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How to sum values in an Excel filtered list

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Filters are a powerful and easy-to-use feature. Using filters, you can quickly limit data to just the records you need to see. Summing filtered records is another matter. You might try a SUM() function but you might get a surprise—well, I can promise you'll get a surprise.

The figure bellows shows a filtered list. You can tell by the row numbers to the left that many rows are hidden. (We'll skip how the actual filter works. To learn more about that, read How to use And and Or operators with Excel's Advanced Filter.

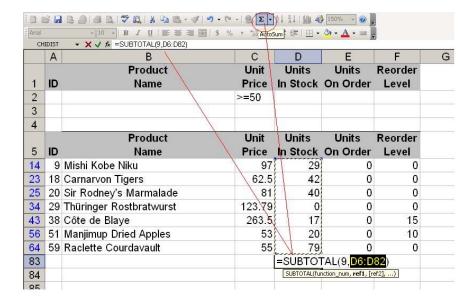
	Α	В	С	D	Е	F	G
1	ID	Product Name	Unit Price	Units In Stock	Units On Order	Reorder Level	
2			>=50				
3							
4							
		Product	Unit	Units	Units	Reorder	
5	ID	Name	Price	In Stock	On Order	Level	
/14	9	Mishi Kobe Niku	97	29	0	0	
23		Carnarvon Tigers	62.5	42	0	0	
25	20	Sir Rodney's Marmalade	81	40	0	0	
34	29	Thüringer Rostbratwurst	123.79	0	0	0	
43	38	Côte de Blaye	263.5	17	0	15	
56	51	Manjimup Dried Apples	53	20	0	10	
64/	59	Raclette Courdavault	55	79	0	0	
83							
84							
25			l)				

The next figure shows what happens when you try to sum the filtered values. You can easily tell that the result isn't correct; the value is too high, but why? The SUM() function is evaluating all the values in the range D14:D64, not just the filtered values. There's no way for the SUM() function to know that you want to exclude the filtered values in the referenced range.

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[083	→ SUM(D14:D64)				-61 	
	Α	В	С	D	Е	F	G
		Product	Unit	Units	Units	Reorder	
1	ID	Name	Price	In Stock	On Order	Level	
2			>=50				
3							
4							
		Product	Unit	Units	Units	Reorder	
5	ID	Name	Price	In Stock	On Order	Level	
14	9	Mishi Kobe Niku	97	29	0	0	
23	18	Carnarvon Tigers	62.5	42	0	0	
25	20	Sir Rodney's Marmalade	81	40	0	0	
34	29	Thüringer Rostbratwurst	123.79	0	0	0	
43	38	Côte de Blaye	263.5	17	0	15	
56	51	Manjimup Dried Apples	53	20	0	10	
64	59	Raclette Courdavault	55	79	0	0	
83			(2099			
84							

The solution is much easier than you might think! Simply click AutoSum—Excel will automatically enter a SUBTOTAL() function, instead of a SUM() function. This function references the entire list, D6:D82, but it evaluates only the filtered values.



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	Α	▼	С	D	Е	F	G
w		Product	Unit	Units	Units	Reorder	
1	ID	Name	Price	In Stock	On Order	Level	
2			>=50				
3							
4							
		Product	Unit	Units	Units	Reorder	
5	ID	Name	Price	In Stock	On Order	Level	
14	9	Mishi Kobe Niku	97	29	0	0	
23	18	Carnarvon Tigers	62.5	42	0	0	
25	20	Sir Rodney's Marmalade	81	40	0	0	
34	29	Thüringer Rostbratwurst	123.79	0	0	0	
43	38	Côte de Blaye	263.5	17	0	15	
56	51	Manjimup Dried Apples	53	20	0	10	
64	59	Raclette Courdavault	55	79	0	0	
83				227			
84							

About SUBTOTAL()

Although the SUBTOTAL() function references the entire list of values in column D, it evaluates only those in the filtered list. You might think that's because of the first argument, the value 9. This argument tells Excel to *sum* the referenced values. The following table lists this argument's acceptable values:

Evaluates	Ignores	Function
hidden	hidden	
values	values	
1	101	AVERAGE()
2	102	COUNT()
3	103	COUNTA()
4	104	MAX()
5	105	MIN()
6	106	PRODUCT()
7	107	STDEV()
8	108	STDEVP()
9	109	SUM()
10	110	VAR()
11	111	VARP()

At this point, you might be saying, *Wait a minute!* The value 9 is supposed to evaluate hidden values. Shouldn't the correct argument be 109? It's a valid question and I have an explanation, I just don't think it's a great explanation: SUBTOTAL() ignores rows that aren't included in the result of a filter, regardless of the argument you specify. It's a quirk—just one of those little details you need to know about the function. Whether you use 9 or 109, SUBTOTAL() will evaluate only the visible values—it will *not* evaluate hidden values.

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