.
INT	Math & trigonometry	Rounds a number down to the nearest integer.

AVAILABILITY INFO: Not available in Excel for the web.

39 A to Z function catalogue: INTERCEPT to ISO.CEILING

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
INTERCEPT	Statistical	Gives the intercept of the linear regression line.
INTRATE	Financial	Gives the interest rate for a fully invested security.
IPMT	Financial	Gives the interest payment for an investment for a given period.
IRR	Financial	Gives the internal rate of return for a series of cash flows.
ISBLANK	Information	TRUE when the referenced cell contains no value or formula.
ISERR	Information	Provides TRUE if the value is any error value except #N/A.
ISERROR	Information	TRUE for any Excel error value.
ISEVEN	Information	Provides TRUE if the number is even.
ISFORMULA (2013)	Information	Provides TRUE if there is a reference to a cell that contains a formula.
ISLOGICAL	Information	Provides TRUE if the value is a logical value.
ISNA	Information	TRUE only for the #N/A error.
ISNONTEXT	Information	Provides TRUE if the value is not text.
ISNUMBER	Information	TRUE when the supplied value is numeric.
ISO.CEILING (2013)	Math & trigonometry	Produces a number that is rounded up to the nearest integer or to the nearest multiple of significance.

40 A to Z function catalogue: ISODD to LEN

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
ISODD	Information	Provides TRUE if the number is odd.
ISOMITTED (2024)	Information	Tests whether the value in a LAMBDA is missing and returns TRUE or FALSE.
ISOWEEKNUM (2013)	Date & time	Gives the number of the ISO week number of the year for a given date.
ISPMT	Financial	Works out the interest paid during a specific period of an investment.
ISREF	Information	Provides TRUE if the value is a reference.
ISTEXT	Information	TRUE when the supplied value is text.
JIS	Text	Transforms half-width (single-byte) characters within a string to full-width (double-byte) characters.
KURT	Statistical	Gives the kurtosis of a data set.
LAMBDA (2024)	Logical	Defines a reusable custom calculation using named parameters.
LARGE	Statistical	Gives the k-th largest value in a data set.
LCM	Math & trigonometry	Gives the least common multiple.
LEFT	Text	Characters taken from the start of a text string.
LEFTB	Text	Byte-based variant of LEFT for double-byte character sets.
LEN	Text	Number of characters in a text string.

41 A to Z function catalogue: LENB to MAKEARRAY

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
LENB	Text	Number of bytes used by text in double-byte character sets.
LET (2021)	Logical	Names intermediate values inside a formula, improving readability and avoiding repeated calculation.
LINEST	Statistical	Gives the parameters of a linear trend.
LN	Math & trigonometry	Gives the natural logarithm of a number.
LOG	Math & trigonometry	Gives the logarithm of a number to a specified base.
LOG10	Math & trigonometry	Gives the base-10 logarithm of a number.
LOGEST	Statistical	Gives the parameters of an exponential trend.
LOGINV	Compatibility	Gives the inverse of the lognormal cumulative distribution.
LOGNORM.DIST (2010)	Statistical	Gives the cumulative lognormal distribution.
LOGNORM.INV (2010)	Statistical	Gives the inverse of the lognormal cumulative distribution.
LOGNORMDIST	Compatibility	Gives the cumulative lognormal distribution.
LOOKUP	Lookup & reference	Searches up values in a vector or array.
LOWER	Text	Changes letters in text to lower case.
MAKEARRAY (2024)	Logical	Builds an array of a requested size by running a LAMBDA for every position.

42 A to Z function catalogue: MAP to MINUTE

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
MAP (2024)	Logical	Transforms each value in one or more arrays by applying a LAMBDA.
MATCH	Lookup & reference	Relative position of a matching item in a one-dimensional range.
MAX	Statistical	Largest numeric value supplied.
MAXA	Statistical	Gives the maximum value in a list of arguments, including numbers, text, and logical values.
MAXIFS (2019)	Statistical	Largest value among records that meet all specified conditions.
MDETERM	Math & trigonometry	Gives the matrix determinant of an array.
MDURATION	Financial	Gives the Macauley modified duration for a security with an assumed par value of \$100.
MEDIAN	Statistical	Gives the median of the given numbers.
MID	Text	A chosen number of characters from the middle of text, starting at a specified position.
MIDB	Text	Byte-based variant of MID for double-byte character sets.
MIN	Statistical	Smallest numeric value supplied.
MINA	Statistical	Gives the smallest value in a list of arguments, including numbers, text, and logical values.
MINIFS (2019)	Statistical	Smallest value among records that meet all specified conditions.
MINUTE	Date & time	Changes a serial number to a minute.

43 A to Z function catalogue: MINVERSE to NEGBINOM.DIST

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
MINVERSE	Math & trigonometry	Gives the matrix inverse of an array.
MIRR	Financial	Gives the internal rate of return where positive and negative cash flows are financed at different rates.
MMULT	Math & trigonometry	Gives the matrix product of two arrays.
MOD	Math & trigonometry	Gives the remainder from division.
MODE	Compatibility	Gives the most common value in a data set.
MODE.MULT (2010)	Statistical	Produces a vertical array of the most frequently occurring, or repetitive values in an array or range of data.
MODE.SNGL (2010)	Statistical	Gives the most common value in a data set.
MONTH	Date & time	Month number, from 1 to 12, taken from a date.
MROUND	Math & trigonometry	Produces a number rounded to the desired multiple.
MULTINOMIAL	Math & trigonometry	Gives the multinomial of a set of numbers.
MUNIT (2013)	Math & trigonometry	Gives the unit matrix or the specified dimension.
N	Information	Produces a value converted to a number.
NA	Information	Gives the error value #N/A.
NEGBINOM.DIST (2010)	Statistical	Gives the negative binomial distribution.

44 A to Z function catalogue: NEGBINOMDIST to NOW

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
NEGBINOMDIST	Compatibility	Gives the negative binomial distribution.
NETWORKDAYS	Date & time	Working-day count between two dates, excluding weekends and optional holidays.
NETWORKDAYS.INTL (2010)	Date & time	Working-day count between two dates using a custom weekend pattern and optional holidays.
NOMINAL	Financial	Gives the annual nominal interest rate.
NORM.DIST (2010)	Statistical	Gives the normal cumulative distribution.
NORM.INV (2010)	Compatibility	Gives the inverse of the normal cumulative distribution.
NORM.S.DIST (2010)	Statistical	Gives the standard normal cumulative distribution.
NORM.S.INV (2010)	Statistical	Gives the inverse of the standard normal cumulative distribution.
NORMDIST	Compatibility	Gives the normal cumulative distribution.
NORMINV	Statistical	Gives the inverse of the normal cumulative distribution.
NORMSDIST	Compatibility	Gives the standard normal cumulative distribution.
NORMSINV	Compatibility	Gives the inverse of the standard normal cumulative distribution.
NOT	Logical	Reverses TRUE to FALSE and FALSE to TRUE.
NOW	Date & time	Current date and time, recalculated by Excel.

45 A to Z function catalogue: NPER to PDURATION

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
NPER	Financial	Gives the number of periods for an investment.
NPV	Financial	Gives the net present value of an investment based on a series of periodic cash flows and a discount rate.
NUMBERVALUE (2013)	Text	Changes text to number in a locale-independent manner.
OCT2BIN	Engineering	Changes an octal number to binary.
OCT2DEC	Engineering	Changes an octal number to decimal.
OCT2HEX	Engineering	Changes an octal number to hexadecimal.
ODD	Math & trigonometry	Rounds a number up to the nearest odd integer.
ODDFPRICE	Financial	Gives the price per \$100 face value of a security with an odd first period.
ODDFYIELD	Financial	Gives the yield of a security with an odd first period.
ODDLPRICE	Financial	Gives the price per \$100 face value of a security with an odd last period.
ODDLYIELD	Financial	Gives the yield of a security with an odd last period.
OFFSET	Lookup & reference	Produces a reference offset from a given reference.
OR	Logical	TRUE when at least one supplied condition is TRUE.
PDURATION (2013)	Financial	Gives the number of periods required by an investment to reach a specified value.

46 A to Z function catalogue: PEARSON to PIVOTBY

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
PEARSON	Statistical	Gives the Pearson product moment correlation coefficient.
PERCENTILE	Compatibility	Gives the k-th percentile of values in a range.
PERCENTILE.EXC (2010)	Statistical	Gives the k-th percentile of values in a range, where k is in the range 0..1, exclusive.
PERCENTILE.INC (2010)	Statistical	Gives the k-th percentile of values in a range.
PERCENTOF (365)	Math & trigonometry	Subtotal divided by the corresponding grand total.
PERCENTRANK	Compatibility	Gives the percentage rank of a value in a data set.
PERCENTRANK.EXC (2010)	Statistical	Gives the rank of a value in a data set as a percentage (0..1, exclusive) of the data set.
PERCENTRANK.INC (2010)	Statistical	Gives the percentage rank of a value in a data set.
PERMUT	Statistical	Gives the number of permutations for a given number of objects.
PERMUTATIONA (2013)	Statistical	Gives the number of permutations for a given number of objects (with repetitions) that can be selected from the total objects.
PHI (2013)	Statistical	Gives the value of the density function for a standard normal distribution.
PHONETIC	Text	Pulls the phonetic (furigana) characters from a text string.
PI	Math & trigonometry	Gives the value of pi.
PIVOTBY (365)	Lookup & reference	Groups records by row and column fields and returns calculated summaries.

47 A to Z function catalogue: PMT to QUARTILE.EXC

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
PMT	Financial	Gives the periodic payment for an annuity.
POISSON	Compatibility	Gives the Poisson distribution.
POISSON.DIST (2010)	Statistical	Gives the Poisson distribution.
POWER	Math & trigonometry	Gives the result of a number raised to a power.
PPMT	Financial	Gives the payment on the principal for an investment for a given period.
PRICE	Financial	Gives the price per \$100 face value of a security that pays periodic interest.
PRICEDISC	Financial	Gives the price per \$100 face value of a discounted security.
PRICEMAT	Financial	Gives the price per \$100 face value of a security that pays interest at maturity.
PROB	Statistical	Gives the probability that values in a range are between two limits.
PRODUCT	Math & trigonometry	Computes the product of its arguments.
PROPER	Text	Capitalises the first letter of each word and lowercases the remaining letters.
PV	Financial	Gives the present value of an investment.
QUARTILE	Compatibility	Gives the quartile of a data set.
QUARTILE.EXC (2010)	Statistical	Gives the quartile of the data set, based on percentile values from 0..1, exclusive.

48 A to Z function catalogue: QUARTILE.INC to REGEXREPLACE

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
QUARTILE.INC (2010)	Statistical	Gives the quartile of a data set.
QUOTIENT	Math & trigonometry	Gives the integer portion of a division.
RADIANS	Math & trigonometry	Changes degrees to radians.
RAND	Math & trigonometry	Produces a random number between 0 and 1.
RANDARRAY (2021)	Math & trigonometry	Produces an array of random numbers between 0 and 1.
RANDBETWEEN	Math & trigonometry	Produces a random number between the numbers you specify.
RANK	Compatibility	Gives the rank of a number in a list of numbers.
RANK.AVG (2010)	Statistical	Gives the rank of a number in a list of numbers.
RANK.EQ (2010)	Statistical	Gives the rank of a number in a list of numbers.
RATE	Financial	Gives the interest rate per period of an annuity.
RECEIVED	Financial	Gives the amount received at maturity for a fully invested security.
REDUCE (2024)	Logical	Combines an array into one accumulated result by repeatedly applying a LAMBDA.
REGEXEXTRACT (365)	Text	Extracts text matching a regular-expression pattern.
REGEXREPLACE (365)	Text	Replaces text matching a regular-expression pattern.

49 A to Z function catalogue: REGEXTEST to RRI

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
REGEXTEST (365)	Text	TRUE when any part of text matches a regular-expression pattern.
REGISTER.ID	Add-in & automation	Gives the register ID of the specified dynamic link library (DLL) or code resource that has been previously registered.
REPLACE	Text	Replaces characters by position within text.
REPLACEB	Text	Byte-based variant of REPLACE for double-byte character sets.
REPT	Text	Repeats text a given number of times.
RIGHT	Text	Characters taken from the end of a text string.
RIGHTB	Text	Byte-based variant of RIGHT for double-byte character sets.
ROMAN	Math & trigonometry	Changes an arabic numeral to roman, as text.
ROUND	Math & trigonometry	Rounds a number to a chosen number of digits.
ROUNDDOWN	Math & trigonometry	Rounds a number towards zero to a chosen number of digits.
ROUNDUP	Math & trigonometry	Rounds a number away from zero to a chosen number of digits.
ROW	Lookup & reference	Gives the row number of a reference.
ROWS	Lookup & reference	Gives the number of rows in a reference.
RRI (2013)	Financial	Produces an equivalent interest rate for the growth of an investment.

50 A to Z function catalogue: RSQ to SIN

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
RSQ	Statistical	Gives the square of the Pearson product moment correlation coefficient.
RTD	Lookup & reference	Fetches real-time data from a program that supports COM automation.
SCAN (2024)	Logical	Runs an accumulating LAMBDA through an array and returns every intermediate result.
SEARCH	Text	Position of one text string inside another; not case-sensitive.
SEARCHB	Text	Byte-based variant of SEARCH for double-byte character sets.
SEC (2013)	Math & trigonometry	Gives the secant of an angle.
SECH (2013)	Math & trigonometry	Gives the hyperbolic secant of an angle.
SECOND	Date & time	Changes a serial number to a second.
SEQUENCE (2021)	Math & trigonometry	Creates a list of sequential numbers in an array, such as 1, 2, 3, 4.
SERIESSUM	Math & trigonometry	Gives the sum of a power series based on the formula.
SHEET (2013)	Information	Gives the sheet number of the referenced sheet.
SHEETS (2013)	Information	Gives the number of sheets in a reference.
SIGN	Math & trigonometry	Gives the sign of a number.
SIN	Math & trigonometry	Gives the sine of the given angle.

51 A to Z function catalogue: SINH to STDEV.S

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
SINH	Math & trigonometry	Gives the hyperbolic sine of a number.
SKEW	Statistical	Gives the skewness of a distribution.
SKEW.P (2013)	Statistical	Gives the skewness of a distribution based on a population: a characterization of the degree of asymmetry of a distribution around its mean.
SLN	Financial	Gives the straight-line depreciation of an asset for one period.
SLOPE	Statistical	Gives the slope of the linear regression line.
SMALL	Statistical	Gives the k-th smallest value in a data set.
SORT (2021)	Lookup & reference	Orders the rows or columns of an array by values within that array.
SORTBY (2021)	Lookup & reference	Orders an array using values from one or more corresponding arrays.
SQRT	Math & trigonometry	Produces a positive square root.
SQRTPI	Math & trigonometry	Gives the square root of (number * pi).
STANDARDIZE	Statistical	Produces a normalized value.
STDEV	Compatibility	Provides an estimate of standard deviation based on a sample.
STDEV.P (2010)	Statistical	Works out standard deviation based on the entire population.
STDEV.S (2010)	Statistical	Provides an estimate of standard deviation based on a sample.

52 A to Z function catalogue: STDEVA to SUMX2PY2

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
STDEVA	Statistical	Provides an estimate of standard deviation based on a sample, including numbers, text, and logical values.
STDEVP	Compatibility	Works out standard deviation based on the entire population.
STDEVPA	Statistical	Works out standard deviation based on the entire population, including numbers, text, and logical values.
STEYX	Statistical	Gives the standard error of the predicted y-value for each x in the regression.
STOCKHISTORY	Information	Fetches historical data about a financial instrument and loads it as an array.
SUBSTITUTE	Text	Replaces matching text, optionally only a selected occurrence.
SUBTOTAL	Math & trigonometry	Summary calculation that can ignore filtered-out rows and, with certain codes, manually hidden rows.
SUM	Math & trigonometry	Adds numbers or cell ranges.
SUMIF	Math & trigonometry	Adds values whose corresponding cells meet one condition.
SUMIFS	Math & trigonometry	Adds values whose corresponding cells meet all specified conditions.
SUMPRODUCT	Math & trigonometry	Gives the sum of the products of corresponding array components.
SUMSQ	Math & trigonometry	Gives the sum of the squares of the arguments.
SUMX2MY2	Math & trigonometry	Gives the sum of the difference of squares of corresponding values in two arrays.
SUMX2PY2	Math & trigonometry	Gives the sum of the sum of squares of corresponding values in two arrays.

53 A to Z function catalogue: SUMXMY2 to TBILLEQ

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
SUMXMY2	Math & trigonometry	Gives the sum of squares of differences of corresponding values in two arrays.
SWITCH (2019)	Logical	Compares one expression with several values and returns the first matching result.
SYD	Financial	Gives the sum-of-years' digits depreciation of an asset for a specified period.
T	Text	Changes its arguments to text.
T.DIST (2010)	Statistical	Gives the Percentage Points (probability) for the Student t-distribution.
T.DIST.2T (2010)	Statistical	Gives the Percentage Points (probability) for the Student t-distribution.
T.DIST.RT (2010)	Statistical	Gives the Student's t-distribution.
T.INV (2010)	Statistical	Gives the t-value of the Student's t-distribution as a function of the probability and the degrees of freedom.
T.INV.2T (2010)	Statistical	Gives the inverse of the Student's t-distribution.
T.TEST (2010)	Statistical	Gives the probability associated with a Student's t-test.
TAKE (2024)	Lookup & reference	Keeps a specified number of rows or columns from either end of an array.
TAN	Math & trigonometry	Gives the tangent of a number.
TANH	Math & trigonometry	Gives the hyperbolic tangent of a number.
TBILLEQ	Financial	Gives the bond-equivalent yield for a Treasury bill.

54 A to Z function catalogue: TBILLPRICE to TOROW

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
TBILLPRICE	Financial	Gives the price per \$100 face value for a Treasury bill.
TBILLYIELD	Financial	Gives the yield for a Treasury bill.
TDIST	Compatibility	Gives the Student's t-distribution.
TEXT	Text	Formats a number or date as text using an Excel format code.
TEXTAFTER (2024)	Text	Text found after a chosen delimiter or occurrence.
TEXTBEFORE (2024)	Text	Text found before a chosen delimiter or occurrence.
TEXTJOIN (2019)	Text	Joins text with a chosen separator and can ignore empty values.
TEXTSPLIT (2024)	Text	Splits text into columns and/or rows using supplied delimiters.
TIME	Date & time	Gives the serial number of a particular time.
TIMEVALUE	Date & time	Changes a time in the form of text to a serial number.
TINV	Compatibility	Gives the inverse of the Student's t-distribution.
TOCOL (2024)	Lookup & reference	Reshapes an array into one column.
TODAY	Date & time	Current date, recalculated by Excel.
TOROW (2024)	Lookup & reference	Reshapes an array into one row.

55 A to Z function catalogue: TRANSLATE to UPPER

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
TRANSLATE (365)	Text	Translates supplied text from one language to another.
TRANSPOSE	Lookup & reference	Gives the transpose of an array.
TREND	Statistical	Provides values along a linear trend.
TRIM	Text	Removes extra ordinary spaces, leaving single spaces between words.
TRIMMEAN	Statistical	Gives the mean of the interior of a data set.
TRIMRANGE (365)	Lookup & reference	Removes empty outer rows and columns from a range or array.
TRUE	Logical	Gives the logical value TRUE.
TRUNC	Math & trigonometry	Cuts a number to an integer.
TTEST	Compatibility	Gives the probability associated with a Student's t-test.
TYPE	Information	Produces a number indicating the data type of a value.
UNICHAR (2013)	Text	Gives the Unicode character that is references by the given numeric value.
UNICODE (2013)	Text	Gives the number (code point) that corresponds to the first character of the text.
UNIQUE (2021)	Lookup & reference	Distinct rows or columns from a list or range.
UPPER	Text	Changes letters in text to upper case.

56 A to Z function catalogue: VALUE to WEEKNUM

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
VALUE	Text	Converts a number stored as text into a numeric value.
VALUETOTEXT (2021)	Text	Provides text from any specified value.
VAR	Compatibility	Provides an estimate of variance based on a sample.
VAR.P (2010)	Statistical	Works out variance based on the entire population.
VAR.S (2010)	Statistical	Provides an estimate of variance based on a sample.
VARA	Statistical	Provides an estimate of variance based on a sample, including numbers, text, and logical values.
VARP	Compatibility	Works out variance based on the entire population.
VARPA	Statistical	Works out variance based on the entire population, including numbers, text, and logical values.
VDB	Financial	Gives the depreciation of an asset for a specified or partial period by using a declining balance method.
VLOOKUP	Lookup & reference	Looks down the first column and returns from a numbered column; XLOOKUP is usually safer.
VSTACK (2024)	Lookup & reference	Places arrays one below another to create a taller array.
WEBSERVICE (2013)	Web	Provides data from a web service.
WEEKDAY	Date & time	Changes a serial number to a day of the week.
WEEKNUM	Date & time	Changes a serial number to a number representing where the week falls numerically with a year.

AVAILABILITY WEBSERVICE: Not available in Excel for the web.

57 A to Z function catalogue: WEIBULL to YIELD

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
WEIBULL	Compatibility	Works out variance based on the entire population, including numbers, text, and logical values.
WEIBULL.DIST (2010)	Statistical	Gives the Weibull distribution.
WORKDAY	Date & time	Working date a specified number of workdays before or after a starting date.
WORKDAY.INTL (2010)	Date & time	Working date before or after a start date using a custom weekend pattern and optional holidays.
WRAPCOLS (2024)	Lookup & reference	Reshapes a row or column into multiple columns after a chosen number of values.
WRAPROWS (2024)	Lookup & reference	Reshapes a row or column into multiple rows after a chosen number of values.
XIRR	Financial	Gives the internal rate of return for a schedule of cash flows that is not necessarily periodic.
XLOOKUP (2021)	Lookup & reference	Finds a match in one range and returns the corresponding item from another range.
XMATCH (2021)	Lookup & reference	Relative position of a match, with exact matching as the default.
XNPV	Financial	Gives the net present value for a schedule of cash flows that is not necessarily periodic.
XOR (2013)	Logical	Produces a logical exclusive OR of all arguments.
YEAR	Date & time	Year number taken from a date.
YEARFRAC	Date & time	Gives the year fraction representing the number of whole days between start_date and end_date.
YIELD	Financial	Gives the yield on a security that pays periodic interest.

58 A to Z function catalogue: YIELDDISC to ZTEST

Function names and version markers follow Microsoft's current list; descriptions are concise plain-English explanations.

Function	Category	What it does
YIELDDISC	Financial	Gives the annual yield for a discounted security; for example, a Treasury bill.
YIELDMAT	Financial	Gives the annual yield of a security that pays interest at maturity.
Z.TEST (2010)	Statistical	Gives the one-tailed probability-value of a z-test.
ZTEST	Compatibility	Gives the one-tailed probability-value of a z-test.