

Creating PivotTables in Excel

This document provides instructions for creating and using PivotTables in Microsoft Excel to analyze and summarize data.

Overview of PivotTables

PivotTables are dynamic, summary reports. They allow you to look at the same information in different ways with just a few mouse clicks. Data swings into place, answering questions, telling you what the data means. PivotTables allow you to quickly take huge amounts of data and turn it into small, concise reports that tell you what you need to know.

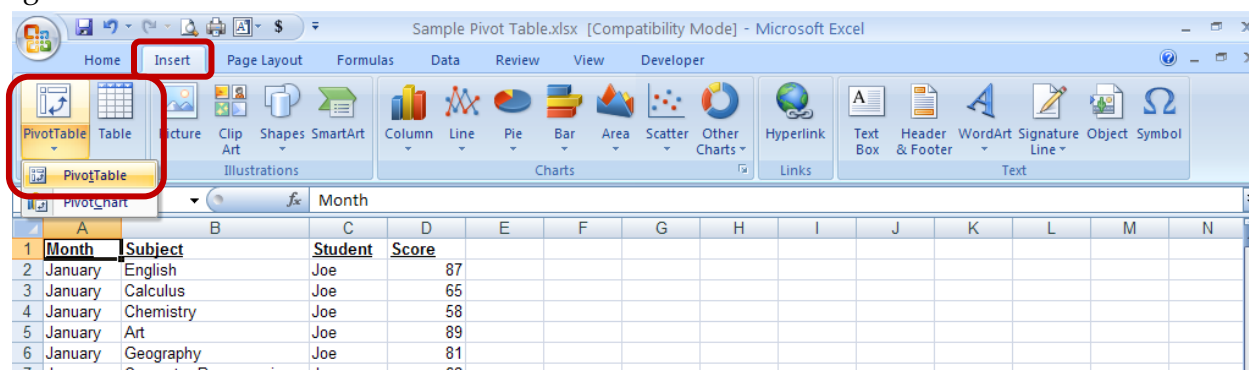
Preparing Data for a PivotTable

- Be sure to have a header row as the first row in the worksheet. The titles for each column will become the field names in the PivotTable.
- Each column should contain similar data, for example, just numbers, dates, or text. For example, a column that contains text should not also contain numbers and dates.
- Remove empty rows and columns.

Creating a PivotTable

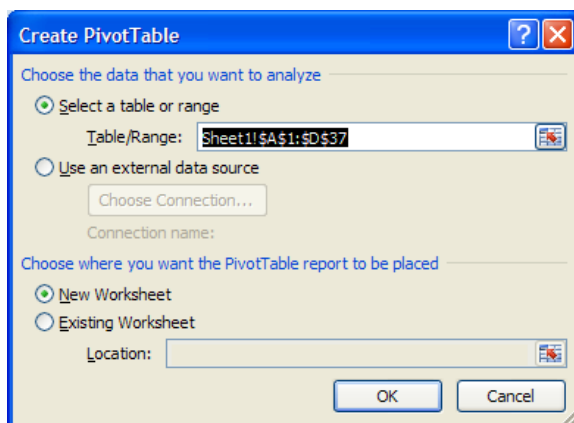
Once you have prepared the data,

1. Place the cursor anywhere in the data range, or select the data you want to use in the PivotTable.
2. On the **Insert** tab, in the **Tables** group, click **PivotTable**, and then click **PivotTable** again.

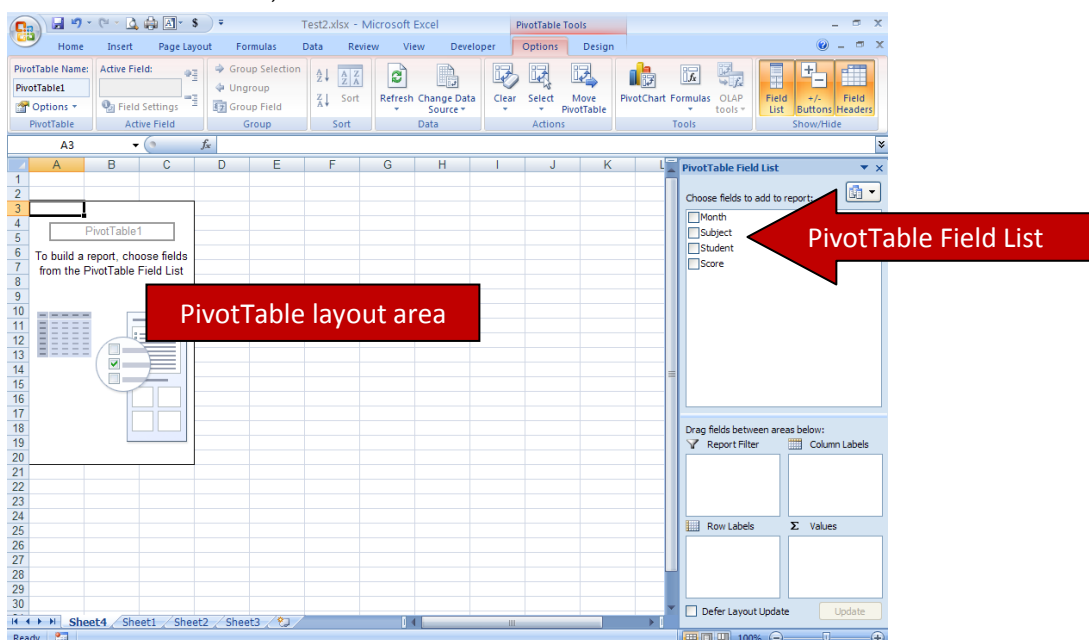


3. The **Create PivotTable** dialog box opens. The **Table/Range** box shows the range of the selected data (based on what you selected in Step 1). Select the desired location of the

PivotTable – either **New Worksheet** or **Existing Worksheet**. Click **OK** when finished.

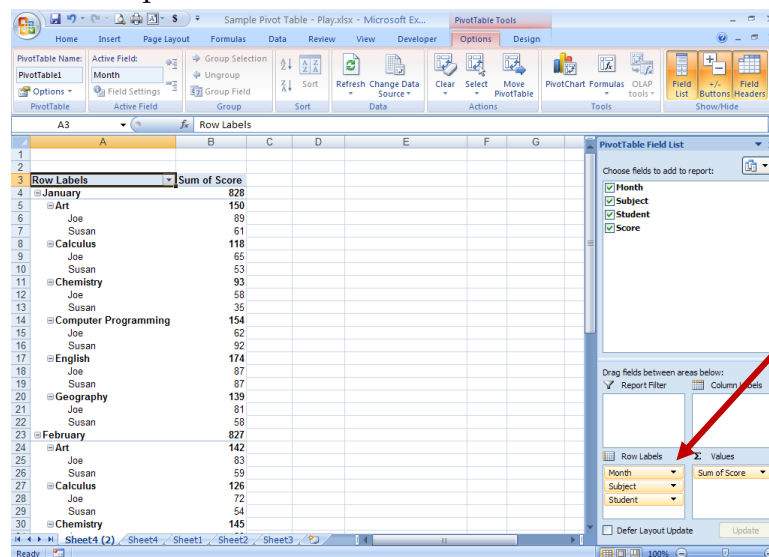


4. The worksheet now shows the layout for the PivotTable. You will also see the PivotTable Field List, which shows the column titles from the source data.



5. The PivotTable is created by moving fields from the Field List to the layout area. What you drag where depends on what question you are trying to answer. This can be done in four ways:
- Select the check box next to the field name. Excel will automatically put the field in place.
 - Non-numeric fields are automatically placed in Row Labels on the left side of the report. As you add more non-numeric fields, Excel places them on the inside of fields already on the PivotTable report, building a hierarchy.
 - Numeric fields will be placed in Column Labels.
 - Right-click a field name and select the desired location of the field.
 - Drag the field name to the locations listed below the field list.

- d. Drag the field name directly to the layout area. This is how PivotTables were created in previous versions of Excel.



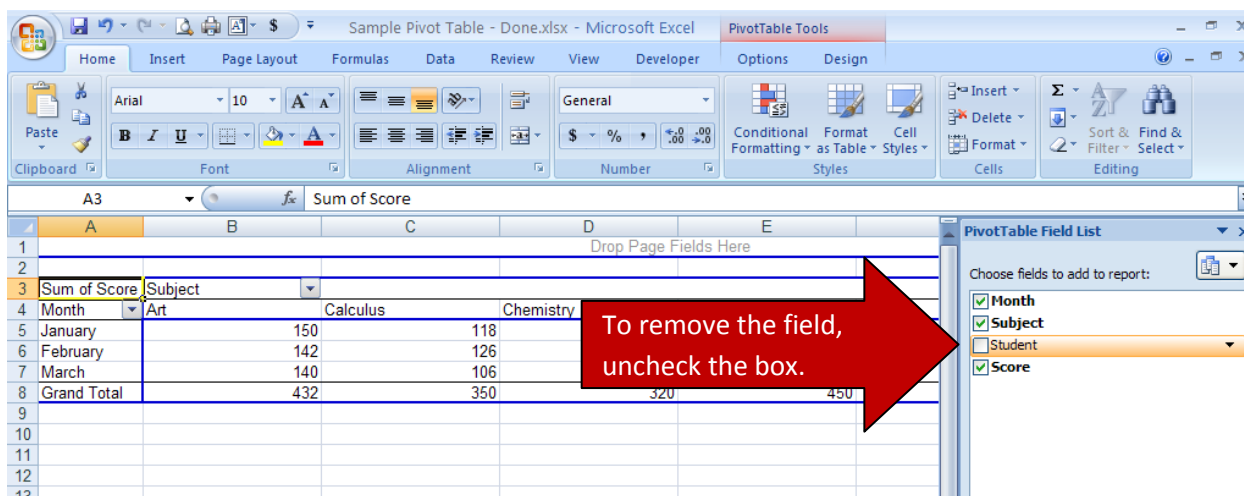
Note that you can add more than one field to an area.

6. Please note that if you click in a cell outside of the layout area, the PivotTable Field List goes away. To get the field list back, click inside the PivotTable layout area.

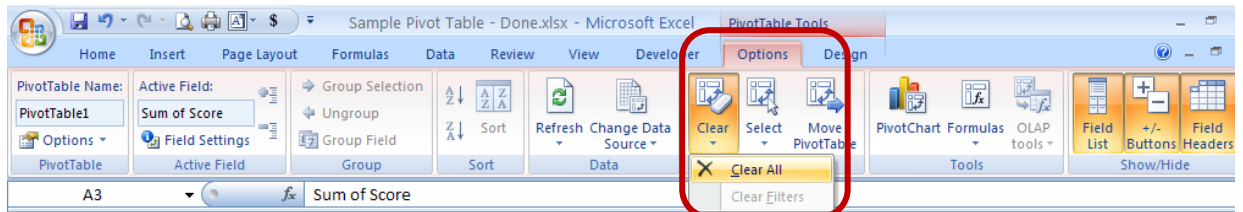
Revising a PivotTable

There is no need to worry about building a report incorrectly. Excel makes it easy to try things out, to see how data looks in different areas of the report. If the PivotTable does not look quite the way you intended, you can easily lay out data another way, move pieces around to your satisfaction, or even to start over again.

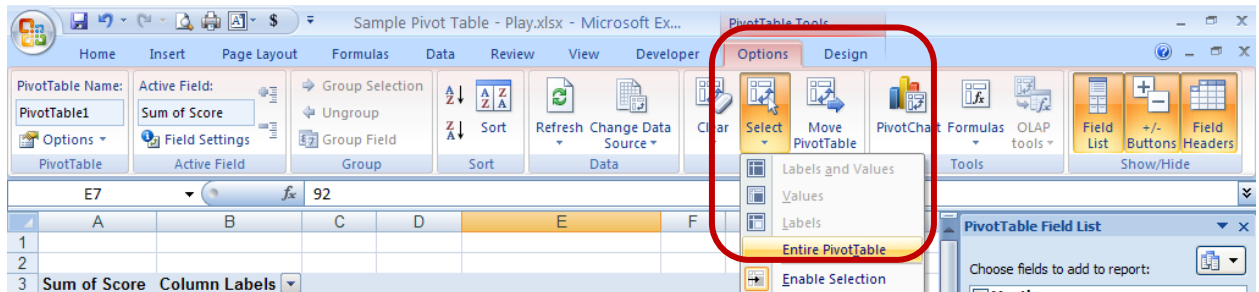
1. To remove a field from the PivotTable, clear the check box beside the field name in the **PivotTable Field List**.



2. To remove all the fields from the report so that you can start over, go to the **Options** tab, in the **Actions** group, click the arrow on the **Clear** button, and then select **Clear All**.

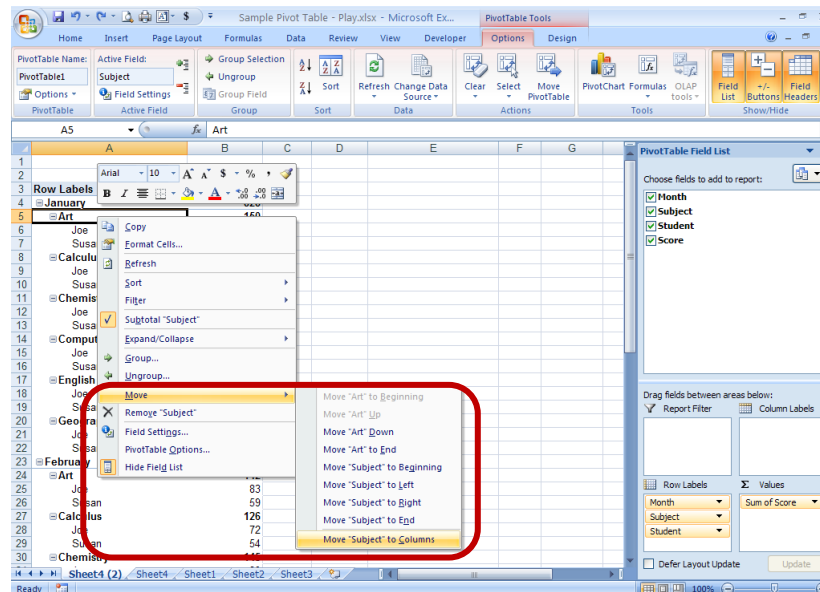


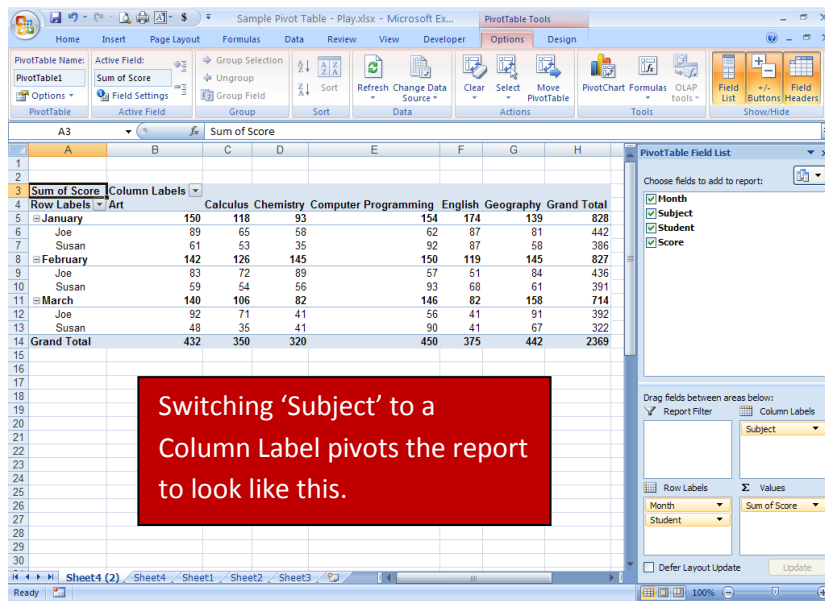
3. To delete the entire report, click the **Options** tab. In the **Actions** group, click the arrow on **Select**. Click **Entire PivotTable**. Then press **Delete** on the keyboard. Note that this deletes the PivotTable without deleting the source data.



You can also pivot the report to get a different view. When you pivot a report, you transpose the vertical or horizontal view of a field, moving rows to the column area or moving columns to the row area.

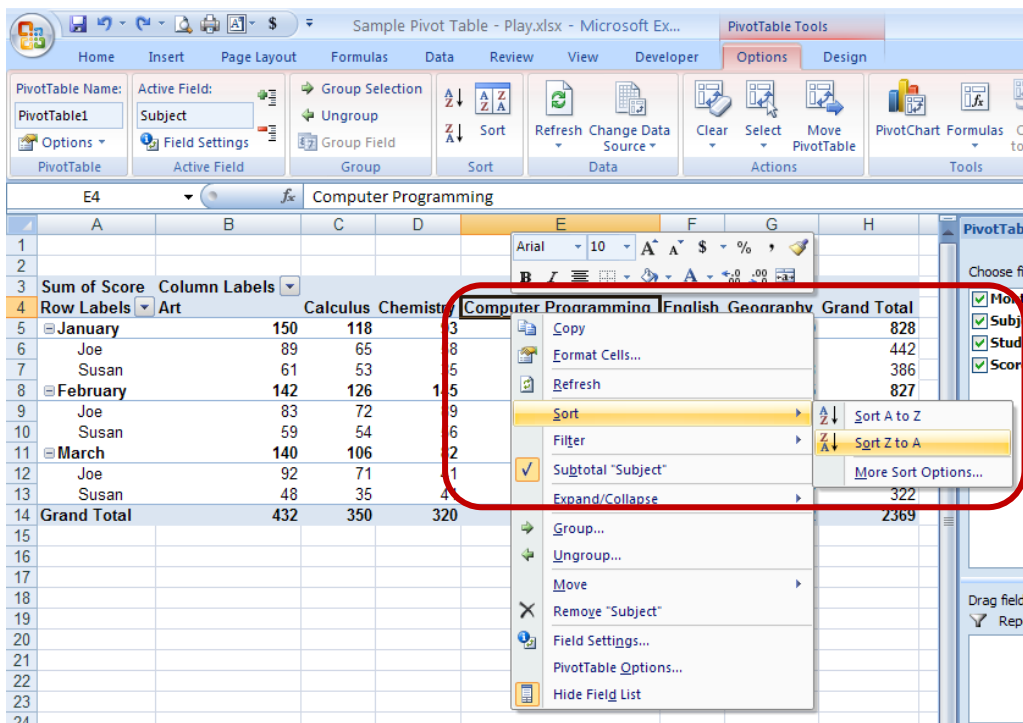
1. Right-click the field you want to pivot.
2. Point to **Move**, then select **Move <Field Name> to Columns**, or select **Move <Field Name> to Rows**.





To sort data in the report,

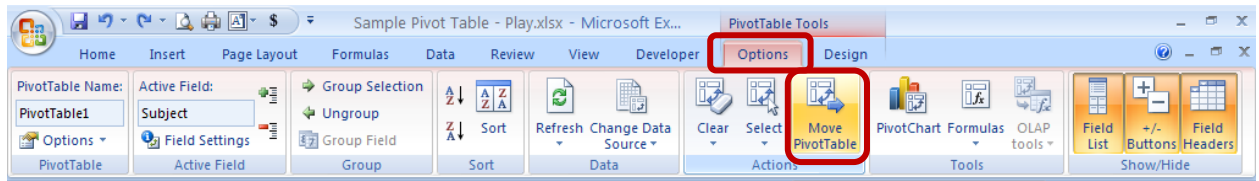
1. Right-click a cell in the field by which you want to sort. Point to **Sort**, then click the desired order.



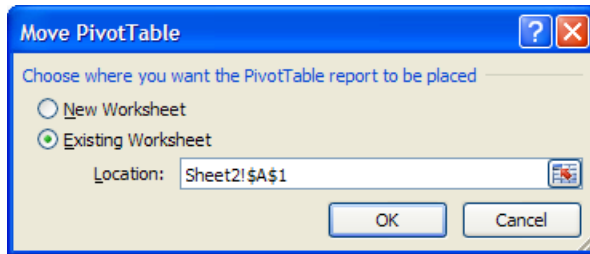
To move a PivotTable to another location,

1. Click in the PivotTable.

2. On the **Options** tab, in the **Actions** group, click **Move PivotTable**.

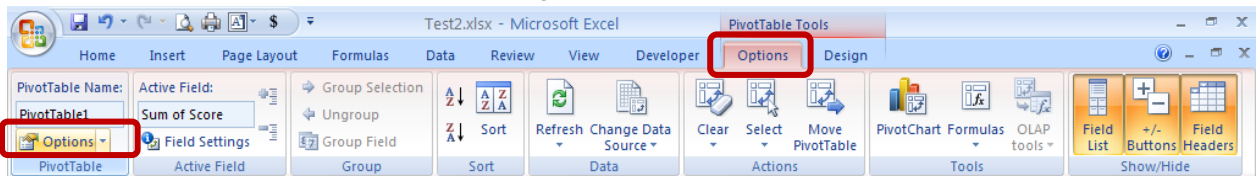


3. The **Move PivotTable** dialog box opens.
4. Under **Choose where you want the PivotTable report to be placed**, either select **New Worksheet**, or in the **Location** box for **Existing Worksheet**, type the first cell in the range of cells where you want to move the PivotTable report. Then click **OK**.

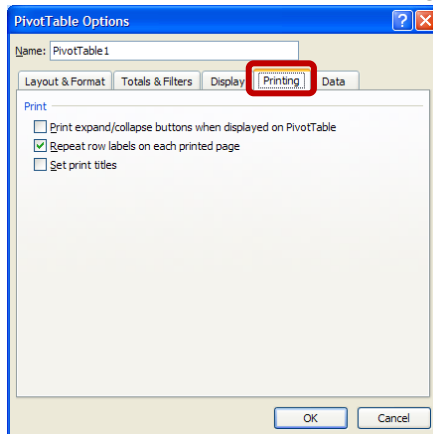


To print a PivotTable,

1. Set the printing options by clicking in the PivotTable.
2. Go to the **Options** tab, in the **PivotTable** group, and click **Options**.



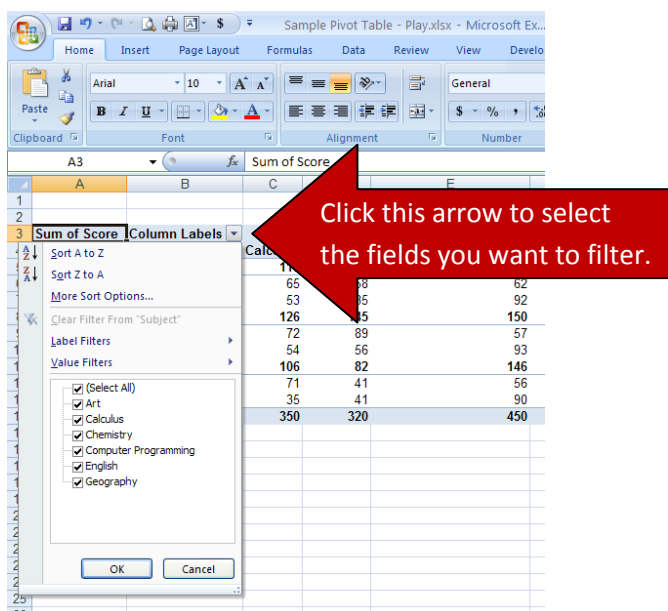
3. In the **PivotTable Options** dialog box, on the **Printing** tab, select the desired options.



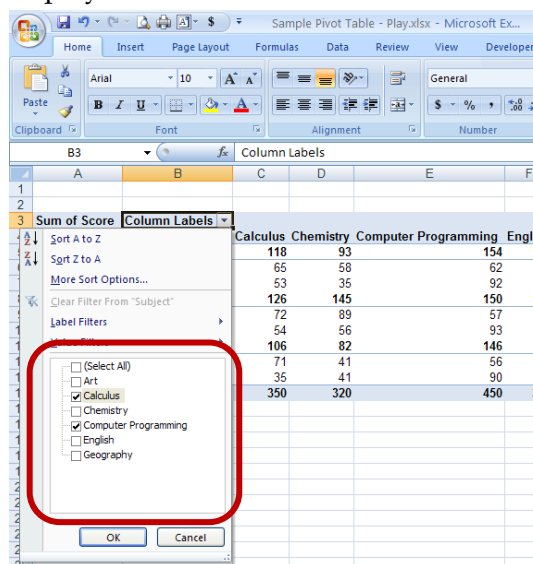
Filtering

Once a PivotTable has been created, filters can be applied to answer specific questions. To set a filter in Row Labels or Column Labels,

1. Click the arrow next to **Row Labels** or **Column Labels**.

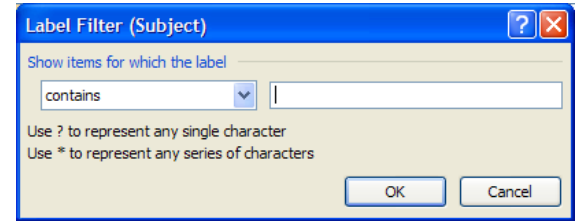
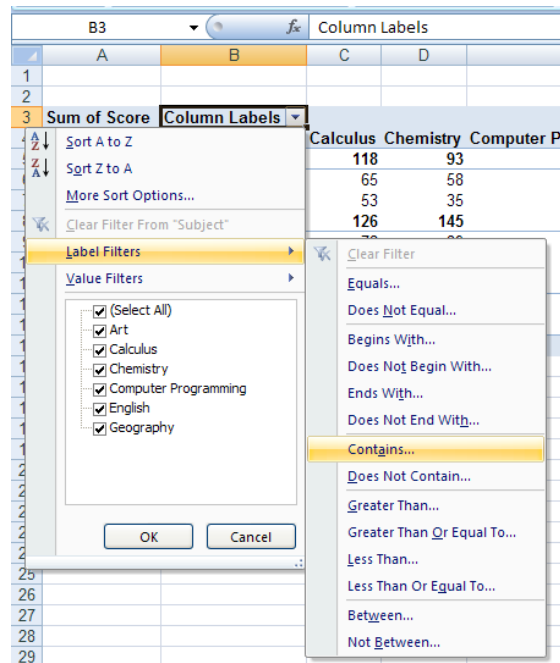


2. The dropdown menu shows a list of all the values in whatever field you selected. There are two ways to filter the report:
 - a. Clear the check box next to **(Select All)** in the list to clear all the check boxes next to the items in the list. Then click the check boxes next to the items you want to display in the PivotTable.

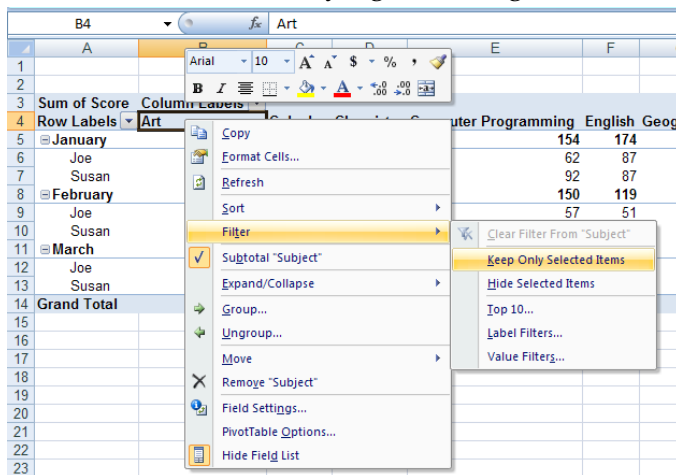




- b. Point to **Label Filters** and select a comparison operator such as **Equals** or **Contains**. In the **Label Filter <Field Name>** dialog box, type the desired text.

Then click **OK**.

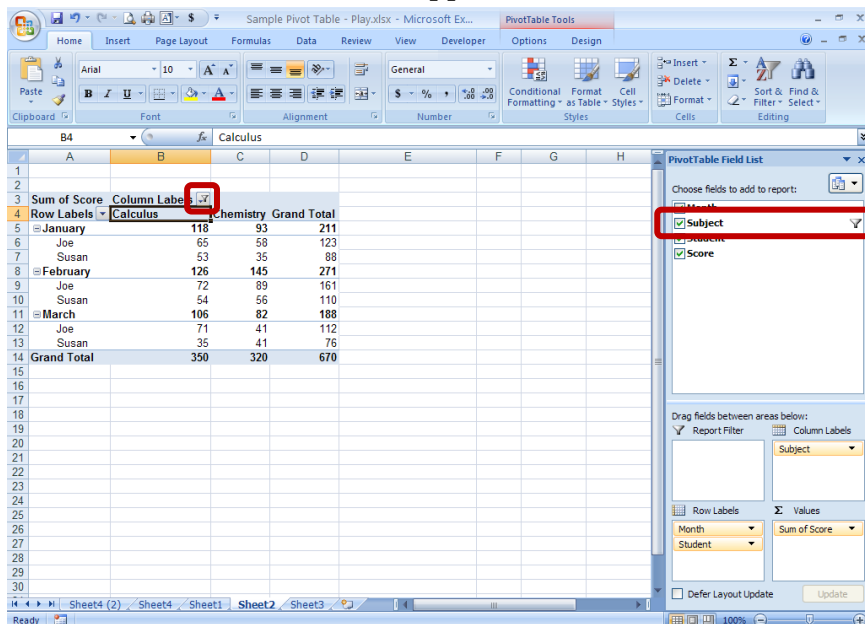


3. You can also set a filter by right-clicking within a field.



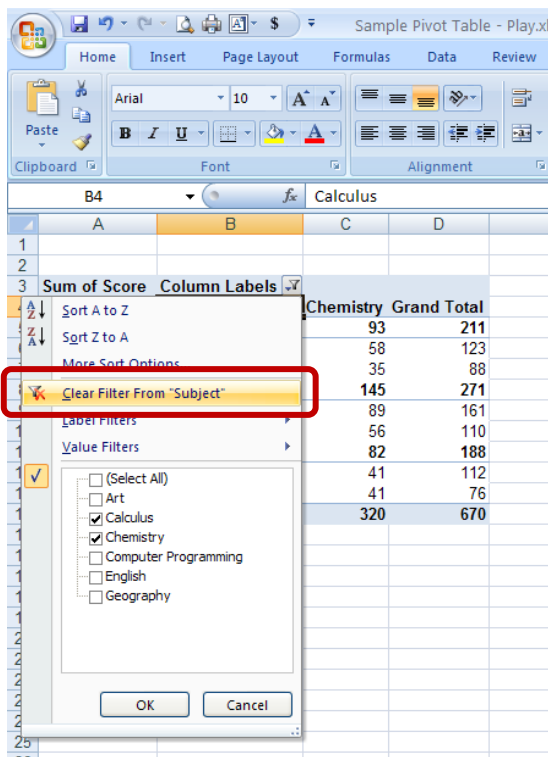
- a. To hide selected items within a field, point to **Filter**, and then select **Hide Selected Items**.
 - b. To show selected items within a field, point to **Filter**, and then select **Keep Only Selected Items**.
4. It is not always easy to tell if data has been filtered just by looking at it. To remind you that this report is filtered, a filter icon  appears on the arrow that you clicked to begin setting the filter. There is also a filter icon  in the PivotTable Field List next to the

field name to which the filter is applied.

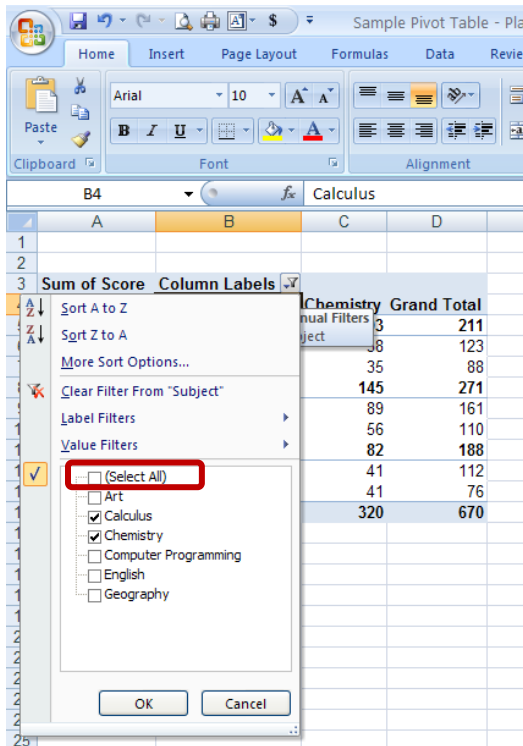


Filters can be removed in two ways:

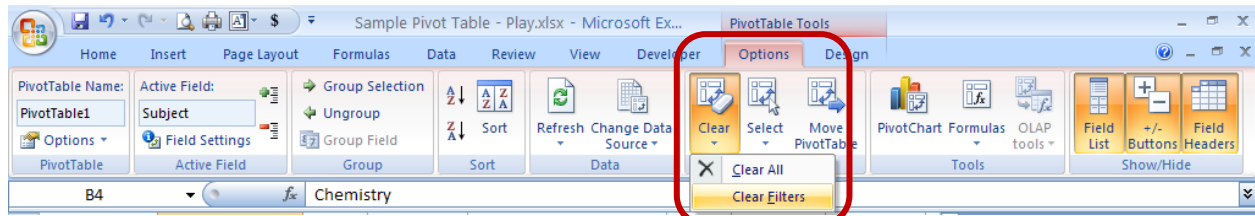
1. Click the filter icon  and choose **Clear Filter From <Field Name>**.



- Click the filter icon  and select the check box next to **(Select All)** to make all data in that field visible.



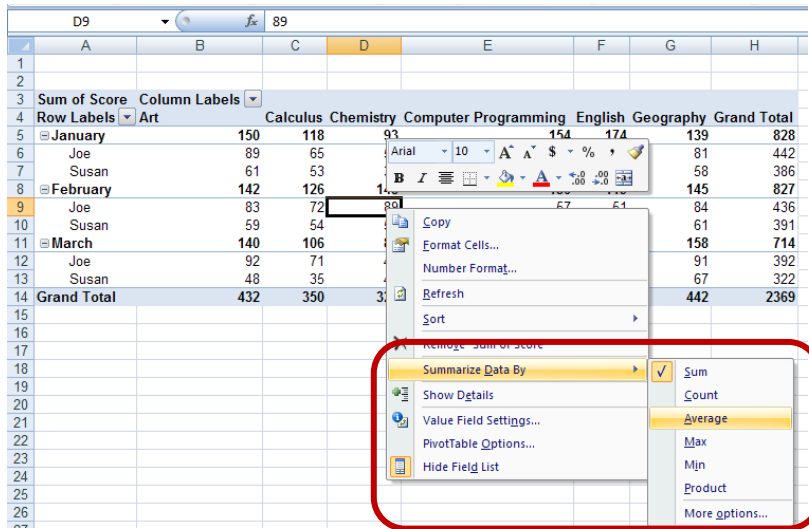
To remove all filters from a PivotTable, click the **Options** tab. In the **Actions** group, click **Clear**, and then click **Clear Filters**.



Calculate Data in a PivotTable

Excel automatically adds up numbers in PivotTable reports using the SUM function. However, other summary functions can be used to calculate the numbers in different ways, for example, to get the average or to count entries.

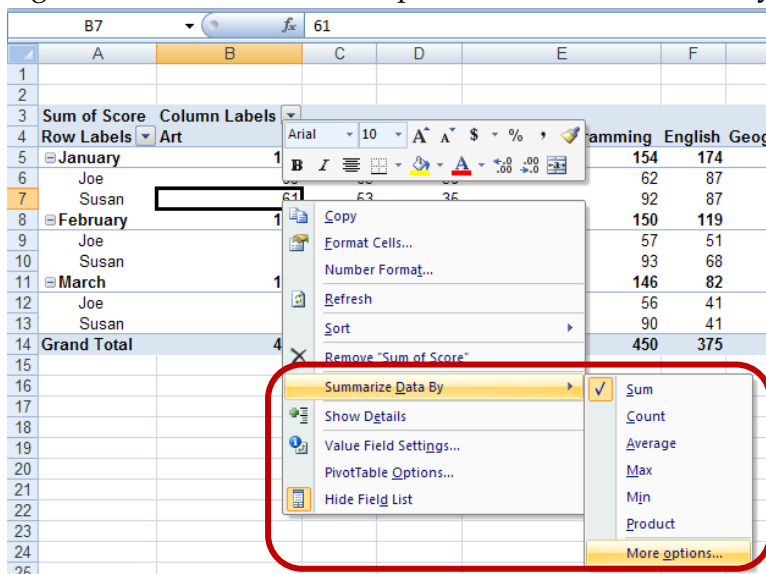
1. Right-click in the Values field. Point to **Summarize Data By**, and then click the summary function you want to use.



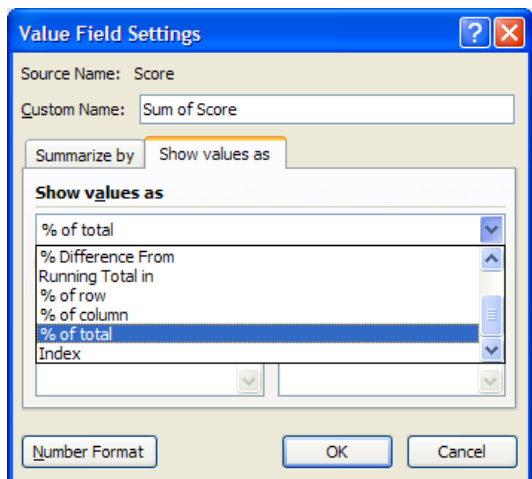
2. To switch back to SUM, right-click again in the Values field, point to **Summarize Data By**, and then click **Sum**.

You can also show values as a percentage of the total by using a custom calculation.

1. Right-click in the Values area, point to **Summarize Data By**, and click **More options**.



- Click the **Show values as** tab, and then select a function in the **Show values as** list. Click **OK**.



- To return the values to a normal view, follow the same steps, and then click **Normal**.

Using PivotTable Data in Formulas

The GETPIVOTDATA function works for cells in the Values area. The function is automatically entered when you type an equal sign outside the PivotTable and select a single cell inside the Values area of the report. If you pivot a report, the function will return the data in the referenced cell, even if the cell has changed location.

Sample Pivot Table - Play.xlsx - Microsoft Excel

	Art	Calculus	Chemistry	Computer Programming	English	Geography	Grand
January	150	118	93	154	174	139	
Joe	89	65	58	62	87	81	
Susan	61	53	35	92	87	58	
February	142	126	145	150	119	145	
Joe	83	72	89				
Susan	59	54	56				
March	140	106	82				
Joe	92	71	41				
Susan	48	35	41				
Grand Total	432	350	320				

=GETPIVOTDATA('Score',SA\$3,'Month','February','Subject','Chemistry')

This function is written for you automatically – and Excel will adjust it as needed if you pivot your table later.

=GETPIVOTDATA('Score',SA\$3,'Month','February','Subject','Chemistry','Student','Susan')