



Astute Excel: Six Ways to Sum

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About the speaker:

David H. Ringstrom, CPA, is an author and nationally recognized instructor who teaches scores of webinars each year. His Excel courses are based on over 25 years of consulting and teaching experience. His mantra is “Either you work Excel, or it works you.” David offers spreadsheet and database consulting services nationwide.

Excel Versions

I'll be teaching from the Microsoft 365 version of Excel, and noting any differences or limitations in the legacy versions of Excel.

The Future of Excel

Microsoft 365 (Formerly Office 365)

Subscription-based version of Microsoft Office, which includes Excel. Use the software on multiple devices, new calculation engine, services and more features are rolling out that will dramatically set this version apart from past Excel versions.
www.microsoft365.com


Legacy Versions

Perpetual Licenses

Pay once for the software to use on a single computer. No new features added until you buy a new license. Includes
Excel 2019
Excel 2016
Excel 2013
Excel 2010
Excel 2007 and earlier

References to Excel 2013+, Excel 2016+, and so on mean a feature is available in all subsequent versions, including Microsoft 365.

You can play back a recording of this presentation for free by way of your Professionals Excel account.



1 File Home Insert Page Layout

2 Copy

I demonstrate each technique at least twice, first by way of numbered steps in PowerPoint, and then in Excel.

Handouts include PDF of today's presentation along with an example workbook that contains most examples I'll teach from as well as related articles.
Email ask@daavidringstrom.com if you haven't received the handouts.

Related Articles Car Payme



Sum Total on Status Bar

Excel 2013 and later: You can only view statistics for one window at a time if you're working with two or more spreadsheets at once.

Optional: right-click on the status bar and turn the statistics on or off.

Select two or more cells to view statistics in the Status Bar. Hold down the Ctrl key to select non-adjacent cells.

=SUM(C1:C8)

Statistics on Status Bar

Revenue	March	YTD
Design Income	3,750	15,900
	15,838	75,459
	81	23,536
		7,140
	00	500
	500	312
Total Revenue	26,784	122,847

Customize Status Bar

- Cell Mode: Ready
- Caps Lock: Off
- Num Lock: On
- Scroll Lock: Off
- Page Number
- Average: 20,475
- Count: 6
- Numerical Count: 6
- Minimum: 312
- Maximum: 75,459
- Sum: 122,847
- Upload Status
- View Shortcuts
- Zoom Slider
- Zoom: 100%

Ready Average: 20,475 Count: 6 Numerical Count: 6 Min: 312 Max: 75,459 Sum: 122,847



AutoSum Feature

1 Select one or more cells.

Revenue	March	YTD
Design Income	3,750	15,900
Labor Income	16,838	75,459
		23,536
		7,140
Less Discounts given	100	500
Reimbursement Income	500	312
Total Revenue		

2 Click the AutoSum button on Excel's Home Menu or press Alt+= (equal sign)

3 Excel adds a sum to each cell.

Revenue	March	YTD
Design Income	3,750	15,900
Labor Income	16,838	75,459
Materials Income	3,931	23,536
Subcontracted Labor Income	1,665	7,140
Less Discounts given	100	500
Reimbursement Income	500	312
Total Revenue	26,784	122,847

`=SUM(B2:B8)` `=SUM(C2:C8)`



Smarter SUM Formulas

	A	B		A	B		A	B
1	<u>Fruit</u>		1	<u>Fruit</u>		1	<u>Fruit</u>	
2	Oranges	6,168	2	Watermelon	5,000	2	Watermelon	5,000
3	Apples	6,079	3	Oranges	6,168	3	Oranges	6,168
4	Kiwi	6,058	4		6,079	4	Apples	6,079
5	Bananas	6,868	5		6,058	5	Kiwi	6,058
6	Mixed Berries	1,996	6	Bananas	6,868	6	Bananas	6,868
7		27,169	7	Mixed Berries	1,996	7	Mixed Berries	1,996
8		=SUM(B2:B6)	8		27,169	9		32,169
9			9		=SUM(B3:B7)	10		=SUM(B1:B8)
10			10			11		
11			11					
12			12					
13			13					
14			14					

New items added at the top or bottom of the list tend to be omitted from sums.

The solution is to craft SUM formulas that extend one row above the numbers you wish to sum, as well as one row below. This greatly minimizes the risk of new rows being omitted.

SUM Buffer



SUM Buffer



SUM Buffer





Drill Through Worksheets

Panel 1: Shows a worksheet with columns A (Account), B (January), and C. Cell B2 contains 951,414. A formula bar shows `=HR!B2+Sales!B2+Accounting!B2`. A red circle '1' highlights the cell B2, and a red circle '2' highlights the sheet name 'HR' in the sheet selector.

Panel 2: Shows a VLOOKUP formula bar with `=SUM(HR:Accounting!B2)`. A red circle '6' highlights the formula. The background shows a multi-sheet workbook with columns A (Account), B (January), C (February), D (March), E (April), F (May), and G (June). Cell B2 contains 447,166. A red circle '5' highlights the cell B2.

Panel 3: Shows a formula bar with `=SUM(HR:Accounting!B2)`. A red circle '3' highlights the formula. A yellow callout box says "Replace ! with :". The background shows a multi-sheet workbook with columns A (Account), B (January), and C (February). Cell B2 contains 951,414. A red circle '7' highlights the cell B2. A red circle '4' highlights the sheet name 'Accounting' in the sheet selector.

Panel 4: Shows a formula bar with `=SUM(HR:Accounting!B2:M2)`. A red circle '7' highlights the formula. A yellow callout box says "Multiple Cells". The background shows a multi-sheet workbook with columns A (Account), B (January), C (February), D (March), E (April), F (May), and G (June). Cell B2 contains 951,414 and cell E2 contains 8,406,622. A red circle '7' highlights the cell B2.



INDIRECT Function

	A	B	C	D
1	Direct Cell References			
2	DepartmentA	100	=DepartmentA!B1	
3	DepartmentB	200	=DepartmentB!B1	
4	DepartmentC	300	=DepartmentC!B1	
5				
6				
7	Indirect Cell References			
8	DepartmentA	100	=INDIRECT(A8&"!B1")	
9	DepartmentB	200	=INDIRECT(A9&"!B1")	
10	DepartmentC	300	=INDIRECT(A10&"!B1")	
11				

=INDIRECT(A8&"!B1")

ref_text
A8&"!B1"

Cell A8 contains a worksheet name, while "!B1" represents the cell we want to retrieve a value from. In effect we're building the formula from pieces.

	A	B	C	D
1	Sales	100		
2				
3				
4				
5				
6				

DepartmentA

	A	B	C	D
1	Sales	200		
2				
3				
4				
5				
6				

DepartmentB

	A	B	C	D
1	Sales	300		
2				
3				
4				
5				
6				

DepartmentC

	A	B	C	D
1	Direct Cell References			
2	Department A	100	='Department A'!B1	
3				
4	Indirect Cell References			
5	Department A	#REF!	=INDIRECT(A5&"!B1")	
6	Department A	100		
7				
8			=INDIRECT("'"&A6&"!B1")	
9				
10				
11				
12				
13				
14				

Summary

Worksheet names with spaces require a single quote before and after the sheet name.



SUM/OFFSET functions

	A	B	C	D	E	F	G	H
1	Analysis Term	5						
2	Total Cash Flow	5,247,000						
3	Total Cash Flow	5,247,000						
4								
5		2018	2019	2020	2021	2022	2023	2024
6	Net Cash Flow	1,074,000	1,000,000	1,061,000	1,031,000	1,081,000	1,016,000	1,031,000
7								
8								
9								
10								
11								
12								
13								
14								
15								

Change cell B1 to see OFFSET in action.

`=SUM(B6:F6)`

`=SUM(OFFSET(B6,0,0,1,B1))`

OFFSET is a volatile worksheet function, which means it recalculates every time a change is made anywhere in the worksheet.

`=SUM(OFFSET(B6,0,0,1,B1))`

reference B6 starting point for the virtual range	rows 0 rows away from reference to shift the virtual range	columns 0 columns away from reference to shift the virtual range	height 1 number of rows high the virtual range should be	width B1 number of columns wide the virtual range should be
--	---	---	---	--

OFFSET



SUBTOTAL Function

	A	B	C	D	E	F	G	H	I	J	K	L
1		SUM	SUBTOTAL									
2	Department1	=SUBTOTAL(9,C3:C5)										
3	Expense1	200	260									
4	Expense2	=SUM(B3:B5)	463	463								
5	Expense3	567	567									
6	Total	1,290	1,290									
8	Department2	=SUBTOTAL(9,C9:C11)										
9	Expense1	480	480									
10	Expense2	=SUM(B9:B11)	694	694								
11	Expense3	544	544									
12	Total	1,718	1,718									
14	Department3	=SUBTOTAL(9,C15:C17)										
15	Expense1	337	337									
16	Expense2	=SUM(B15:B17)	593	593								
17	Expense3	240	240									
18	Total	1,170	1,170									
20	Department4	=SUBTOTAL(9,C21:C23)										
21	Expense1	389	389									
22	Expense2	=SUM(B21:B23)	430	430								
23	Expense3	615	615									
24	Total	1,434	1,434									
26	Grand Total	5,612	5,612									
27		=B6+B12+B18+B24										
			=SUBTOTAL(9,C1:C25)									

=SUBTOTAL(9,C3:C5)

function_num
9
A number from 1 to 11 that specifies which function to use (In this case, 9 signifies SUM)

ref1
C3:C5
the cells to sum (In this case, cells C3:C5)

The SUBTOTAL on row 26 ignores the other SUBTOTAL functions so the numbers don't get double-counted.

SUBTOTAL





Subtotal Feature

1 Sort your data so you don't end up with meaningless subtotals. Then, click anywhere in the list.

Product	Date	Sales
Apples	8/9/2018	1226
Bananas	2/28/2018	1845
Bananas	10/15/2018	2655
Bananas	1/7/2018	1298
Bananas	1/4/2019	2420

2 Data Review Share

3 Subtotal

4 Remove All OK Cancel

5 The list is subtotaled and outlined.

Product	Date	Sales
Apples	8/9/2018	1226
Apples	3/26/2019	1595
Apples	9/10/2018	3576
Apples	3/2/2019	3143
Apples	10/28/2018	3675
Apples Total		13215
Bananas	2/28/2018	1845
Bananas	3/12/2019	4220
Bananas Total		12438
Oranges	11/6/2019	4038
Oranges	3/8/2018	2042
Oranges	10/13/2018	3538
Oranges	4/10/2019	2435
Oranges	5/9/2019	3239
Oranges Total		15292
Pears	3/20/2018	4469
Pears	4/20/2018	2661
Pears	1/26/2019	2921



Formatting Subtotals

1 Select the data range (A1:C7).

2 Select the subtotal cells (C7:C26).

3 Select Find & Select on Home menu.

4 Go To Special...

5 Double-click to skip the OK button.

6 Apply formatting in usual fashion.

7 Final formatted spreadsheet.

Keyboard Shortcut: Use Alt+; in lieu of steps 3, 4, and 5 to select visible cells.

Product	Date	Sales
Apples Total		13215
Bananas Total		12438
Oranges Total		15292
Pears Total		16064
Grand Total		57009

Product	Date	Sales
Apples	8/9/2018	1226
Apples	3/26/2019	1595
Apples	9/10/2018	3576
Apples	3/2/2019	3143
Apples	10/28/2018	3675
Apples Total		13215
Bananas	2/28/2018	1845
Bananas	10/15/2018	2655
Bananas	1/7/2018	1298
Bananas	1/4/2019	2420
Bananas	3/12/2019	4220
Bananas Total		12438
Oranges Total		15292
Pears	3/20/2018	4469
Pears	4/20/2018	2661
Pears	1/26/2019	2921
Pears	11/21/2018	1831
Pears	12/4/2018	4182
Pears Total		16064
Grand Total		57009



AGGREGATE Function (Excel 2010+)

	A	B	C	D	
1		<u>SUM</u>	<u>SUBTOTAL</u>	<u>AGGREGATE</u>	AGGREGATE returns #NAME? in Excel 2007 and earlier.
2	<u>Department1</u>				
3	Expense1	#N/A	#DIV/0!	#NAME?	AGGREGATE prevents # errors from having a ripple effect.
4	Expense2	463	463	463	
5	Expense3	567	567	567	
6	Total	#N/A	#DIV/0!	1,030	
8	Departn	=SUM(B3:B5)	=SUBTOTAL(9,C3:C5)	=AGGREGATE(9,3,D3:D5)	
9	Expense1	480	480	480	
10	Expense2	694	694	694	
11	Expense3				
12	Total				
14	<u>Departn</u>				
15	Expense				
16	Expense				
17	Expense				

=AGGREGATE(9,3,D3:D5)
function_num 9 A number from 1 to 19 that specifies which function to use (in this case 9 signifies SUM)
options 3 A number from 0 to 7 that signifies what values to ignore (in this case 3 means ignore error values, hidden rows, and any SUBTOTAL/AGGREGATE functions)
array D3:D5 the cells to sum (in this case cells D3:D5)

AGGREGATE





SUMIF Introduction

	A	B	C	D	E	F	G	H	
1		<u>March</u>		<u>Account #</u>	<u>Account Name</u>	<u>January</u>	<u>February</u>	<u>March</u>	
2	40200	30,605		40100	Product Sales	99,738	113,689	92,741	1
3	40200	49,153		40200	Services	32,914	37,517	30,605	
4				40200	Services	19,948	22,738	18,548	
5				40400	Interest Income	2,992	5,684	3,710	

Unlike VLOOKUP which returns #N/A, SUMIF returns 0 if it doesn't find a match.

SUMIF returns #VALUE! if you to link to another workbook that isn't presently open in Excel.

`=VLOOKUP(A2,D1:H5,5,0)`

`=SUMIF(D1:D5,A3,H1:H5)`

`=SUMIF(D1:D5,A3,H1:H5)`

range D1:D5 where to look	criteria A3 what to look for (in this case, account 40200)	sum_range H1:H5 the cells to sum
--	---	---

SUMIF Introduction



SUMIF Introduction

	A	B	C	D	E	F	G	H	I	J	K
1	Employee	Department	Salary		Department	Total Salary					
2	Bob	Administration	55,000		Police	150,104	150,104		=C7+C10+C14		
3	Jim	Code Enforcement	42,679		Communications	105,428			=SUMIF(\$B\$2:\$B\$16,E2,\$C\$2:\$C\$16)		
4	Janice	Administration	43,370		Code Enforcement	166,642					
5	Paul	Fire	40,570		Administration	207,554					
6	Ryan	Administration	61,392		Fire	130,445					
7	Sally	Police	57,350			760,173			=SUM(F3:F7)		
8	Susan	Fire	45,293								
9	Mike	Communications	42,879								
10	Anne	Police	41,372								
11	Tim	Code Enforcement	59,371								
12	Sharon	Communications	62,549								
13	Ronnie	Administration	47,792								
14	Monica	Police	51,382								
15	Robert	Fire	44,582								
16	Mike	Code Enforcement	64,592								
17			760,173								
18											
19											

=SUMIF(\$B\$2:\$B\$16,E2,\$C\$2:\$C\$16)

range \$B\$2:\$B\$16 where to look	criteria E2 what to look for	sum_range \$C\$2:\$C\$16 what to add up when matches are found
--	--	--

SUMIF returns zero (0) if a match cannot be found.

SUMIF - Departments



SUMIF with Wildcard Criteria

	A	B	C	D	E	F	G
1		<u>March</u>		<u>Accounts</u>	<u>January</u>	<u>February</u>	<u>March</u>
2	Services	0		40100 • Product Sales	99,738	113,689	92,741
3	Services	49,153		40200 • Services	32,914	37,517	30,605
4	40200	49,153		40200 • Services	19,948	22,738	18,548
5				40400 • Interest Income	2,992	5,684	3,710
6				=SUMIF(D1:D5,A2,G1:G5)			
7				=SUMIF(D1:D5,"*"&A3,G1:G5)			
8				=SUMIF(D1:D5,A4&"*",G1:G5)			
9				=SUMIF(D1:D5,"*"&A3,G1:G5)			
10							
11		range		criteria		sum_range	
12		D1:D5		"*"&A2		G1:G5	
13		where to look		what to look for		the cells to sum	
14				The asterisk tells Excel to look for anything ending in whatever cell A2 contains, which presently is Services.			

SUMIF with Wildcard





SUMIF with Comparison Operators

	A	B	C	D	E	F	G	H	I
1	Account	Account Name	Balance						
2	501	Revenue1	2,682		Revenue	39,486	=SUMIF(A:A,"<600",C:C)		
3	502	Revenue2	1,559		Expense	38,679	=SUMIF(A:A,">=600",C:C)		
4	503	Revenue3	7,932		Net Income	807	=F2-F3		
5	504	Revenue4	7,478						
6	505	Revenue5	3,171						
7	506	Revenue6	2,147						
8	507	Revenue7	5,364						
9	550	Revenue8	9,153						
10	601	Expense1	9,741						
11	602	Expense2	4,011						
12	603	Expense3	3,316						
13	604	Expense4	2,842						
14	605	Expense5	7,663						
15	606	Expense6	8,860						
16	607	Expense7	2,246						
17									
18									

Keyboard shortcut: Alt-F1 creates a chart

=SUMIF(A:A,"<600",C:C)

range A:A where to look	criteria "<600" what to look for	sum_range C:C the cells to sum
-------------------------------	--	--------------------------------------

SUMIF Chart



SUMIF/Linked Workbooks

1 Workbook links work within SUMIF when the linked workbook is open.

Region	City	Ven	Product
5	North GA	Atlanta	Fruit R Us Bananas
6	North GA	Atlanta	Fruit R Us Mixed B
7	North GA	Atlanta	Bob's Fruit Oranges
8	North GA	Atlanta	Bob's Fruit Apples
9	North GA	Atlanta	Bob's Fruit Kiwi

2 Closing the linked workbook won't immediately affect the formulas.

	A	B	C	D
1	Oranges	715977		
2	Apples	614847		
3	Kiwi	643277		
4	Bananas	756649		
5	Mixed Berries	518888		

3 Closing and then reopening the workbook that uses SUMIF to link to another workbook results in temporary #VALUE! errors.

	A	B	C	D
1	Oranges	#VALUE!		
2	Apples	#VALUE!		
3	Kiwi	#VALUE!		
4	Bananas	#VALUE!		
5	Mixed Berries	#VALUE!		

4 The formula works again.

5 Edit Links

6 Open Source

7 The fomula works again.



SUMIF/OFFSET Functions

	A	B	C	D	E	F	G	H	I
1		March		Account #	Account Name	January	February	March	April
2	40100	92,741		40100	Product Sales	99,738	113,689	92,741	109,467
3	40100	92,741		40200	Services	32,914	37,517	30,605	36,124
4				40300	Other Income	19,948	22,738	18,548	21,893
5				40400	Interest Income	2,992	5,684	3,710	3,284
6				=SUMIF(D1:D5,A3,H1:H5)					
7				=SUMIF(D1:D5,A3,OFFSET(E1:E5,0,MONTH(B1&1)))					
8									
9				=SUMIF(D1:D5,A2,OFFSET(E1:E5,0,MONTH(B\$1&1)))					
10									
11				reference	rows	cols			
12				E1:E5	0	MONTH(B\$1&1)			
13				a starting point for your range	the number of rows to move up or down in this case the range won't move	The month function converts cell B1 to a numeric value to move to the column we need			
14									
15									

SUMIF-OFFSET





SUMIFS Introduction

	A	B	C	D	E	F	G	H	I	J	K
1	Dept.	Account	March	Dept.	Account #	Account Name	January	February	March	April	
2		40200	49,153	A	40100	Product Sales	99,738	113,689	92,741	109,46	
3	B	40200	30,605	B	40200	Services	32,914	37,517	30,605	36,12	
				A	40200	Other Income	19,948	22,738	18,548	21,89	
				B	40400	Interest Income	2,992	5,684	3,710	3,28	

SUMIFS allows you to specify up to 127 criteria, where as SUMIF only allows a single criteria.

SUMIFS returns #VALUE! if you to link to another workbook that isn't presently open in Excel.

`=SUMIF(F1:F5,B2,J1:J5)`

`=SUMIFS(J1:J5,E1:E5,A3,F1:F5,B3)`

`=SUMIFS(J1:J5,E1:E5,A3,F1:F5,B3)`

sum_range J1:J5 what to add up when matches are found	criteria_range1 E1:E5 where to look	criteria1 A3 what to look for	[criteria_range2] F1:F5 Optional: where to look	[criteria2] B3 Optional: what to look for
---	---	-------------------------------------	---	---

SUMIFS Introduction



Data Validation - List of Months

1 Select cell(s) for the drop-down list.

2 Choose Data Validation from the Data menu.

3 Separate month names items with commas.

4 Source: ,September,October,November,December

5 Input Message

6 Title: Report Period

7 Input message: Choose a month from the list.

8 Error Alert

9 Invalid Input

10 Error message: You must choose a month from the list.

11 OK

12 SUMIF/OFFSET dynamically returns data based on the user's choice from the list.

Account #	Product Services	Other Inc	Interest
40100	92,741	40100	Product S
40100	99,738	40200	Services
		40300	Other Inc
		40400	Interest

Account #	January	Account	January	February
40100	92,741	40100	99,738	1
40100	99,738	40200	32,914	
		40300	19,948	
		40400	2,992	

Formulas shown in the screenshot:

- `=SUMIF(D1:D5,A2,H1:H5)`
- `=SUMIF(D1:D5,A3,OFFSET(E1:E5,0,MON`



SUMIFS Function with One Range Criteria

	A	B	C	D	E	F	G	H	I	
1	Account	March		Account #	Account Name	January	February	March	Apr	
2	40200	52,862		40100	Product Sales	99,738	113,689	92,741	109	
3	40200	52,862		40200	Services	32,914	37,517	30,605	36	
4				40300	Other Income	19,948	22,738	18,548	21	
5				40400	Interest Income	2,992	5,684	3,710	3	
6				=SUMIF(D1:D5,">="&A2,H1:H5)						
7				=SUMIFS(H1:H5,D1:D5,">="&A3)						
8										
9										
10				=SUMIFS(H1:H5,D1:D5,">="&A3)						
11										
12				sum_range	criteria_range1			criteria1		
13				H1:H5	D1:D5			">="&A3		
14				what to add up (in this case, column I)	where to look for 1st criteria of up to 127 criteria (in this case, column D)			1st of up to 127 criteria (in this case, anything ≥ to account 40200)		
15										

SUMIFS With Range Criteria





SUMIFS with Two Range Criteria

	A	B	C	D	E	F	G	H	I
1	Start	End	March		Account #	Account Name	January	February	March
2	40200		49,153		40100	Product Sales	99,738	113,689	92,741
3	40100	40300	141,894		40200	Services	32,914	37,517	30,605
4					40200	Other Income	19,948	22,738	18,548
5					40400	Interest Income	2,992	5,684	3,710

SUMIFS allows for up to 127 criteria pairs, and returns 0 if it doesn't find a match.

SUMIFS returns #VALUE! your formula links to another workbook that isn't currently open in Excel.

`=SUMIFS(I2:I5,E2:E5,A2)`

`=SUMIFS(I2:I5,E2:E5,">="&A3,E2:E5,"<="&B3)`

`=SUMIFS(I1:I5,E1:E5,">="&A3,E1:E5,"<="&B3)`

sum_range I1:I5 what to add up	criteria_range1 E1:E5 where to look for first of up to 127 criteria	criteria1 ">="&A3 first of up to 127 criteria	criteria_range2 E1:E5 where to look for second of up to 127 criteria	criteria2 "<="&B3 second of up to 127 criteria
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SUMIFS with Two Range Criteria



SUMPRODUCT Introduction

	A	B	C	D	E	F	G
1		<u>Hours</u>	<u>Payrate</u>	<u>FICA</u>	<u>Total</u>		
2	Tom	38.00	12.00	7.65%	456.00	=B2*C2	
3	Dick	24.00	9.00	7.65%	216.00	=B3*C3	
4	Harry	40.00	15.00	7.65%	600.00	=B4*C4	
5		<u>Total Payroll Expense</u>			1,272.00	=SUM(D2:D4)	
6		<u>Total FICA Expense</u>			97.31	=E5*D4	
7	<u>Total Payroll Expense</u>	1,272.00	=SUMPRODUCT(B2:B4,C2:C4)				
8	<u>Total FICA Expense</u>	97.31	=SUMPRODUCT(B2:B4,C2:C4,D2:D4)				
9							
10	=SUMPRODUCT(B2:B4,C2:C4)						
11							
12	array1 B2:B4 one or more cells to be multiplied and then summed		array2 C2:C4 one or more cells to be multiplied and then summed		[array3 to array 255] SUMPRODUCT supports up to 255 components		
13							
14							
15							

SUMPRODUCT Function





SUMPRODUCT as SUMIFS Alternative

	A	B	C	D	E	F	G	H	I	
1	Start	End	March		Account #	Account Name	January	February	March	
2	40200	40300	49,153		40100	Product Sales	99,738	113,689	92,741	
3	40200	40300	49,153		40200	Services	32,914	37,517	30,605	
4					40300	Other Income	19,948	22,738	18,548	
5					40400	Interest Income	2,992	5,684	3,710	
6					=SUMIFS(I:I,E:E,">="&A2,E:E,"<="&B2)					
7					=SUMPRODUCT((E2:E5>=A3)*(E2:E5<=B3)*I2:I5)					
8	SUMPRODUCT returns #VALUE! if any text is within your range to sum.				You can provide up to 255 arguments with SUMPRODUCT as opposed to 127 with SUMIFS. SUMPRODUCT allows you to link to data in closed workbooks while SUMIFS does not.					
11	=SUMPRODUCT((E2:E5>=A3)*(E2:E5<=B3)*I2:I5)									
13	[array1] (E2:E5>=A3)				[array2] (E2:E5<=B3)				[array3] I1:I5	
14	In this case where an account number in cell E2:E5 is greater than or equal to the number in cell A3				In this case where an account number in cell E2:E5 is less than or equal to the number in cell B3				Cells that contain values we want to sum when both	
15										
16										

SUMPRODUCT-Multicriteria Lookup



Thank you for attending!

I'm happy to hear from you. In particular let me know if you did not receive the handouts for this presentation.

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Is there something you were hoping to learn today but didn't?
Please let me know. You can ask me anything about Excel.