



Analyze Data in Excel

Tables

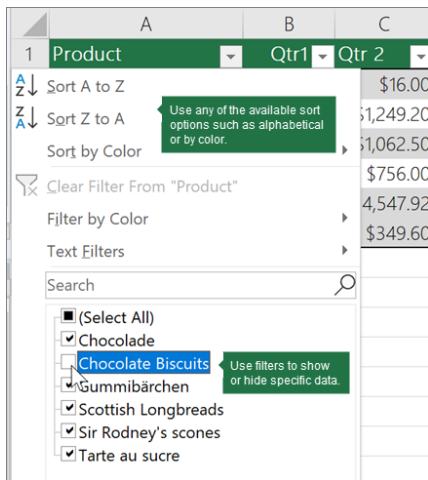
Overview of Excel tables

To make managing and analyzing a group of related data easier, you can turn a range of cells into an Excel table

	A	B	C	D
1	Product	Qtr 1	Qtr 2	Grand Total
2	Chocolade	\$744.60	\$162.56	\$907.16
3	Gummibarchen	\$5,079.60	\$1,249.20	\$6,328.80
4	Scottish Longbreads	\$1,267.50	\$1,062.50	\$2,330.00
5	Sir Rodney's Scones	\$1,418.00	\$756.00	\$2,174.00
6	Tarte au sucre	\$4,728.00	\$4,547.92	\$9,275.92
7	Chocolate Biscuits	\$943.89	\$349.60	\$1,293.49
8	Total	\$14,181.59	\$8,127.78	\$22,309.37

A table can include the following elements:

- **Header row** By default, a table has a header row. Every table column has filtering enabled in the header row so that you can filter or sort your table data quickly.



You can turn off the header row in a table. For more information, see [Turn Excel table headers on or off.](#)

- **Banded rows** Alternate shading or banding in rows helps to better distinguish the data.

	A	B	C
1	Column1	Column2	Column3
2	Product	Qtr 1	Qtr 2
3	Chocolade	744.6	162.56
4	Gummibarchen	5079.6	1249.2
5	Scottish Longbreads	1267.5	1062.5



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- Calculated columns** By entering a formula in one cell in a table column, you can create a calculated column in which that formula is instantly applied to all other cells in that table column

Qtr 1	Qtr 2	Grand Total
\$744.60	\$162.56	=sum(Table1[@[Qtr 1]:[Qtr 2]])
\$5,079.60	\$1,249.20	SUM(number1, [number2], ...)
\$1,267.50	\$1,062.50	
\$1,418.00	\$756.00	
\$4,728.00	\$4,547.92	
\$943.89	\$349.60	
\$14,181.59	\$8,127.78	\$0.00

- Total row** Once you add a total row to a table, Excel gives you an AutoSum drop-down list to select from functions such as SUM, AVERAGE, and so on. When you select one of these options, the table will automatically convert them to a SUBTOTAL function, which will ignore rows that have been hidden with a filter by default. If you want to include hidden rows in your calculations, you can change the [SUBTOTAL](#) function arguments.

The screenshot shows a table titled "Revenue Audit (Small Business)" with columns for "Europe", "Midwest", and "Northeast". A filter is applied to the "Midwest" column. The "AutoSum" dropdown menu is open, showing options like "None", "Average", "Count", "Count Numbers", "Max", "Min", "Sum", "StdDev", "Var", and "More Functions...". The formula bar shows "=SUBTOTAL(109,[Midwest])".

- Sizing handle** A sizing handle in the lower-right corner of the table allows you to drag the table to the size that you want.

\$16.00	\$2,174.00	
\$4,547.92	\$9,275.92	
\$349.60	\$1,293.49	

Drag the sizing handle to resize a table.



Analyze Data in Excel

Create and format tables

You can create as many tables as you want in a spreadsheet.

To quickly create a table in Excel, do the following:

1. Select the cell or the range in the data.
2. Select **Home > Format as Table**.
3. Pick a table style.
4. In the **Format as Table** dialog box, select the checkbox next to **My table as headers** if you want the first row of the range to be the header row, and then click **OK**.


[Click to watch the "Create and format tables" video.](#)

Copy a Word table into Excel

When you want to move data from a Word table to Excel, you can avoid having to retype that data by copying it from Word directly. When you copy data from a Word table into an Excel worksheet, the data in each Word table cell is pasted in an individual cell on the worksheet.

1. In a Word document, select the rows and columns of the table that you want to copy to an Excel worksheet. Make sure there aren't any extra carriage returns in the cells of the table, otherwise this may cause extra rows in Excel.
2. To copy the selection, press CTRL+C.
3. In the Excel worksheet, select the upper-left corner of the worksheet area where you want to paste the Word table.

Note: Make sure that the paste area is empty before you paste the data. Data in Word table cells will replace any existing data in worksheet cells in the paste area. If necessary, review the table first in Word to verify its dimensions.

4. Press CRL+V.
5. To adjust the formatting, click **Paste Options**  next to the data that you pasted, and then do the following:
 - To use the formatting that is applied to the worksheet cells, click **Match Destination Formatting**.
 - To use the formatting of the Word table, click **Keep Source Formatting**.

Note: Excel pastes the contents of each Word table cell into a single cell. After you paste the data, you can distribute the data across additional cells in a column (for example, to divide first and last names so that they appear in separate cells) by using the **Text to Columns** command.



Analyze Data in Excel

Format an Excel table

Excel provides numerous predefined table styles that you can use to quickly format a table. If the predefined table styles don't meet your needs, you can create and apply a custom table style. Although you can delete only custom table styles, you can remove any predefined table style so that it is no longer applied to a table.

	A	B	C	D
1	Product	Qtr 1	Qtr 2	Grand Total
2	Chocolade	\$744.60	\$162.56	\$907.16
3	Gummibarchen	\$5,079.60	\$1,249.20	\$6,328.80
4	Scottish Longbreads	\$1,267.50	\$1,062.50	\$2,330.00
5	Sir Rodney's Scones	\$1,418.00	\$756.00	\$2,174.00
6	Tarte au sucre	\$4,728.00	\$4,547.92	\$9,275.92
7	Chocolate Biscuits	\$943.89	\$349.60	\$1,293.49
8	Total	\$14,181.59	\$8,127.78	\$22,309.37

You can further adjust the table formatting by choosing Quick Styles options for table elements, such as **Header** and **Total Rows**, **First** and **Last Columns**, **Banded Rows** and **Columns**, as well as **Auto Filtering**.

Note: The screen shots in this article were taken in Excel 2016. If you have a different version your view might be slightly different, but unless otherwise noted, the functionality is the same.

Choose a table style

When you have a data range that is not formatted as a table, Excel will automatically convert it to a table when you select a table style. You can also change the format for an existing table by selecting a different format.

1. Select any cell within the table, or range of cells you want to format as a table.
2. On the **Home** tab, click **Format as Table**.





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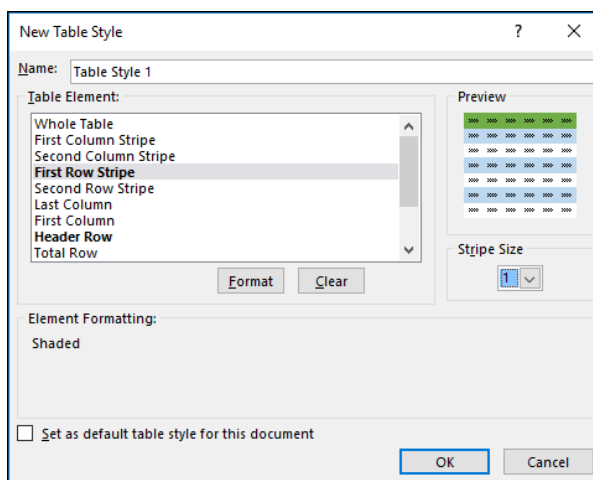
- Click the table style that you want to use.

Notes:

- **Auto Preview** - Excel will automatically format your data range or table with a preview of any style you select, but will only apply that style if you press Enter or click with the mouse to confirm it. You can scroll through the table formats with the mouse or your keyboard's arrow keys.
- When you use **Format as Table**, Excel automatically converts your data range to a table. If you don't want to work with your data in a table, you can convert the table back to a regular range while keeping the table style formatting that you applied. For more information, see [Convert an Excel table to a range of data](#).

Create a custom table style

- Select any cell in the table you want to use to create a custom style.
- On the **Home** tab, click **Format as Table**, or expand the **Table Styles** gallery from the **Table Tools > Design** tab (the **Table** tab on a Mac).
- Click **New Table Style**, which will launch the **New Table Style** dialog.



- In the **Name** box, type a name for the new table style.
- In the **Table Element** box, do one of the following:
 - To format an element, click the element, then click **Format**, and then select the formatting options you want from the **Font**, **Border** or **Fill** tabs.
 - To remove existing formatting from an element, click the element, and then click **Clear**.
- Under **Preview**, you can see how the formatting changes that you made affect the table.
- To use the new table style as the default table style in the current workbook, select the **Set as default table style for this document** check box.



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Delete a custom table style

1. Select any cell in the table from which you want to delete the custom table style.
2. On the **Home** tab, click **Format as Table**, or expand the **Table Styles** gallery from the **Table Tools > Design** tab (the **Table** tab on a Mac).
3. Under **Custom**, right-click the table style that you want to delete, and then click **Delete** on the shortcut menu.

Note: All tables in the current workbook that are using that table style will be displayed in the default table format.

Remove a table style

1. Select any cell in the table from which you want to remove the current table style.
2. On the **Home** tab, click **Format as Table**, or expand the **Table Styles** gallery from the **Table Tools > Design** tab (the **Table** tab on a Mac).
3. Click **Clear**.

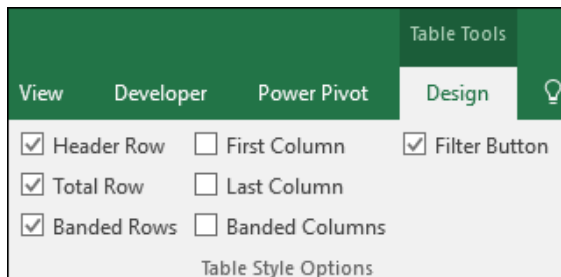
The table will be displayed in the default table format.

Note: Removing a table style does not remove the table. If you don't want to work with your data in a table, you can convert the table to a regular range.

Choose table style options to format the table elements

There are several table style options that can be toggled on and off. To apply any of these options:

1. Select any cell in the table.
2. Go to **Table Tools > Design**, or the **Table** tab on a Mac, and in the **Table Style Options** group, check or uncheck any of the following:



- **Header Row** - Apply or remove formatting from the first row in the table.
- **Total Row** - Quickly add [SUBTOTAL functions](#) like SUM, AVERAGE, COUNT, MIN/MAX to your table from a drop-down selection. SUBTOTAL functions allow you to include or ignore hidden rows in calculations.
- **First Column** - Apply or remove formatting from the first column in the table.
- **Last Column** - Apply or remove formatting from the last column in the table.
- **Banded Rows** - Display odd and even rows with alternating shading for ease of reading.
- **Banded Columns** - Display odd and even columns with alternating shading for ease of reading.
- **Filter Button** - Toggle [AutoFilter](#) on and off.



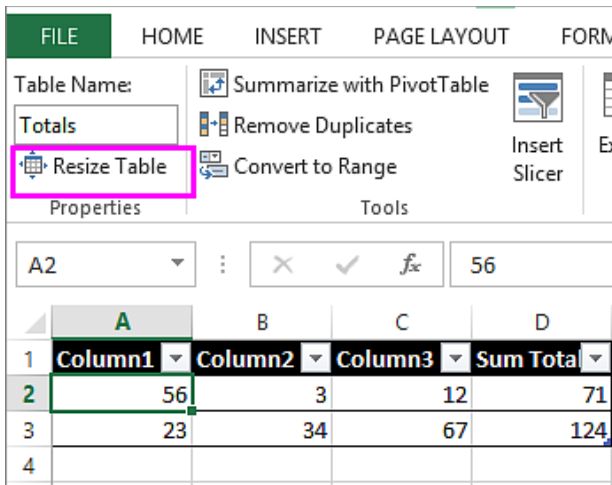
Analyze Data in Excel

Resize a table by adding or removing rows and columns

After you create an Excel table in your worksheet, you can easily add or remove table rows and columns.

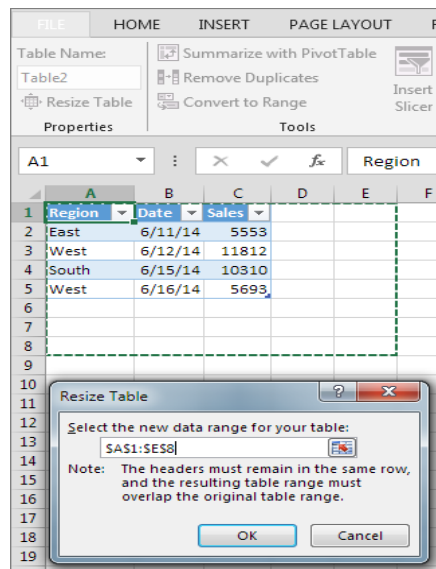
You can use the **Resize** command in Excel to add rows and columns to a table:



1. Click anywhere in the table, and the **Table Tools** option appears.
2. Click **Design > Resize Table**.



3. Select the entire range of cells you want your table to include, starting with the upper-leftmost cell.

In the example shown below, the original table covers the range A1:C5. After resizing to add two columns and three rows, the table will cover the range A1:E8.



Tip: You can also click **Collapse Dialog**  to temporarily hide the **Resize Table** dialog box, select the range on the worksheet, and then click **Expand dialog** .



Analyze Data in Excel

Delete rows or columns in a table

1. Select one or more table rows or table columns that you want to delete.

You can also just select one or more cells in the table rows or table columns that you want to delete.

2. On the **Home** tab, in the **Cells** group, click the arrow next to **Delete**, and then click **Delete Table Rows** or **Delete Table Columns**.



You can also right-click one or more rows or columns, point to **Delete** on the shortcut menu, and then click **Table Columns** or **Table Rows**. Or you can right-click one or more cells in a table row or table column, point to **Delete**, and then click **Table Rows** or **Table Columns**.

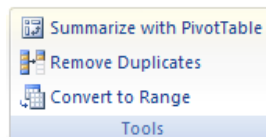
Remove duplicate rows from a table

Just as you can remove duplicates from any selected data in Excel, you can easily remove duplicates from a table.

1. Click anywhere in the table.

This displays the **Table Tools**, adding the **Design** tab.


2. On the **Design** tab, in the **Tools** group, click **Remove Duplicates**.



3. In the **Remove Duplicates** dialog box, under **Columns**, select the columns that contain duplicates that you want to remove.

You can also click **Unselect All** and then select the columns that you want or click **Select All** to select all of the columns.

Remove blank rows from a table

1. Make sure that the active cell is in a table column.
2. Click the arrow  in the column header.
3. To filter for blanks, in the AutoFilter menu at the top of the list of values, clear **(Select All)**, and then at the bottom of the list of values, select **(Blanks)**.
4. Select the blank rows in the table, and then press CTRL+- (hyphen).

You can use a similar procedure for filtering and removing blank worksheet rows.



Analyze Data in Excel

Use calculated columns in an Excel table

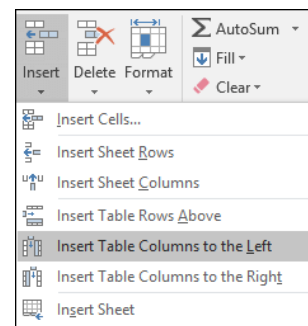
Create a calculated column

1. Create a table. If you're not familiar with Excel tables, you can learn more at: [Overview of Excel tables](#).
2. Insert a new column into the table. You can do this by typing in the column immediately to the right of the table, and Excel will automatically extend the table for you. In this example, we created a new column by typing "Grand Total" into cell D1.

	A	B	C	D
1	Product	Qtr 1	Qtr 2	Grand Total
2	Chocolade	\$744.60	\$162.56	
3	Gummibarchen	New column added by typing "Grand Total" in cell D1		
4	Scottish Longbreads	\$1,267.50	\$1,062.50	
5	Sir Rodney's Scones	\$1,418.00	\$756.00	
6	Tarte au sucre	\$4,728.00	\$4,547.92	
7	Chocolate Biscuits	\$943.89	\$349.60	
8	Total	\$14,181.59	\$8,127.78	\$0.00

Tips:

- You can also add a table column from the **Home** tab. Just click on the arrow for **Insert > Insert Table Columns to the Left**.



3. Type the formula that you want to use, and press **Enter**.

B	C	D	E
Qtr 1	Qtr 2	Grand Total	
\$744.60	\$162.56	=sum(Table1[@[Qtr 1]:[Qtr 2]])	
\$5,079.60	\$1,249.20	SUM(number1, [number2], ...)	
\$1,267.50	\$1,062.50		
\$1,418.00	\$756.00		
\$4,728.00	\$4,547.92		
\$943.89	\$349.60		
\$14,181.59	\$8,127.78	\$0.00	

In this case we entered `=sum(`, then selected the **Qtr 1** and **Qtr 2** columns. As a result, Excel built the formula: `=SUM(Table1[@[Qtr 1]:[Qtr 2]])`. This is called a **structured reference** formula, which is unique to Excel tables. The structured reference format is what allows the table to use the same formula for each row. A regular Excel formula for this would be `=SUM(B2:C2)`, which you would then need to copy or fill down to the rest of the cells in your column

4. When you press **Enter**, the formula is automatically filled into all cells of the column — above as well as below the cell where you entered the formula. The formula is the same for each row, but since it's a structured reference, Excel knows internally which row is which.



B	C	D
Qtr 1	Qtr 2	Grand Total
\$744.60	\$162.56	\$907.16
\$5,079.60	\$1,249.20	\$6,328.80
\$1,267.50	\$1,062.50	\$2,330.00
\$1,418.00	\$756.00	\$2,174.00
\$4,728.00	\$4,547.92	\$9,275.92
\$943.89	\$349.60	\$1,293.49
\$14,181.59	\$8,127.78	\$22,309.37



Analyze Data in Excel

Sort and Filter



Sort text

1. Select a cell in the column you want to sort.
2. On the **Data** tab, in the **Sort & Filter** group, do one of the following:
 - To quick sort in ascending order, click  (**Sort A to Z**).
 - To quick sort in descending order, click  (**Sort Z to A**).

Notes: Potential Issues

- **Check that all data is stored as text** If the column that you want to sort contains numbers stored as numbers and numbers stored as text, you need to format them all as either numbers or text. If you do not apply this format, the numbers stored as numbers are sorted before the numbers stored as text. To format all the selected data as text, Press **Ctrl+1** to launch the **Format Cells** dialog, click the **Number** tab and then, under **Category**, click **General**, **Number**, or **Text**.
- **Remove any leading spaces** In some cases, data imported from another application might have leading spaces inserted before data. Remove the leading spaces before you sort the data. You can do this manually, or you can use the [TRIM function](#).



Sort numbers

1. Select a cell in the column you want to sort.
2. On the **Data** tab, in the **Sort & Filter** group, do one of the following:
 - To sort from low to high, click  (**Sort Smallest to Largest**).
 - To sort from high to low, click  (**Sort Largest to Smallest**).

Notes:

- **Check that all numbers are stored as numbers** If the results are not what you expected, the column might contain numbers stored as text instead of as numbers. For example, negative numbers imported from some accounting systems, or a number entered with a leading apostrophe (') are stored as text.

Sort dates or times

1. Select a cell in the column you want to sort.
2. On the **Data** tab, in the **Sort & Filter** group, do one of the following:
 - To sort from an earlier to a later date or time, click  (**Sort Oldest to Newest**).
 - To sort from a later to an earlier date or time, click  (**Sort Newest to Oldest**).

Notes: Potential Issue

- **Check that dates and times are stored as dates or times** If the results are not what you expected, the column might contain dates or times stored as text instead of as dates or times. For Excel to sort dates and times correctly, all dates and times in a column must be stored as a date or time serial number. If Excel cannot recognize a value as a date or time, the date or time is stored as text.
- If you want to sort by days of the week, format the cells to show the day of the week. If you want to sort by the day of the week regardless of the date, convert them to text by using the [TEXT function](#). However, the TEXT function returns a text value, so the sort operation would be based on alphanumeric data.



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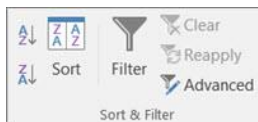
Sort by more than one column or row

You may want to sort by more than one column or row when you have data that you want to group by the same value in one column or row, and then sort another column or row within that group of equal values. For example, if you have a Department column and an Employee column, you can first sort by Department (to group all the employees in the same department together), and then sort by name (to put the names in alphabetical order within each department). You can sort by up to 64 columns.

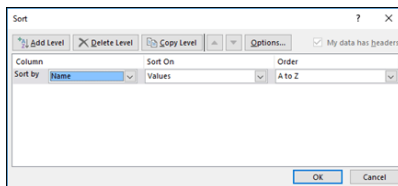
1. Select any cell in the data range.

	A	B
1	Name	Department
2	Pruitt, Barbara	Sales
3	Fife, Grant	Marketing
4	Snook, Anthony	Operations
5	Horn, Frances	Finance
6	Barrett, Alicia	Credit
7	Larson, Lynn	Payroll
8	Brown, Charity	Sales
9	Bartels, Freddy	Marketing
10	Harding, Marcella	Operations
11	Reuter, Randall	Finance
12	McDaniel, Evelyn	Credit

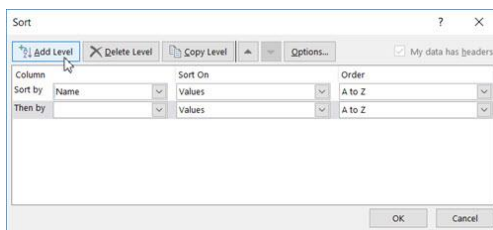
2. On the **Data** tab, in the **Sort & Filter** group, click **Sort**.



3. In the **Sort** dialog box, under **Column**, in the **Sort by** box, select the first column that you want to sort.



4. Under **Sort On**, select the type of sort. Do one of the following:
 - To sort by text, number, or date and time, select **Values**.
 - To sort by format, select **Cell Color**, **Font Color**, or **Cell Icon**.
5. Under **Order**, select how you want to sort. Do one of the following:
 - For text values, select **A to Z** or **Z to A**.
 - For number values, select **Smallest to Largest** or **Largest to Smallest**.
 - For date or time values, select **Oldest to Newest** or **Newest to Oldest**.
 - To sort based on a custom list, select **Custom List**.
6. To add another column to sort by, click **Add Level**, and then repeat steps three through five.





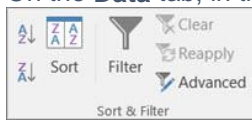
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7. To copy a column to sort by, select the entry and then click **Copy Level**.
8. To delete a column to sort by, select the entry and then click **Delete Level**.
Note: You must keep at least one entry in the list.
9. To change the order in which the columns are sorted, select an entry and then click the **Up** or **Down** arrow next to the **Options** button to change the order.
Entries higher in the list are sorted before entries lower in the list.

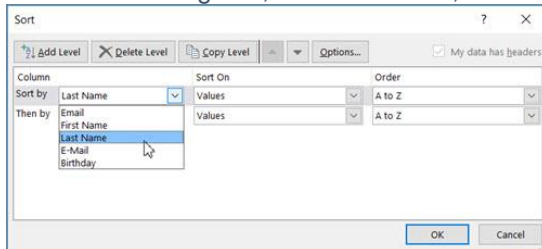
Sort by cell color, font color, or icon

If you have manually or conditionally formatted a range of cells or a table column by cell color or font color, you can also sort by these colors. You can also sort by an icon set that you created with conditional formatting.

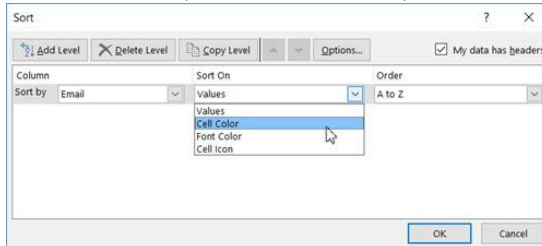
1. Select a cell in the column you want to sort.
2. On the **Data** tab, in the **Sort & Filter** group, click **Sort**.



3. In the **Sort** dialog box, under **Column**, in the **Sort by** box, select the column that you want to sort.



4. Under **Sort On**, select **Cell Color**, **Font Color**, or **Cell Icon**.



5. Under **Order**, click the arrow next to the button and then, depending on the type of format, select a cell color, font color, or cell icon.
6. Next, select how you want to sort. Do one of the following:
 - To move the cell color, font color, or icon to the top or to the left, select **On Top** for a column sort, and **On Left** for a row sort.
 - To move the cell color, font color, or icon to the bottom or to the right, select **On Bottom** for a column sort, and **On Right** for a row sort.

Note: There is no default cell color, font color, or icon sort order. You must define the order that you want for each sort operation.

7. To specify the next cell color, font color, or icon to sort by, click **Add Level**, and then repeat steps three through five.

Make sure that you select the same column in the **Then by** box and that you make the same selection under **Order**. Keep repeating for each additional cell color, font color, or icon that you want included in the sort.



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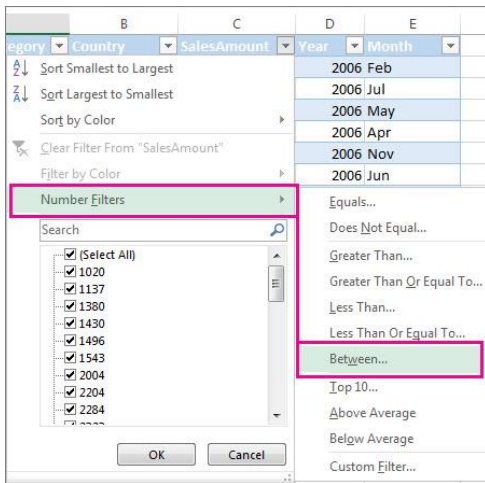
Filter data in a range or table

Filter a range of data

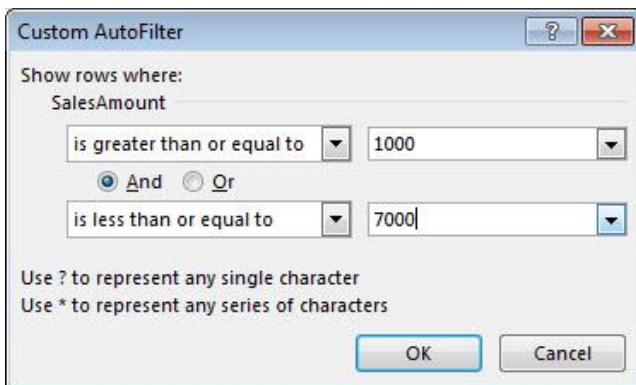
1. Select any cell within the range.
2. Select **Data > Filter**.



3. Select the column header arrow .
4. Select **Text Filters** or **Number Filters**, and then select a comparison, like **Between**.



5. Enter the filter criteria and select **OK**.





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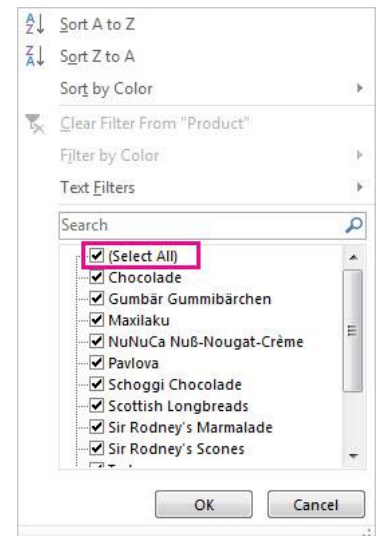
Filter data in a table

When you [put your data in a table](#), filter controls are automatically added to the table headers.

	A	B	C	D	E	F	G
1	Product	Qty 1	Qty 2	Qty 3	Qty 4	Grand Total	Average Sales
2	Chocolade	\$ 744.80	\$ 162.55	\$ 68.95	\$ 306.00	\$ 1,282.30	\$ 744.80
3	Gumbär Gummibärchen	\$ 5,079.60	\$ 1,249.20	\$ 2,061.17	\$ 2,835.68	\$ 11,225.65	\$ 2,806.41
4	Maxilaku	\$ 1,605.60	\$ 620.00	\$ 835.00	\$ -	\$ 3,060.60	\$ 765.15
5	NuNuCa Nuß-Nougat-Crème	\$ 193.20	\$ 865.20	\$ -	\$ 493.50	\$ 1,551.90	\$ 517.30
6	Pavlova	\$ 1,685.36	\$ 2,646.08	\$ 1,849.70	\$ 999.01	\$ 7,180.15	\$ 1,795.04
7	Schoggi Chocolate	\$ 1,755.00	\$ 5,268.00	\$ 2,195.00	\$ 1,756.00	\$ 10,974.00	\$ 2,743.50
8	Scottish Longbreads	\$ 1,267.50	\$ 1,062.50	\$ 492.50	\$ 1,935.00	\$ 4,757.50	\$ 1,189.38
9	Sir Rodney's Marmalade	\$ -	\$ 4,252.50	\$ 1,360.80	\$ 1,701.00	\$ 7,314.30	\$ 2,438.10
10	Sir Rodney's Scones	\$ 1,418.00	\$ 756.00	\$ 1,733.00	\$ 1,434.00	\$ 5,341.00	\$ 1,335.25
11	Tarte au sucre	\$ 4,728.00	\$ 4,547.92	\$ 5,472.30	\$ 6,014.60	\$ 20,762.82	\$ 5,190.71
12	Teabime Chocolate Biscuits	\$ 943.89	\$ 349.60	\$ 841.80	\$ 204.70	\$ 2,339.99	\$ 585.00
13	Valkoinen suklaa	\$ 845.00	\$ -	\$ 385.94	\$ 942.50	\$ 2,173.44	\$ 724.48
14	Zaanse koeken	\$ 817.00	\$ 285.95	\$ 668.80	\$ 1,159.00	\$ 2,930.75	\$ 732.69
15	Total	\$21,082.75	\$22,065.51	\$17,964.86	\$19,780.99	\$ 80,894.11	\$ 1,626.42

1. Select the column header arrow for the column you want to filter.
2. Uncheck **(Select All)** and select the boxes you want to show.
3. Click **OK**.

The column header arrow changes to a **Filter** icon. Select this icon to change or clear the filter.



Charts

Create a Chart

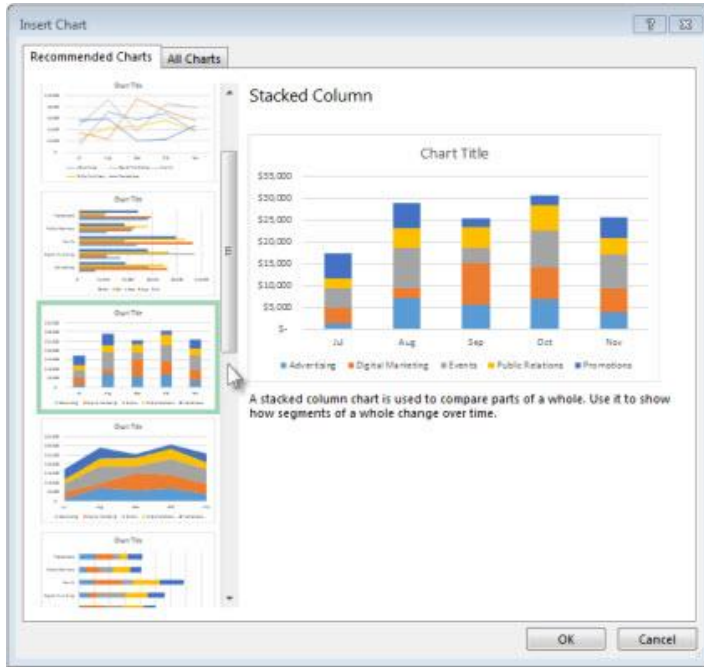
1. [Select the data](#) you want to use for your chart.
2. Click **Insert > Recommended Charts**.



3. On the **Recommended Charts** tab, scroll through the list of charts that Excel recommends for your data, and click any chart to see how your data will look.

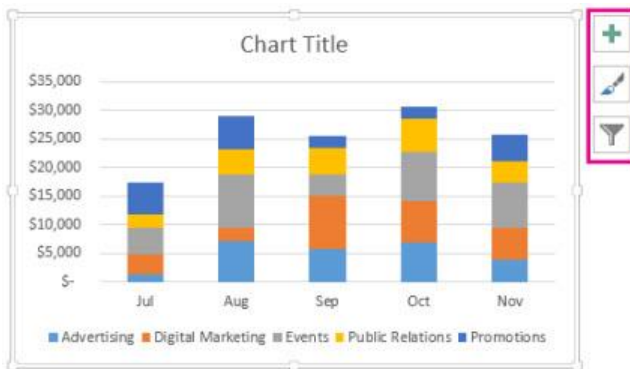


Analyze Data in Excel

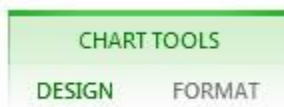


Tip: If you don't see a chart you like, click **All Charts** to see all available chart types.

4. When you find the chart you like, click it > **OK**.
5. Use the **Chart Elements**, **Chart Styles**, and **Chart Filters** buttons next to the upper-right corner of the chart to add chart elements like [axis titles](#) or [data labels](#), [customize the look of your chart](#), or change the data that's shown in the chart.



6. To access additional design and formatting features, click anywhere in the chart to add the **Chart Tools** to the ribbon, and then click the options you want on the **Design** and **Format** tabs.





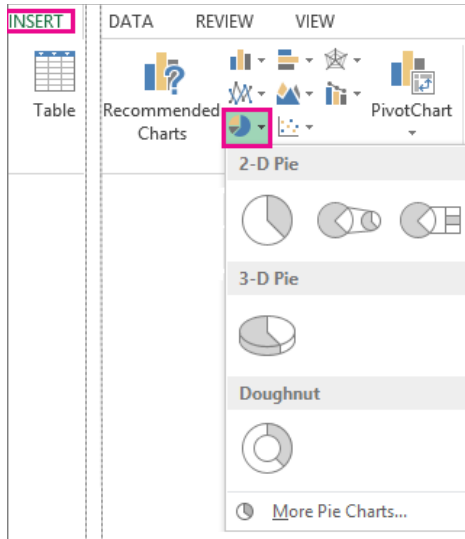
Analyze Data in Excel

Add a Pie Chart

1. In your spreadsheet, [select the data](#) to use for your pie chart.

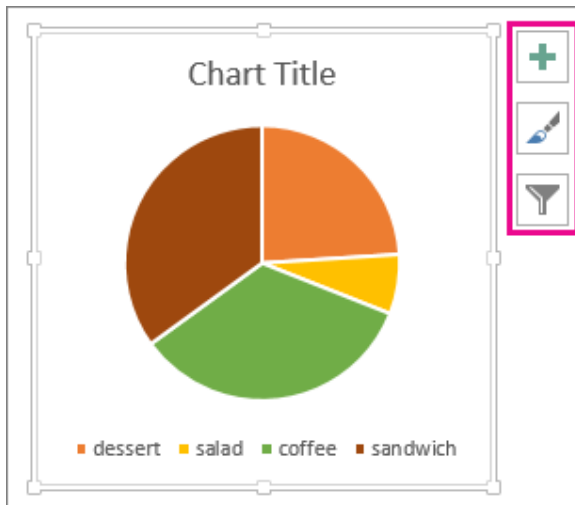
For more information about how pie chart data should be arranged, see [Data for pie charts](#).

2. Click **Insert > Insert Pie or Doughnut Chart**, and then pick the chart you want.



3. Click the chart and then click the icons next to the chart to add finishing touches:

- To show, hide, or format things like [axis titles](#) or [data labels](#), click **Chart Elements**  .
- To quickly [change the color or style of the chart](#), use the **Chart Styles**  .
- To [show or hide data in your chart](#) click **Chart Filters**  .





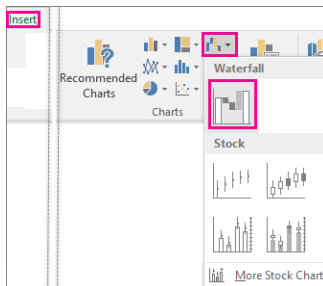
Analyze Data in Excel

Create a waterfall chart

1. Select your data.

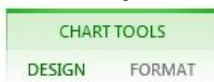
	A	B
1	Revenue	23,201
2	Cost of goods	(8,273)
3	Gross margin	14,928
4	Administrative expense	(1,151)
5	Net income	13,777

2. Click **Insert > Insert Waterfall or Stock chart > Waterfall**.



You can also use the **All Charts** tab in **Recommended Charts** to create a waterfall chart.

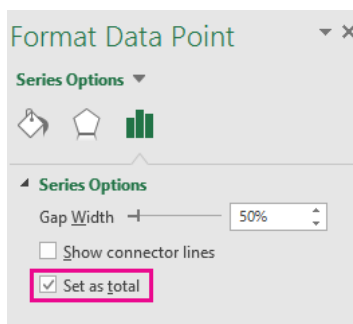
Tip: Use the **Design** and **Format** tabs to customize the look of your chart. If you don't see these tabs, click anywhere in the waterfall chart to add the **Chart Tools** to the ribbon.



Start subtotals or totals from the horizontal axis

If your data includes values that are considered Subtotals or Totals, such as Net Income, you can set those values so they start on the horizontal axis at zero and don't "float".

- Double-click a data point to open the **Format Data Point** task pane, and check the **Set as total** box.



Note: If you single-click the column, you'll select the data series and not the data point.

To make the column "float" again, uncheck the **Set as total** box.

Tip: You can also set totals by right-clicking on a data point and picking **Set as Total** from the shortcut menu.

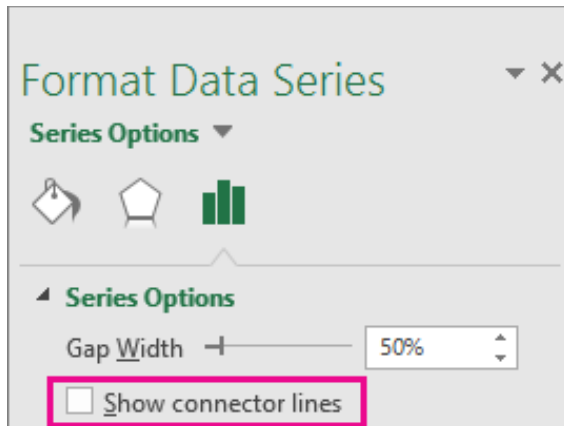


Analyze Data in Excel

Show or hide connector lines

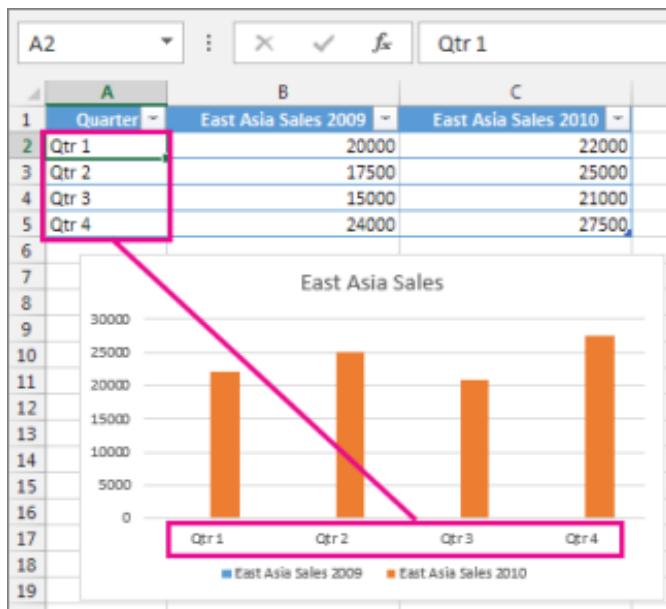
Connector lines connect the end of each column to the beginning of the next column, helping show the flow of the data in the chart.

- To hide the connector lines, right-click a data series to open the **Format Data Series** task pane, and uncheck the **Show connector lines** box. To show the lines again, check the **Show connector lines** box.



Change Axis labels on a Chart

- Click each cell in the worksheet that contains the label text you want to change.
- Type the text you want in each cell, and press Enter.



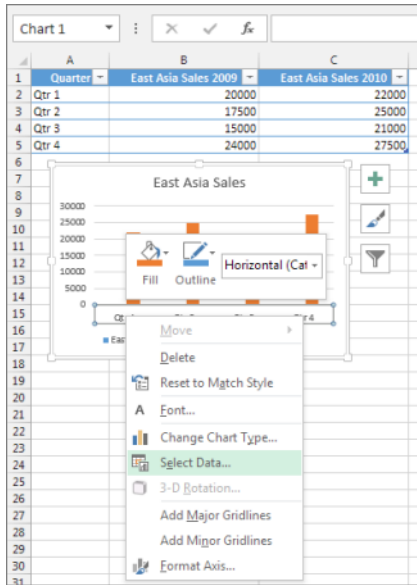
As you change the text in the cells, the labels in the chart are updated.



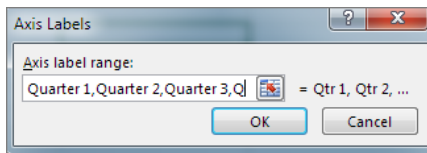
Analyze Data in Excel

To keep the text in the source data on the worksheet the way it is, and just create custom labels, you can enter new label text that's independent of the worksheet data:

1. Right-click the category labels you want to change, and click **Select Data**.



2. In the **Horizontal (Category) Axis Labels** box, click **Edit**.
3. In the **Axis label range** box, enter the labels you want to use, separated by commas.



For example, type **Quarter 1,Quarter 2,Quarter 3,Quarter 4**.



Analyze Data in Excel

Change the format of text and numbers in labels

To change the format of text in category axis labels:

1. Right-click the category axis labels you want to format, and click **Font**.
2. On the **Font** tab, choose the formatting options you want.
3. On the **Character Spacing** tab, choose the spacing options you want.

To change the format of numbers on the value axis:

1. Right-click the value axis labels you want to format.
2. Click **Format Axis**.
3. In the **Format Axis** pane, click **Number**.
4. Choose the number format options you want.

If the number format you choose uses decimal places, you can specify them in the **Decimal places** box.

5. To keep numbers linked to the worksheet cells, check the **Linked to source** box.

Note: Before you format numbers as percentages, make sure that the numbers shown on the chart have been calculated as percentages in the worksheet, or are shown in decimal format like **0.1**. To calculate percentages on the worksheet, divide the amount by the total. For example, if you enter **=10/100** and format the result **0.1** as a percentage, the number is correctly shown as **10%**.

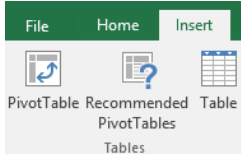
Tip: An axis label is different from an axis title, which you can add to describe what's shown on the axis. Axis titles are not automatically shown in a chart..



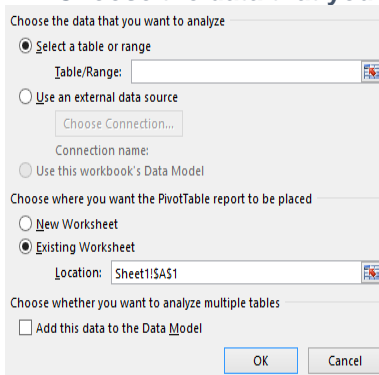
Analyze Data in Excel

Create a PivotTable to analyze worksheet data

1. Select the cells you want to create a PivotTable from.
Note: Your data shouldn't have any empty rows or columns. It must have only a single-row heading.
2. Select **Insert > PivotTable**.



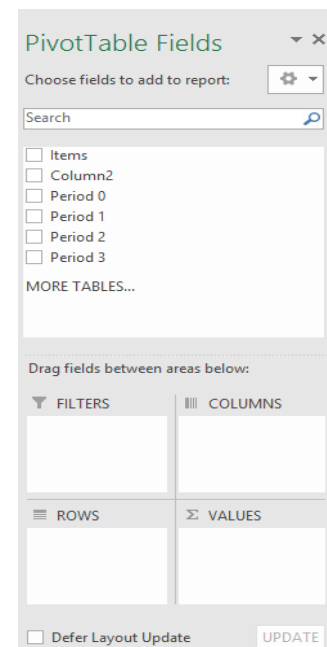
3. Under **Choose the data that you want to analyze**, select **Select a table or range**.



4. In **Table/Range**, verify the cell range.
5. Under **Choose where you want the PivotTable report to be placed**, select **New worksheet** to place the PivotTable in a new worksheet or **Existing worksheet** and then select the location you want the PivotTable to appear.
6. Select **OK**.

Building out your PivotTable

1. To add a field to your PivotTable, select the field name checkbox in the **PivotTables Fields** pane.
2. To move a field from one area to another, drag the field to the target area



[Click to watch the "Create a Pivot Table" Video](#)

For more information, please refer to the Microsoft training resource page [HERE](#)