

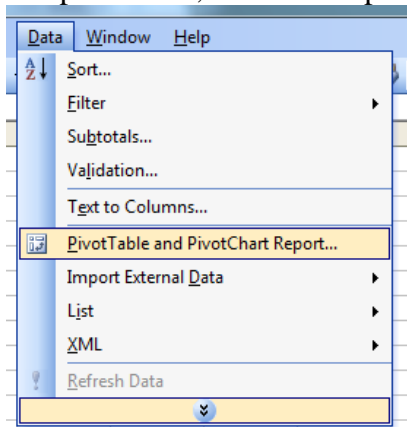
Pivot Tables

- A pivot table is a data summarization tool found in data visualization programs such as spreadsheets.
- Among other functions, pivot-table tools can automatically sort, count, total or give the average of the data stored in one table or spreadsheet. It displays the results in a second table (called a "pivot table") showing the summarized data.
- The user sets up and changes the summary's structure by dragging and dropping fields graphically. This "rotation" or pivoting of the summary table gives the concept its name.

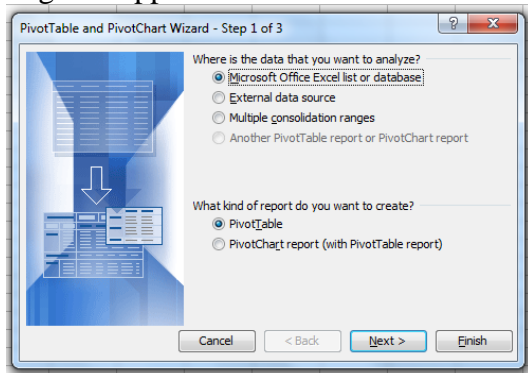
Open the spreadsheet called Day15_pivottable.xls

	A	B	C	D
1				
2				
3	Age	Gender	Medical Cost	
4	4	M	243.1395	
5	5	F	408.165	
6	9	M	707.4556	
7	9	M	1682.575	
8	12	F	1983.193	
9	14	M	2135.788	
10	18	M	2176.144	
11	21	F	2196.302	
12	21	M	2443.379	
13	21	M	2473.283	
14	24	M	2752.602	

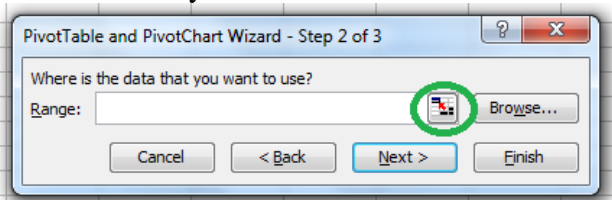
To create a pivot table, select that option from the menu.

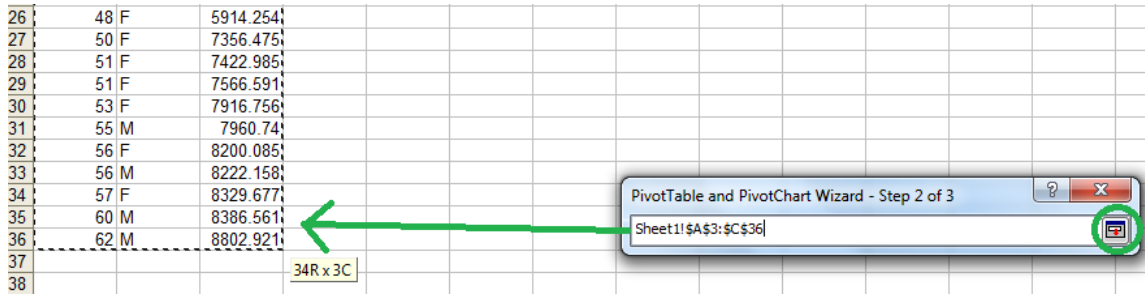


This dialog will appear:

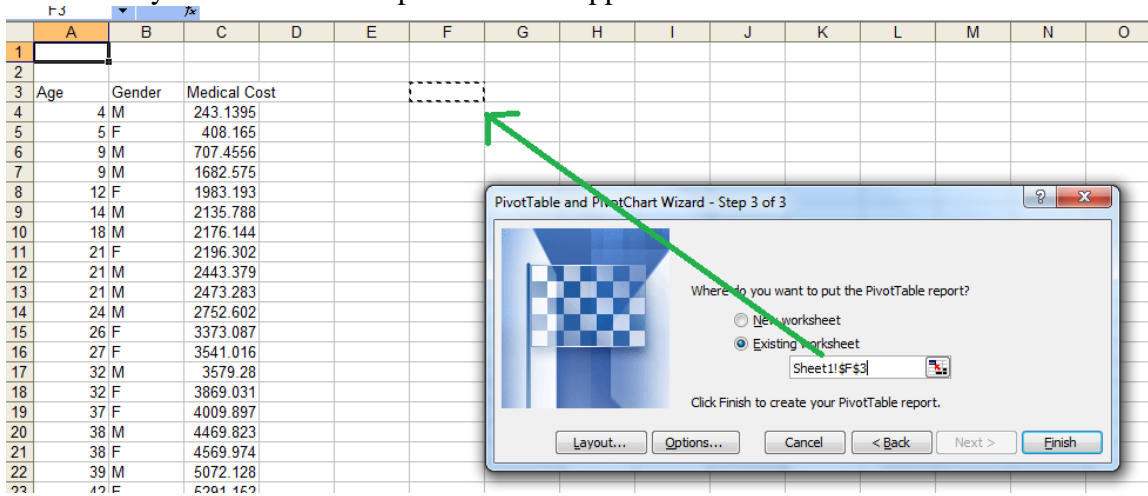


Select the data you need.

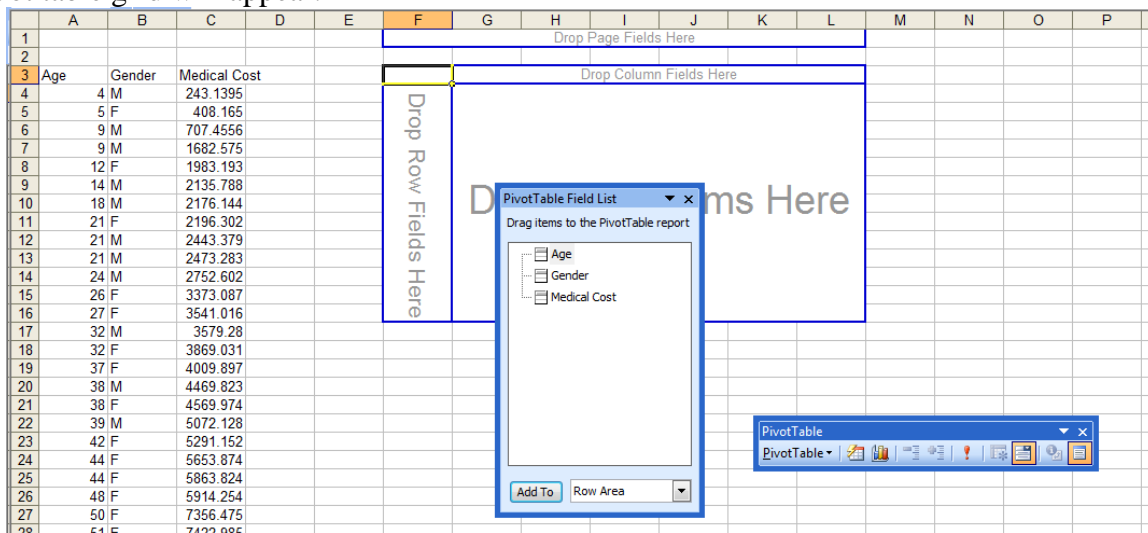




Then select where you would like the pivot table to appear.

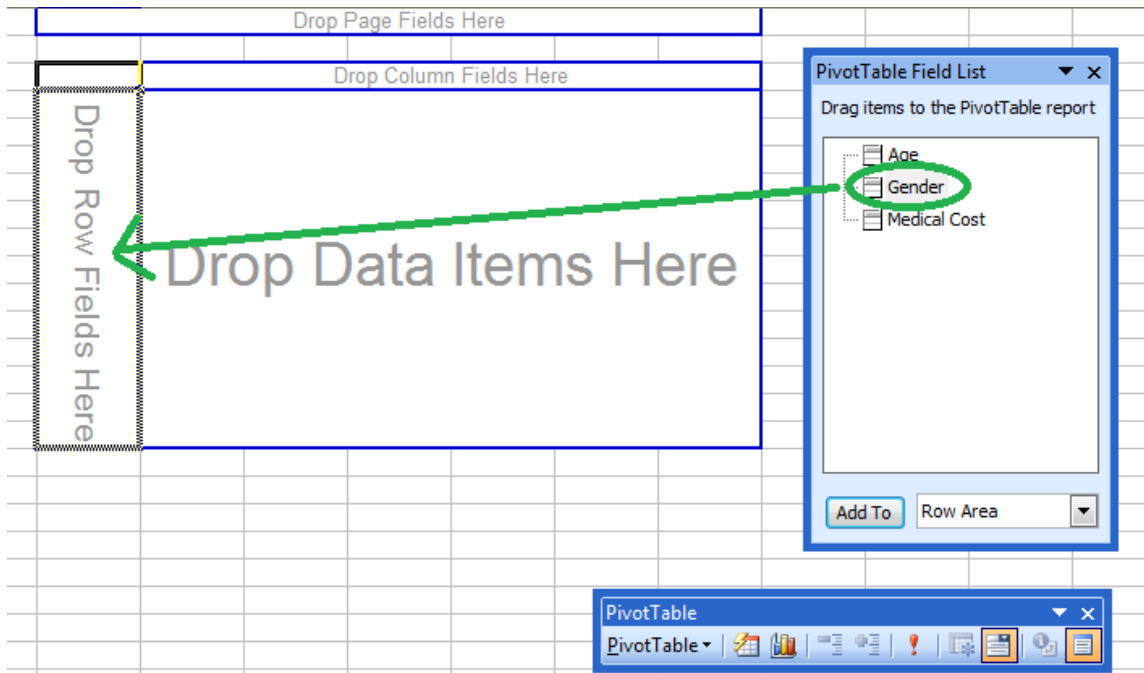
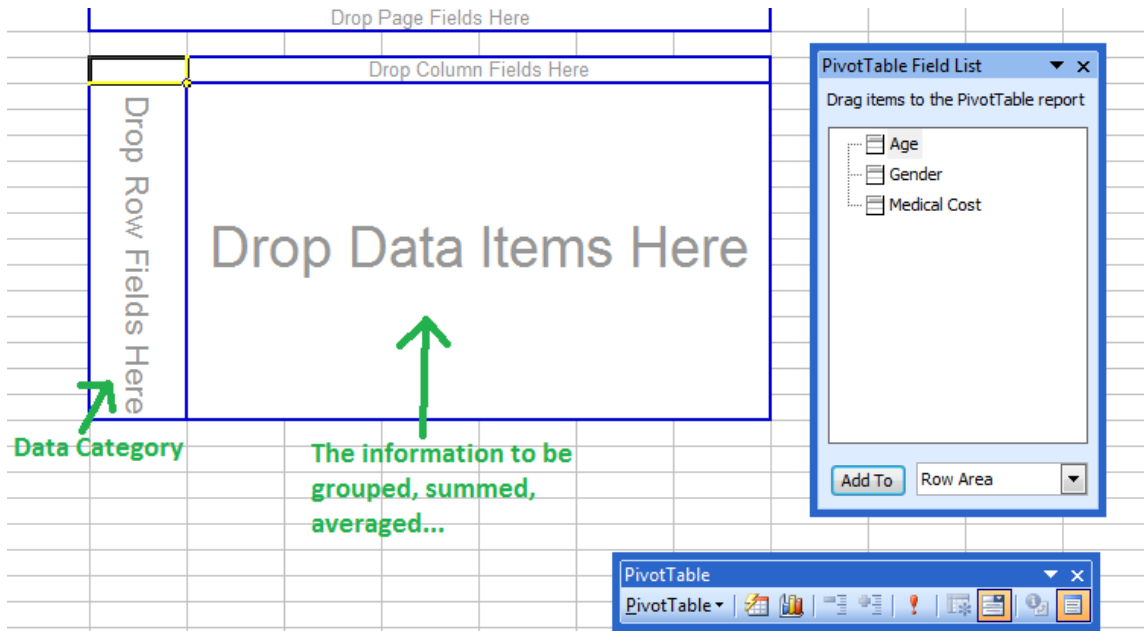


The pivot table grid will appear.



You can select the thing you wish to categorize by and the type of subtotal you would like. All you need to do is drag over the data you want into the boxes. This is really easy to do and it is why pivot tables are easy to use.

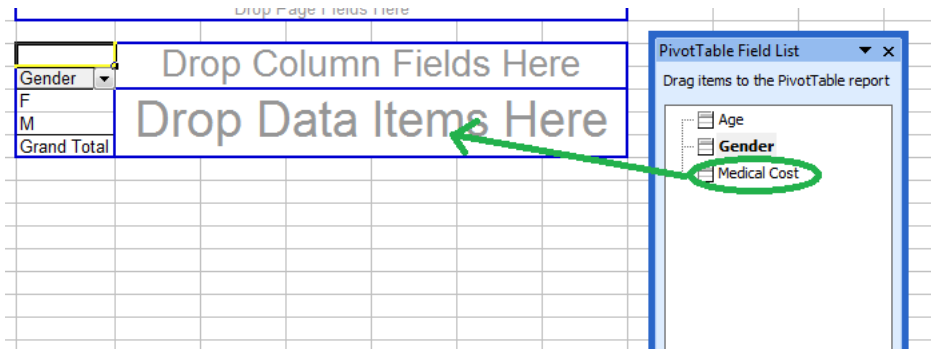
We want to know the average medical cost grouped by gender. Thus, the group is gender and average of medical cost goes on the right.



Once the gender category is dragged over, the table will adjust to look like this.

Drop Page Fields Here	
Gender	Drop Column Fields Here
F	Drop Data Items Here
M	
Grand Total	

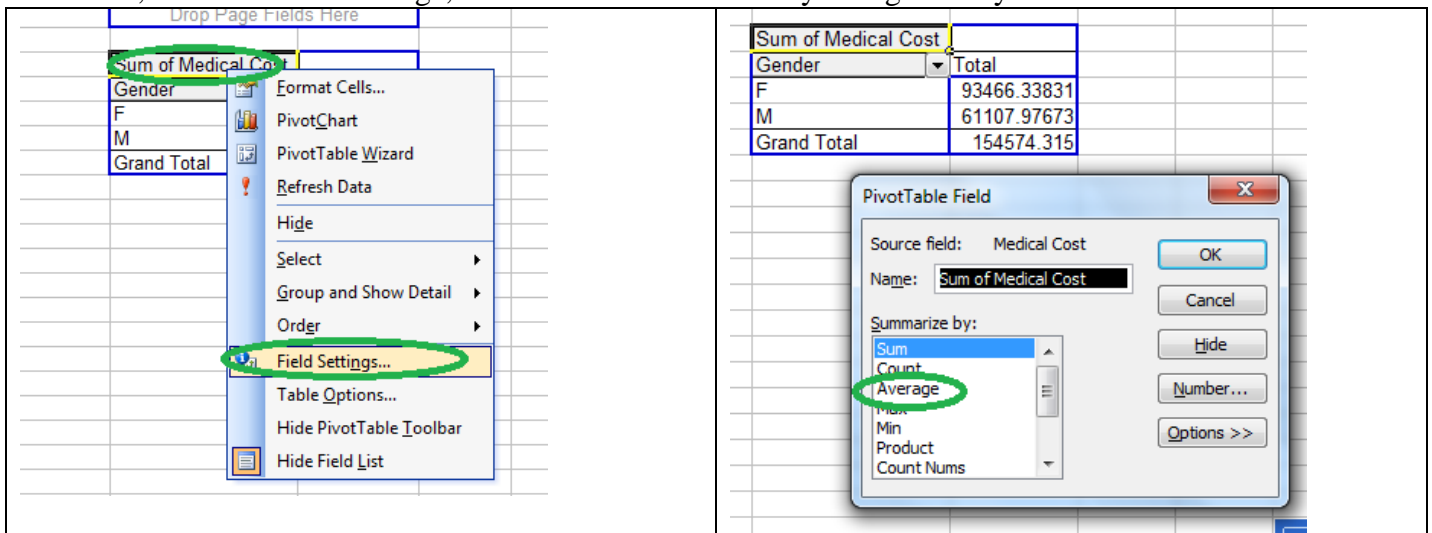
Then, select the average of medical costs.



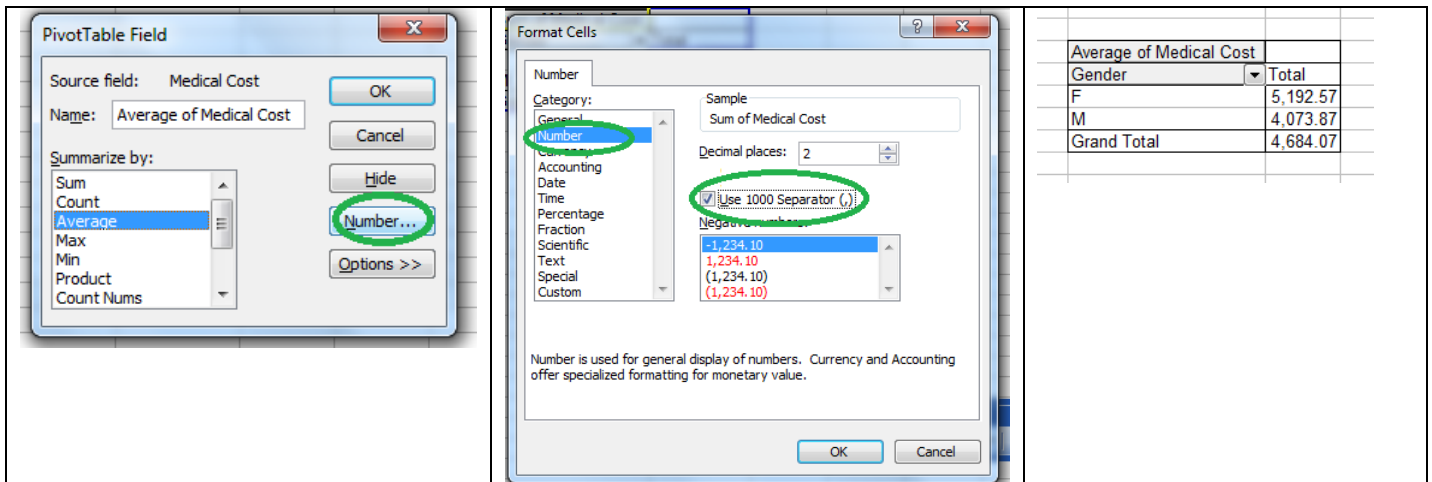
The resulting pivot table looks like this:

Sum of Medical Cost	
Gender	Total
F	93466.33831
M	61107.97673
Grand Total	154574.315

However, we wanted the average, not the sum. You can easily change what your calculation looks like:



You can also format the data.



Average of Medical Cost	
Gender	Total
F	5,192.57
M	4,073.87
Grand Total	4,684.07

Assignment.

1. Add this pivot table to that sheet.

Max of Medical Cost	
Age	Total
4	243.14
5	408.17
9	1,682.58
12	1,983.19
14	2,135.79
18	2,176.14
21	2,473.28
24	2,752.60
26	3,373.09
27	3,541.02
32	3,869.03
37	4,009.90
38	4,569.97
39	5,072.13
42	5,291.15
44	5,863.82
48	5,914.25
50	7,356.48
51	7,566.59
53	7,916.76
55	7,960.74
56	8,222.16
57	8,329.68
60	8,386.56
62	8,802.92
Grand Total	8,802.92

2. In the second sheet, make the following pivot tables.

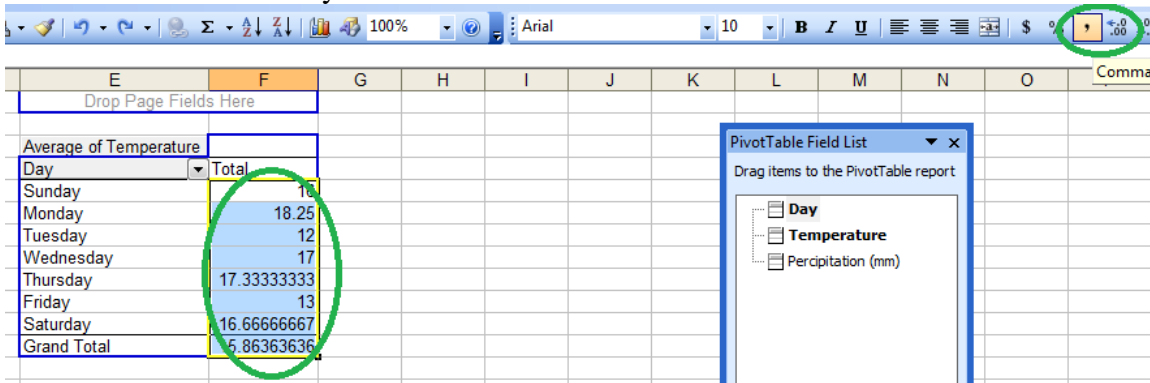
	A	B	C	D	E	F	G	H	I	J
1	Weather Information									
2										
3	Day	Temperature	Precipitation (mm)	Average of Temperature						
4	Monday	16	0	Day		Total				
5	Tuesday	13	0	Sunday		16.0				
6	Wednesday	19	12	Monday		18.3				
7	Thursday	15	0	Tuesday		12.0				
8	Friday	16	4	Wednesday		17.0				
9	Saturday	15	0	Thursday		17.3				
10	Sunday	18	0	Friday		13.0				
11	Monday	19	0	Saturday		16.7				
12	Tuesday	10	0	Grand Total		15.9				
13	Wednesday	19	0							
14	Thursday	19	0							
15	Friday	11	0							
16	Saturday	18	0	Max of Precipitation (mm)			Sum of Precipitation (mm)			
17	Sunday	16	0	Temperature		Total	Day		Total	
18	Monday	19	0	10		-	Sunday		4.0	
19	Tuesday	13	0	11		-	Monday		-	
20	Wednesday	13	2	12		-	Tuesday		-	
21	Thursday	18	0	13		2.0	Wednesday		14.0	
22	Friday	12	0	14		4.0	Thursday		-	
23	Saturday	17	0	15		-	Friday		4.0	
24	Sunday	14	4	16		4.0	Saturday		-	
25	Monday	19	0	17		-	Grand Total		22.0	
26				18		-				
27				19		12.0				
28				Grand Total		12.0				
29										

Again, you can format the data:

Starting with this:

Average of Temperature	
Day	Total
Sunday	16
Monday	18.25
Tuesday	12
Wednesday	17
Thursday	17.33333333
Friday	13
Saturday	16.66666667
Grand Total	15.86363636

Highlight the total column, click the comma button, click the reduce decimal places button next to it. This will format the data. They are next to each other.



This results in the following:

Average of Temperature	
Day	Total
Sunday	16.0
Monday	18.3
Tuesday	12.0
Wednesday	17.0
Thursday	17.3
Friday	13.0
Saturday	16.7
Grand Total	15.9