

Intermediate Excel Tips and Tricks



Excel is fun.

I promise.

Reed Miller

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Tips for Google Docs

If you have a Google Docs account (docs.google.org) you can create and store and share many types of documents online. People often use them because it is easy for multiple people to collaborate.

Tips:

- **Backup often.** It is possible to go back to prior versions, but remember that if it is a shared spreadsheet, anyone can accidentally delete all the contents! The best way to be safe is to download the spreadsheet into Excel format, creating a folder of subsequent backups.
- **Make a form!** If you need to gather a standard type of data from several people (like Name, Address, favorite movie, best day of the week to meet) etc., why make everyone go in there and edit a boring table? Forms are so much more fun (you can apply fun themes).
 - You can make some answers required.
 - There are many ways to ask for the information (response types include: text, paragraph, checkboxes, multiple choice, scale and grid).
 - Each entry is time-stamped, so you know when it was received.
 - **SHARE THE FORM!**
 - Send it in an email
 - Embed it a website
- **Share the results!**
 - Under Share, you can Publish As Web Page. This allows you to publish the entire spreadsheet, or selected tables, or selected cells within tables to a webpage. You can also use this function to get HTML code to embed in a website!
 - Use bitly.com or tinyurl.com to make a much shorter URL for your published page!
- **Don't do major editing online.** Google Docs is free, and slow. If you need to do calculations, or change a lot on your spreadsheet, or make charts, download it and open it in Excel.
 - Except for some formatting, you can usually then upload the Excel sheet to Google Docs once again!
- **Fancy formulas are in Excel.** You just can't do as much in Google Docs as you can in Excel.

Efficient Data Entry & Data Importing

Efficient Data Entry

The first row is better than the second! Each column can be sorted (put in an order), or the number of “Rafters” could be counted, or the number of people in 54545 could be determined. If you wanted specific street level data, split up column D into two columns, number and street!

	A	B	C	D	E	F	G	H
1	Trent	J	Rafter	32 Apple St	Apt #2	San Jose	CA	54545
2	Trent J Rafter	32 Apple St Apt #2 San Jose CA 54545						

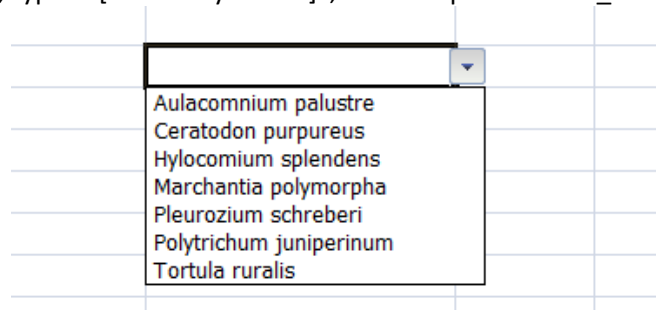
Lists!

Say, for example, you took a survey of 100 of your friend’s favorite Bryophyte (type of moss). I wouldn’t want to type “Aulacomnium palustre” 50 times. If I mistyped, then wanted to count them later, excel won’t recognize that “Aulacomnium paluster” is not the same thing. You can make a pull-down list for the column(s) you want to enter that data in, so you just click instead of type!

BRYOPHYTES		
Abbreviation	Species	Common Name
AULPAL	Aulacomnium palustre	ribbed bog moss
CERPUR	Ceratodon purpureus	fire moss
HYLSPL	Hylocomium splendens	splendid feather moss
MARPOL	Marchantia polymorpha	liverwort
PLESCH	Pleurozium schreberi	Schreber's moss
POLJUN	Polytrichum juniperinum	juniper haircap moss
TORRUR	Tortula ruralis	twisted moss

Steps:

1. Create the list by typing or pasting. Tip: Keep it out of the way, on a new sheet.
2. Highlight the list, and in the Name Box, give it one-word name!
3. Highlight the column (or row) that you want the drop down to be.
4. Under Data>Data Validation: select “List” under “Allow:”
5. Under “Source”, type “=[name of your list]”, for example: =Plant_List



Importing Data

- A handy way to pull in data from websites is to use the Data> From Web feature. For many types of online data, Excel let's you paste in the URL, then select which data to import. It then brings in tables you selected, so you don't need to copy & paste and worry about formatting.
- If you are getting data from a Google Spreadsheet, the easiest thing to do is download it, not copy and paste. Once you've made changes, you can Save and Upload back to Google Docs!
- Bringing in tables from PDFs is often a drag; tables rarely paste well. Use the Text Import Wizard, and see if there is a "delimiter", such as a space or a comma, which separates the columns.

Manipulating Text

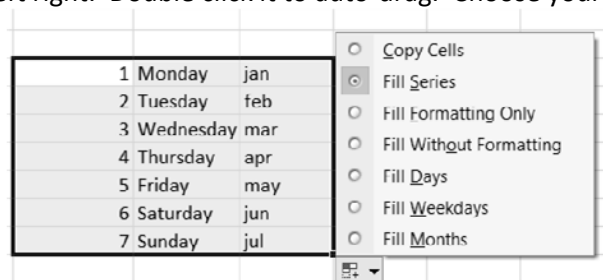
- If you have a string of words in one cell that you would like to spilt into multiple columns, use the Data> Text-to-Columns feature. Note, this features requires a "delimiter" like a space or a comma to distinguish which words should be separated into columns, and the "delimiter" will be deleted.
- If you have words or numbers in several columns that you would like to aggregate into one cell:

	A	B	C	D	E
1	Travis	Reed	Miller	Veg	Travis Miller and Veg
2					Travis Miller and Veg

- Use the Concatenate function. For example, type in E1: =concatenate(A1,C1, "and",D1). Using quotation marks, you can insert text or numbers not included in cells. Drag the formula to apply it to many rows!
- The same operation happens using &. For example, =A1&C1& "and"&D1
- If you are going to use "Wrap Text" so that the cell contents spans several lines, you can insert line breaks using "char(10)". For example, type in E2: =A1&C1&char(10)&"and"&D1 would result in the contents of A1 and C1 on the top line, with "and" and the contents of D1 on the bottom line

Drag It

Often you want to copy something into many cells, or continue the pattern 1,2,3 with 4,5,6,7 etc., or Monday, Tuesday, Wednesday with Thursday, Friday, or Jan, Feb, Mar, with Apr, May, Jun (or drag a formula). When you highlight a cell or selection, there is a black box at the bottom right. Click and hold onto it to drag up/down/left right. Double click it to auto-drag. Choose your preference from the list!



Referencing (when dragging)

	A	B	C
1		2.54	cm/in
2			
3		Height (in)	Height (cm)
4		60	=B4*\$B\$1
5		64	
6		70	
7		62	
8		58	
9		63	

Consider this situation, where we want to convert heights from inches to cm. We know the conversion factor is 1 in = 2.54 cm (cell B1). We want to multiply each height in row B by cell B1. We need to create an “absolute reference” to cell B1, by using \$ and making it \$B\$1. Each \$ locks the reference to the column or row. When a cell is highlighted, hitting the F4 key will turn the reference B1 into \$B\$1. Hitting it again will cycle it through B\$1, \$B1 and back to B1. After entering the formula, when dragging the right handle on C4 down through C9, the formula in C9 will be: =B9*\$B\$1

Imagine for some reason you want to know the height plus an additional 2 cm, 4cm and 6cm. If we lock column C using \$C, we can drag the formula in cell D4 to the right and it will reference correctly.

	A	B	C	D	E	F
1		2.54	cm/in			
2						
3		Height (in)	Height (cm)	Height + 2cm	Height + 4cm	Height + 6cm
4		60	152.4	=C4+2		
5		64	162.56			
6		70	177.8			
7		62	157.48			
8		58	147.32			
9		63	160.02			

Freeze Panes

If you are entering lots of information in a particular row, and it would be useful to know the contents of the first few columns (or vice versa, entering lots of information in a column and would like to know the contents of the first few rows), you can freeze them! For example, if you’re entering lots of information about a volunteer, it would be useful to see their name while you type in their attributes.

Under the View tab, select Freeze Panes. You can easily freeze the top row or first column by selecting either (or both). To freeze

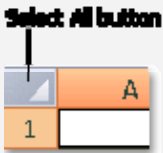
Grouping

Whether you’d like to organize columns or rows into hierarchical categories, or if you’d like to hide the details and look at the totals, grouping can help! Use the + or – buttons to expand / collapse them.

Highlight the rows or columns you’d like to be able to hide. Under the Data tab, choose Group!

	1	A	B	C	D	E	F	G	H
1			Sales	Supplies	Wages	Rent	Total Expenses	Profit	
2	January	\$	25,000.00	\$ 4,940.00	\$ 5,000.00	\$ 1,099.00	\$ 11,039.00	\$ 13,961.00	
3	February	\$	25,173.00	\$ 4,940.00	\$ 5,000.00	\$ 1,099.00	\$ 11,039.00	\$ 14,134.00	
4	March	\$	25,346.00	\$ 4,940.00	\$ 5,000.00	\$ 1,099.00	\$ 11,039.00	\$ 14,307.00	
5	Quartely totals	\$	75,519.00	\$ 14,820.00	\$ 15,000.00	\$ 3,297.00	\$ 33,117.00	\$ 42,402.00	

+How to select cells, ranges, rows, or columns

TO SELECT	DO THIS
A single cell	Click the cell, or press the arrow keys to move to the cell.
A range of cells	Click the first cell in the range, and then drag to the last cell, or hold down SHIFT while you press the arrow keys to extend the selection. You can also select the first cell in the range, and then press F8 to extend the selection by using the arrow keys. To stop extending the selection, press F8 again.
A large range of cells	Click the first cell in the range, and then hold down SHIFT while you click the last cell in the range. You can scroll to make the last cell visible.
All cells on a worksheet	Click the Select All button.  To select the entire worksheet, you can also press CTRL+A. NOTE If the worksheet contains data, CTRL+A selects the current region. Pressing CTRL+A a second time selects the entire worksheet.
Nonadjacent cells or cell ranges	Select the first cell or range of cells, and then hold down CTRL while you select the other cells or ranges. You can also select the first cell or range of cells, and then press SHIFT+F8 to add another nonadjacent cell or range to the selection. To stop adding cells or ranges to the selection, press SHIFT+F8 again. NOTE You cannot cancel the selection of a cell or range of cells in a nonadjacent selection without canceling the entire selection.
An entire row or column	Click the row or column heading.  1 Row heading 2 Column heading You can also select cells in a row or column by selecting the first cell and then pressing CTRL+SHIFT+ARROW key (RIGHT ARROW or LEFT ARROW for rows, UP ARROW or DOWN ARROW for columns). NOTE If the row or column contains data, CTRL+SHIFT+ARROW key selects the row or column to the last used cell. Pressing CTRL+SHIFT+ARROW key a second time selects the entire row or column.
Adjacent rows or columns	Drag across the row or column headings. Or select the first row or column; then hold down SHIFT while you select the last row or column.
Nonadjacent rows or columns	Click the column or row heading of the first row or column in your selection; then hold down CTRL while you click the column or row headings of other rows or columns that you want to add to the selection.
The first or last cell in a row or column	Select a cell in the row or column, and then press CTRL+ARROW key (RIGHT ARROW or LEFT ARROW for rows, UP ARROW or DOWN ARROW for columns).

Formatting data

Now that you've typed, pasted or imported your data, why not make it look nice? If you don't have to show it to anyone else, at least do it to make the grid a bit easier on the eyes!

Formatting cells

- "Number" types (each have options): Number, Currency, Accounting, Date, Time, Percentage, Fraction, Scientific, Text, Special, Custom
- Font, font size, font color, **Bold**, *italics*, underline
- Borders!
 - In the Font Section of the home tab, you can draw borders (sometimes thought of as gridlines) around cells, or boxes around groups of cells. There's also thick bottom borders and thick boxes!
- **Cell color!** Make it pretty while you work, or use colors to distinguish different information.
 - Explore the Cell Styles on the Home Tab for easy consistency.
- Conditional formatting

In the Styles section of the Home tab, Conditional Formatting offers many options:

	A	B	C	D
1	Date	Donations	Donations	Donations
2	1/2/2010	\$ 4.00	\$ 4.00	○ \$ 4.00
3	1/9/2010	\$ 10.00	\$ 10.00	○ \$ 10.00
4	1/16/2010	\$ 37.00	\$ 37.00	○ \$ 37.00
5	1/23/2010	\$ 64.00	\$ 64.00	◐ \$ 64.00
6	1/30/2010	\$ 91.00	\$ 91.00	◑ \$ 91.00
7	2/6/2010	\$ 118.00	\$ 118.00	◒ \$ 118.00
8	2/13/2010	\$ 145.00	\$ 145.00	◓ \$ 145.00
9	2/20/2010	\$ 172.00	\$ 172.00	◔ \$ 172.00
10	2/27/2010	\$ 199.00	\$ 199.00	◕ \$ 199.00
11	3/6/2010	\$ 226.00	\$ 226.00	◖ \$ 226.00
12	3/13/2010	\$ 253.00	\$ 253.00	◗ \$ 253.00

- - Selecting "New Rule" from the list of Conditional Formatting options lets you create customized formatting based on custom criteria.

Formatting the sheet

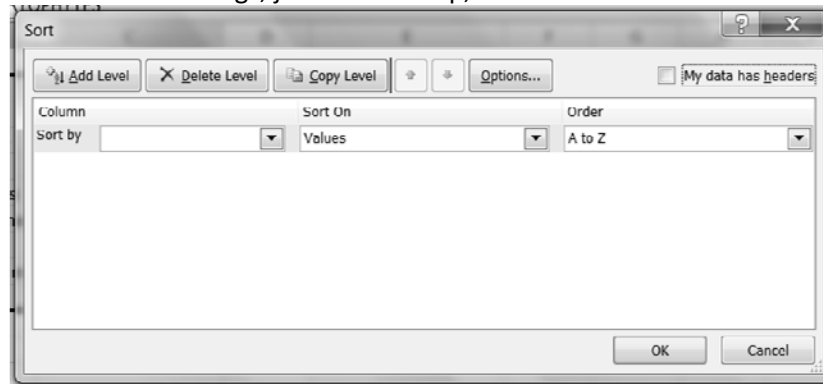
- Templates!
 - Want to make a standard sheet? No need to re-invent the wheel. Use a pro's template!
 - Create a New Workbook, and choose from among the pre-installed templates or download a template from the internet.
 - For example, invoices, receipts, and budgets
- Formatting as Tables
 - After highlighting a selection of data, you can use Format as Table and select a style so that your data has borders or alternating colored (zebra stripe) rows

	A	B	C	D
1	Column1	Column2	Column3	Column4
2				
3				
4				
5				
6				
7				

Sorting & Filtering Data

Sorting

Why sort? Lots of reasons! Rank things, jumble them up, then re-rank them in a click



- Highlight the area you would like to sort. If you only highlight a few columns out of many, it will offer to expand the selection (usually the right choice) so that the contents of the current rows stay united after the sort. Use CTRL+A to highlight the whole sheet.
 - If you have frozen rows or columns and use CTRL+A, you may need to do it twice.

Select All button

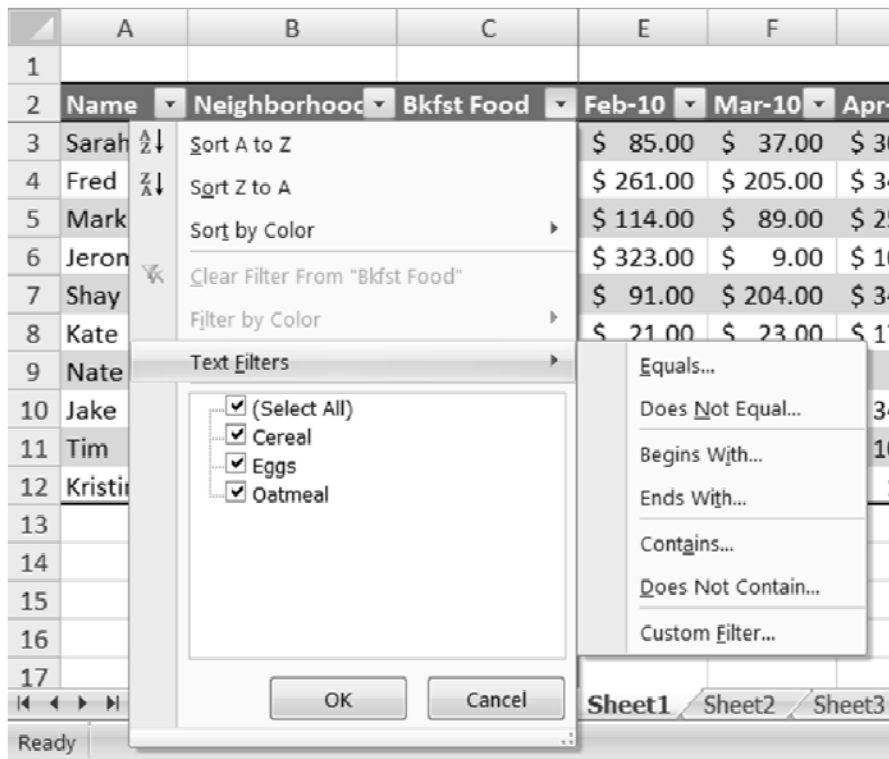


- Or you can use this button:
- If you labeled your columns/rows and highlighted the labels, click the “My data has headers” so that selecting what item to Sort By is easier.
 - If you highlighted your labels and don’t check the box, they will get sorted as well!
- Under Options you can select to sort the standard Top to Bottom or Left to Right, and also select if it is Case Sensitive.
- Multi-level sorts allow you to sort in order a series of columns or rows; for example: last name A-Z, then by cell color of volunteer status, then low to high by donation amount.
 - Use Add Level to do so! Messed up? Changed your mind? Delete that level!
- If you plan on sorting and you want to point out that some rows are different than others (such as this person has paid), don’t use **bold** or *italics*; you can’t sort by them.
 - Either add an additional column with the additional information, or assign a cell or font color. You can sort by the new column, or by the colors. New columns are a safer bet.
- Want to arrange things in a specific order that’s not alphabetical or high-low? For example, you want to order the rows so that from top to bottom it is: Elected Official, Volunteer, CEO, Staff, you can create a custom list!
- FUN TRICK! Want to sort your rows randomly? Follow these steps:
 1. Make a new column, (labeled “Random”, say)
 2. In the top row, type: =rand()
 3. Drag the formula down to the end of your filled rows
 4. Highlight these cells you just filled with a random number between 0 and 1.
 5. Copy them, CTRL+C, and then click on that top cell again
 6. On the Home tab, click Paste>Paste Values (otherwise the numbers keep changing)
 7. Now highlight your sheet, and sort by the Random column! Voila!

Filtering

Do you have rows and rows and rows of data, and really you just want to know what's the data for one subset? For example, you want to quickly see the rows from all your members in Jamaica Plain. If "Neighborhood" is a column, you can "Filter" for just the JP folks.

- Highlight a row with column headers and selecting Filter under the Data tab
- Click the arrow on the column header you are interested in filtering by
- Filter the data by either:
 - Check / Uncheck the boxes of row types you want to filter by
 - Use the Number Filter or Text Filter options to create more customized filters!
- Multiple Filters
 - If you want to filter the data to only see subsets of multiple column types, you can simultaneously filter by several columns!



Using Basic & Fancy Formulas

When you type a formula, always put “=” first, then “(“ ending with “)”. For example: =sum(G4:G9)
As you type, excel will tell you what contents are required to execute the formula. After closing the “)”, hit enter. To edit the formula, use the F2 key. You can always edit it in the formula bar (looks like the bar in you type a URL in online).

For example:

\$ 100.00
\$ 450.00
\$ 32.00
\$ 576.00
\$ 785.00
\$ 12.00
=sum(G4:G9)

SUM(number1, [number2], ...)

Note, you do not need to literally type “G4:G9”. Instead, after typing the “(“, you can highlight the cells! For more complicated formulas, type “,” in between each piece of content asked for. If you want to choose specific cells, hold down CTRL and click each.

Confused about how a formula works? Use Excel Help often! Search online forums for tips!

Sums

These are really useful for adding things up! A row, a column, a rectangle full of cells, individual cells...

- [SUM](#) Adds its arguments
- [SUMIF](#) Adds the cells specified by a given criteria

Simple Statistics

- [AVERAGE](#) Returns the average of its arguments
- [STDEV](#) Estimates standard deviation based on a sample
- [MEDIAN](#) Returns the median of the given numbers
- [MAX](#) Returns the maximum value in a list of arguments
- [MIN](#) Returns the minimum value in a list of arguments
- [MODE](#) Returns the most common value in a data set
- [RANK](#) Returns the rank of a number in a list of numbers

Count

These come in handy more often than you think.

- [COUNT](#) Counts how many numbers are in the list of arguments
- [COUNTA](#) Counts how many values are in the list of arguments
- [COUNTBLANK](#) Counts the number of blank cells within a range
- [COUNTIF](#) Counts the number of nonblank cells within a range that meet the given criteria
 - You know 32 people voted purple...did you type in all of their votes associated with their names yet correctly, or did you miss or mistype a few? Highlight and Countif!

If Statements

If statements are a bit fancy, but can be incredibly useful. They take the form:

=IF(logical_test,value_if_true,value_if_false)

The value_if_true or value_if_false can take many forms. Text using quotes, numbers, formulas...

For a simple example, the If statements are in Row 2. The formula typed (then dragged) was:

=if(A1>=6,"Big", "Small")

	A	B	C	D	E
1	1	4	3	6	10
2	Small	Small	Small	Big	Big

For a complicated example, see these “nested” IF statements. The value_if_true or value_if_false can contain If statements, so that it will perform multiple logic tests. You can nest up to 7 IF statements. The AND and OR formulas are useful here!

In row 5, it tests if the product of Row 1 and Row 2 (in a column) is less than 100, if it’s red or blue, and old or new. It assigns a different value for each result.

=IF(A1*A2<100, "Tiny", IF(A3="Red", IF(A4="Old", "Big Ol’ Red", "Shiny New Red"),IF(A4="Old", "Dull Old Blue", "New Blue"))))

The same result will happen with AND statements:

=IF(A1*A2<100, "Tiny", IF(AND(A3="Red", A4="Old"), "Big Ol’ Red", "Shiny New Red"),IF(AND(A3="Blue", A4="Old"), "Dull Old Blue", "New Blue")))

	A	B	C	D	E
1	1	4	3	6	10
2	23	65	67	12	14
3	Red	Blue	Red	Red	Blue
4	Old	New	Old	Old	New
5	Tiny	New Blue	Big Ol’ Red	Tiny	New Blue

- **IF** Specifies a logical test to perform
 - **AND** Returns TRUE if all of its arguments are TRUE
 - **OR** Returns TRUE if any argument is TRUE

Lookups

Lookups can be really handy, although also pretty fancy. For example, we have a government list of states and their rank in something (the “array” here). We have a spreadsheet where states are listed, and we don’t want to manually reference the government list and type in the rank in each row. Use a lookup so that it does it for you! Use H or V depending on how your data is arranged.

Tip: Your “Array” data need to be sorted A-Z, and in the “array” needs to be the leftmost or top column of the array you highlight. It might be useful to rearrange the columns or rows to make that happen.

- **HLOOKUP** Looks in the top row of an array and returns the value of the indicated cell
- **VLOOKUP** Looks in the first column of an array and moves across the row to return the value of a cell

Making Charts

Pivot Tables and Charts

A good way to create a Pivot Chart is to begin with a Pivot Table.

Pivot Tables allow you to quickly summarize data, and organize it in a variety of ways. This is a very brief intro; there are many options and variations with these! Useful to explore in greater if you have lots of complicated data that would be great to distill.

“A PivotTable is a powerful tool for exploring and analyzing information. A PivotTable helps you organize and manipulate the raw data in your spreadsheet, giving you insight into patterns or relationships that might not be obvious at first glance. PivotTables also give you the power to view your data in a different context without changing the original content or structure.”

-<http://www.tlglarning.com>

Simplified steps to creating a **Pivot Table**:

- Highlight your data, including row and column headers
- Choose Pivot Table from the Insert tab
- Drag the column headers, or “fields” into the appropriate four boxes below
 - Complex tables possible with multiple Row or Column Labels
 - Σ Values can be changed to count, average, etc

Row Labels	Cereal	Eggs	Oatmeal	Grand Total
Cambridge	226	128	237	591
JP		300	119	419
Somerville	392			392
South Boston		48	278	326
Grand Total	618	476	634	1728

Simplest way to make a **Pivot Chart**:

- If you made a Pivot Table:
 - Under the Pivot Table Tools tabs which appear with the Pivot Table is selected:
 - Options, Pivot Chart.
 - Select the Chart Type and follow the tips in the next section!
- If you didn't make a Pivot Table:
 - Highlight the data for the chart
 - From the Insert tab, insert a Pivot Chart under the Pivot Table button
 - Select the appropriate axis categories and series

Charts from Scratch

Step 1: Create a basic chart

For most charts, such as column and bar charts, you can plot the data that you arrange in rows or columns on a into a chart. However, some chart types (such as pie and bubble charts) require a specific data arrangement.

On the worksheet, arrange the data that you want to plot in a chart. The data can be arranged in rows or columns — Excel automatically determines the best way to plot the data in the chart. Some chart types (such as pie and bubble charts) require a specific data arrangement.

FOR THIS CHART TYPE	ARRANGE THE DATA
---------------------	------------------

Column, bar, line, area, surface, or radar chart

In columns or rows, such as:

LOREM	IPSUM
-------	-------

1 2

3	4
---	---

Or:

LOREM	1	3
-------	---	---

Ipsum 2 4

Pie or doughnut chart

For one data series, in one column or row of data and one column or row of data labels, such as:

A	1
---	---

B	2
---	---

C 3

Or:

A	B	C
---	---	---

1	2	3
---	---	---

For multiple data series, in multiple columns or rows of data and one column or row of data labels, such as:

A	1	2
---	---	---

B	3	4
---	---	---

C 5 6

Or:

A	B	C
---	---	---

1	2	3
---	---	---

4 5 6

XY (scatter) or bubble chart

In columns, placing x values in the first column and corresponding y values and bubble size values in adjacent columns, such as:

X	Y	BUBBLE SIZE
---	---	-------------


1 2 3

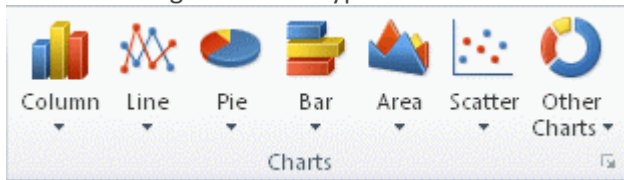
4	5	6
---	---	---

Select the cells that contain the data that you want to use for the chart.

On the **Insert** tab, in the **Charts** group, do one of the following:

Click the chart type, and then click a chart subtype that you want to use.

To see all available chart types, click  to launch the **Insert Chart** dialog box, and then click the arrows to scroll through the chart types.

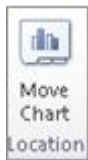


By default, the chart is placed on the worksheet as an embedded chart. If you want to place the chart in a separate chart sheet, you can change its location by doing the following:

Click anywhere in the embedded chart to activate it.

This displays the **Chart Tools**, adding the **Design**, **Layout**, and **Format** tabs.

On the **Design** tab, in the **Location** group, click **Move Chart**.



Under **Choose where you want the chart to be placed**, do one of the following:

To display the chart in a chart sheet, click **New sheet**.

Step 2: Change the layout or style of a chart

After you create a chart, you can instantly change its look. Instead of manually adding or changing chart elements or formatting the chart, you can quickly apply a predefined layout and style to your chart. Excel provides a variety of useful predefined layouts and styles (or quick layouts and quick styles) that you can select from, but you can customize a layout or style as needed by manually changing the layout and format of individual chart elements.

APPLY A PREDEFINED CHART LAYOUT

Click anywhere in the chart that you want to format by using a predefined chart layout. This displays the **Chart Tools**, adding the **Design**, **Layout**, and **Format** tabs. On the **Design** tab, in the **Chart Layouts** group, click the chart layout that you want to use.



Note When the size of the Excel window is reduced, chart layouts will be available in the **Quick Layout** gallery in the **Chart Layouts** group.

Tip To see all available layouts, click **More** .

APPLY A PREDEFINED CHART STYLE

Click anywhere in the chart that you want to format by using a predefined chart style. This displays the **Chart Tools**, adding the **Design**, **Layout**, and **Format** tabs. On the **Design** tab, in the **Chart Styles** group, click the chart style that you want to use.



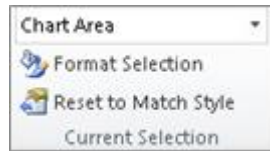
Note When the size of the Excel window is reduced, chart styles will be available in the **Chart Quick Styles** gallery in the **Chart Styles** group.

CHANGE THE LAYOUT OF CHART ELEMENTS MANUALLY

Click the chart element for which you want to change the layout, or do the following to select it from a list of chart elements.

Click anywhere in the chart to display the **Chart Tools**.

On the **Format** tab, in the **Current Selection** group, click the arrow in the **Chart Elements** box, and then click the chart element that you want.



On the **Layout** tab, in the **Labels, Axes, or Background** group, click the chart element button that corresponds with the chart element that you selected, and then click the layout option that you want.



Note The layout options that you select are applied to the chart element that you have selected. For example, if you have the entire chart selected, data labels will be applied to all data series. If you have a single data point selected, data labels will only be applied to the selected data series or data point.

Step 3: Add or remove titles or data labels

ADD A CHART TITLE

Click anywhere in the chart to which you want to add a title.

This displays the **Chart Tools**, adding the **Design**, **Layout**, and **Format** tabs.

On the **Layout** tab, in the **Labels** group, click **Chart Title**.



Click Centered Overlay Title or Above Chart.

In the Chart Title text box that appears in the chart, type the text that you want.

To format the text, select it, and then click the formatting options that you want on the Mini toolbar.

ADD AXIS TITLES

Click anywhere in the chart to which you want to add axis titles.

This displays the **Chart Tools**, adding the **Design**, **Layout**, and **Format** tabs.

On the **Layout** tab, in the **Labels** group, click **Axis Titles**.

ADD DATA LABELS

On a chart, do one of the following:

To add a data label to all data points of all data series, click the **chart area**.

To add a data label to all data points of a data series, click anywhere in the data series that you want to label.

To add a data label to a single data point in a data series, click the data series that contains the data point that you want to label, and then click the data point that you want to label.

This displays the **Chart Tools**, adding the **Design**, **Layout**, and **Format** tabs.

On the **Layout** tab, in the **Labels** group, click **Data Labels**, and then click the display option that you want.



Note Depending on the chart type that you used, different data label options will be available.

Step 4: Show or hide a legend

When you create a chart, the legend appears, but you can hide the legend or change its location after you create the chart.

Click the chart in which you want to show or hide a legend.

This displays the **Chart Tools**, adding the **Design**, **Layout**, and **Format** tabs. On the **Layout** tab, in the **Labels** group, click **Legend**.



Do one of the following:

To hide the legend, click **None**. **Tip** To quickly remove a legend or a legend entry from a chart, you can select it, and then press DELETE. You can also right-click the legend or a legend entry, and then click **Delete**.

To display a legend, click the display option that you want.

Step 5: Display or hide chart axes or gridlines

When you create a chart, primary axes are displayed for most chart types. You can turn them on or off as needed. When you add axes, you can specify the level of detail that you want the axes to display. A depth axis is displayed when you create a 3-D chart.

To make a chart easier to read, you can display or hide the horizontal and vertical chart gridlines that extend from any horizontal and vertical axes across the plot area of the chart.

DISPLAY OR HIDE GRIDLINES

Click the chart for which you want to display or hide chart gridlines.

This displays the **Chart Tools**, adding the **Design**, **Layout**, and **Format** tabs.

On the **Layout** tab, in the **Axes** group, click **Gridlines**.



Do the following:

To add horizontal gridlines to the chart, point to **Primary Horizontal Gridlines**, and then click the option that you want. If the chart has a secondary horizontal axis, you can also click **Secondary Horizontal Gridlines**.

To add vertical gridlines to the chart, point to **Primary Vertical Gridlines**, and then click the option that you want. If the chart has a secondary vertical axis, you can also click **Secondary Vertical Gridlines**.

Mail Merge

Combining the power of Microsoft Word with Microsoft Excel, you can make some neat custom mailings. Basically, you can pull data from a spreadsheet and insert it where you want in your document. Perhaps you want to send all of your members a letter. You could pull from your Excel list of their names, and have the Mail Merge insert “Dear So and So,” up at the top. Since the data about their most recent donation is in the same row, you could also have it insert “Thank you so much for your donation of \$XXX”. You can then print envelopes directly, or labels to put on the envelopes pulling from the same Excel sheet so that once printed the letters will match up in the same order as the envelopes!

- Letters (really any standard sized document)
- Emails
- Envelopes
- Labels
- Directory

The easiest way to pull off a Mail Merge is using the “Step by Step Mail Merge Wizard” under “Start Mail Merge” under the Mailings tab.

- Step 1 asks you to pick which kind of mail merge (from the list above)
- Step 2 asks if you want to use the existing document or a new one
- Step 3 wants to know where the data is. Choose “Browse”, select the right file, and then choose the right table (or sheet) from the Excel workbook where the data is stored.
- Step 4 lets you add in “items” such as addresses or greeting lines. Choosing “More Items” lets you customize the way the data is arranged. The headers for the columns in Excel need to match up with the fields in Word (such as “First Name” and “City”). If you called the header something different, then you can use “Match Fields” to assign your column header to the correct field (such as “First” to “First Name”).
 - You can also format the font and style of the document at this stage.
 - Click “Update ____” when you’re done adding items if it appears.
- Step 5 lets you preview your merge.
- Step 6 completes the merge! Always choose “Edit Individual ____” because you get to see the finished product, and save it as a new document before it prints! You can also correct any errors at this stage.

Saving your mail merge allows you to re-create this letter and pull from the same list when you want to send your next mailing! You can also select a different list, or a different table, if the contents need to change.