

NEW EXCEL FUNCTIONS FOR ACCOUNTING & FINANCE



New Finance Functions Video & Practice File: <https://bit.ly/new-finance-functions>

1 FILTER: Extract sales where country is USA

Syntax - FILTER (array, include, [if_empty])

=FILTER(B3:C7, B3:B7="USA", "NA")

Country	Sales \$
USA	500
USA	1,500
Germany	2,000
Australia	1,600
China	800
Country	Sales \$
USA	500
USA	1,500

FILTER Masterclass: <https://bit.ly/filter-fn>

Benefits:

1. Extracts multiple rows & columns
2. Simplifies dynamic report creation
3. Facilitates building tailored data views

4 DATE + SEQUENCE: Auto-generate custom lists of dates

Syntax - DATE(year, month, day)

Syntax - SEQUENCE(rows,[columns],[start],[step])

=DATE(2025, SEQUENCE(3), 1)

1st of Each Month
1/1/2025
2/1/2025
3/1/2025

Dates are in m/d/yyyy format

Benefits:

1. Reduces manual date entry efforts
2. Adjusts dynamically with start date changes

Pro Tip

Wrap the above formula in EOMONTH to get the last day of each month: =EOMONTH(DATE(2025, SEQUENCE(3), 1), 0)

2 VSTACK: Consolidate multiple tables/sheets into one table

Syntax - VSTACK(array1,[array2],...)

=VSTACK(B3:D5, B9:D10)

Source Data Table 1		
Name	Region	Revenue \$
Fox Clancy	USA	307,314
Livia Headley	Canada	115,456

Source Data Table 2		
Name	Region	Revenue \$
Briley Travis	UK	391,111
Bodhi Penny	Germany	488,678

Name	Region	Revenue \$
Fox Clancy	USA	307,314
Livia Headley	Canada	115,456
Briley Travis	UK	391,111
Bodhi Penny	Germany	488,678

VSTACK Masterclass: <https://bit.ly/fn-vstack>

Key Considerations:

1. Select all rows of first table, including headers
2. Select only the data rows of the second table

Benefits:

1. Keeps source data intact
2. Reduces manual data compilation
3. No need to refresh queries
4. Reference Excel Tables for automatic inclusion of new data.

5 BYROW: No more formula dragging!

Syntax - BYROW(array1, lambda(row))

=BYROW(C4:E6, AVERAGE)

Product	USA	UK	Australia	Avg. Sales \$
Widget	1,500	1,400	1,200	1,367
Gadget	1,800	1,600	1,700	1,700
Thingamajig	2,100	2,000	1,900	2,000

Benefits:

1. Works with LAMBDA and eta lambdas
2. Prevents errors from forgetting to drag or misaligning formulas

Auto-calculated, without dragging down the formula in C3

BYROW Masterclass: <https://bit.ly/fn-byrow>

8 PIVOTBY: Create a PivotTable with a formula

Syntax - PIVOTBY(row_fields, col_fields, values, function,[field_headers],[row_total_depth],[row_sort_order],[col_total_depth],[col_sort_order],[filter_array],[relative_to])

=PIVOTBY(C2:C7, D2:D7, E2:E7, SUM, 3, 0)

Date	Country	Product	Sales \$
1/1/2025	Canada	Carretera	1,619
1/2/2025	Germany	Carretera	1,321
1/3/2025	France	Carretera	3,945
1/4/2025	France	VTT	2,435
1/5/2025	Germany	VTT	2,479

Product	Carretera	VTT	Total
Country	Sales \$	Sales \$	Sales \$
Canada	1,619		1,619
France	3,945	2,435	6,380
Germany	1,321	2,479	3,800

Video Tutorial: <https://bit.ly/vid-pivot-alternatives>

Benefits:

1. Self-updates when data source is an Excel Table or TRIMRANGE
2. Prevents errors from forgetting to update PivotTables for frequently-updating reports.
3. Not constrained by PivotTable formats

7 GROUPBY Function: Easily group and aggregate data

Syntax - GROUPBY(row_fields, values, function, [field_headers],[total_depth],[sort_order],[filter_array],[field_relationship])

=GROUPBY(\$C\$2:\$C\$7, \$D\$2:\$D\$7, SUM, 3, 0)

Date	Country	Sales \$
1/1/2025	Canada	1,619
1/2/2025	Germany	1,321
1/3/2025	France	3,945
1/4/2025	France	2,435
1/5/2025	Germany	2,479

Country	Sales \$
Canada	1,619
France	6,380
Germany	3,800

(...) 0 - No
(...) 1 - Yes but don't show
(...) 2 - No but generate
(...) 3 - Yes and show

field_header options

total_dept h options
(...) 0 - No totals
(...) 1 - Grand totals
(...) 2 - Grand and subtotals
(...) -1 - Grand totals at top
(...) 2 - Grand and subtotals at top

Benefits:

1. No need to use PivotTables for quick aggregations
2. No need to refresh PivotTables after data changes
3. Self-updates when used with Excel Tables or TRIMRANGE

10 XLOOKUP: Replaces H/VLOOKUP and INDEX + MATCH

Syntax - XLOOKUP(lookup_value, lookup_array, return_array, [if_not_found], [match_mode], [search_mode])

=XLOOKUP(B9, \$B\$3:\$B\$6, \$D\$3:\$D\$6)

Product	Sales \$	Profit \$
Bike	64,400	7,084
Helmets	36,400	3,640
Lights	36,700	5,872
Locks	35,000	2,100

XLOOKUP Masterclass: <https://bit.ly/fnxlookup>

Benefits:

1. Lookup in any direction
2. Built-in error handling
3. Much easier compared to VLOOKUP, HLOOKUP, INDEX+MATCH

Type	Example	Equivalent TRIMRANGE
Trim all blanks	A1 :. E10	TRIMRANGE(A1:E10,3,3)
Trim trailing blanks	A1 :. E10	TRIMRANGE(A1:E10,2,2)
Trim leading blanks	A1 :. Z10	TRIMRANGE(A1:E10,1,1)

Benefits:

1. No need to use OFFSET or INDEX to make formulas dynamic
2. Optimizes performance by reducing unnecessary calculations
3. Updates when new data is added
4. Can trim rows, columns or both

3 SCAN: One formula running totals

Syntax - SCAN ([initial_value], array, lambda(accumulator, value, calc))

=SCAN(0, C4:C8, SUM)

Date	Sales	Running Total
1/2/2025	2,300	2,300
1/5/2025	3,400	5,700
2/3/2025	6,300	12,000
2/9/2025	17,000	29,000
3/5/2025	13,300	42,300

Benefits:

1. Works with LAMBDA and eta lambdas i.e. the simplified LAMBDA functions such as SUM used in this example
2. Compatible with TRIMRANGE & dot operator to make it automatically expand/contract with your data

6 LET: Make calculations more efficient

Syntax - LET(name1, name_value1, calculation_or_name2, [name_value2, calculation_or_name3...])

=LET(Cost, C3, SellPrice, C4, Tax, C5, (SellPrice-Cost)*(1-Tax))

Particulars	Value
Cost Price \$	1,500
Selling Price \$	2,500
Tax Rate	10%
Profit After Tax \$	900

X=394

Benefits:

1. Enables step-by-step logic within a single cell
2. Enhances formula understanding in shared worksheets
3. Improves performance by calculating named variables only once.

9 TRIMRANGE & Dot Operator: Reference dynamic ranges without OFFSET

Syntax - TRIMRANGE(range,[trim_rows],[trim_cols])

=SUM(TRIMRANGE(C3:C7))

Period	Sales \$	TRIMRANGE Total	Dot Operator Total
9/1/2024	4,484	21,046	21,046
10/1/2024	9,295		
11/1/2024	7,267		

Allows for new data

=SUM(TRIMRANGE(C3:C7))

Period	Sales \$	TRIMRANGE Total	Dot Operator Total
9/1/2024	4,484	26,892	26,892
10/1/2024	9,295		
11/1/2024	7,267		
12/1/2024	5,846		

Same formula, updated total

=SUM(C3:C7)

Period	Sales \$	TRIMRANGE Total	Dot Operator Total
9/1/2024	4,484	21,046	21,046
10/1/2024	9,295		
11/1/2024	7,267		

Dot operator is a shorthand for the TRIMRANGE function.

Video Tutorial: <https://bit.ly/vid-trimrange>

