

# How can I use SUBTOTAL with AVERAGEIF in Excel?

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## RECOMMENDED CITATION

stats writer (2024). *How can I use SUBTOTAL with AVERAGEIF in Excel?*.

PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=156256>

SUBTOTAL and AVERAGEIF are two useful functions in Excel that can be used together to efficiently calculate average values in a large data set. SUBTOTAL allows for the calculation of various statistical functions, such as AVERAGE, while also being able to ignore hidden or filtered data. AVERAGEIF, on the other hand, allows for the calculation of the average value based on a specified criteria. By combining these two functions, one can easily calculate the average of a subset of data that meets a certain condition. This can be particularly useful for analyzing and summarizing data in a large dataset, making it a valuable tool for data analysis in Excel.

## Use SUBTOTAL with AVERAGEIF in Excel

You can use the following formula to combine the SUBTOTAL and AVERAGEIF functions in Excel:

```
=AVERAGE(IF(SUBTOTAL(2,OFFSET(C2,ROW(C2:C11)-ROW(C2),0)),IF(B2:B11="Guard",C2:C11)))
```

This particular formula allows you to calculate the average of values in the range C2:C11 where the corresponding value in the range B2:B11 is equal to "Guard" even after that range of cells has been filtered in some way.

The following example shows how to use this formula in practice.

**Example: How to Use SUBTOTAL with AVERAGEIF in Excel**

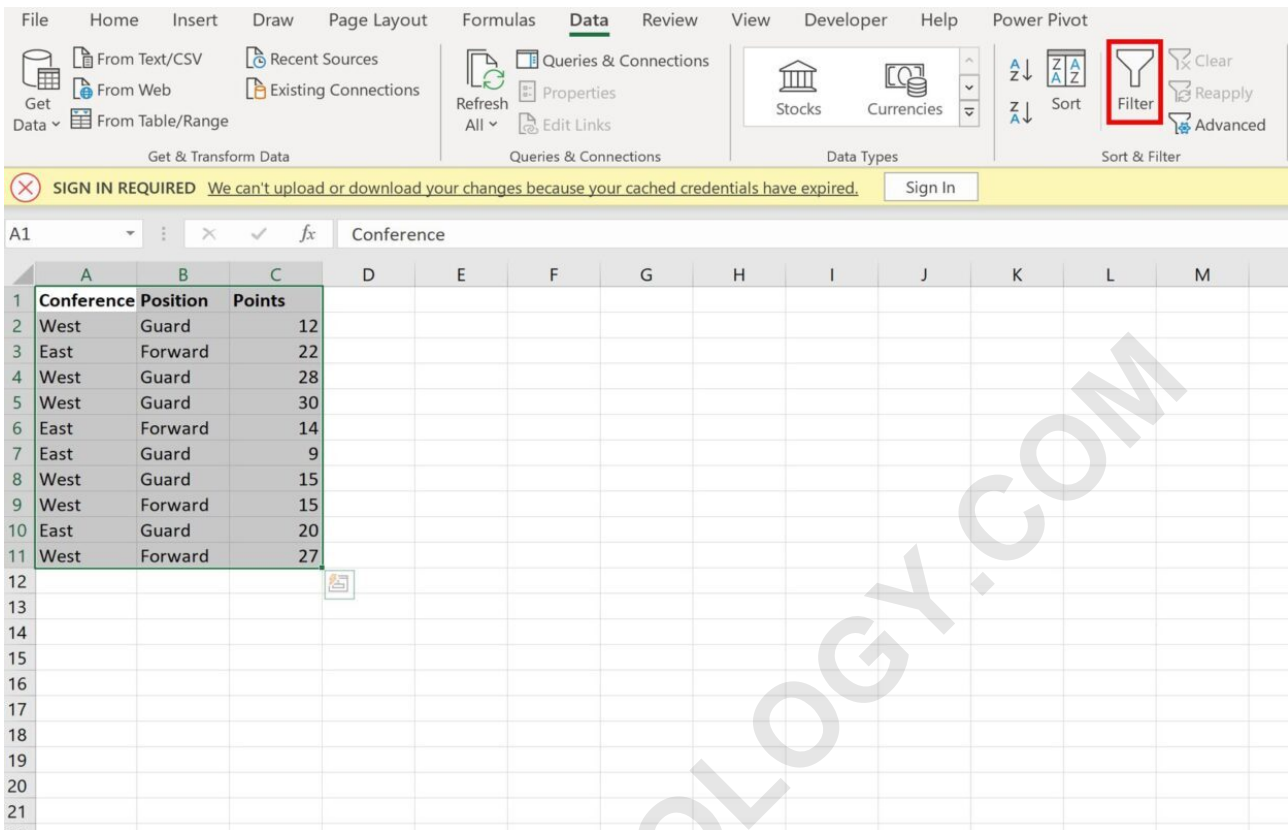
**Suppose we have the following dataset that contains**

## information about various basketball players:

	A	B	C	D	E	F
1	<b>Conference</b>	<b>Position</b>	<b>Points</b>			
2	West	Guard	12			
3	East	Forward	22			
4	West	Guard	28			
5	West	Guard	30			
6	East	Forward	14			
7	East	Guard	9			
8	West	Guard	15			
9	West	Forward	15			
10	East	Guard	20			
11	West	Forward	27			
12						
13						
14						
15						
16						
17						
18						
19						
20						

Next, let's filter the data to only show the rows where the players are in the West conference.

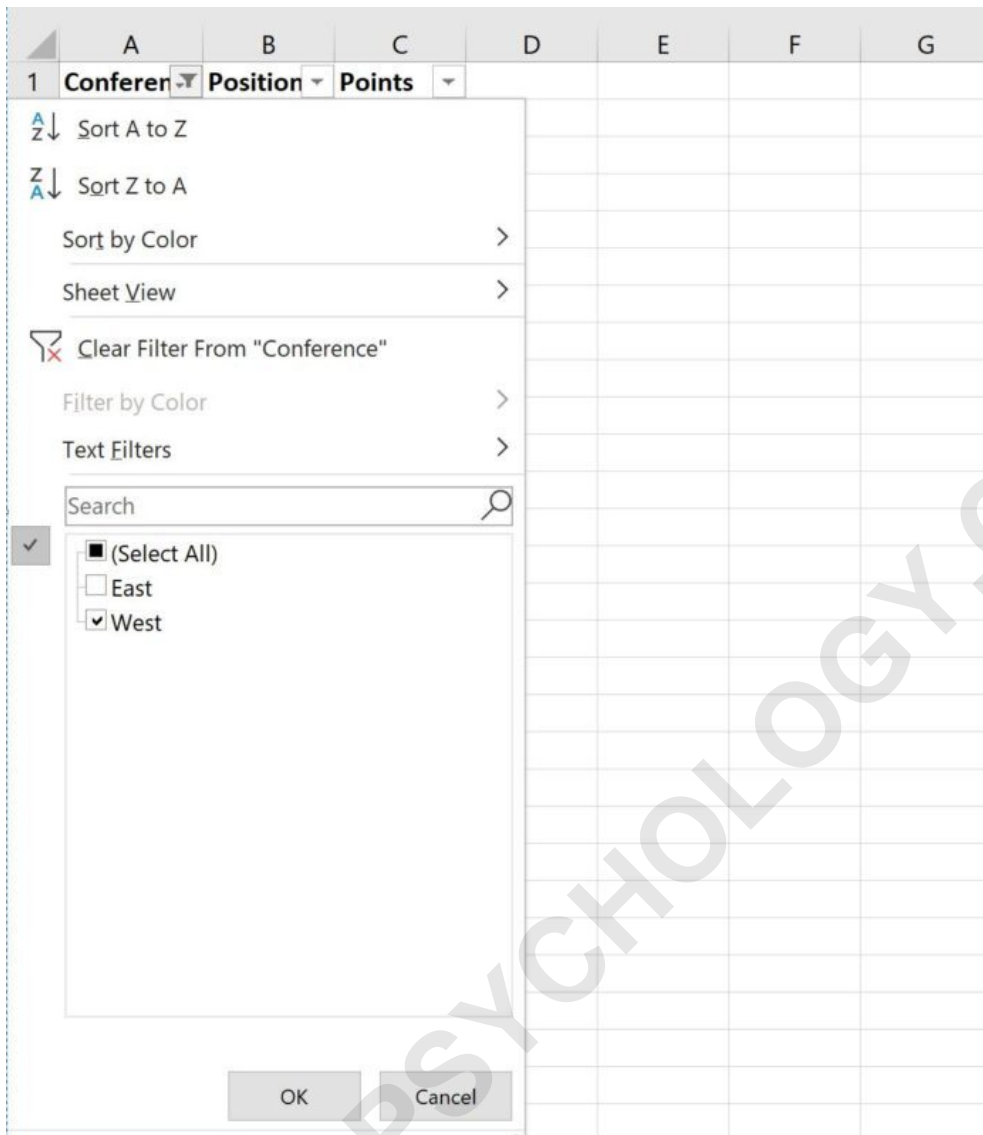
To do so, highlight the cell range A1:C11. Then click the Data tab along the top ribbon and click the Filter button.



The screenshot shows the Microsoft Excel interface with the Data tab selected. The ribbon includes options for Get & Transform Data, Queries & Connections, Data Types, and Sort & Filter. The Sort & Filter group has the Filter icon highlighted with a red box. Below the ribbon, a yellow warning bar indicates a sign-in requirement. The spreadsheet shows a table with columns labeled 'Conference', 'Position', and 'Points'. The 'Conference' column is filtered to show only 'West' entries. The data is as follows:

Conference	Position	Points
West	Guard	12
East	Forward	22
West	Guard	28
West	Guard	30
East	Forward	14
East	Guard	9
West	Guard	15
West	Forward	15
East	Guard	20
West	Forward	27

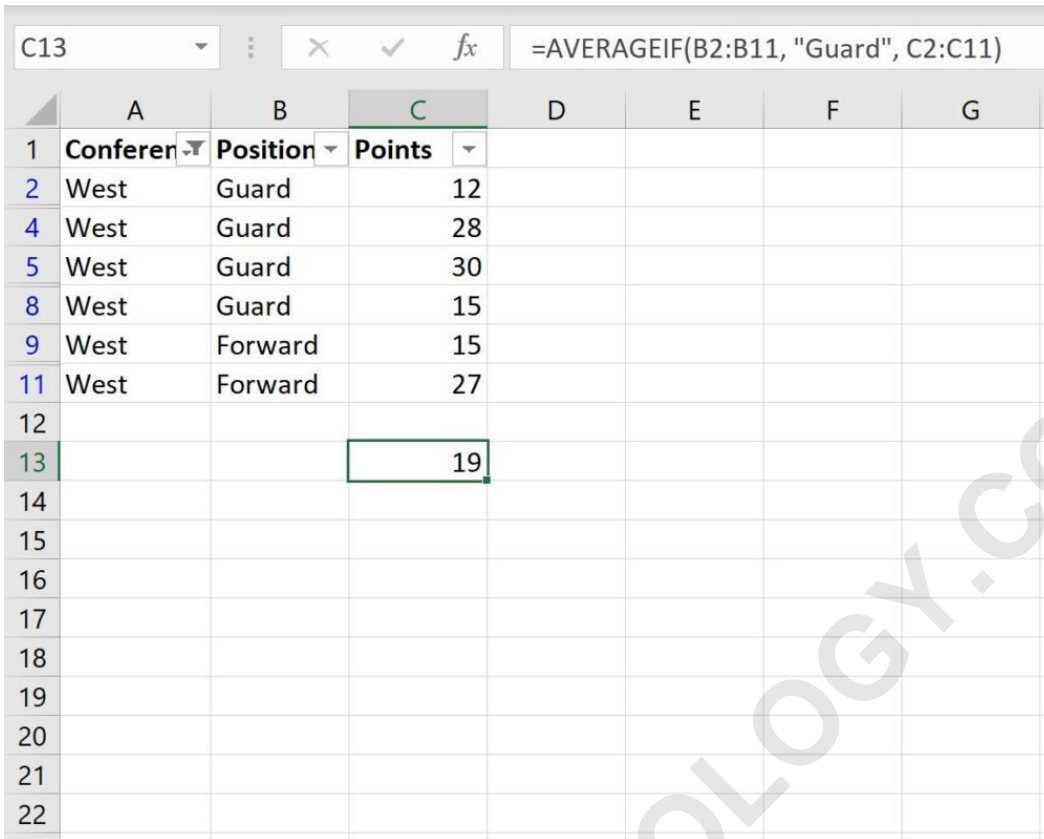
Then click the dropdown arrow next to Conference and make sure that only the box next to West is checked, then click OK:



**The data will automatically be filtered to only show the rows where the Conference column is equal to West:**

	A	B	C	D	E	F
1	Conferer	Position	Points			
2	West	Guard	12			
4	West	Guard	28			
5	West	Guard	30			
8	West	Guard	15			
9	West	Forward	15			
11	West	Forward	27			
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						

If we attempt to use the **AVERAGEIF()** function to calculate the average of the values in the **Points** column where the value in the **Position** column is equal to "Guard", it will actually return the average of points for the rows equal to "Guard" in the original dataset:



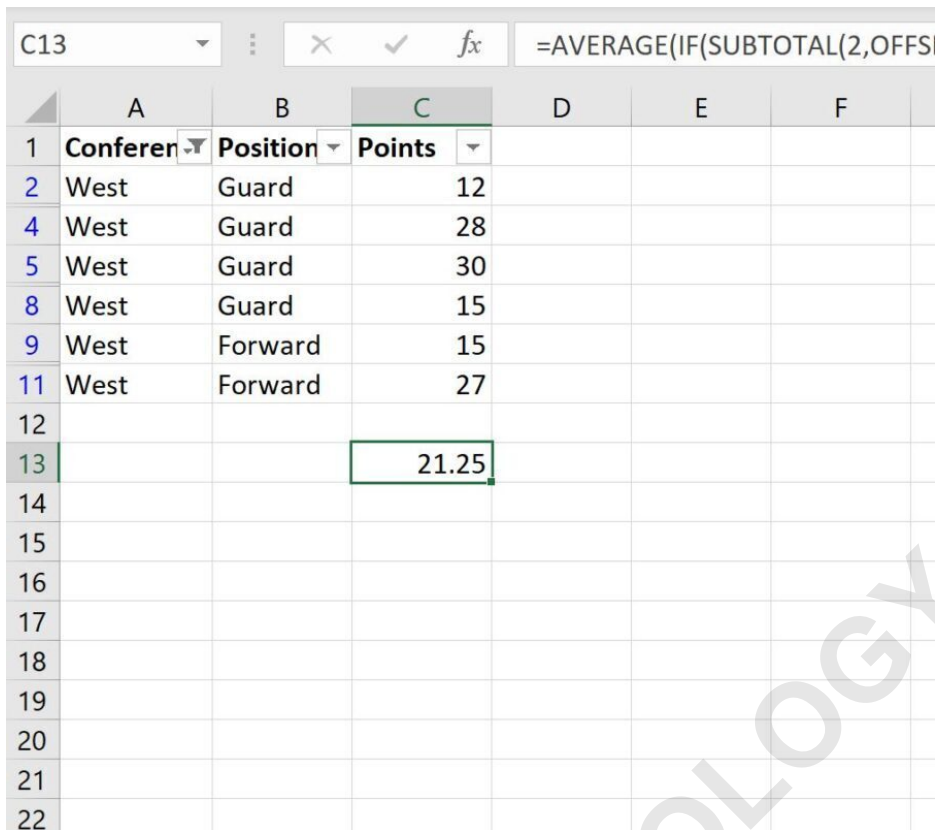
The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F	G
1	Conferen	Position	Points				
2	West	Guard	12				
4	West	Guard	28				
5	West	Guard	30				
8	West	Guard	15				
9	West	Forward	15				
11	West	Forward	27				
12							
13			19				
14							
15							
16							
17							
18							
19							
20							
21							
22							

Instead, we need to use the following formula:

```
=AVERAGE(IF(SUBTOTAL(2,OFFSET(C2,ROW(C2:C11)-ROW(C2),0)),IF(B2:B11="Guard",C2:C11)))
```

The following screenshot shows how to use this formula in practice:



	A	B	C	D	E	F
1	Conferen	Position	Points			
2	West	Guard	12			
4	West	Guard	28			
5	West	Guard	30			
8	West	Guard	15			
9	West	Forward	15			
11	West	Forward	27			
12						
13			21.25			
14						
15						
16						
17						
18						
19						
20						
21						
22						

**This formula returns the correct average of 21.25.**

**We can confirm this is correct by manually calculating the average of the points values for the rows where the Position column is equal to "Guard":**

**Average of Points for Guards:  $(12 + 28 + 30 + 15) / 4 = 21.25$ .**

#### **Additional Resources**

**The following tutorials explain how to perform other common operations in Excel:**