



2ND EDITION

MICROSOFT EXCEL COURSE

BEGINNER MODULE

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A Message from The Author

Congratulations on taking ownership of your professional development. My name is Allen Aguilar and I am the author of this booklet. My intention with this message is to provide you with additional context about this booklet and details on how to use it.

I began to use Excel since I was about 11 years old. However, I never received formal training in Excel until college but forgot most of it because I stopped using it. It wasn't until I worked for a start-up company that Excel became the every-day software to use. This booklet is intended for the average Excel user with not technical background. Although I do cover some of the Excel terminology in this booklet, I shy away from being too technical, and instead, provide a very practical approach to this booklet.

About This Booklet

This booklet can be used as a reference guide for any beginner. This booklet most likely accompanies one of my in-person trainings or online trainings on the same topic. My Excel trainings typically consists of the training content (either in-person or online) a booklet (such as the one you're reading) and Excel files where the participants get to practice what they learned. To learn more about my trainings, please visit www.leadershipbuild.com.

How to Use This Booklet

This booklet will take you step-by-step through the journey of a beginning Excel user. There are various screenshots that will help you visualize my explanations. Additionally, there are practice exercises along with this booklet that will help you apply what you are learning. If you purchased one of my online courses, or are attending an in-person training, the practice exercises will be provided for you by your instructor.

If you have any questions or would like to get in contact with me, please feel free to send me an email at allenaguilar@leadershipbuild.com. Enjoy!



Allen Aguilar
Founder of Leadership Build

Introduction

Excel continues to be a very popular software used across different companies. Most people don't know this, but MS Excel existed since 1985, making its way to the offices of different companies throughout the world.

What is Excel used for?

Excel is typically used to capture information in a centralized location. However, the true power of Excel lies in its ability to make calculations by using different formulas and functions. MS Excel is one of the most powerful software that can make calculations, forecasts, charts, graphs and organize data in a way that can be understood.

How can Excel help me do my job?

Depending on the type of work that you do, a good understanding of Excel can help you become faster at your job. Excel experts are extremely efficient when it comes to projects, reports and sharing information. Those that use Excel well will save time because Excel will do the work for them.

What will I learn in the Excel Beginner's Course?

In the Excel Beginner's Course, you will learn:

1. The basic layout of Excel along with the most common terminology
2. How to navigate through the Excel interface
3. How to customize the layout of an Excel sheet by using borders
4. How to easily manipulate the size of cells
5. How to change the data of the cells
6. How to sort and organize your data
7. How to filter your data appropriately
8. How to use the menu and top ribbons to access Excel functions
9. How to add, change and use Headers and Page Layouts
10. How to Freeze Panes to view data
11. How to group cells together and the difference between grouping and hiding
12. How to use Shortcuts and become faster at using Excel
13. How Excel reads formulas and how it works
14. Writing and reading Excel formulas

15. The different uses of ranges within cells and formulas
16. Create a spreadsheet from scratch
17. Manipulate a spreadsheet based on given instructions
18. Use basic Excel formulas
19. How to identify certain errors when using Excel
20. Use formulas with constants and cell references

Basic Terminology

As you read through this booklet you will encounter different words that are used in Excel and you will get a chance to learn the definition of those words. Just like anything new that is worth learning, it takes some time to get used to the terminology used in Excel. To begin with some very basic terminology, we are going to describe the difference between a workbook, a file and a spreadsheet.

A Workbook

A Workbook consists of one or many spreadsheets. You can think of a Workbook as a book with different pages (or sheets) that you are working on. Typically, when you save your work in Excel, you save it as a Workbook file.

A File

A file is the name of your workbook. Think of it as a book that you are 'filing' away. You need to give it a name so that you can easily find it later. The older versions of Excel save workbooks as *.xls*. Newer version of Excel saves files as *.xlsx*.

A Spreadsheet

The spreadsheet is the platform that allows you to do your work with cells, make calculations, enter data, store data, create graphs and display any type of information you would like to present. Spreadsheets are sometimes called 'sheets' or 'Excel sheets' as well.

Gridlines

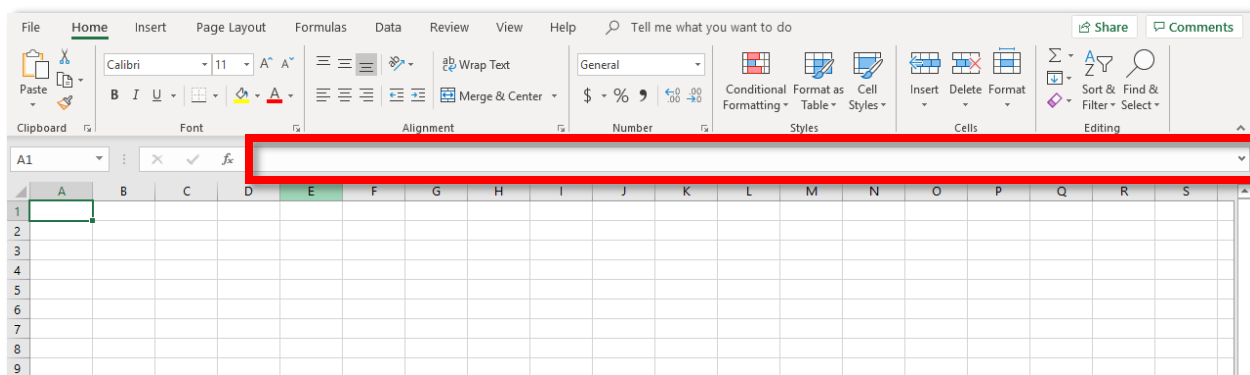
Gridlines are the 'rectangles' that you see on a spreadsheet. They help users gauge the space between each entry while neatly organizing data. The gridlines do not print unless you modify a setting in Excel.

The Layout of a Spreadsheet

Before we truly begin to use Excel let's first look at the layout of a spreadsheet, discuss how to navigate within the interface and share some common terminology. To gain a better visual of the various parts of a spreadsheet, this booklet provides numerous screenshots to help you locate and identify each part.

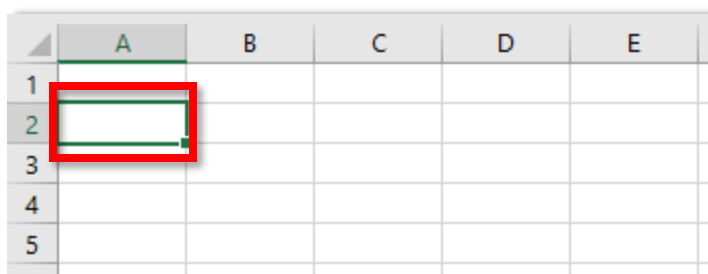
The Formula Bar

The Formula Bar is the place where you can write formulas, edit formulas and see the formulas displayed that are written in a cell. You can also write formulas directly into a cell but in our opinion writing the formulas in the formula bar is the safest way to write formulas.



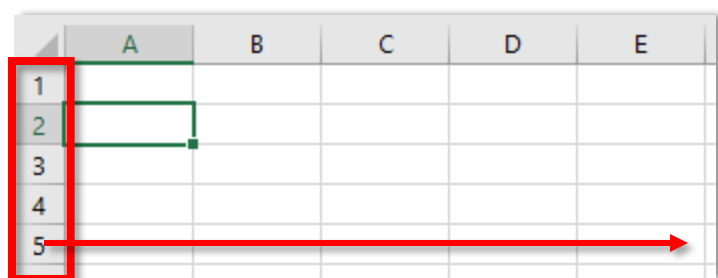
Cells

A spreadsheet consists of various cells that allow users to insert data or type formulas. Cells are named by the letter of the column followed by the number of the row. For example, Cell A2 refers to the cell in Column A and Row 2.



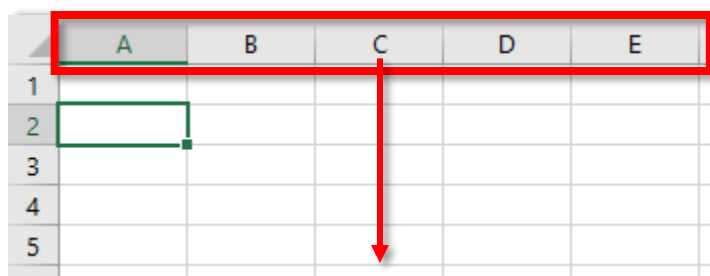
Rows

Rows are represented by a number and go across the spreadsheet from left to right. For example, Row 5, refers to the fifth row on the left side with a number '5'.



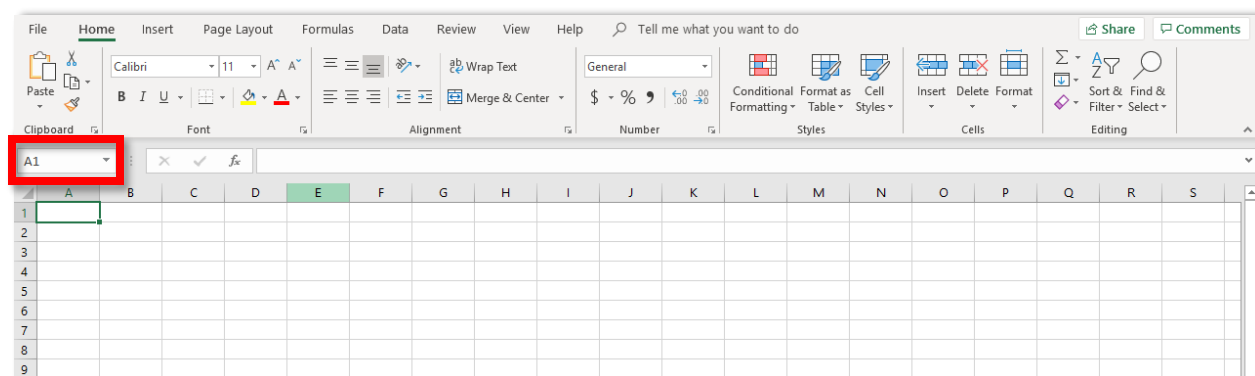
Columns

Columns are represented by a letter and run up and down on a spreadsheet. For example, Column C refers to the column at the top with the letter 'C'.



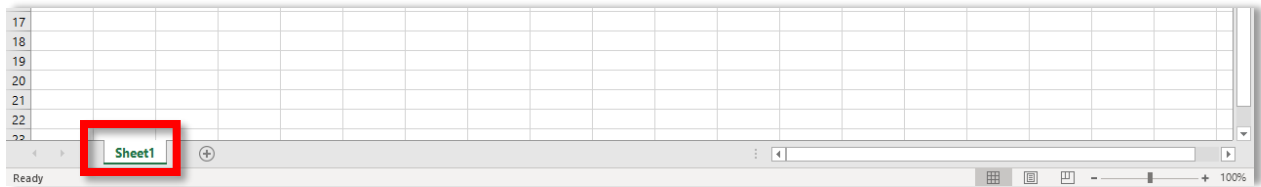
Name Box

The Name Box not only displays the name of a cell but also allows you to name ranges, spreadsheets and sections of spreadsheets for easier accessibility and navigation.



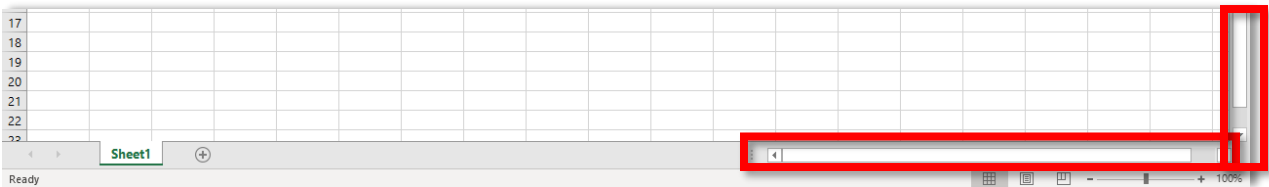
Sheet Name

The name of the spreadsheet can be found at the bottom of the spreadsheet, in the bottom tab. The spreadsheet's name defaults to 'Sheet 1' typically uses a green font color with no background. The name of the tab can be changed, and the color and style are customizable.



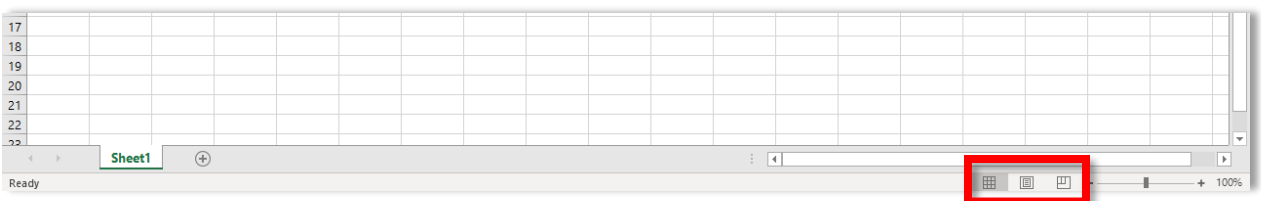
The Navigation Bar

A spreadsheet commonly has two bars to allow you to move through the spreadsheet: one is located at the bottom (lower-right hand corner) and the other is located on the right side. These navigation bars allow you to move up and down the spreadsheet (the bar on the right side) and from left to right. You can also use the arrows to move around the spreadsheet.



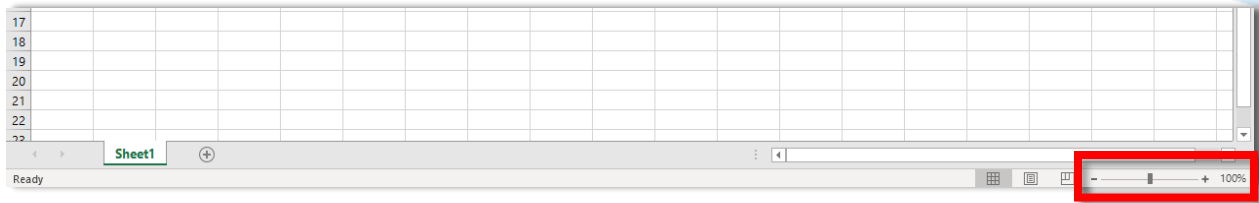
Workbook Views

At the bottom of the spreadsheet there are three icons right below the navigation bar. The three icons represent three distinct Workbook Views. By default, Excel chooses the 'Normal' Workbook view. The other two views are the **Page Break Preview** and the **Page Layout**.



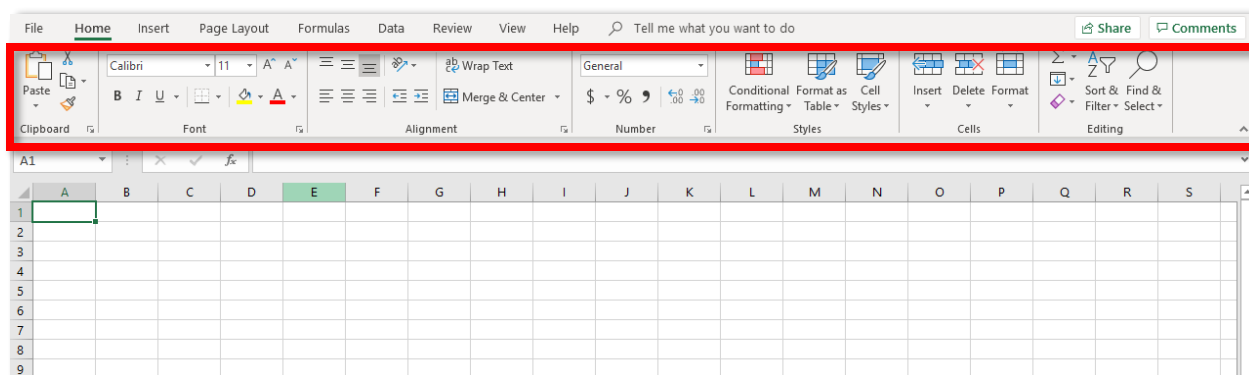
Zoom

In the lower-right hand corner of the spreadsheet, you will find a lever that allows you to zoom in and out of the spreadsheet. Excel defaults to a 100% view.



The Ribbon

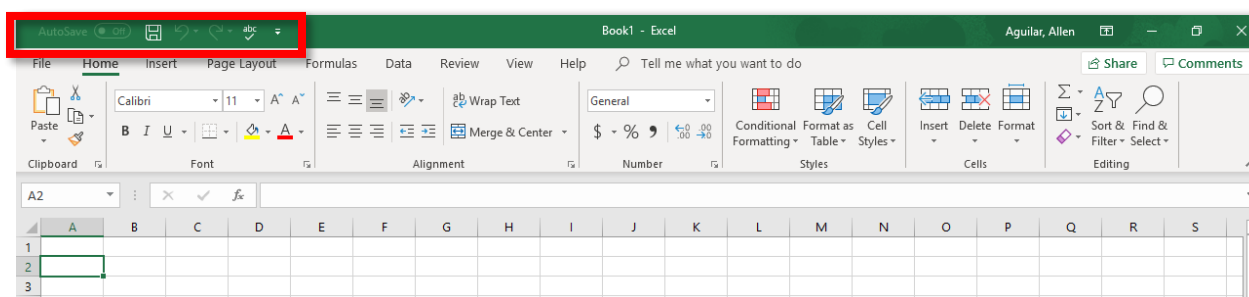
The Ribbon is a common term used to refer to the top menu of a page in any type of software. This is true for any Microsoft program or any software that has buttons, options, menu bars or selections at the top of the page. The Ribbon allows you to choose commands (or buttons) to perform a certain function in Excel.



The types of commands visible in the Ribbon will depend on the tab that you're working on. For example, the Home tab has a different Ribbon than the Insert tab.

Quick Access Toolbar

At the very top of the ribbon are different icons that are set by Excel by default. Most likely, the icons you see are the 'Save' icon and the 'Undo' icon. The Quick Access Toolbar allows you to pin icons at the top for quick and easy access. Need to save a file without having to navigate through different Tabs? Then just click on the 'Save' icon on the Quick Access Toolbar. The Quick Access Toolbar is customizable.



The Most Common Commands in The Quick Access Toolbar

Since the Quick Access Toolbar is always accessible, you want to make sure that you have the most common commands readily available. Below is a list of the most commonly used commands:

- Save

- Undo
- Redo
- Spelling & Grammar
- Print

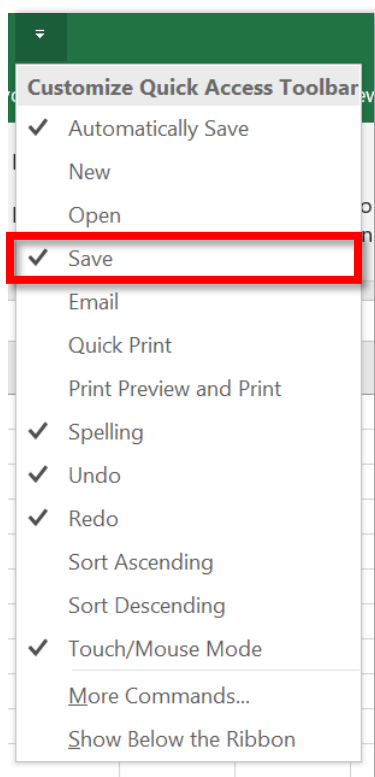
How to Customize the Quick Access Toolbar

To customize the Quick Access Toolbar, follow these two steps:

1. Click on the *down arrow* next to the **Quick Access Toolbar**.

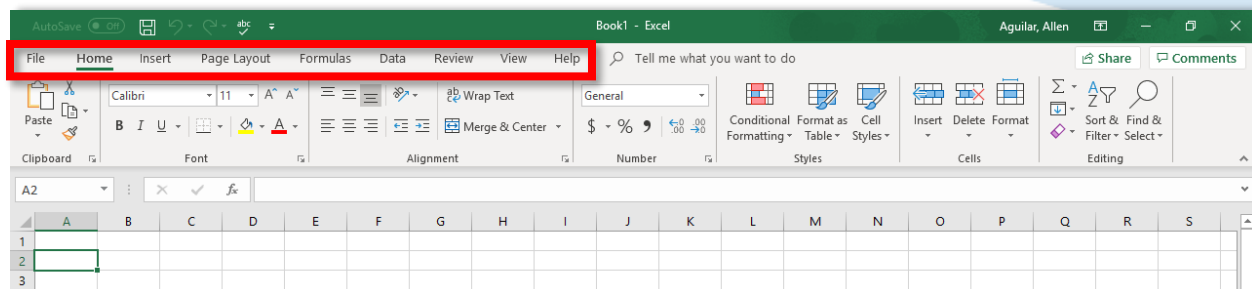


2. Select the icons you want to include on the **Quick Access Toolbar** with a checkmark by clicking on the command of your choice.



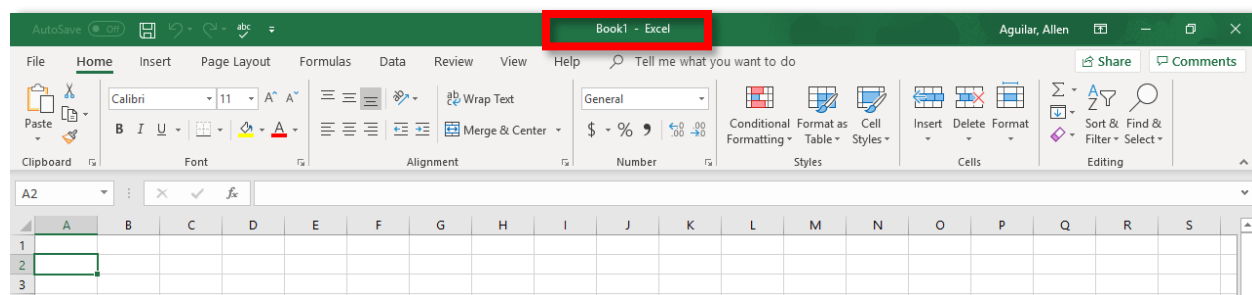
Tabs

At the top of the ribbon you have what seems to be a menu to different pages (called **Tabs**) to use in Excel. Excel defaults to the Home tab. Each tab allows the Excel user to access different buttons, layouts and functionalities in the tab's ribbon. In this booklet, we will be exploring most of the **Tabs** in Excel and the basic commands in each ribbon.



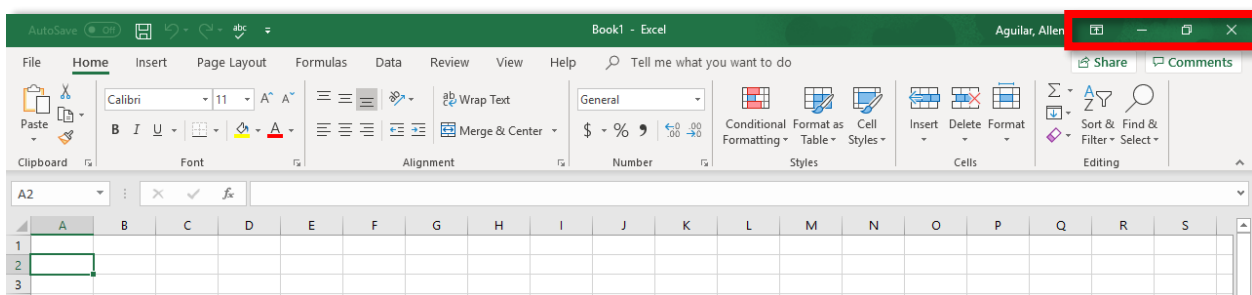
File Name

At the top of the ribbon you will see the name of your file. By default, Excel will name your Excel file 'Book 1'. Once you save your workbook under another name, the new name will appear at the top of the ribbon. This helps you easily identify which workbook you're editing when you work with multiple workbooks at the same time.



Window & Ribbon Options

In the upper-right hand corner of your screen, you will be able to change the display of your ribbon, minimize your window and exit the Excel program. Let's discuss each option in detail.



The Ribbon Display Option

By default, the Ribbon is displayed at the top at all times (or 'stays pinned'). However, some people like to see more of their spreadsheet and prefer for the Ribbon to only appear when

needed. There is an option in the upper-right hand corner that will allow you to customize the way your ribbon is displayed.

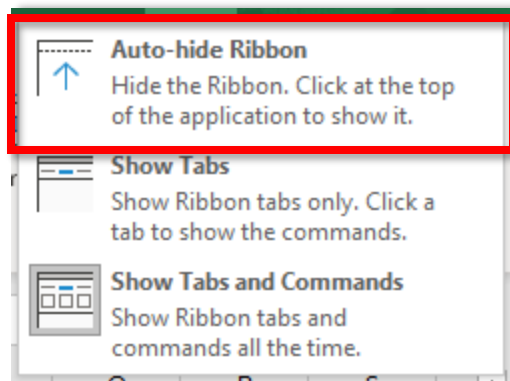
How to Auto-hide Your Ribbon

The **Ribbon Display Option** allows you to hide and unhide your Ribbon. To change the current settings and auto-hide your Ribbon, follow these steps:

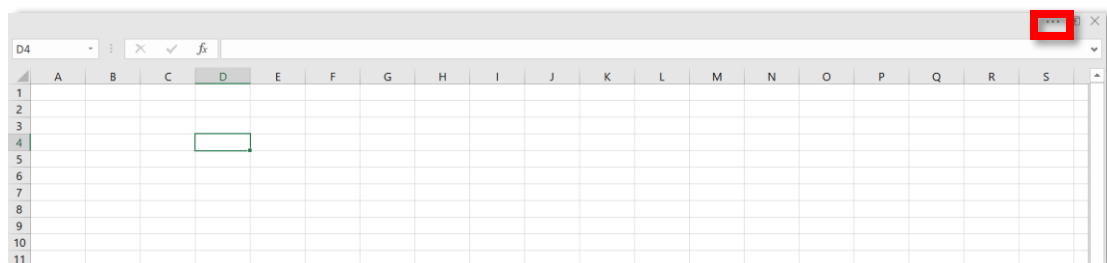
1. Click on the **Ribbon Display Option** icon in the upper-right hand corner of your Ribbon.



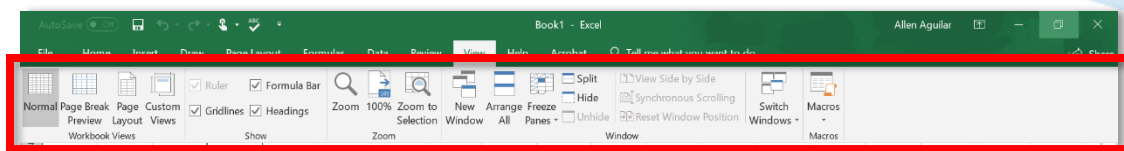
2. Select the *Auto-Hide Ribbon* option to hide the **Ribbon** from your view.



3. Your Ribbon will now "hide" at the top of your screen. To access the "hidden" Ribbon, place your cursor at the top of the page until you see three dots show in the upper-right hand corner and click.



Your Ribbon will now display.



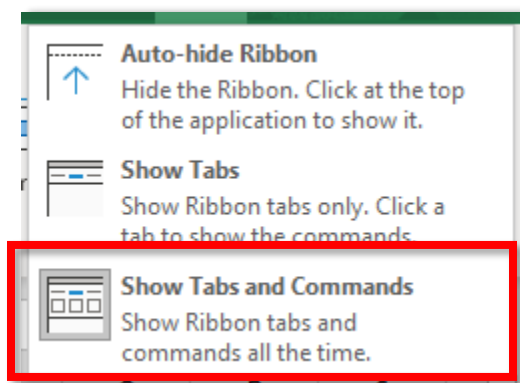
How to Remove the Auto-Hide Ribbon Option

To restore the original settings, you'll need to access the Ribbon Display Options and choose 'Show Tabs & Commands'. Here are the steps:

1. Click on the **Ribbon Display Option** icon in the upper-right hand corner of your Ribbon.



2. Select the *Show Tabs and Commands* option to permanently display the **Ribbon** from your view.



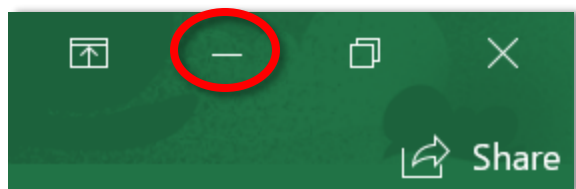
Minimize, Restore and Exit

When using Excel (or any Microsoft program for that matter) the program is displayed in a big window. You can have multiple windows from various programs (or the same program) at once. The window you use in Excel can be minimized.

How to Minimize your Excel window

To minimize the Excel window:

1. Click on the **Minimize** option icon in the upper-right hand corner of your Ribbon.



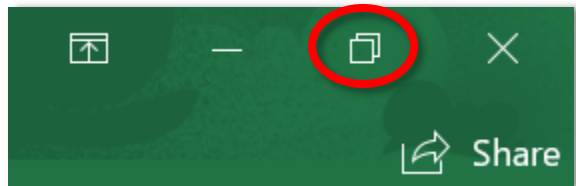
2. The Excel program is *not* closed but is minimized and can be used by clicking on the Excel logo at the bottom of your screen.

How to Restore your Excel window

The Restore option is available in any window used within a Microsoft program. The Restore option has two purposes: 1) To display the Excel program in full-screen and 2) to display the Excel program in a window.

To restore your Excel window:

1. Make sure that the Excel program is displayed
2. Click on the **Restore** option icon in the upper-right hand corner of your Ribbon. Excel may ask you to *Restore Down* (view Excel as a window) or *Maximize* (view Excel in full-screen).



The Close Window Option

To exit Excel, you can use the **Close** icon in the upper-right hand corner of the screen. If your worked hasn't been saved, Excel will prompt you to save your work.



Entering Data in A Spreadsheet

Microsoft Excel can be used as a database to enter all types of data. In Excel, you can enter texts, numbers, dates, make calculations and organize your information in a table. Excel even can recognize patterns and automatically enter information for you. Let's explore how to enter data into cells.

Entering text in a cell

As previously mentioned, data entry is a popular use for Excel. To enter data into cells:

1. Click once on any cell

	A	B	C
1			
2			
3			
4			
5			
6			
7			

2. Type your data

	A	B	C
1	Account Name		
2			
3			
4			
5			
6			
7			

3. Press the **Enter** button on your keyboard

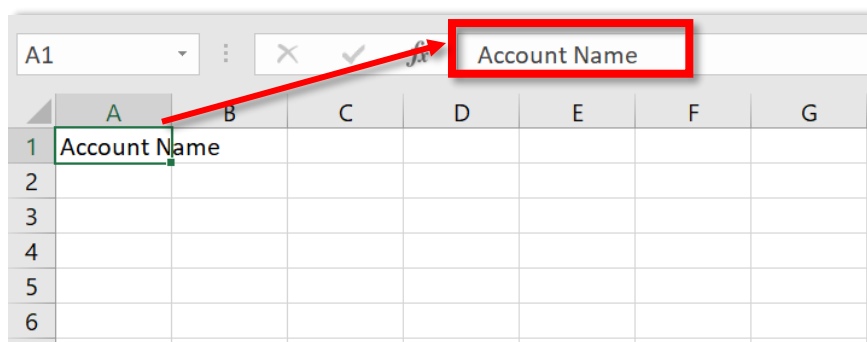
By pressing the **Enter** button, you will move to the cell below. To move in a horizontal direction, press the **Tab** button instead.

	A	B	C
1	Account Name		
2			
3			
4			
5			
6			
7			

If the information you enter is too long, the text will overlap onto the next cell. Remember only one of these cells has data inside the cell. The other cell seems to have data but technically does not have any information inside its cell.

Text in the Formula Bar

Data entered in cells will automatically appear in the **Formula Bar**. When you begin working with formulas, it is recommended that you make all edits in the **Formula Bar**. You can edit any text directly in the cells or in the **Formula Bar** as well.



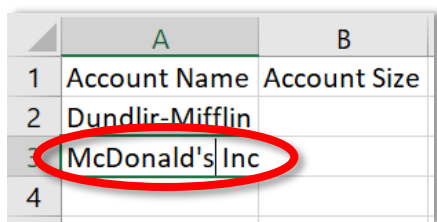
Editing text in a cell

You can go back and edit the contents of a cell by either overriding the content or by clicking and editing the cells directly. In this section, you'll learn the different ways to edit cells that already have content.

Editing by clicking on a cell

If you need to edit only certain parts of a cell, then you can follow these steps:

1. Double-click on the cell you want to edit to display the (flashing) edit symbol.

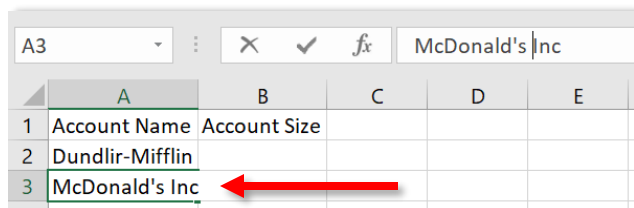


2. Move your cursor to the area you want to edit and click
3. Either delete or type the contents of the cell you want to edit

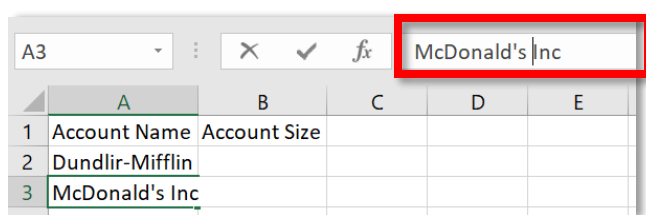
Editing by using the Formula Bar

You can also make edits to cells by using the **Formula Bar**. To use the **Formula Bar** to make edits follow these steps:

1. Click once on the cell you want to edit



2. Click on the **Formula Bar**

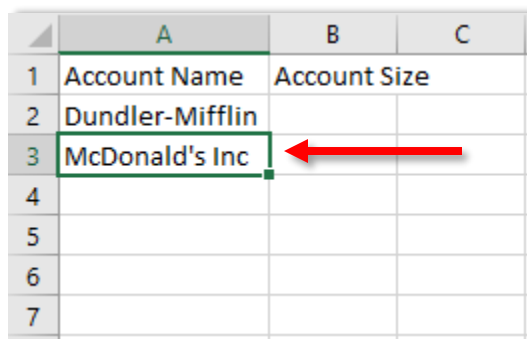


3. Either delete or type the data you want to edit directly in the **Formula Bar**.

Overriding text in a cell

Data entry is a big part of Excel and efficiency is one thing all Excel users are looking for. Therefore, it's so easy to quickly override the contents of a cell. To *completely* override the contents of a cell:

1. Click once on the cell you want to override



2. Type the new data

	A	B	C
1	Account Name	Account Size	
2	Dundler-Mifflin		
3	Burger King		
4			
5			
6			
7			

3. Press the **Enter** button on your keyboard

Anytime you type over a cell (by clicking on the cell once), you automatically override the contents of that cell.

Deleting text from a cell

To delete the information that exists inside a cell:

1. Click on the cell that contains the information you want to delete

	A	B	C
1	Account Name	Account Size	
2	Dundler-Mifflin		
3	Burger King		
4			
5			
6			
7			

2. Press the **Delete** button on your keyboard to remove the content

	A	B	C
1	Account Name		
2	Dundler-Mifflin		
3	Burger King		
4			
5			
6			
7			

3. Press the 'Enter' button on your keyboard to finish

Deleting parts of the contents of a cell

If you only want to remove certain parts of the contents of a cell, then the steps are very similar to editing the text of a cell:

1. Double-click on the cell you want to edit

	A	B	C
1	Account Name		
2	Dundler-Mifflin		
3	McDonald's Incorporated		
4			
5			
6			
7			

2. Select the content you want removed

	A	B	C
1	Account Name		
2	Dundler-Mifflin		
3	McDonald's Incorporated		
4			
5			
6			
7			

3. Press the **Delete** button on your keyboard to remove the undesired content

	A	B	C
1	Account Name		
2	Dundler-Mifflin		
3	McDonald's		
4			
5			
6			
7			

4. Press the **Enter** button on your keyboard to complete

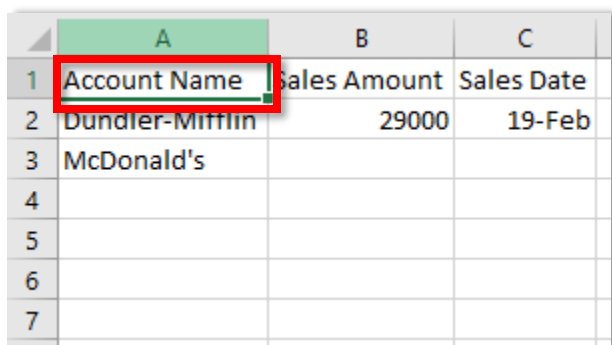
Selecting A Range of Cells, Columns & Rows

One thing you'll need to get used to as an Excel user is the habit of selecting ranges of cells and knowing how to select specific columns or rows. Knowing this skill will help when editing multiple cells at once.

How to Select a Range of Cells

To select a range of cells:

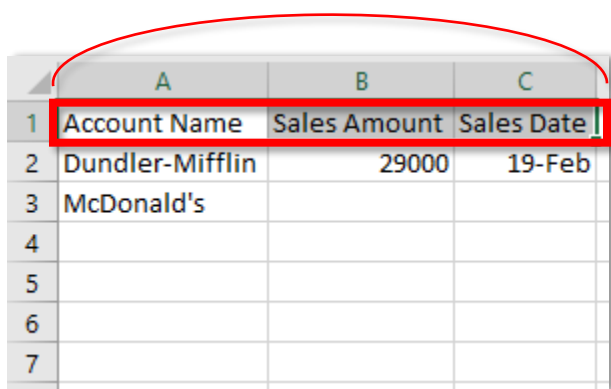
1. Click *and hold* the first cell within the range you want to select



The screenshot shows an Excel spreadsheet with columns A, B, and C. Row 1 contains headers: 'Account Name' in A1, 'Sales Amount' in B1, and 'Sales Date' in C1. Row 2 contains data: 'Dunder-Mifflin' in A2, '29000' in B2, and '19-Feb' in C2. Row 3 contains 'McDonald's' in A3. Rows 4 through 7 are empty. A red rectangle highlights the cell A1, indicating it is the first cell selected in the range.

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dunder-Mifflin	29000	19-Feb
3	McDonald's		
4			
5			
6			
7			

2. While holding, move your cursor to the last cell in your range



The screenshot shows the same Excel spreadsheet as before. A red rectangle now highlights the range from A1 to C1, indicating that the selection has been extended to the last cell in the range. A red curved arrow points from the first cell (A1) to the last cell (C1), illustrating the movement of the cursor while holding the mouse button.

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dunder-Mifflin	29000	19-Feb
3	McDonald's		
4			
5			
6			
7			

3. Let go of your mouse

If you follow these steps correctly, you'll notice that the range you selected seems to be highlighted with a grayish color.

Deleting the contents of multiple cells

Previously you learned how to delete the content of once cell. However, there are also ways in which you can delete the contents of multiple cells. Here are the exact steps to do this:

1. Click *and hold* the first cell that contains the content you want to delete

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's		
4			
5			
6			
7			

2. While still holding, move your cursor to the last cell in your range you want removed

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's		
4			
5			
6			
7			

3. Let go of your mouse
4. Press the **Delete** button on your keyboard to remove the contents of each cell selected

	A	B	C
1			
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's		
4			
5			
6			
7			

If you follow these steps correctly, you'll see that the contents of every cell you highlighted have been deleted.

How to Select A Column

Besides selecting multiple cells, there will be times in which you'll need to know how to select an entire column. Here are the steps to select a specific column.

1. Put your cursor over the column you want to select until you see a black arrow pointing down. Make sure it is over the column's "letter"

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's		
4			
5			
6			
7			

2. Click once to select all cells within the selected column

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's		
4			
5			
6			
7			

If you followed the steps correctly, every single cell within the column you selected should be selected.

How to Select Multiple Columns

Previously, you learned how to select one column. In this section you'll learn how to select more than one column. Here are the steps to select multiple columns:

1. Put your cursor over the column you want to select until you see a black arrow pointing down. Make sure it is over the column's "letter"

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's		
4			
5			
6			
7			

2. Click once to select all cells within the selected column *and hold*

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's		
4			
5			
6			
7			

- While holding, move your cursor to the last column you want to select

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's		
4			
5			
6			
7			

- Let go of your mouse

If you followed the steps correctly, every columns' cells you chose would be selected.

How to Select A Row

Besides selecting multiple cells, there will be times in which you'll need to know how to select an entire row. Here are the steps to select a specific row.

- Put your cursor over the row you want to select until you see a black arrow pointing to the right. Make sure your cursor is over the row's number.

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's		
4			
5			
6			
7			

- Click once with your mouse

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's		
4			
5			
6			
7			

If you followed these steps correctly, all cells within the row you selected will also be selected.

How to Select Multiple Rows

Previously, you learned how to select one row. In this section you'll learn how to select more than one row. Here are the steps to select multiple rows:

1. Put your cursor over the first row you want to select until you see a black arrow pointing to the right. Make sure it is over the row's number.

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's		
4			
5			
6			
7			

2. Click once to select all cells within the selected row *and hold*

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's		
4			
5			
6			
7			

3. While holding, move your cursor down to the last row you want to select

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's		
4			
5			
6			
7			

4. Let go of your mouse

If you followed the steps correctly, every rows' cells you chose will be selected.

Adjusting Columns & Rows

Sometimes, the content inside the cells may be too long for the entire content to be displayed. This happens because the cells may be too small. Excel gives users the ability to adjust the width of a column or the height of a column in order to display as much content as needed.

How to Adjust the Width of a Column

The width of a column is set to 8. This means that all columns are set to 8. When the content is too long, a size 8 column will need to be longer for the entire content to fit.

To adjust the width of a column:

1. Place your cursor between the border of the column *letter* you want to adjust and the column next to it until you see a black cross with two arrows (one on the left and one on the right).

E	F	G
Average Sale	Account	Account Active?
3099	Howard &	YES
2010	Howard &	YES
921	The Geta	YES
167	Steele Pl	YES
1256	Steele Pl	YES
2344	Loma Lind	YES

2. Click and hold with your mouse and move your cursor to the right, until the column's edge is the width of your choice. You can also see the width's length increase.

Width: 11.00 (82 pixels)

E	F	G
Average Sale	Account Name	Account Active?
3099	Howard & Son	YES
2010	Howard & Son	YES
921	The Getaway	YES
167	Steele Plumb	YES
1256	Steele Plumb	YES
2344	Loma Linda U	YES

- Let go of your mouse and your column's width is now adjusted.

E	F	G
Average Sale	Account Name	Account Active?
3099	Howard & Son Inc.	YES
2010	Howard & Son Inc.	YES
921	The Getaway Franchise	YES
167	Steele Plumbing Inc.	YES
1256	Steele Plumbing Inc.	YES
2344	Loma Linda Unified School District	YES

How to Adjust the Height of a Row

The height of a row is set to 14.25. This means that all rows are set to 14.25. When the content is too tall, a size 14.25 column will need to be bigger for the entire content to fit.

To adjust the height of a row:

- Place your cursor between the bottom border of the row *number* you want to adjust and the border below it until you see a black cross with two arrows (one on top and one at the bottom).

	A	B
1	Customer Last	Customer First Name
2	Dominguez	Barbara
3	Anthony	Rob
4	Williams	Debon
5	Hernandez	Harold
6	Ochoa	Jose
7	Houston	Steven
8	Stevenson	Raymond

- Click and hold with your mouse and move your cursor down until the row's edge is the height of your choice. You can also see the row's height increase.

	A	B
1	Customer Last	Customer First Name
2	Dominguez	Barbara
3	Anthony	Rob
4	Williams	Debon
5	Hernandez	Harold
6	Ochoa	Jose
7	Houston	Steven
8	Stevenson	Raymond

- Let go of your mouse and the row's height will now be adjusted.

	A	B
1	Customer Last	Customer First Name
2	Dominguez	Barbara
3	Anthony	Rob
4	Williams	Debon
5	Hernandez	Harold
6	Ochoa	Jose
7	Houston	Steven
8	Stevenson	Raymond

How to Adjust the Width of Multiple Columns

Currently, you learned how to adjust the width of a single column. In this section, you'll learn how to adjust the width for multiple columns, not just one.

To adjust the width of multiple columns:

- Select the columns whose width you want adjusted

	A	B	C	D
1	Customer Last Name	Customer	Date of Ca	Account
2	Dominguez	Barbar	3-Jan	46941
3	Anthony	Rob	1-Feb	42897
4	Williams	Debor	2-Feb	19751
5	Hernandez	Harold	5-Feb	87321
6	Ochoa	Jose	5-Mar	25829
7	Houston	Steven	#####	29520

- Place your cursor between the border of the column *letter* you selected that is farthest to the right and between the column next to it until you see a black cross with two arrows (one on the left and one on the right).

	A	B	C	D	E
1	Customer Last Name	Customer	Date of Ca	Account	Average Sale
2	Dominguez	Barbar	3-Jan	46941	3099
3	Anthony	Rob	1-Feb	42897	2010
4	Williams	Debor	2-Feb	19751	921
5	Hernandez	Harold	5-Feb	87321	167
6	Ochoa	Jose	5-Mar	25829	1256
7	Houston	Steven	#####	29520	2344

- Click and hold with your mouse and move your cursor to the right, until the column's edge is the width of your choice. You can also see the width's length increase.

B1

✕

✓

f_x

Customer First Name

Width: 10.14 (76 pixels)

	A	B	C	D	E
1	Customer Last Name	Customer	Date of Ca	Account I	Average Sale
2	Dominguez	Barbara	3-Jan	46941	3099
3	Anthony	Rob	1-Feb	42897	2010
4	Williams	Debon	2-Feb	19751	921
5	Hernandez	Harold	5-Feb	87321	167
6	Ochoa	Jose	5-Mar	25829	1256
7	Houston	Steven	29-Apr	29520	2344

- Let go of your mouse and the width of all columns that you selected will be adjusted according to the width you selected.

	A	B	C	D
1	Customer Last Name	Customer First Name	Date of Cancellation	Account ID
2	Dominguez	Barbara	3-Jan	46941
3	Anthony	Rob	1-Feb	42897
4	Williams	Debon	2-Feb	19751
5	Hernandez	Harold	5-Feb	87321
6	Ochoa	Jose	5-Mar	25829
7	Houston	Steven	29-Apr	29520

How to Adjust the Width of Multiple Rows

In this section, you'll learn how to adjust the height of multiple rows, not just one.

To adjust the height of multiple rows:

1. Select the rows whose height you want to adjust

	A	B	C
1	Contact Person	Social Security Number	Account Number
2	Dominguez, Barbara	904-58-5448	161778
3	Dominguez, Barbara	904-58-5448	161778
4	Anthony, Rob	655-84-6444	788491
5	Williams, Debon	378-29-3448	367918
6	Williams, Debon	378-29-3448	367918
7	Hernandez, Harold	176-32-4664	289512

2. Place your cursor between the bottom border of the row *number* within your selection and the row *number* below it until you see a black cross with two arrows (one on the top and one on the bottom).

	A	B	C
1	Contact Person	Social Security Number	Account Number
2	Dominguez, Barbara	904-58-5448	161778
3	Dominguez, Barbara	904-58-5448	161778
4	Anthony, Rob	655-84-6444	788491
5	Williams, Debon	378-29-3448	367918
6	Williams, Debon	378-29-3448	367918
7	Hernandez, Harold	176-32-4664	289512
8	Ochoa, Jose	853-82-7337	225340
9	Houston, Steven	469-18-1748	686881

- Click and hold with your mouse and move your cursor down, until the row's edge is the height of your choice. You can also see the row's height increase.

	A	B	C
1	Contact Person	Social Security Number	Account Number
2	Dominguez, Barbara	904-58-5448	161778
3	Dominguez, Barbara	904-58-5448	161778
4	Anthony, Rob	655-84-6444	788491
5	Williams, Debon	378-29-3448	367918
6	Williams, Debon	378-29-3448	367918
7	Hernandez, Harold	176-32-4664	289512
8	Ochoa, Jose	853-82-7337	225340
9	Houston, Steven	460-18-1749	686881

- Let go of your mouse and the height of all selected rows will be adjusted according to the height you selected.

	A	B	C
1	Contact Person	Social Security Number	Account Number
2	Dominguez, Barbara	904-58-5448	161778
3	Dominguez, Barbara	904-58-5448	161778
4	Anthony, Rob	655-84-6444	788491
5	Williams, Debon	378-29-3448	367918
6	Williams, Debon	378-29-3448	367918
7	Hernandez, Harold	176-32-4664	289512
8	Ochoa, Jose	853-82-7337	225340
9	Houston, Steven	460-18-1749	686881

How to AutoFit Row Height & Column Width

Excel has an Autofit option that will adjust the height or width automatically. This option will not have a set height or width, but instead will make the cell big enough for the text to fit perfectly inside your cell, each column or row with the perfect width and height needed, respectively.

This method will work for adjusting the width of a column or the height of a row. Let's use one example.

To use the autofit to adjust the width of a column:

1. Select the column(s) whose width you want adjusted

	A	B	C	D
1	Customer Last Name	Custor	Date o	Accou
2	Dominguez	Barbar	3-Jan	46941
3	Anthony	Rob	1-Feb	42897
4	Williams	Debor	2-Feb	19751
5	Hernandez	Harold	5-Feb	87321
6	Ochoa	Jose	5-Mar	25829
7	Houston	Stever	#####	29520

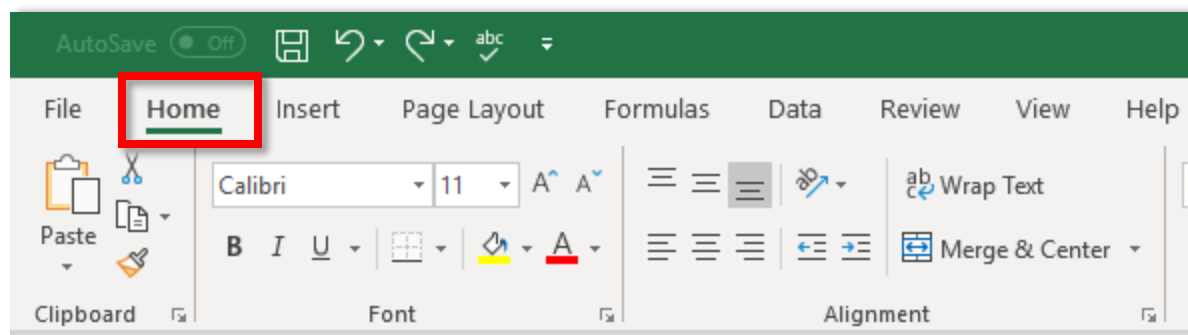
2. Place your cursor between the border of the column *letter* you selected that is farthest to the right and between the column next to it until you see a black cross with two arrows (one on the left and one on the right).

	A	B	C	D	E
1	Customer Last Name	Custor	Date o	Accou	Average Sale
2	Dominguez	Barbar	3-Jan	46941	3099
3	Anthony	Rob	1-Feb	42897	2010
4	Williams	Debor	2-Feb	19751	921
5	Hernandez	Harold	5-Feb	87321	167
6	Ochoa	Jose	5-Mar	25829	1256
7	Houston	Stever	#####	29520	2344

3. Double-click with your mouse. After double-clicking, each column that you selected should adjust specific to the content the column contains.

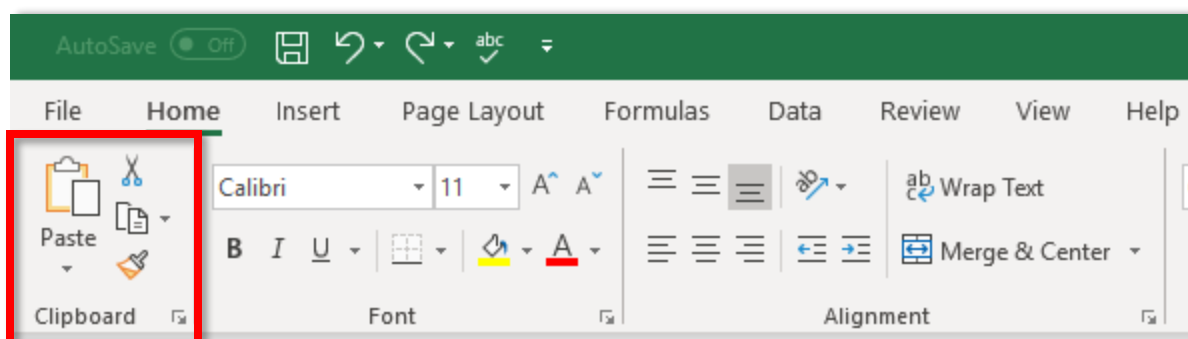
Navigating the Home tab

The **Home** tab will be the most commonly used page for an Excel beginner. This booklet will not cover *all* commands (or buttons) found on the **Home** tab but will cover the functionalities that a beginning Excel user would use.



The Clipboard Group

The **Clipboard** group of the **Home** tab is typically on the left side of the ribbon. The **Clipboard** group allows users to use the cut, copy and paste commands as well as the Format Painter. Typically, the **Clipboard** group is accessed to view content that has been copied or cut.



Using the Cut & Paste Commands

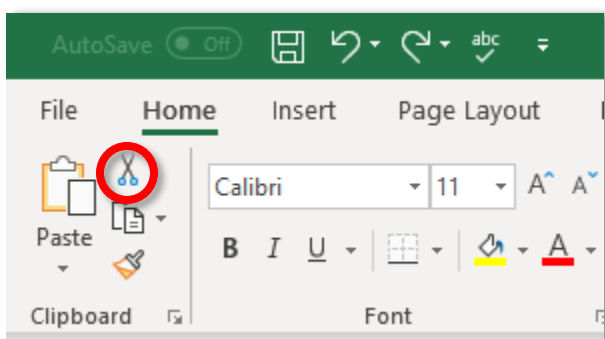
The **Cut** command is usually represented by an icon of a scissor. You can cut cells, tables, text, formulas, rows and columns in Excel by using the **Cut** command. However, you *cannot* use the **Cut** command by itself. The **Cut** command should always be followed by another command (typically the **Paste** command which is also located in the **Clipboard** group).

To use the **Cut** & **Paste** commands to *move* cells from one area to another:

1. Select the cells you want to move

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's		
4	Burger King		
5	Disneyland		
6			
7			

2. From the **Clipboard** group, select the **Cut** command



3. Once the **Cut** command is selected, the area that you *cut* should show with animated dashes

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's		
4	Burger King		
5	Disneyland		
6			
7			

4. Click on the area where you want to place the *cut* content

	A	B	C	D
1	Account Name	Sales Amount	Sales Date	
2	Dundler-Mifflin	29000	19-Feb	
3	McDonald's			
4	Burger King			
5	Disneyland			
6				
7				

5. Select the **Paste** command from the **Clipboard** group



6. Your content will now exist in the area selected, replacing any preexisting content with what you pasted.

	A	B	C	D	E
1		Sales Amount	Sales Date	Account Name	
2		29000	19-Feb	Dundler-Mifflin	
3				McDonald's	
4				Burger King	
5				Disneyland	
6					
7					

Using the Copy & Paste Option

Unlike the **Cut** command, the **Copy** command *duplicates* content, formulas or cells. Like the **Cut** command, the **Copy** command cannot be used on its own. The Copy command is typically identified by the icon in the Clipboard group with two identical pages. The **Copy** command must be followed by another command (typically the **Paste** command).

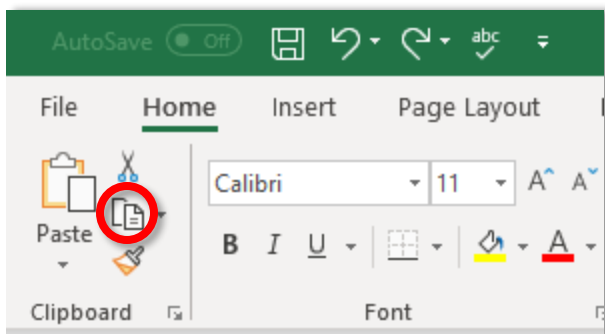
To use the **Cut** & **Paste** commands to *move* cells from one area to another:

1. Select the cells you want to *duplicate*



	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's		
4	Burger King		
5	Disneyland		
6			
7			

2. From the **Clipboard** group, select the **Copy** command



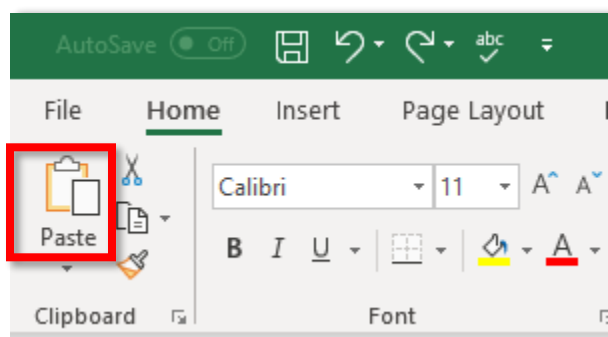
3. Once the **Copy** command is selected, the area that you *copied* should show with animated dashes

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's		
4	Burger King		
5	Disneyland		
6			
7			

4. Click on the area where you want to *duplicate* the copied content

	A	B	C	D
1	Account Name	Sales Amount	Sales Date	
2	Dundler-Mifflin	29000	19-Feb	
3	McDonald's			
4	Burger King			
5	Disneyland			
6				
7				

5. Select the **Paste** command from the **Clipboard** group



- Your content will now exist in two places: the area where you originally copied and the area where you pasted the content. Pasting any content will always replace any preexisting content with what you pasted.

	A	B	C	D	E
1	Account Name	Sales Amount	Sales Date	Account Name	
2	Dundler-Mifflin	29000	19-Feb	Dundler-Mifflin	
3	McDonald's			McDonald's	
4	Burger King			Burger King	
5	Disneyland			Disneyland	
6					
7					

The Format Painter

The **Format Painter** is a useful tool located in the **Clipboard group** of the **Home** tab ribbon. The **Format Painter** is typically recognized by an icon of a paint brush. The **Format Painter** allows you to replicate the style, fonts, borders (aka cell's format) without replacing or overriding any of the values or contents from one cell to another. The **Format Painter** allows users to have a consistent looking spreadsheet.

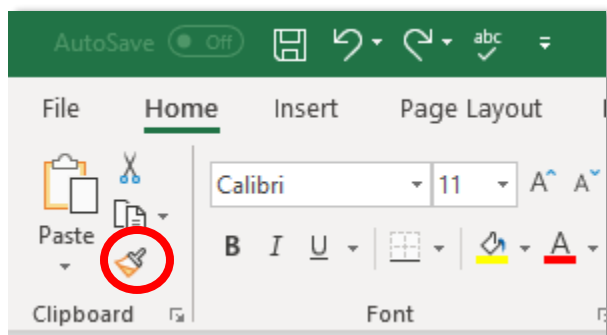
	A	B	C		A	B	C	
1	Account Name	Sales Amount	Sales Date		1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb		2	Dundler-Mifflin	29000	2/19/2019
3	McDonald's	32000	19-Jan		3	McDonald's	32000	1/19/2019
4	Burger King	44000	4-Mar		4	Burger King	44000	3/4/2019
5	Disneyland	22000	1-May		5	Disneyland	22000	5/1/2019

To use the **Format Painter**:

- Select the range that includes the formatting you want to apply to the rest of the table

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's	32000	19-Jan
4	Burger King	44000	4-Mar
5	Disneyland	22000	1-May
6			
7			

- After selecting the range, select the **Format Painter** command, located in the **Clipboard** group



- After the **Format Painter** is selected, your selected range will have animated dashes around the content

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	19-Feb
3	McDonald's	32000	19-Jan
4	Burger King	44000	4-Mar
5	Disneyland	22000	1-May
6			
7			

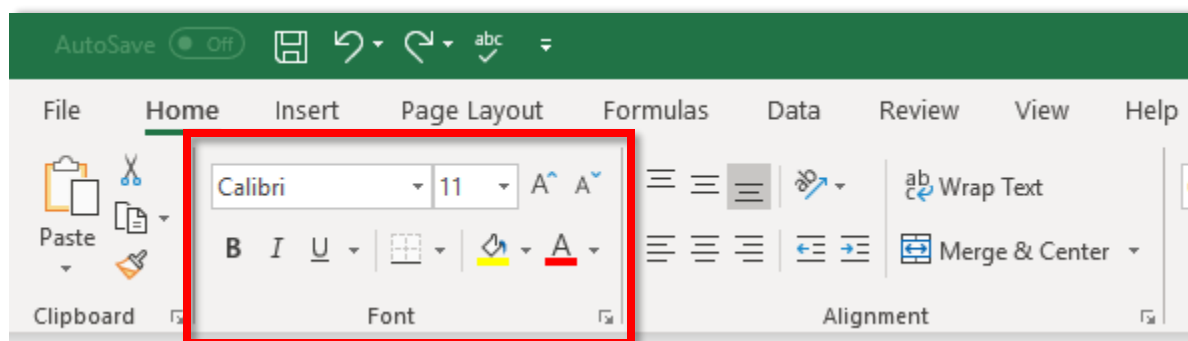
- Select the range where you want to apply the formatting and let go of your mouse after you're done

	A	B	C
1	Account Name	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	43515
3	McDonald's	32000	43484
4	Burger King	44000	43528
5	Disneyland	22000	43586
6			
7			

The **Format Painter** allows you to copy background colors, number formats, font colors font types and font alignments. You'll know that you successfully used the **Format Painter** because you applied it correctly to the selected range.

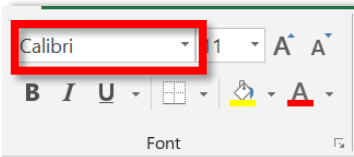
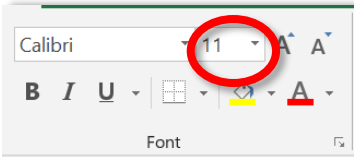
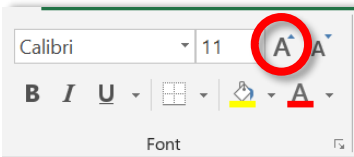
The Font Group

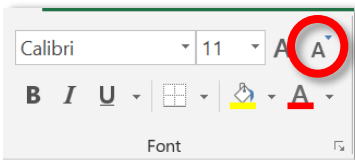
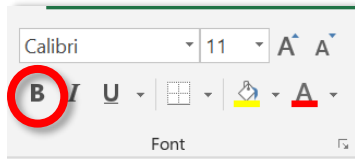
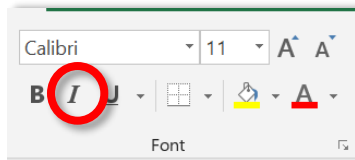
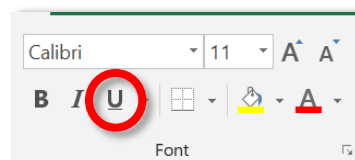
The **Font group** of the **Home** Tab ribbon will look familiar to you. This is because the design of this section is commonly used throughout programs, emails and software. The **Font group** allows you to change the font of your text, change the size of the text, bold, underline, and change the color of the font among other things.



Changing the Font Style

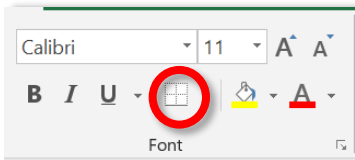
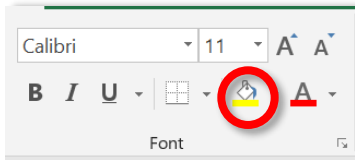
You can change the font color, size and style in Excel, just like writing an email. The following is a quick guide that will help you understand the commands that allow you to change the font style of your text.

Excel Function Name	Location	Description
Font Type		Allows you to change the font type of your text
Font size		Allows you to change the size of your text
Increase font size		Makes the size of your font a bit bigger

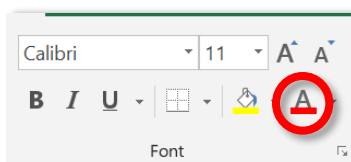
Decrease font size		Makes the size of your font a bit smaller
Bold		Makes your text darker (bold)
<i>Italic</i>		Italicize your text
<u>Underline</u>		Will add a line below your text (underline)

Borders & Colors

You can also change the formatting of your cells to make your font stand out. The table below describes three popular commands from the **Font** group.

Excel Function Name	Location	Description
Borders		Allows you to add borders (i.e. top, bottom, double) to your cell
Fill Color		Allows you to color the background of cells to make them stand out

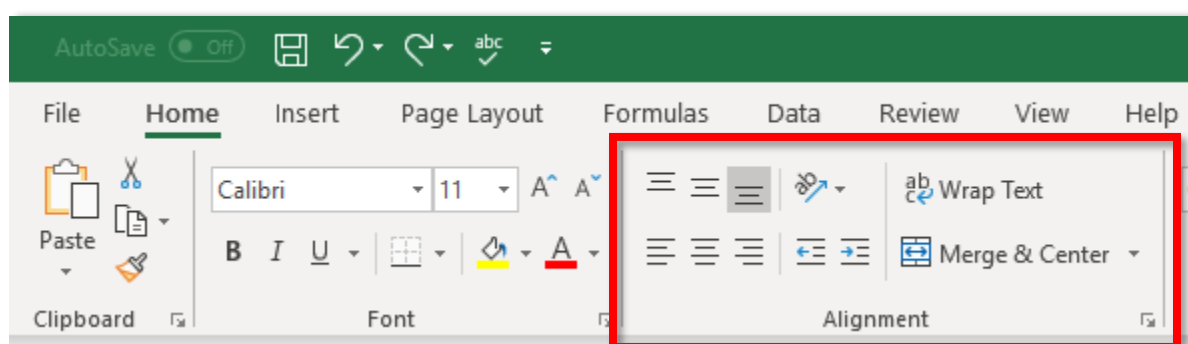
Font Color



Allows you to change the color of your text (which defaults to black)

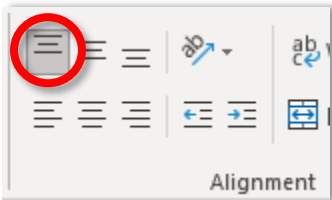
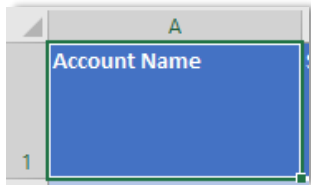
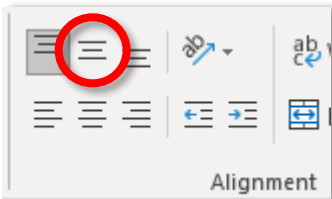
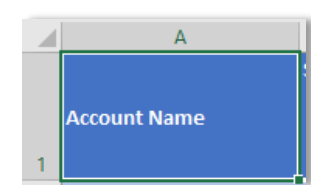
The Alignment Group

Use the Alignment group to align the text displayed in your cells. Aligning your cells will help your table look more professional and may also help you fit the content into fewer cells to print.

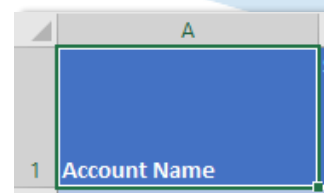
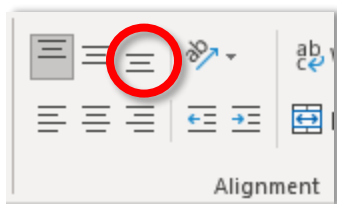


Text Alignment

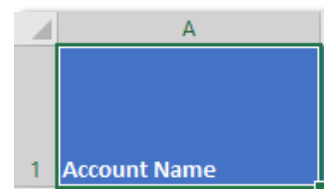
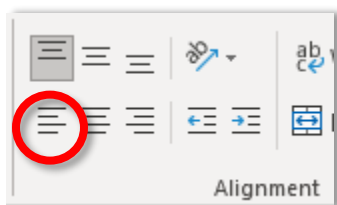
The **Alignment group** of Excel begins with two rows with three commands in each row. These commands are commonly used to align the text within cells. In the table below, you will find the command name, the command location and an example of the command when used.

Alignment Command Name	Location	Example
Top Align		
Middle Align		

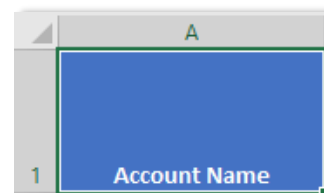
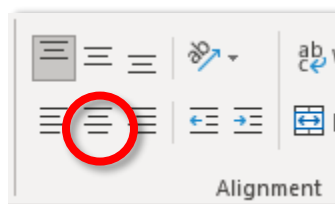
Bottom Align



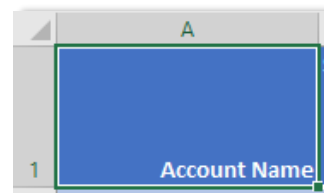
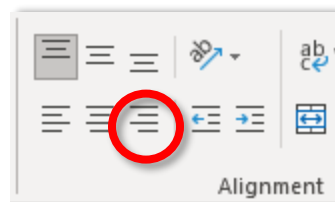
Align Left



Align Center



Align Right



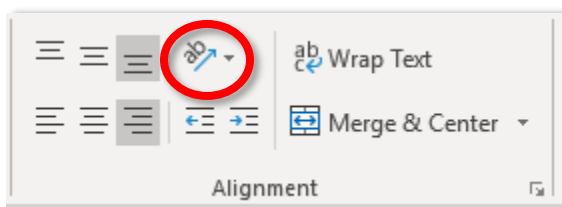
Text Orientation

By default, your text will display from left to right of a cell, but you can change the orientation of your text to go up and down and to go sideways as well. When clicking on the **Orientation** button, you will be prompted with a drop-down menu that will (1) help you visualize the orientation of your text and (2) allow you to select the orientation of your choice.

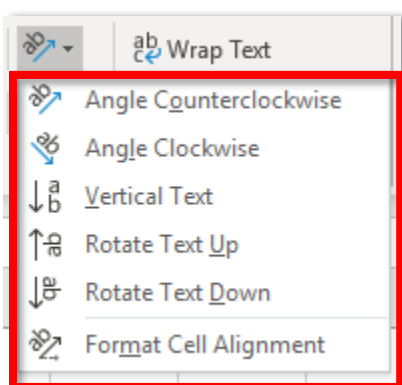
Text orientation is typically used for desired styling. You will most likely not encounter too many tables that use a different kind of text orientation in this booklet or in any of the exercises provided.

To use the Text **Orientation** command:

1. Select the text you want changed
2. Click on the **Orientation** command located in the **Alignment** group of the ribbon



3. The **Orientation** command will display a menu of options. Select the orientation of your choice to modify your text.



Wrap Text

Sometimes you have a width of a cell you want to keep, but the content inside of that cell is too long that not all the information is displayed. This is where the **Wrap Text** command is useful.

Wrap Text is a button that allows you to 'wrap' your text around the cell so that the text may fit. Below is an example of how **Wrap Text** can be used. Notice that the width of the three columns remains the same

J	K	L
Full Name	Security Number	Phone Number

→

J	K	L
Full Name	Social Security Number	Phone Number

Merge & Center

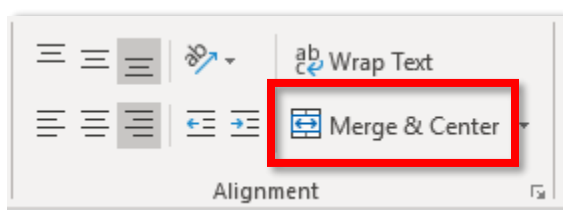
Excel allows you to merge two cells into one cell. This is a great option when working with tables to combine any extra space. Be careful when using the Merge & Center button to merge two cells *with* content. When merging to cells with content in each cell, Excel will keep the content of the first cell (the farthest from the left or the top) and remove the content from the rest of the cells.

To use the **Merge & Center** command:

1. Select the two cells you want to merge.

	A	B	C
			Sales Amount
1	Account Name And Code		
2	Dundler-Mifflin	4534534	29000
3	McDonald's	3453453	32000
4	Burger King	1345345	44000
5	Disneyland	5634633	22000
6			
7			

2. Click on the **Merge & Center** command.

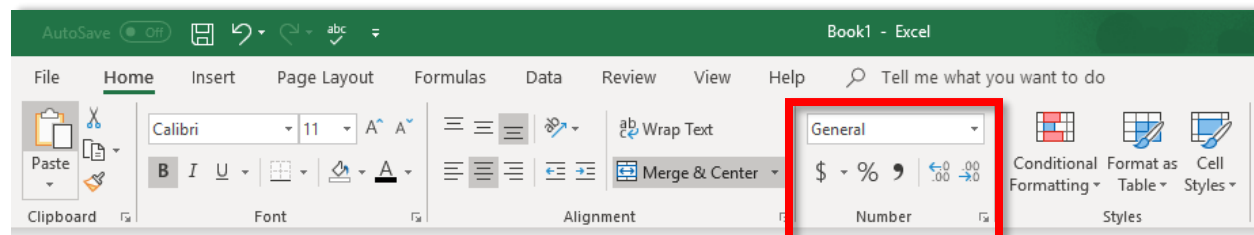


3. If you selected two cells (or more) to merge with content, Excel will prompt a warning that merging the cells will remove the content of some of your cells. If you are merging two cells (or more) in which only the content you want to keep is available, then you will see that the command was implemented successfully.

	A	B	C
			Sales Amount
1	Account Name And Code		
2	Dundler-Mifflin	4534534	29000
3	McDonald's	3453453	32000
4	Burger King	1345345	44000
5	Disneyland	5634633	22000
6			
7			

The Number Group

The **Number group** of the **Home** tab's ribbon allows you to change the text format of the numbers you use in your spreadsheets. Since Excel is typically used for number crunching, calculations and data storage, it is common for spreadsheets to be filled with numbers. Use the **Number group** according to the type of numbers you want displayed.



Entering numbers in a cell

Excel is obviously used for capturing information, especially data that contains numbers. To enter numbers in cells, type in the data as described in previous sections of this booklet:

1. Click once on any cell
2. Type your data
3. Press the 'Enter' button on your keyboard

	A	B
1	Account Name	Sales Amounts
2	Dunder-Mifflin	29000
3		

Any time you enter data into cells, it is automatically (and typically) formatted to a **General** format.

Choosing Number Formats from Commands Displayed in the Ribbon

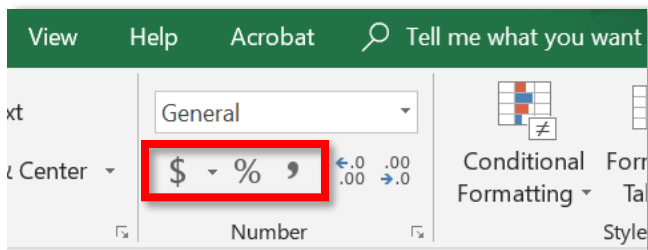
By default, Excel makes every number a **General** format instead of numbers with dollar signs or commas (to dictate thousands, for example). Therefore, if you type the number 200 inside a cell, you will only see a 200 displayed. You can convert the 200 into \$200 or \$200.00 instead. You can also use other number formats such as dates, time and percentages.

To quickly change the number format, you can select the formats readily available in the **Numbers** group:

1. Select the numbers in your spreadsheets you want to format.

	A	B	C
1	Account Name And Code	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	2/19/2019
3	McDonald's	32000	1/19/2019
4	Burger King	44000	3/4/2019
5	Disneyland	22000	5/1/2019
6			
7			

- From the **Numbers** group, select the commands readily available.



- If you followed the steps correctly, you would see the format of your selected cells update.

	A	B	C
1	Account Name And Code	Sales Amount	Sales Date
2	Dundler-Mifflin	\$ 29,000.00	2/19/2019
3	McDonald's	\$ 32,000.00	1/19/2019
4	Burger King	\$ 44,000.00	3/4/2019
5	Disneyland	\$ 22,000.00	5/1/2019
6			
7			

Additional Number Formats

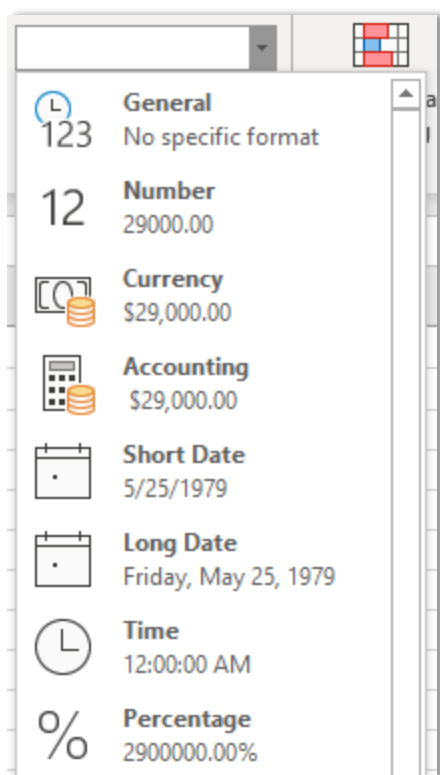
The few commands you see in the **Numbers** group are not the only commands available to format your numbers.

To access additional **Number Format** commands:

- Select the numbers in your spreadsheets you want to format.

	A	B	C
1	Account Name And Code	Sales Amount	Sales Date
2	Dundler-Mifflin	29000	2/19/2019
3	McDonald's	32000	1/19/2019
4	Burger King	44000	3/4/2019
5	Disneyland	22000	5/1/2019
6			
7			

- From the **Numbers** group, click on the **Numbers Format** drop-down menu and select the formatting of your choice.



- If you followed the steps correctly, you would see the format of your selected cells update.

	A	B	C
1	Account Name And Code	Sales Amount	Sales Date
2	Dundler-Mifflin	\$ 29,000.00	2/19/2019
3	McDonald's	\$ 32,000.00	1/19/2019
4	Burger King	\$ 44,000.00	3/4/2019
5	Disneyland	\$ 22,000.00	5/1/2019
6			
7			

How to Increase the Decimal Places of a Number

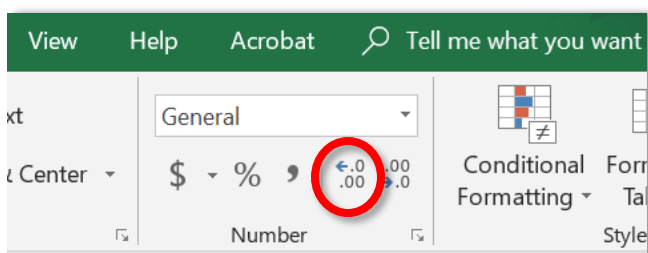
At times, you'll need to display your numbers with a precise number of decimals. Sometimes, you'll do a calculation on Excel and Excel will display a number with too many decimal places (for example 5.877777777). In Excel, you can decrease or increase the number of decimal places that Excel displays *and* have Excel automatically round to the decimal of your choice.

To increase the decimal places of a number:

1. Select the cell or cells from your spreadsheet.

	A	B	C	D
1	Customer Last Name	Customer First Name	Account ID	Average Sale
2	Dominguez	Barbara	46941	3098.5
3	Anthony	Rob	42897	2009.97
4	Williams	Debon	19751	921
5	Hernandez	Harold	87321	167.09
6	Ochoa	Jose	25829	1255.62
7	Houston	Steven	29520	2344.15

2. Select the **Increase Decimal** command from the **Number** group ribbon until you see the number of decimals you want displayed.



When used correctly, you'll see that the numbers that you selected will now have the number of decimals you wanted displayed.

	A	B	C	D
1	Customer Last Name	Customer First Name	Account ID	Average Sale
2	Dominguez	Barbara	46941	3098.50
3	Anthony	Rob	42897	2009.97
4	Williams	Debon	19751	921.44
5	Hernandez	Harold	87321	167.09
6	Ochoa	Jose	25829	1255.62
7	Houston	Steven	29520	2344.15

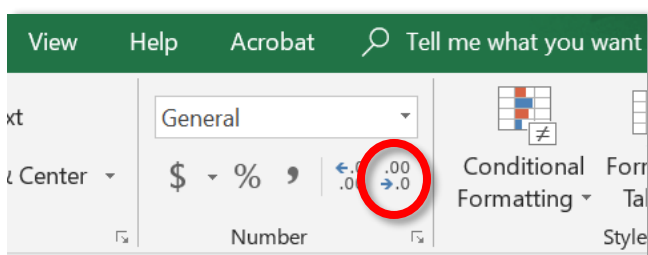
How to Decrease the Decimal Places of a Number

To decrease the decimal places of a number on your spreadsheet:

1. Select the cell or cells from your spreadsheet.

	A	B	C	D
1	Customer Last Name	Customer First Name	Account ID	Average Sale
2	Dominguez	Barbara	46941	3098.5
3	Anthony	Rob	42897	2009.97
4	Williams	Debon	19751	921
5	Hernandez	Harold	87321	167.09
6	Ochoa	Jose	25829	1255.62
7	Houston	Steven	29520	2344.15

2. Select the **Decrease Decimal** command from the **Number** group ribbon until you see the number of decimals you want displayed.



When used correctly, you'll see that the numbers that you selected will now have the number of decimals you wanted displayed.

	A	B	C	D
1	Customer Last Name	Customer First Name	Account ID	Average Sale
2	Dominguez	Barbara	46941	3099
3	Anthony	Rob	42897	2010
4	Williams	Debon	19751	921
5	Hernandez	Harold	87321	167
6	Ochoa	Jose	25829	1256
7	Houston	Steven	29520	2344

How to Enter Dates in a Cell

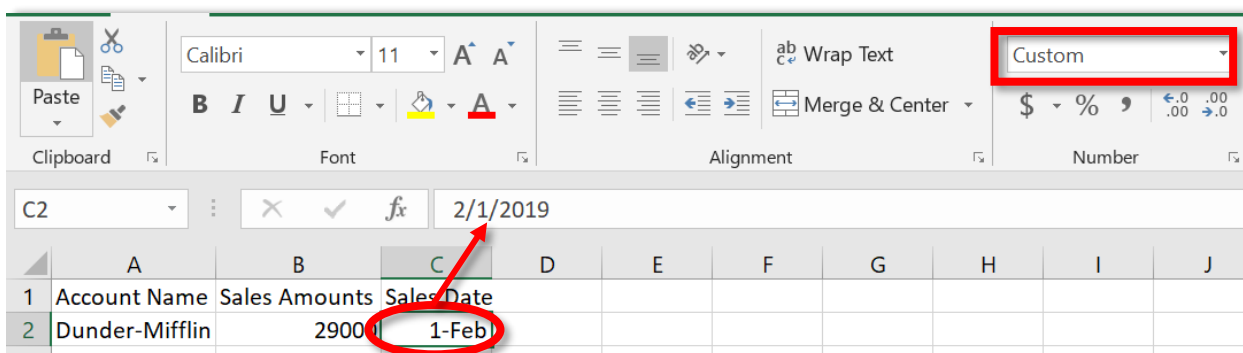
As previously mentioned, data is typically formatted as a 'General' number format, but there are instances in which Excel can recognize the data you submit. For example, when you enter a date in Excel, Excel will recognize that you entered a date and will convert it into a 'Custom' number format.

To enter a date in Excel:

1. Click on a cell
2. Type the date in the format M/D (i.e. 2/1)
3. Press the **Enter** button on your keyboard

After entering the date, you'll notice three things:

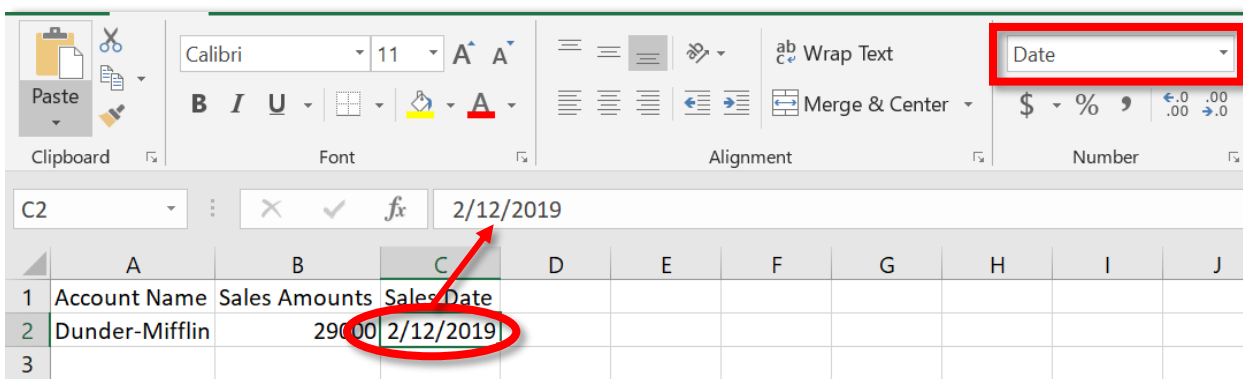
1. Your number/date is now in a number format called 'Custom'.
2. The cell will display the 'Custom' format, while the formula bar will display the entire date (including the year, although you may not have typed the year).
3. If you did not type the year into the cell, Excel will assume your date is for the current year.



How to Enter A Date as A 'Date' Format

If you type in the entire date (year included), then Excel will recognize your data as a date and will change your entry into a Date Format. To enter a date in Excel in a Date Format:

1. Type the date in the format M/D/Y (i.e. 2/12/19)
2. Press the **Enter** button on your keyboard
3. Your date should now display on both the cell and the formula bar in the number format called 'Date'



How to Quickly Customize Your 'Date' Format

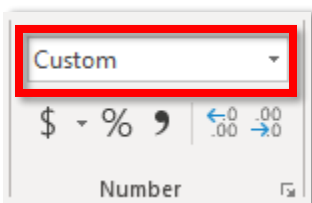
Excel gives you the option to quickly convert your dates into a 'Short Date' format (such as 2/1/2019) or a 'Long Date' format (such as Friday, February 1, 2019).

To quickly customize your 'Date' format in Excel:

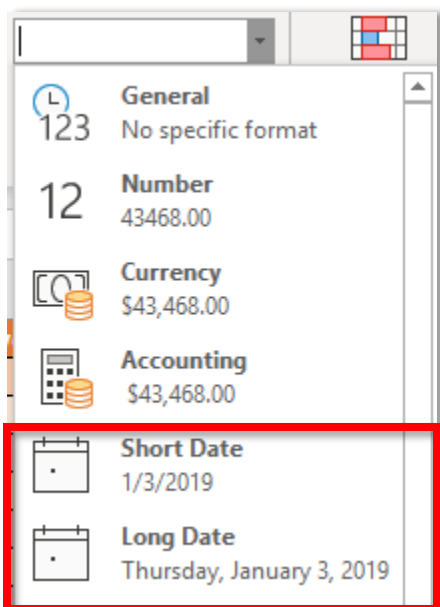
1. Select the cells with dates

	A	B	C
1	Customer Last Name	Customer First Name	Date of Cancellation
2	Dominguez	Barbara	3-Jan
3	Anthony	Rob	1-Feb
4	Williams	Debon	2-Feb
5	Hernandez	Harold	5-Feb
6	Ochoa	Jose	5-Mar
7	Houston	Steven	29-Apr

2. Click on the **Number Format** drop-down menu located in the **Number** group.



3. From the drop-down menu, select any of the two readily-available date formats.



How to Access Other Number Formats

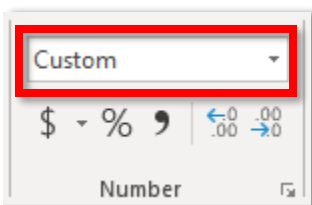
The **Number Format** drop-down menu located in the **Number** group gives you a list of the most commonly used formats. However, Excel has other options available to you.

To access other number formats:

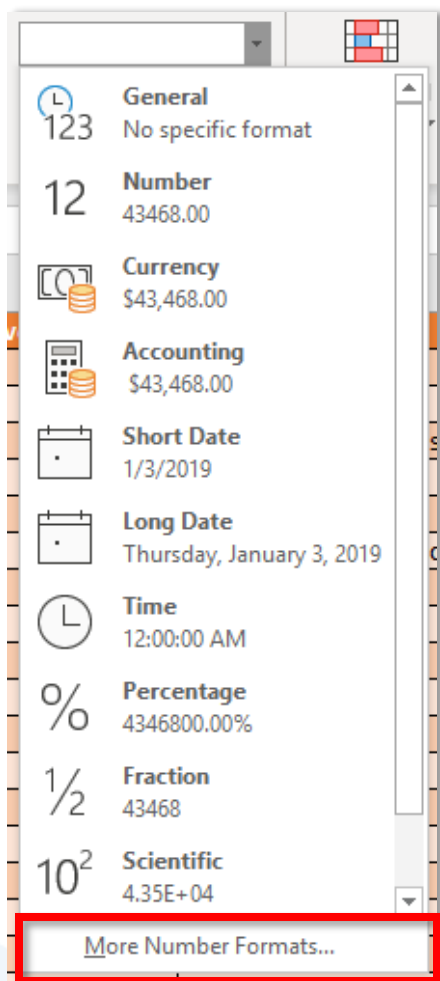
1. Select the cells you want to convert to another number format

	A	B	C
1	Customer Last Name	Customer First Name	Date of Cancellation
2	Dominguez	Barbara	3-Jan
3	Anthony	Rob	1-Feb
4	Williams	Debon	2-Feb
5	Hernandez	Harold	5-Feb
6	Ochoa	Jose	5-Mar
7	Houston	Steven	29-Apr

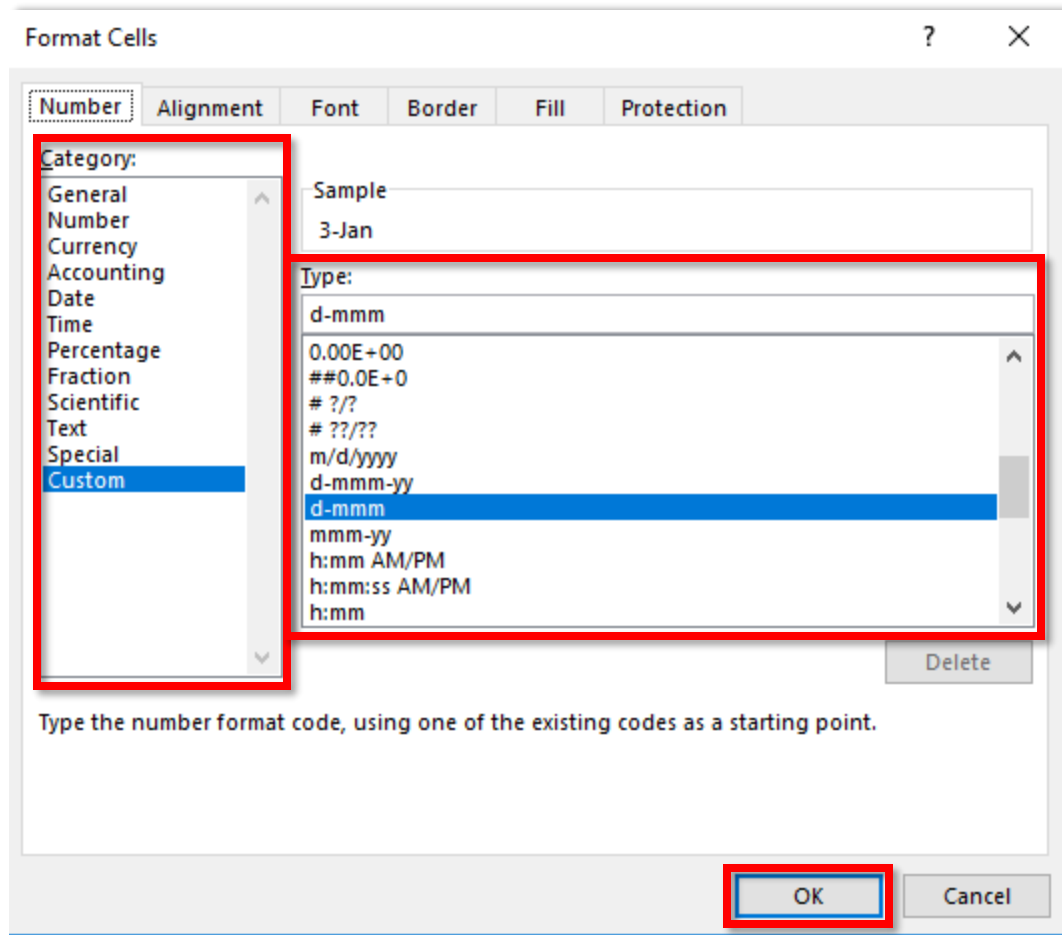
2. Click on the **Number Format** drop-down menu located in the **Number** group.



3. From the drop-down menu, select the **More Number Formats...** option.

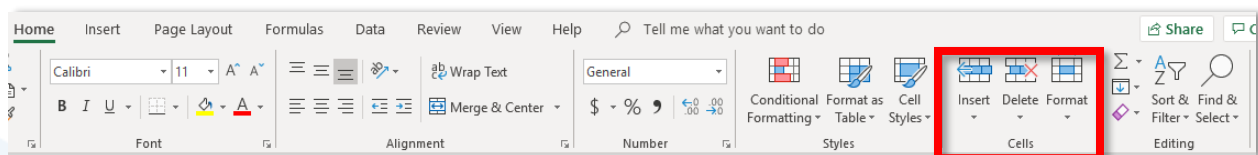


4. Selecting the **More Number Formats...** option will open a window where you can select the appropriate number category and number format. Select the format of your choice and choose the OK button.



The Cells Group

The Cells group is a section in the Home tab that will be very useful when using Excel. Although, not too many people use this section, a lot of people do use those functions. This is because there are multiple ways to do the same thing in Excel and it's typically easier or faster to do the same thing without using the Cells group. Let's review the Cells group in detail.



Inserting New Cells

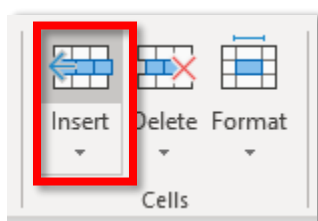
The Insert button is a dropdown menu that allows you to insert new cells, rows, columns or sheets. The first option of the dropdown menu is the Insert Cells option, which allows you to add a single cell to your document.

To insert a new cell into your spreadsheet:

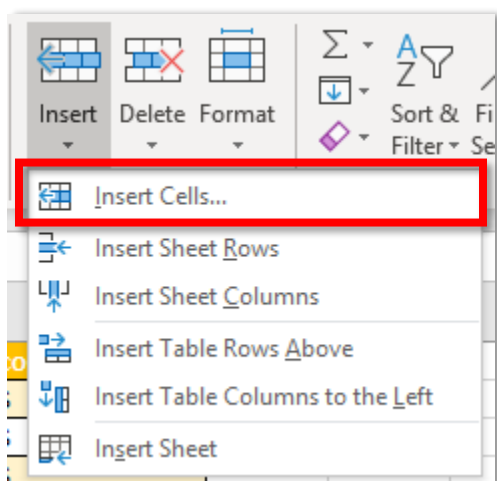
1. Select the cell (or area) where you want to insert your new cell.

	A	B	C
1	Customer Last Name	Customer First Name	Date of Cancellation
2	Dominguez	Barbara	3-Jan
3	Anthony	Rob	1-Feb
4	Williams	Debon	2-Feb
5	Hernandez	Harold	5-Feb
6	Ochoa	Jose	5-Mar
7	Houston	Steven	29-Apr

2. Click on the **Insert** command of the **Cells** group to display a menu of options.

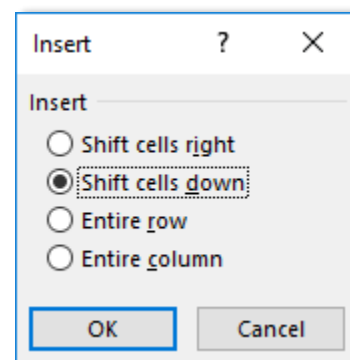


3. From the drop-down menu, select the **Insert Cells...** option.



4. Selecting the **Insert Cells...** option will trigger a window. This is because Excel wants to know where it should shift the rest of the data. Select the option of your choice and click **OK**.

If you followed the steps correctly you will notice a single blank cell appearing in your spreadsheet.



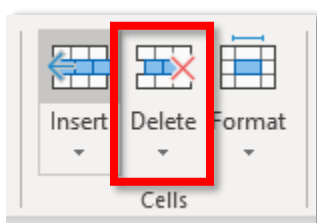
Deleting Cells

To remove a cell from your spreadsheet:

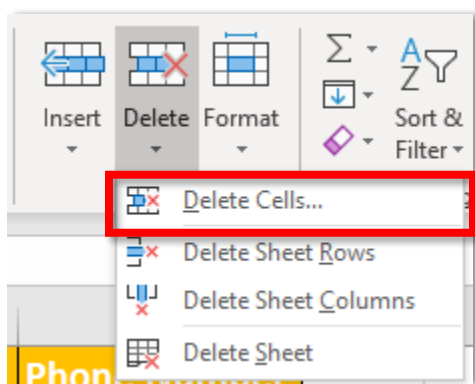
1. Select the cell(s) you want to delete.

	A	B	C
1	Contact Person	Social Security Number	Account Number
2	Dominguez, Barbara	904-58-5448	161778
3	Dominguez, Barbara	904-58-5448	161778
4	Anthony, Rob	655-84-6444	788491
5	Williams, Debon	378-29-3448	367918
6	Williams, Debon	378-29-3448	367918
7	Hernandez, Harold	176-32-4664	289512

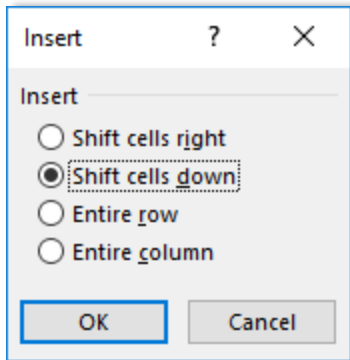
2. In the **Cells** group, select the **Delete** command.



3. From the **Delete** drop-down menu, select the **Delete Cells...** option.



4. In the pop-up window, select how you want Excel to rearrange the rest of your data within your spreadsheet and click **OK**.



Inserting Rows & Columns

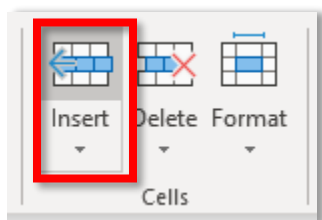
Many times, you might be working on a table and realize that you need to add more information in between the data you have already completed. In this case, it might be best to insert a completely new row or column instead of a single cell.

To insert a row or column:

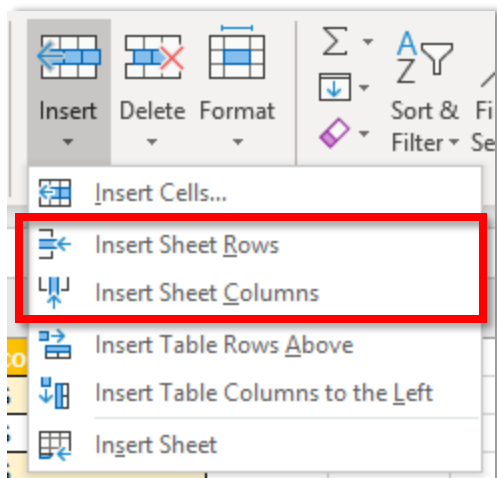
1. Select the column *letter* or the row *number* of where you want the new column or row.

	A	B	C
1	Customer Last Name	Customer First Name	Date of Cancellation
2	Dominguez	Barbara	3-Jan
3	Anthony	Rob	1-Feb
4	Williams	Debon	2-Feb
5	Hernandez	Harold	5-Feb
6	Ochoa	Jose	5-Mar
7	Houston	Steven	29-Apr

2. Click on the **Insert** command in the **Cells** group.



- From the drop-down menu, select **Insert Sheet Rows** if you are inserting a row or **Insert Sheet Columns** if you are inserting a column.



Once you completed these steps, you will see your new row or column in your spreadsheet.

Deleting Rows & Columns

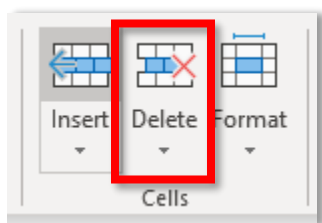
Before you decide to permanently remove an entire row or column (or rows and columns), decide if you'll need the data. An alternative to deleting a row or a column would be to hide it (which will be covered later in this booklet).

To remove rows or columns:

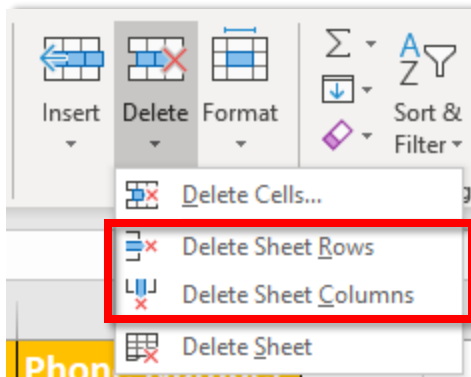
- Select the rows or columns you want to permanently delete.

	A	B	C	D
1	Contact Person	Social Security Number	Account Number	Account Name
2	Dominguez, Barbara	904-58-5448	161778	Howard & Son Inc.
3	Dominguez, Barbara	904-58-5448	161778	Howard & Son Inc.
4	Anthony, Rob	555-84-6444	788491	The Getaway Franchise
5	Williams, Debon	378-29-3448	367918	Steele Plumbing Inc.
6	Williams, Debon	378-29-3448	367918	Steele Plumbing Inc.
7	Hernandez, Harold	176-32-4664	289512	Loma Linda Unified School District

- From the **Cells** group, select the **Delete** command.



- From the **Delete** drop-down menu, select to **Delete Sheet Rows** or **Delete Sheet Columns**



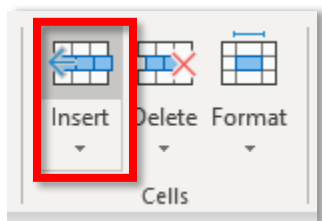
Once you delete your rows or columns, the data will disappear from your table.

Inserting New Sheets

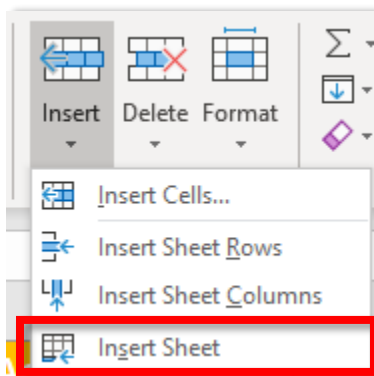
Excel typically allows you to work in one spreadsheet per workbook. If you are using an older version of Excel, you may have three sheets to work with. However, there may be instances in which you need to create a new spreadsheet.

To insert a new sheet:

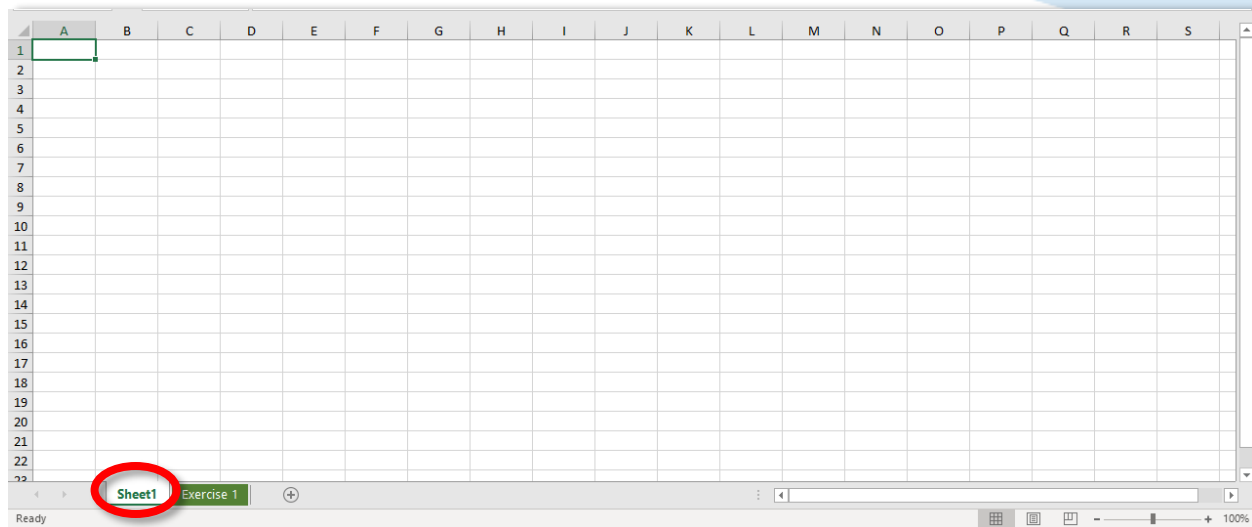
- Click on the **Insert** command in the **Cells** group.



- From the **Insert** drop-down menu select the **Insert Sheet** option



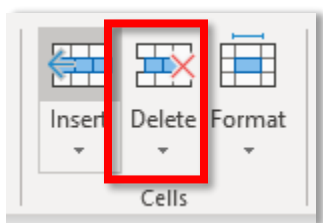
- You can now use your new sheet.



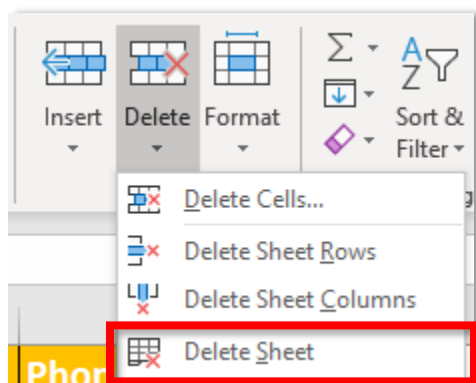
Deleting Sheets

To delete an entire spreadsheet:

1. Make sure you are viewing the sheet you want to permanently delete.
2. In the **Cells** group, select the **Delete** command.



3. From the **Delete** drop-down menu, select the **Delete Sheet** option.



Adjusting the Cell Size

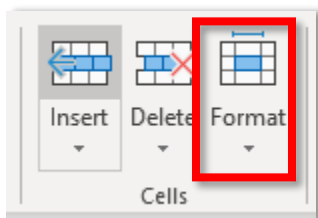
Previously, you learned how to adjust the height of a row and the width of a column. In Excel, there are multiple ways to do the same function. In this section, you'll learn how to adjust the sizes by using the ribbon.

To adjust the height of a row or width of a column:

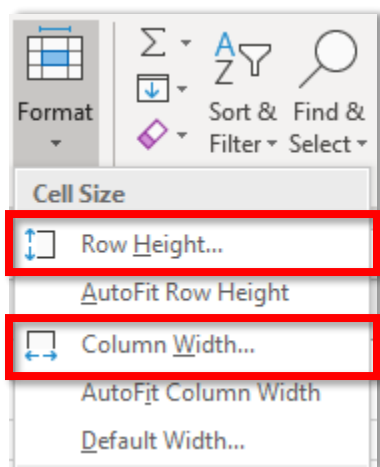
1. Select the column(s) or rows whose width or height you want to adjust, respectively.

	A	B	C	D
1	Customer Last Name	Custor	Date o	Accou
2	Dominguez	Barbar	3-Jan	46941
3	Anthony	Rob	1-Feb	42897
4	Williams	Debor	2-Feb	19751
5	Hernandez	Harold	5-Feb	87321
6	Ochoa	Jose	5-Mar	25829
7	Houston	Stever	#####	29520

2. From the **Cells** group, select the **Format** command.

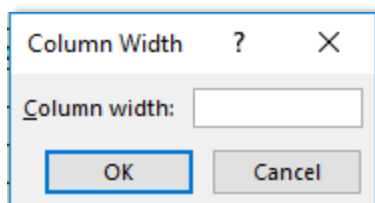


3. In the **Format** drop-down menu, select either the **Row Height...** option or the **Column Width...** option



4. After selecting an option from the drop-down menu, Excel will prompt you to manually enter the height or width of your row or column, respectively. Enter the number in the box provided and select After selecting an option from the drop-down menu, Excel will

prompt you to manually enter the height or width of your row or column, respectively. Enter the number in the box provided and select **OK**.



Once you completed these steps, your cells will adjust.

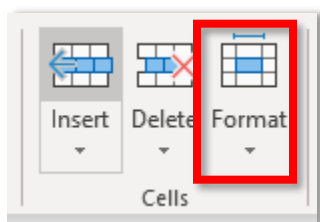
	A	B	C	D
1	Customer Last Name	Customer First Name	Date of Cancellation	Account ID
2	Dominguez	Barbara	3-Jan	46941
3	Anthony	Rob	1-Feb	42897
4	Williams	Debon	2-Feb	19751
5	Hernandez	Harold	5-Feb	87321
6	Ochoa	Jose	5-Mar	25829
7	Houston	Steven	29-Apr	29520

Hiding & Unhiding Columns, Rows and Sheets

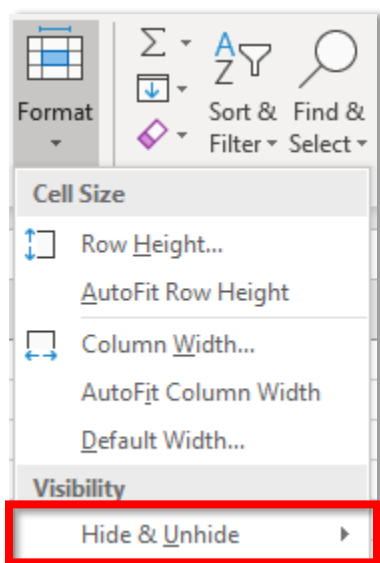
You may run into a situation where you don't want to delete a sheet, row or a column but wish it would not be visible. In this case, you can use the Hide function of Excel which is also found in the Format button drop-down menu. However, use the Hide functions with caution. Many times, users forget that they hid things in Excel, especially when sharing files with others. There is an alternative to hiding columns or rows which we will cover later in this booklet.

To hide or unhide sheets, columns or rows:

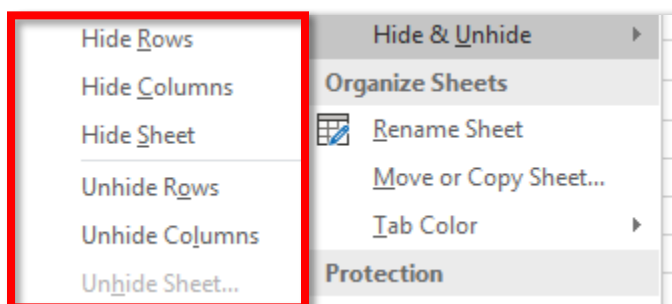
1. Select the sheet, row or column you want to hide.
2. In the **Cells** group, select the **Format** command.



- From the **Format** drop-down menu, select the **Hide & Unhide** option.



- Selecting the **Hide & Unhide** option will display a sub-menu. From the sub-menu select the option to **Hide Rows**, **Hide Columns**, **Hide Sheet** or **Unhide Rows**, **Unhide Columns** or **Unhide Columns**.



If you followed these steps correctly, your sheet, row or column will be hidden. You can unhide your sheet, column or row by following the same steps and selecting the appropriate option.

How to Move Columns or Rows from One Place to Another

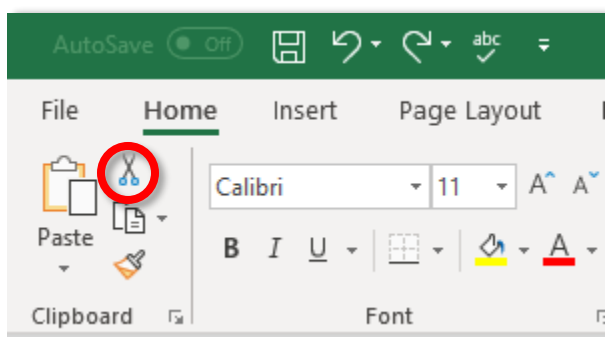
Previously, you learned how to cut and copy ranges of cells and paste them in other areas. You also learned how to create new columns or rows. In this section you'll learn how to move one column from one location on a spreadsheet to another.

To move a column or row from one place to another:

1. First, select the row or column you want to move.

	A	B	C	D	E	F
1	Contact Person	Social Security Number	Account Number	Account Name	Account Active?	Phone Number
2	Dominguez, Barbara	904-58-5448	161778	Howard & Son Inc.	YES	(916) 964 - 3998
3	Dominguez, Barbara	904-58-5448	161778	Howard & Son Inc.	YES	(916) 964 - 3998
4	Anthony, Rob	655-84-6444	788491	The Getaway Franchise	NO	(207) 634 - 9210
5	Williams, Debon	378-29-3448	367918	Steele Plumbing Inc.	YES	(668) 163 - 1740
6	Williams, Debon	378-29-3448	367918	Steele Plumbing Inc.	YES	(939) 945 - 1321
7	Hernandez, Harold	176-32-4664	289512	Loma Linda Unified School District	YES	(411) 677 - 9365

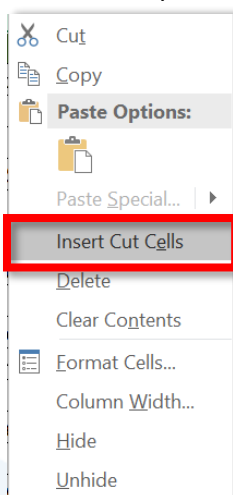
2. Select the **Cut** command from the **Clipboard** group located in the **Home** tab.



3. Select the row or column where you want to place your cut row or column.

	A	B	C	D	E	F
1	Contact Person	Social Security Number	Account Number	Account Name	Account Active?	Phone Number
2	Dominguez, Barbara	904-58-5448	161778	Howard & Son Inc.	YES	(916) 964 - 3998
3	Dominguez, Barbara	904-58-5448	161778	Howard & Son Inc.	YES	(916) 964 - 3998
4	Anthony, Rob	655-84-6444	788491	The Getaway Franchise	NO	(207) 634 - 9210
5	Williams, Debon	378-29-3448	367918	Steele Plumbing Inc.	YES	(668) 163 - 1740
6	Williams, Debon	378-29-3448	367918	Steele Plumbing Inc.	YES	(939) 945 - 1321
7	Hernandez, Harold	176-32-4664	289512	Loma Linda Unified School District	YES	(411) 677 - 9365

4. With your mouse, right-click anywhere in the area where you want to place the contents.
After right-clicking, a menu will appear.
5. Select the option **Insert Cut Cells**



Now you'll see that you have just moved the contents of one area in your spreadsheet to another area. Please note that if you were to use the **Paste** option after you cut your cells, the contents would completely override the information that existed there before.

	A	B	C	D	E	F
1	Contact Person	Phone Number	Social Security Number	Account Number	Account Name	Account Active?
2	Dominguez, Barbara	(916) 964 - 3998	904-58-5448	161778	Howard & Son Inc.	YES
3	Dominguez, Barbara	(916) 964 - 3998	904-58-5448	161778	Howard & Son Inc.	YES
4	Anthony, Rob	(207) 634 - 9210	655-84-6444	788491	The Getaway Franchise	NO
5	Williams, Debon	(668) 163 - 1740	378-29-3448	367918	Steele Plumbing Inc.	YES
6	Williams, Debon	(939) 945 - 1321	378-29-3448	367918	Steele Plumbing Inc.	YES
7	Hernandez, Harold	(411) 677 - 9365	176-32-4664	289512	Loma Linda Unified School District	YES

Organizing Your Sheets

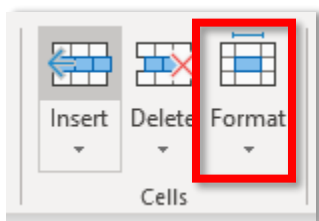
Previously, you used the **Format** command from the **Cells** group. The **Format** command also allows you to organize your sheets. Let's explore how to do this in detail in the following section.

Renaming Your Sheet

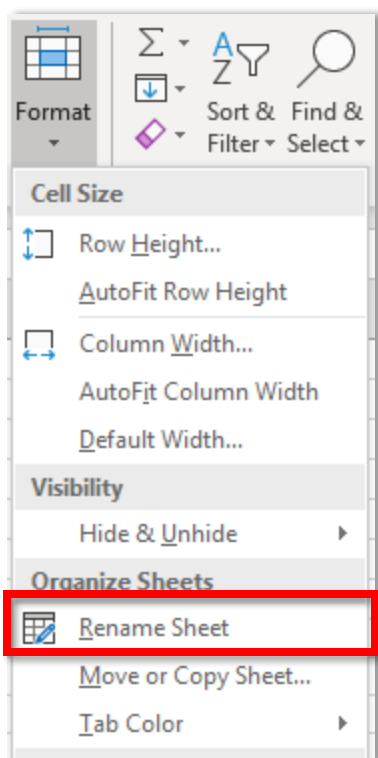
In the beginning of this booklet, you learned that when you create a new Sheet, Excel defaults to name your sheet as *Sheet 1*. You can change the name of the sheet.

To change the name of your sheet:

1. Select the **Format** command located in the **Cells** group.



2. From the **Format** drop-down menu, select the **Rename Sheet** option.



3. Type the name that you want to give your sheet.

19	Gomez, Peter	(794) 350 - 3095	805-65-6446
20	Mendez, Jorge	(610) 849 - 2593	854-61-1711
21	Aguilera, Jose	(443) 576 - 8008	672-27-4499
22	Alvarado, Alex	(316) 540 - 8857	820-33-3050
23	Young, David	(368) 310 - 7657	324-91-9177

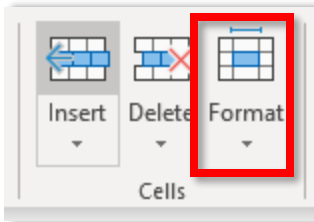
Moving & Copying A Sheet

Besides renaming your spreadsheet, you can also rearrange the way your sheets are organized.

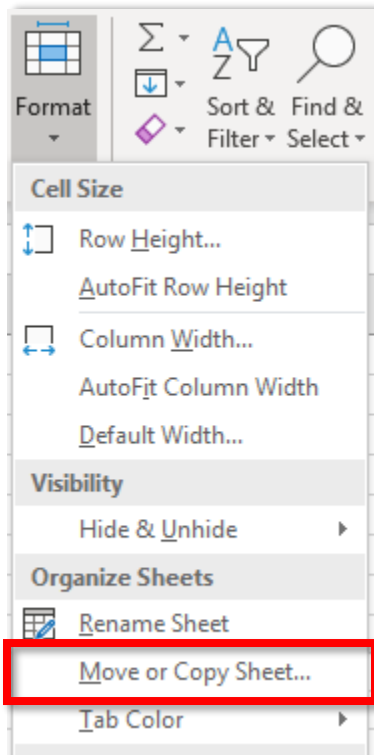
To move or copy a sheet:

1. Make sure that you are working on the spreadsheet you want to move or duplicate.

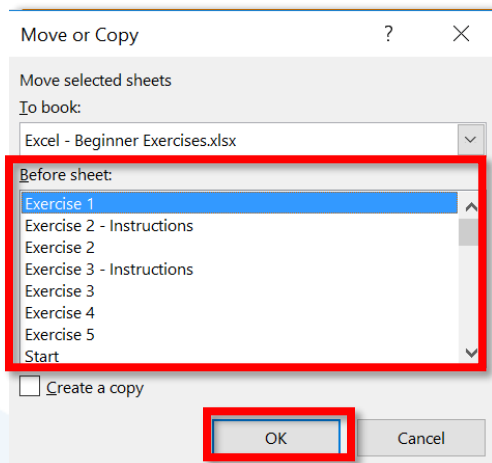
2. Select the **Format** command located in the **Cells** group.



3. From the **Format** drop-down menu, select the **Move or Copy Sheet...** option.



4. The **Move or Copy Sheet...** option will trigger a pop-up window. In the *Before Sheet* section of the window, select where you want to place your sheet and press **OK**.



If you want to duplicate the sheet you're working on, then make sure that the **Create a copy** checkbox is checked.

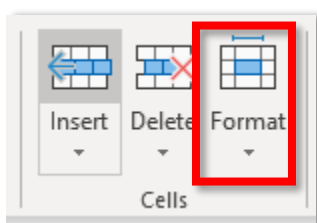
Additionally, you can move or copy sheets to other workbooks as well. Just make sure that the workbook where you want to move your sheet(s) is open so that you can select the file from the dropdown menu at the top (that reads *To book*).

Tab Color

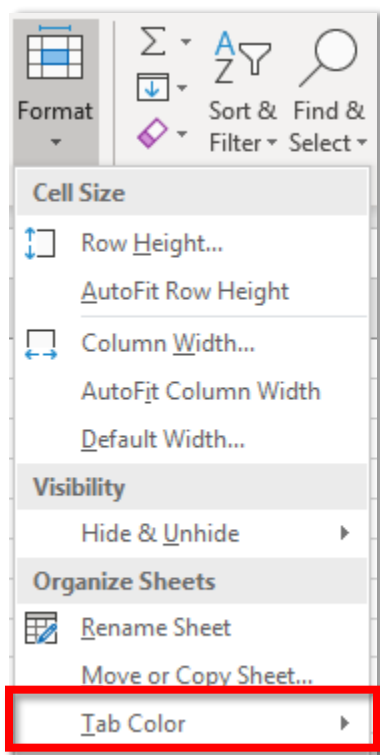
Excel also allows you to change the color of your sheet's tab – the way your sheet is displayed at the bottom. By default, Excel gives it a gray color.

To change the color of your sheet's tab:

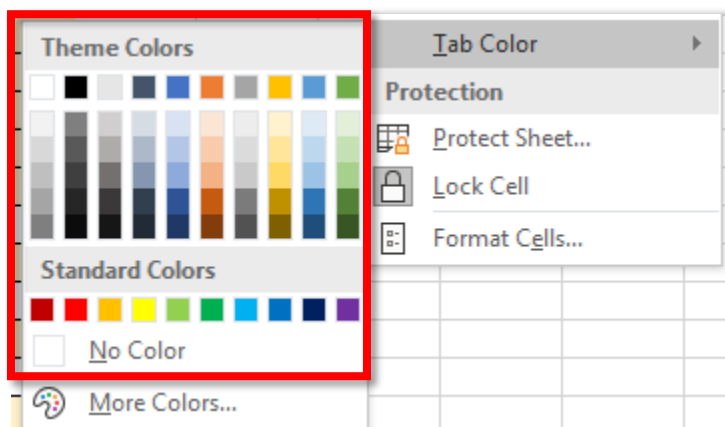
1. Select the **Format** command located in the **Cells** group.



2. From the **Format** drop-down menu, select the **Tab Color** option.

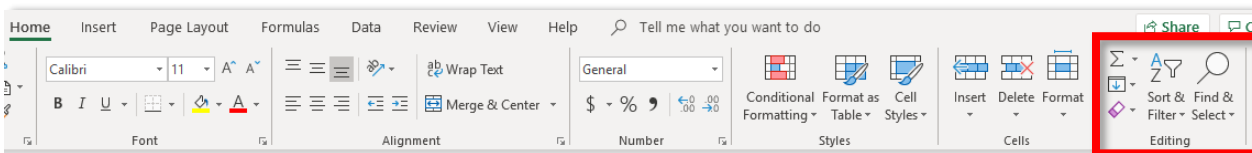


3. The **Tab Color** option will display a gallery of colors. Select the color of your choice to change the color of your sheet's tab.



The Editing Group

Tables can get messy. Nowadays, we work with large tables that contain thousands of entries. The **Editing** group allows you to nicely organize your data.



What is Sorting and why use it?

The Sorting function is one of the most used commands in Excel. It basically lets you organize your table or data, allowing you to dictate a certain order. For example, you can organize your data in the following ways:

1. By date
2. In alphabetical order
3. By the highest or lowest amount
4. By your cells' color

Sorting your entries is important because all the data that follows each entry will be sorted together. In this section, we'll begin exploring the sorting command and the different things you can do in Excel when sorting your data.

How to Sort your Data in Excel

Excel is a smart program and, depending on the type of data that you put in a spreadsheet, Excel will recognize if your information consists of words or numbers. Before you begin sorting your data, make sure that your data has headers. In other words, make sure that your data has labeled each column.

To sort your data in Excel:

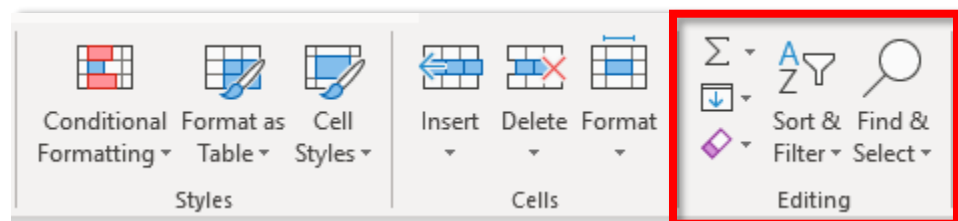
1. Identify how you want to sort your information. In other words, which column will be the source of your sorting.

	A	B	C	D	E
1	Customer Last Name	Customer First Name	Account ID	Account Name	Account Active?
2	Dominguez	Barbara	46941	Howard & Son Inc.	YES
3	Anthony	Rob	42897	Howard & Son Inc.	YES
4	Williams	Debon	19751	The Getaway Franchise	YES
5	Hernandez	Harold	87321	Steele Plumbing Inc.	YES
6	Ochoa	Jose	25829	Steele Plumbing Inc.	YES
7	Houston	Steven	29520	Loma Linda Unified School District	YES

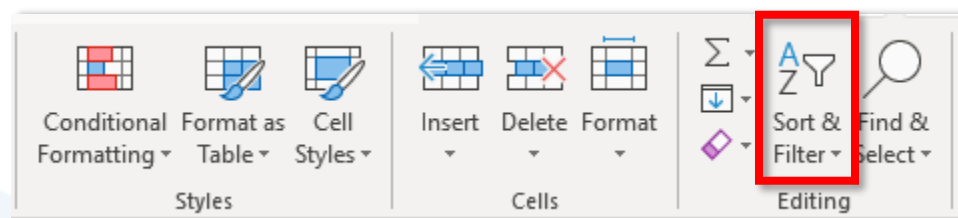
2. In the column that you'll use for sorting, click on any cell in that column *except* for the column header.

	A	B	C	D	E
1	Customer Last Name	Customer First Name	Account ID	Account Name	Account Active?
2	Dominguez	Barbara	46941	Howard & Son Inc.	YES
3	Anthony	Rob	42897	Howard & Son Inc.	YES
4	Williams	Debon	19751	The Getaway Franchise	YES
5	Hernandez	Harold	87321	Steele Plumbing Inc.	YES
6	Ochoa	Jose	25829	Steele Plumbing Inc.	YES
7	Houston	Steven	29520	Loma Linda Unified School District	YES

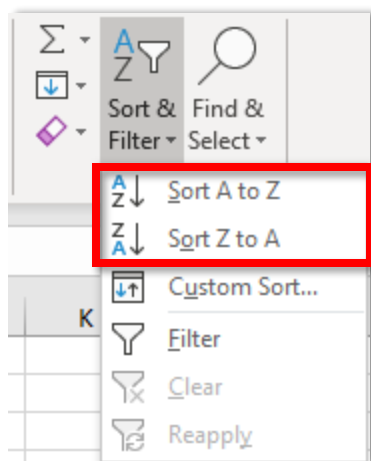
3. Navigate to the **Editing** group in the **Home** tab ribbon.



4. Click on the **Sort & Filter** command.



- The **Sort & Filter** command will display a drop-down menu. Excel will recognize the data and will allow you to sort your data in alphabetical order, such as 'A to Z' (or ascending order) or 'Z to A' (or descending order). Select the option in which you want to sort your data.



If you followed these steps correctly, you'll find that your data (1) has sorted your data based on your selected criteria and (2) every entry has the correct data in the appropriate cells.

	A	B	C	D	E
1	Customer Last Name	Customer First Name	Account ID	Account Name	Account Active?
2	Aguilar	David	48832	Hut Hut Inn	YES
3	Aguilera	Jose	71285	TheHub.com	YES
4	Alvarado	Alex	84065	RanDeer Partnership	YES
5	Anthony	Rob	42897	Howard & Son Inc.	YES
6	Chin	Jade	41479	Cruz Cruise Ships LLC	YES
7	Christenssen	Heather	40324	Corkie's LLC	YES

Custom Sort

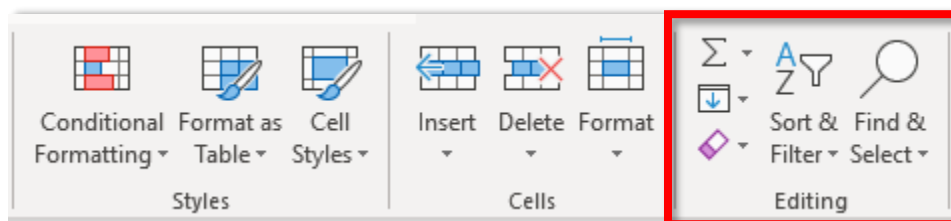
In the previous section, you learned how to sort your data with one criterion. However, there may be instances in which you want to sort your data with multiple criteria, not just one. Excel gives you the flexibility to add as many criteria to your sorting as you need in an organized manner.

To custom sort your data:

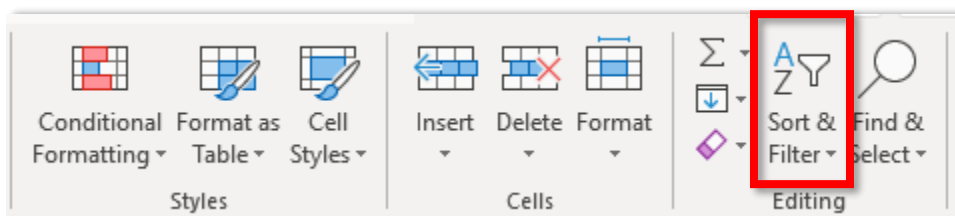
- Identify how you want to sort your information. In other words, which columns will be the source of your sorting and with what priority.

	A	B	C	D	E
1	Customer Last Name	Customer First Name	Account ID	Account Name	Account Active?
2	Dominguez	Barbara	46941	Howard & Son Inc.	YES
3	Anthony	Rob	42897	Howard & Son Inc.	YES
4	Williams	Debon	19751	The Getaway Franchise	YES
5	Hernandez	Harold	87321	Steele Plumbing Inc.	YES
6	Ochoa	Jose	25829	Steele Plumbing Inc.	YES
7	Houston	Steven	29520	Loma Linda Unified School District	YES

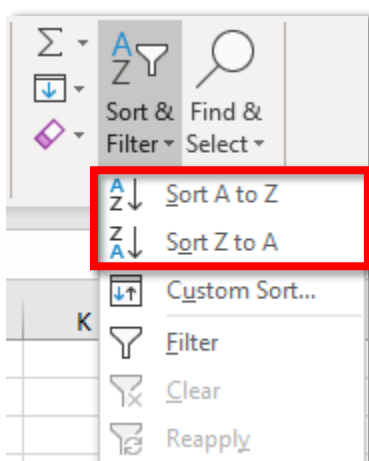
- Click on any cell within your data
- Navigate to the **Editing** group in the **Home** tab ribbon.



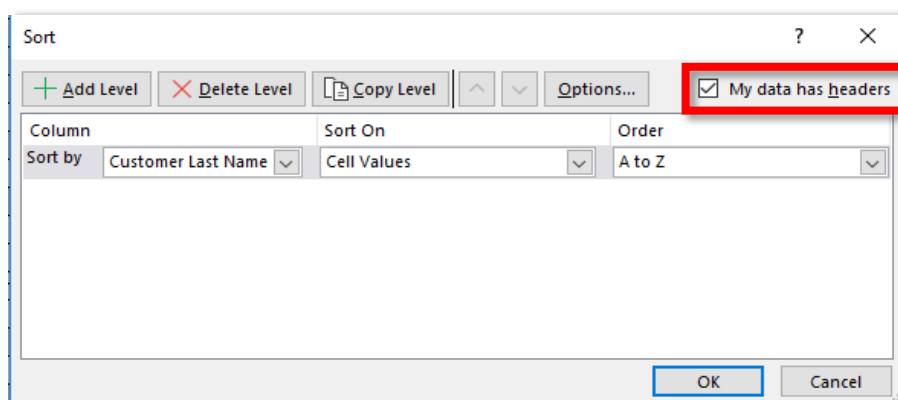
- Click on the **Sort & Filter** command.



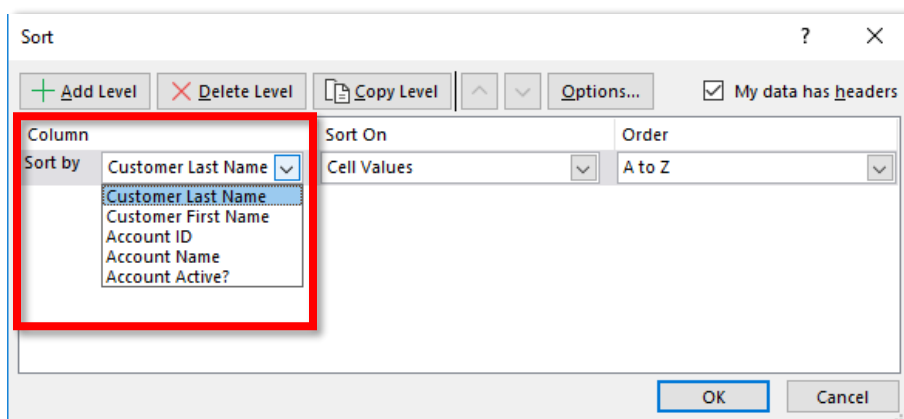
- The **Sort & Filter** command will display a drop-down menu. Select the **Custom Sort** option.



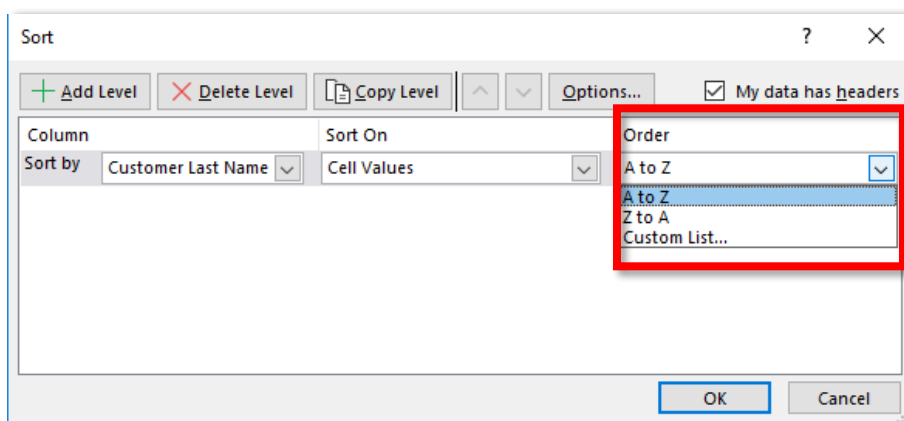
- Once the **Custom Sort** option is selected, Excel will display a pop-up window. Make sure the **My data has headers** option is checked.



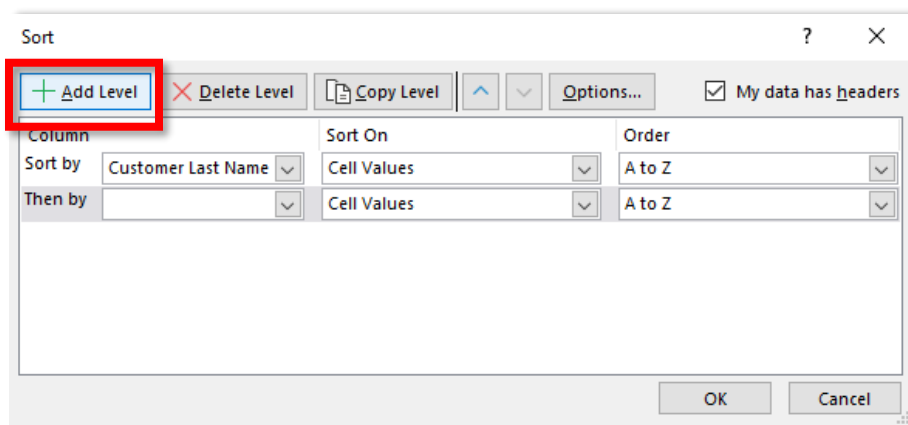
7. Select the column that Excel should sort first by selecting the option from the *Column* section.



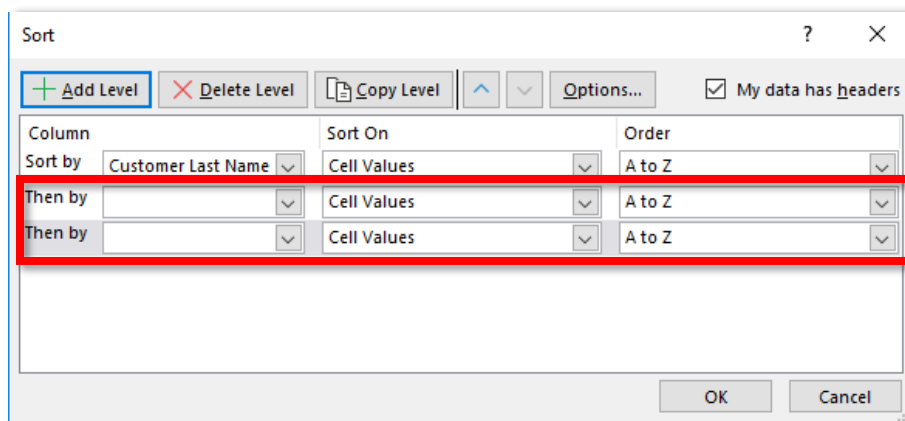
8. Select the sorting order for this first column.



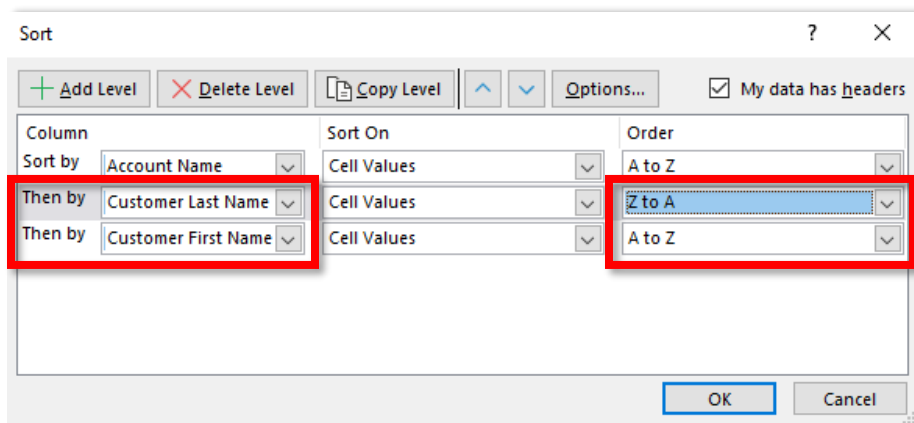
9. To add another level and include more sorting options, click the **Add Level** button in the upper right-hand corner of the window.



10. Once you click on the **Add Level** button, Excel will add another line for you to add an additional column to sort. To add more levels, click the **Add Level** button again.



11. Select the columns you want to sort and make sure to identify the order of the columns in the *Order* section.



12. Press the **OK** button.

If you followed the steps correctly, you'll find that your data has been sorted based on your specific specifications.

	A	B	C	D	E
1	Customer Last Name	Customer First Name	Account ID	Account Name	Account Active?
2	Stevenson	Raymond	86884	ABC Study Group	YES
3	Wilson	Becky	80326	ADA LLC	YES
4	Williams	Hue	66924	Azel Furniture	YES
5	Simpson	David	84894	Azel Furniture	YES
6	Clinton	Todd	91726	Azel Furniture	YES
7	Perez	Vince	95426	Brandy Branding	YES

What Are Filters?

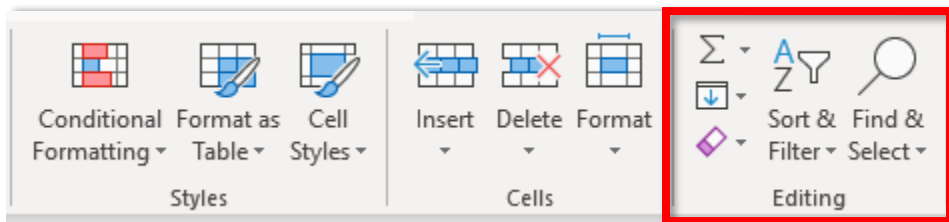
Spreadsheets can contain thousands of entries and at times you may need to analyze or view your data from a different lens. Excel makes this process very easy by adding a feature called **Filters**. **Filters** allow you to isolate the data you want to review or display while *filtering out* the data that you don't want to view.

How to Add Filters to Your Table

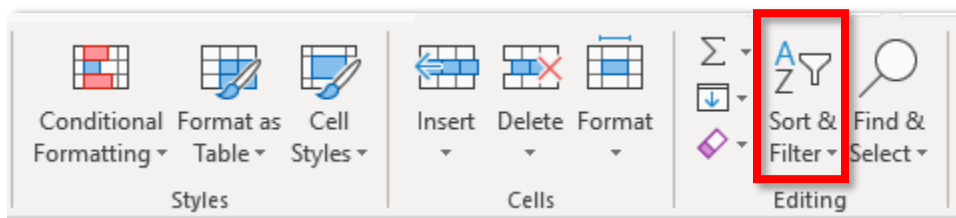
To add filters to your table, you'll first need to organize your data with headers.

Then to add filters to your table:

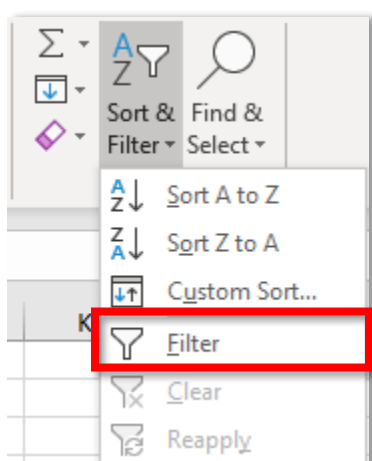
1. Click on any cell within your data.
2. Navigate to the **Editing** group in the **Home** tab ribbon.



3. Click on the **Sort & Filter** command.



4. The **Sort & Filter** command will display a drop-down menu. Select the **Filter** option.



You'll know that you successfully added filters because your headers will now have filter icons displayed.

	A	B	C	D	E
1	Customer Last Name ▼	Customer First Name ▼	Account ID ▼	Account Name	Account Active? ▼
2	Stevenson	Raymond	86884	ABC Study Group	YES
3	Wilson	Becky	80326	ADA LLC	YES
4	Williams	Hue	66924	Azel Furniture	YES
5	Simpson	David	84894	Azel Furniture	YES
6	Clinton	Todd	91726	Azel Furniture	YES
7	Perez	Vince	95426	Brandy Branding	YES

How to Use Filters

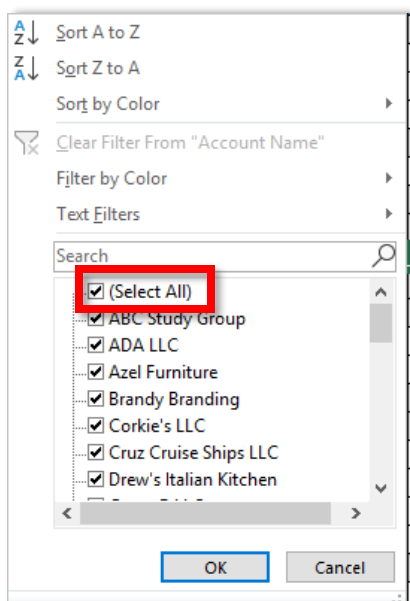
Previously, you learned how to add filters to your data. In this section, you'll learn how to use the filters you just added.

To use filters:

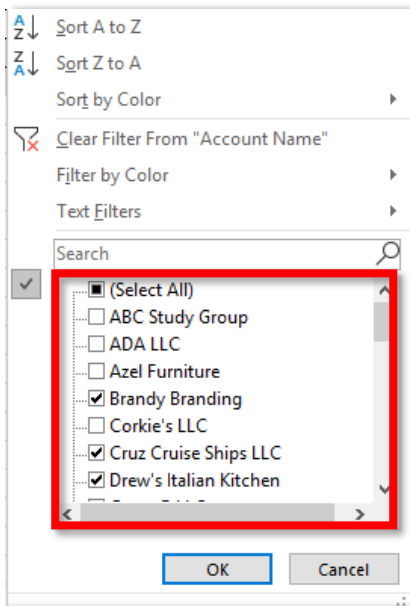
1. Select a filter from a header you want to use and click on the header's filter.

	A	B	C	D	E
1	Customer Last Name ▼	Customer First Name ▼	Account ID ▼	Account Name	Account Active? ▼
2	Stevenson	Raymond	86884	ABC Study Group	YES
3	Wilson	Becky	80326	ADA LLC	YES
4	Williams	Hue	66924	Azel Furniture	YES
5	Simpson	David	84894	Azel Furniture	YES
6	Clinton	Todd	91726	Azel Furniture	YES
7	Perez	Vince	95426	Brandy Branding	YES

- The filter icon will display a drop-down menu. By default, all the data is displayed but you don't want to display all your data since you want to view specific data instead. Uncheck the **Select All** checkbox to unselect all entries.



- Check the boxes for the entries you want Excel to display. The rest of the boxes will remain unchecked.



After you selected your entries, Excel will only display the data you selected. Excel does not remove the data that you didn't check but simply doesn't display it. You can use more than one filter in Excel. You can also tell that your data is filtered because a filter icon will appear in the filtered column.

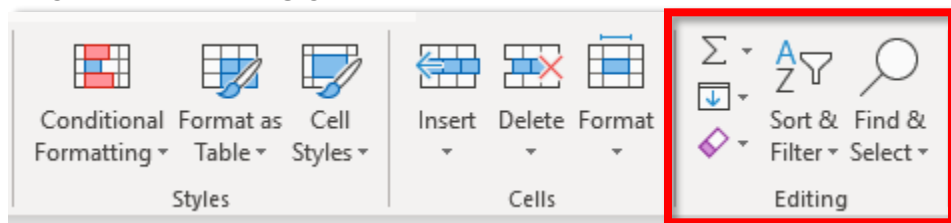
	A	B	C	D	E
1	Customer Last Name ▼	Customer First Name ▼	Account ID ▼	Account Name ▼	Account Active? ▼
7	Perez	Vince	95426	Brandy Branding	YES
9	Chin	Jade	41479	Cruz Cruise Ships LLC	YES
10	Washington	Mario	65373	Drew's Italian Kitchen	YES
43					
44					
45					

How to Unfilter Your Data

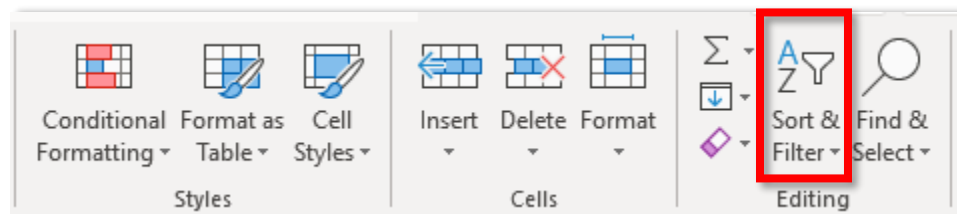
If you want Excel to display all your data instead of just the ones you selected, you will need to *unfilter* your data.

To unfilter your data:

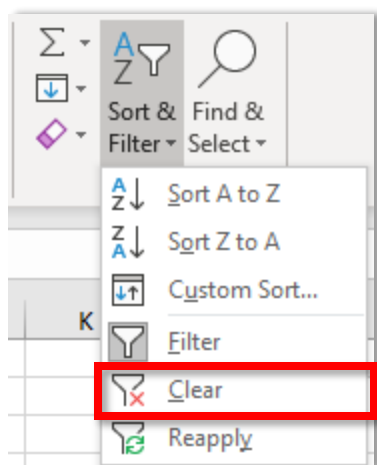
1. Click on any cell within your data.
2. Navigate to the **Editing** group in the **Home** tab ribbon.



3. Click on the **Sort & Filter** command.



4. The **Sort & Filter** command will display a drop-down menu. Select the **Clear** option from the drop-down menu.



Once you select the **Clear** option, all your data entries will display, and your data will no longer be filtered by specific selections.

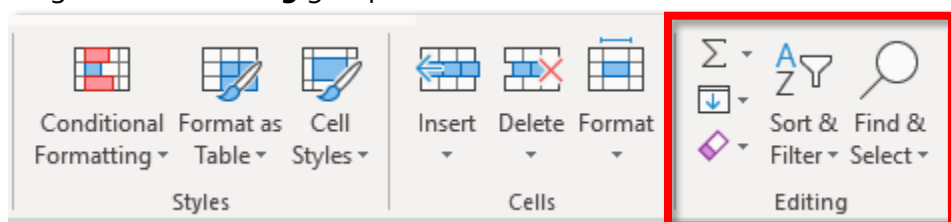
	A	B	C	D	E
1	Customer Last Name	Customer First Name	Account ID	Account Name	Account Active?
2	Stevenson	Raymond	86884	ABC Study Group	YES
3	Wilson	Becky	80326	ADA LLC	YES
4	Williams	Hue	66924	Azel Furniture	YES
5	Simpson	David	84894	Azel Furniture	YES
6	Clinton	Todd	91726	Azel Furniture	YES
7	Perez	Vince	95426	Brandy Branding	YES

How to Remove Filters

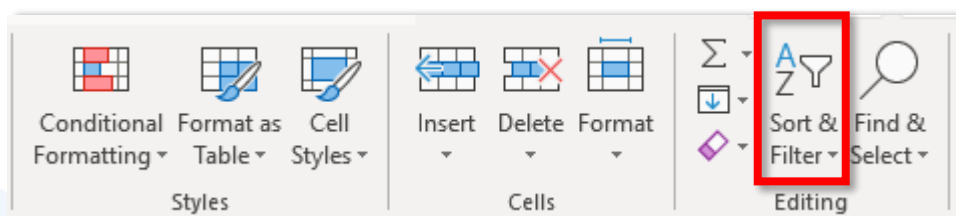
You can remove the filters if you no longer want your headers to display them.

To remove your filters:

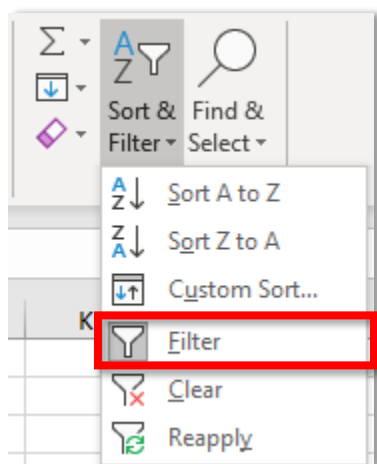
1. Click on any cell within your data.
2. Navigate to the **Editing** group in the **Home** tab ribbon.



3. Click on the **Sort & Filter** command.



- The **Sort & Filter** command will display a drop-down menu. Un-select the **Filter** option from the drop-down menu.



If you removed your filters from your data correctly, you will no longer see the filter icons in each one of your columns.

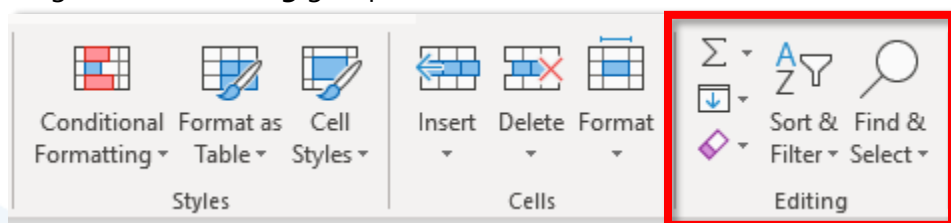
	A	B	C	D	E
1	Customer Last Name	Customer First Name	Account ID	Account Name	Account Active?
2	Stevenson	Raymond	86884	ABC Study Group	YES
3	Wilson	Becky	80326	ADA LLC	YES
4	Williams	Hue	66924	Azel Furniture	YES
5	Simpson	David	84894	Azel Furniture	YES
6	Clinton	Todd	91726	Azel Furniture	YES
7	Perez	Vince	95426	Brandy Branding	YES

The Find Command

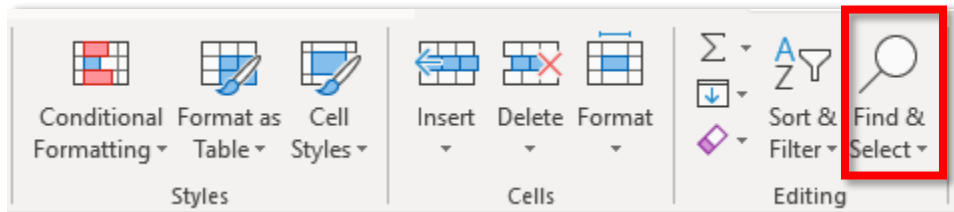
Finding words on a page is a universal functionality provided throughout all types of software, as well as online. The **Find** command is helpful because it allows you to use a search bar to find certain words, numbers or content on a specific page or spreadsheet. Excel allows you to find words, or content, on the current spreadsheet or the entire workbook. The **Find** feature can be accessed in Excel in multiple ways but in this section, you'll learn how to access the **Find** command via the ribbon.

To use the **Find** command:

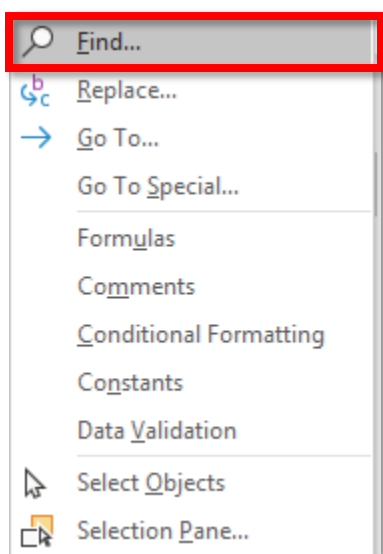
- Navigate to the **Editing** group in the **Home** tab ribbon.



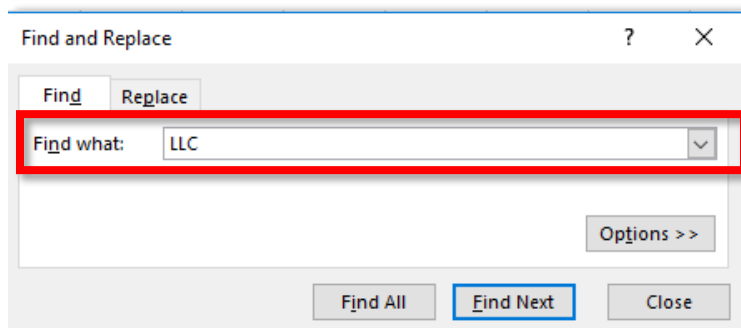
- Click on the **Find & Select** command.



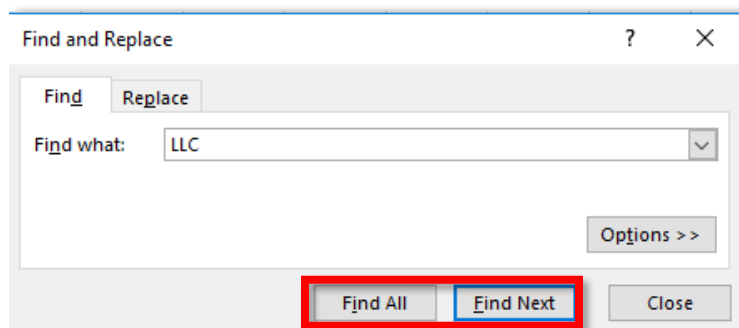
- Once you click on the **Find & Select** button, you'll have a dropdown menu. Choose the **Find** option.



- Upon selecting the **Find** option, you will be presented with a pop-up window that closely resembles a search bar you may typically find on the web. In the pop-up bar, type the words, numbers or letters you are looking for in the *Find what* search bar.



- After typing your search words, you then have the option to display a list of all instances where your text is found (by selecting the **Find All** button), or to search each instance of your search individually (by selecting the **Find Next** button).

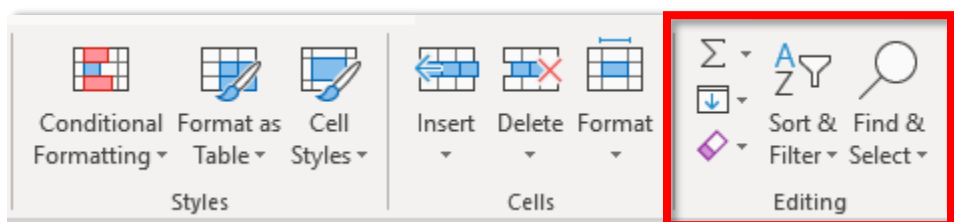


Find & Replace

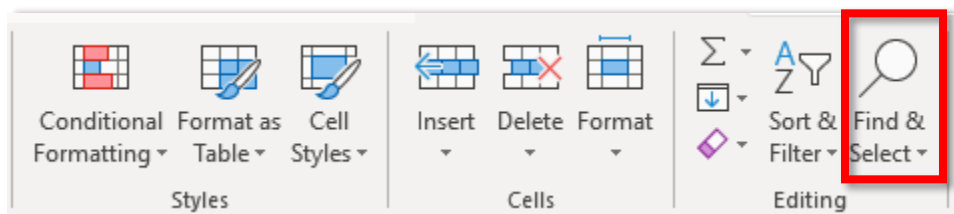
Now that you have learned how to use the **Find** command, there is another command that is typically used with the **Find** function. The **Replace** allows you to replace certain words, texts or numbers with the words, texts or numbers of your choice. In other words, you're telling Excel to find something, and replace it with something else (typically called a *Find & Replace*). The

To use the **Replace** command:

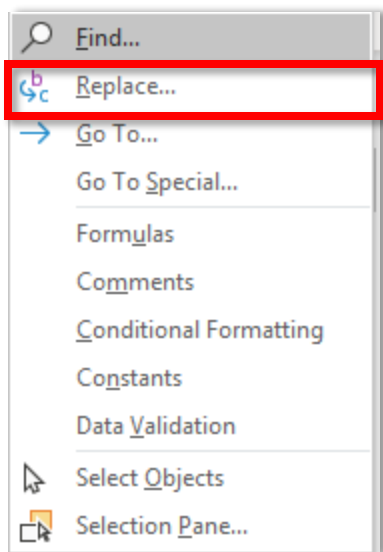
- Navigate to the **Editing** group in the **Home** tab ribbon.



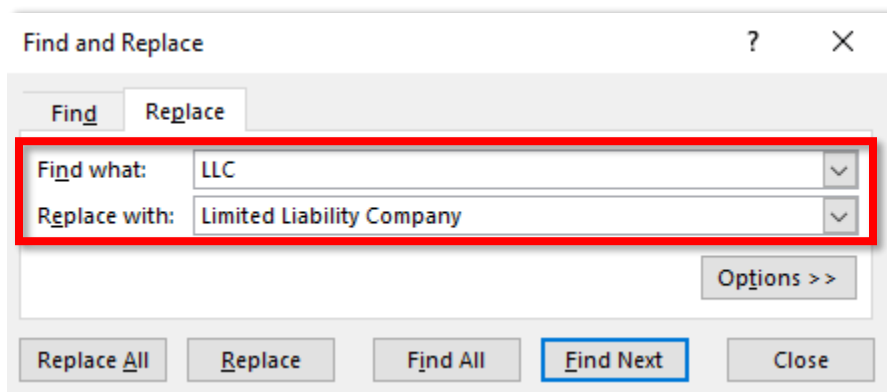
- Click on the **Find & Select** command.



- Once you click on the **Find & Select** button, you'll have a dropdown menu. Choose the **Replace** option.



4. The **Replace** command will display a pop-up window, like the **Find** command. In the window, type the word(s) you want Excel to find in the *Find what* search box and type the word(s) you want to replace them with in the *Replace with* box.

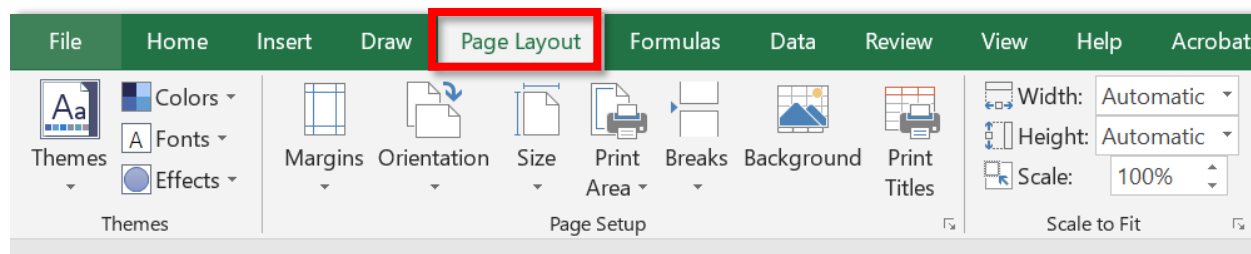


5. Next, you can decide if you want Excel to replace all entries immediately without checking them one by one (by selecting the **Replace All** command) or you can check each instance of the replacements individually (by selecting the **Replace** command).

If you followed these steps correctly, Excel will replace all instances of the words it found with the words you decided to replace them with.

Customizing Your Page Layout

To change the layout of your sheet, you'll have to navigate to the **Page Layout** tab to make edits. The **Page Layout** tab will help you make changes to your spreadsheet so that you can print the sheet according to your specifications.



Page Setup

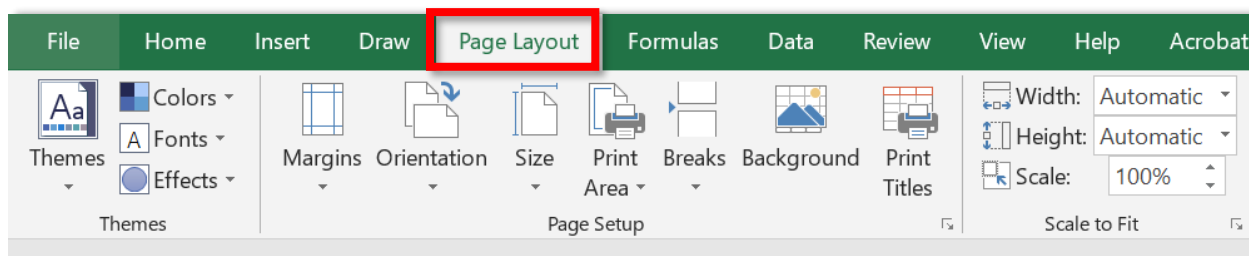
The **Page Setup** group of the **Page Layout** tab helps you change your print settings and the default settings of your spreadsheet. Changes made in this section only pertain to the sheet you're working on and won't affect the entire workbook (i.e. other sheets). Let's explore some functionalities available in this section.

Changing the Page Margins

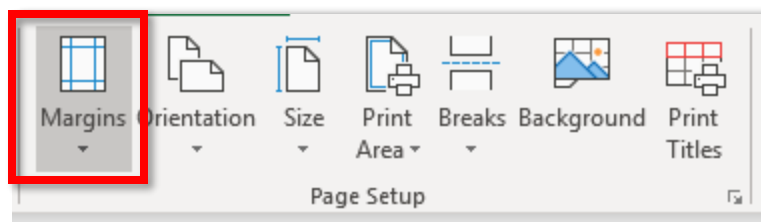
The margins of your spreadsheet default to *Normal* which allows you to print your sheet with a set space at the top, bottom, left and right of the page. You can also make the margins wide or narrow. By making the margins narrower, it will allow you to fit more of your spreadsheet into one page.

To change the margins of your sheet:

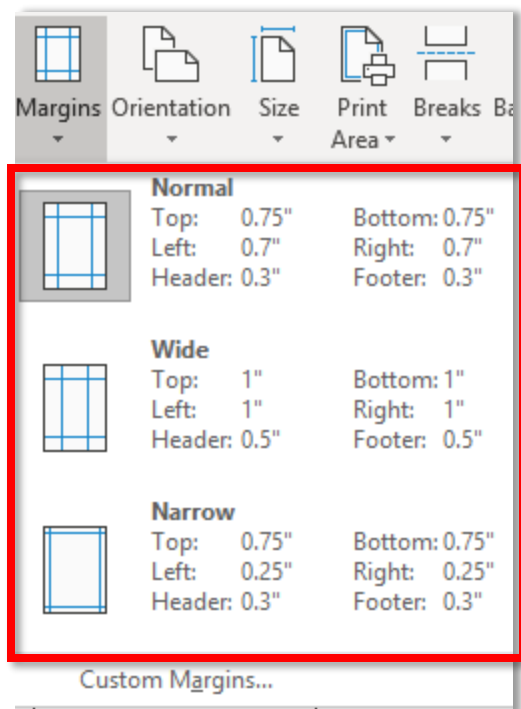
1. Navigate to the **Page Layout** tab



2. In the **Page Setup** group, select the **Margins** command.



3. The **Margins** button will display a drop-down menu. Select the option if you want your margins to be **Normal**, **Wide** or **Narrow**.

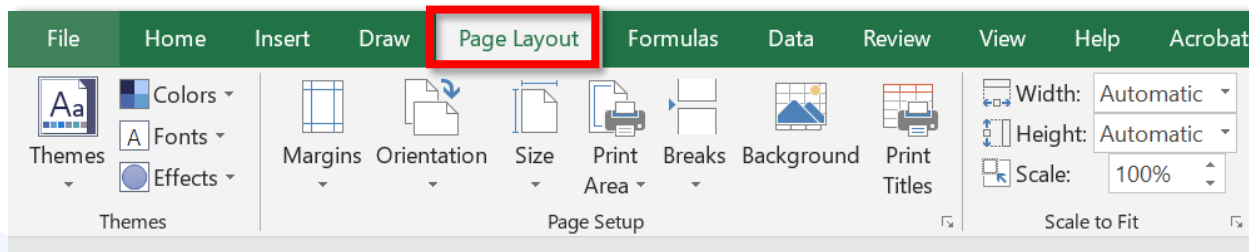


How to Customize your Page Margins

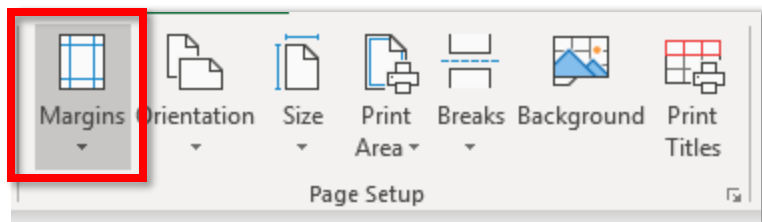
Excel also gives you the option to customize your margins. However, note that the closer your margins are to 0, there is a likelihood that your printer will not be able to print the edges. You might have to make changes to the settings of your printer or adjust your margins accordingly.

To customize your page margins in Excel:

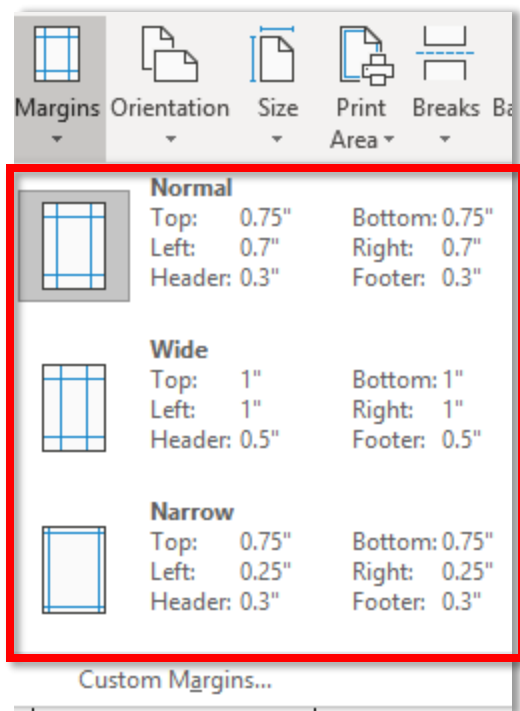
1. Navigate to the **Page Layout** tab



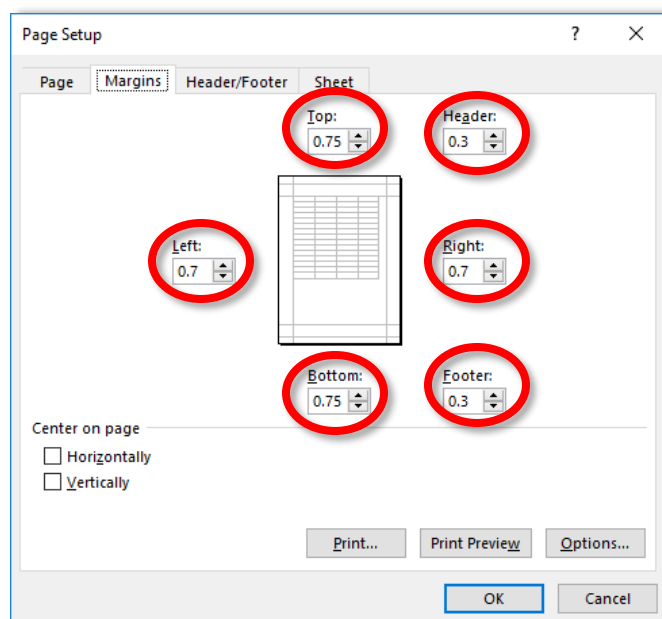
2. In the **Page Setup** group, select the **Margins** command.



3. The **Margins** button will display a drop-down menu. Select the **Custom Margins...** option.



4. The **Custom Margins...** option will display a new window. Here, you can change the top, header, left, right, bottom and footer margins. You can also see a preview of your changes by clicking on the **Print Preview** option. Once you're done customizing the margins for each section, click on the **OK** button to apply your changes to your spreadsheet.

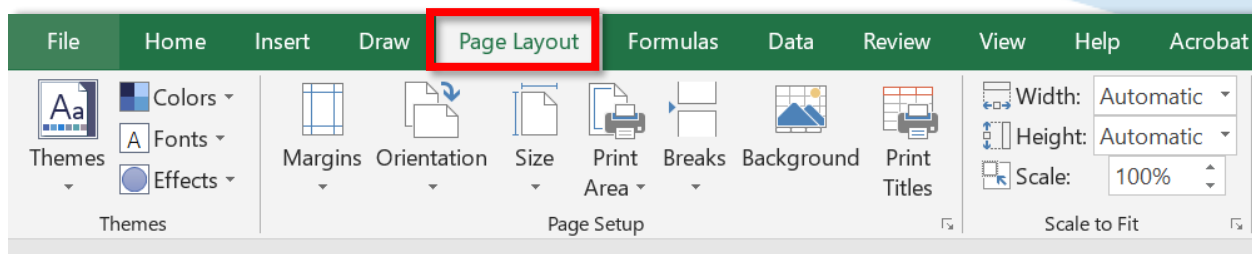


Changing the Page Orientation

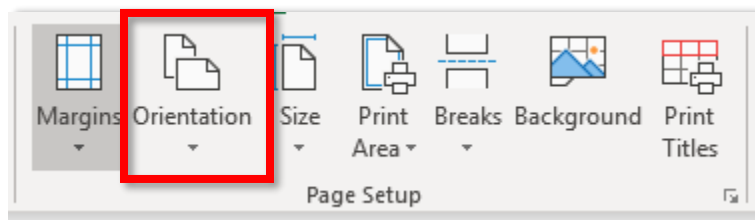
By default, your spreadsheet will print in a *Portrait* style. This, of course can be changed.

To change the orientation of your page:

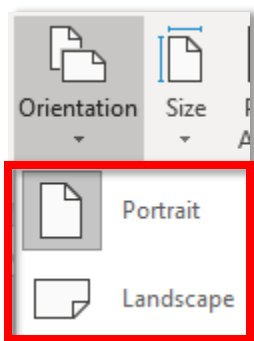
1. Navigate to the **Page Layout** tab



2. In the **Page Setup** group, select the **Orientation** command.



3. To change your page's orientation, select from the following two options: **Portrait** or **Landscape**



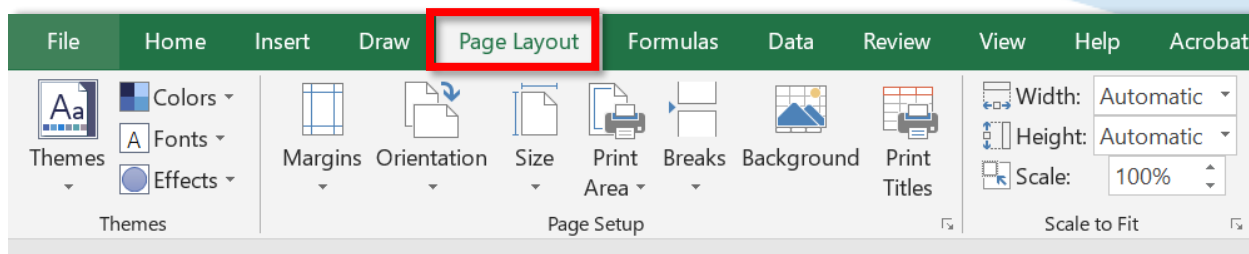
When changing any of the Page settings, you will see a dotted line on your spreadsheet appear which will demonstrate where the page ends for your spreadsheet. There is no way to get rid of the dotted line once it appears.

Choosing the Size of the Paper

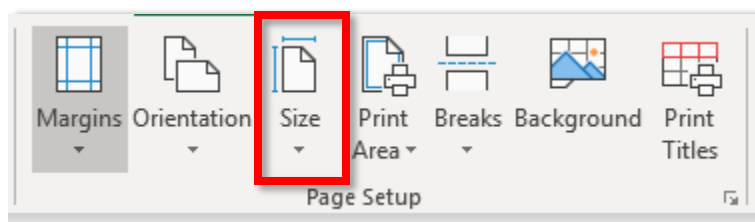
At times, you might need to print your spreadsheet on a different sized paper, such as ledger paper. Excel defaults to the typical 8x11 letter size paper, but you can change this option and select a different paper size.

To change the size of the paper:

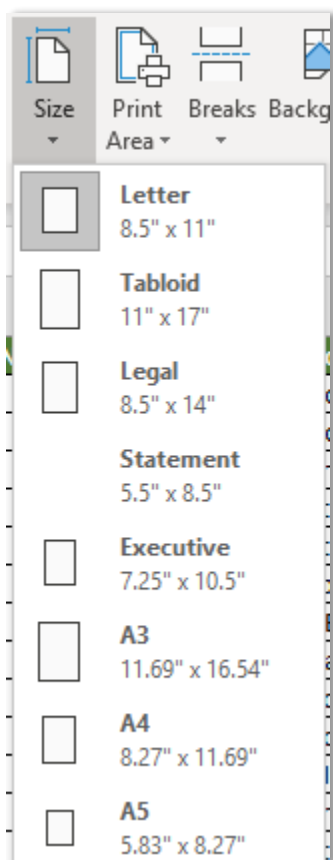
1. Navigate to the **Page Layout** tab



2. In the **Page Setup** group, select the **Size** command.



3. Select the paper size you want to use from the drop-down menu.



Using the Print Area

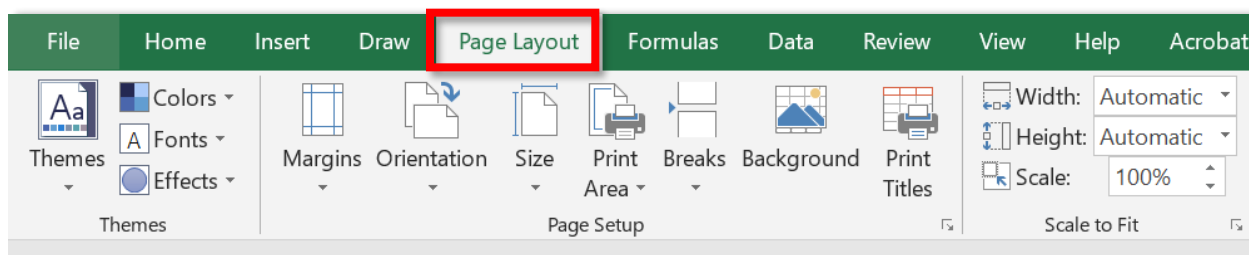
Excel also allows you to print a chosen selection from your spreadsheet exclusively, instead of printing the entire spreadsheet.

To print a selected area from your spreadsheet:

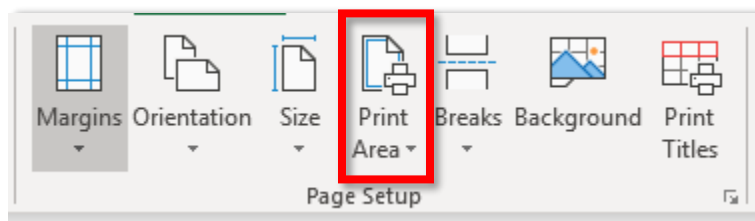
1. Select the area you want to print from your spreadsheet.

	A	B	C	D	E	F
1	Contact Person	Social Security Number	Account Number	Account Name	Account Active?	Phone Number
2	Dominguez, Barbara	904-58-5448	161778	Howard & Son Inc.	YES	(916) 964 - 3998
3	Dominguez, Barbara	904-58-5448	161778	Howard & Son Inc.	YES	(916) 964 - 3998
4	Anthony, Rob	655-84-6444	788491	The Getaway Franchise	NO	(207) 634 - 9210
5	Williams, Debon	378-29-3448	367918	Steele Plumbing Inc.	YES	(668) 163 - 1740
6	Williams, Debon	378-29-3448	367918	Steele Plumbing Inc.	YES	(939) 945 - 1321
7	Hernandez, Harold	176-32-4664	289512	Loma Linda Unified School District	YES	(411) 677 - 9365
8	Ochoa, Jose	853-82-7337	225340	ABC Study Group	YES	(887) 528 - 4549
9	Houston, Steven	469-18-1748	686881	Valley Way LLC	NO	(343) 542 - 3625

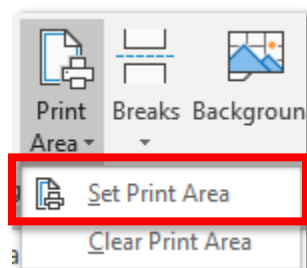
2. Navigate to the **Page Layout** tab



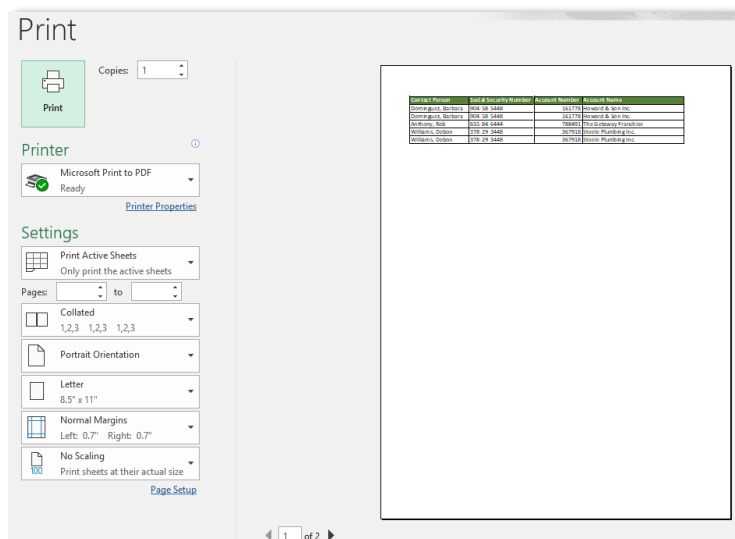
3. In the **Page Setup** group, select the **Print Area** command.



4. The **Print Area** command will display a drop-down menu. Select the **Set Print Area** option.



Now, if you print your spreadsheet, you will notice that only the selected area will print and everything else in your spreadsheet will be excluded from printing.

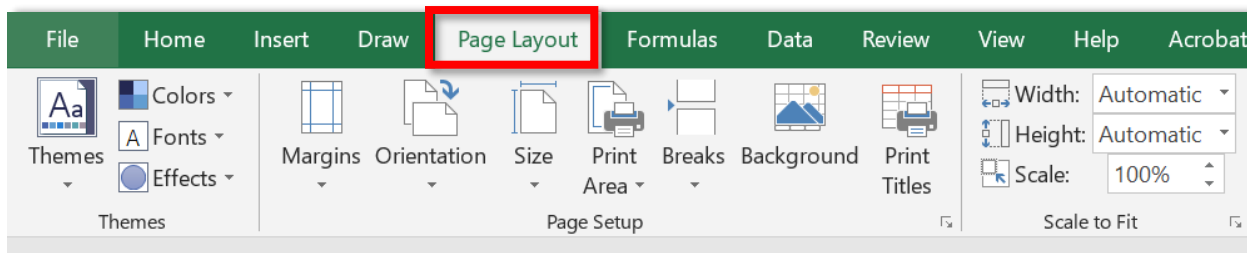


How to Clear the Print Area

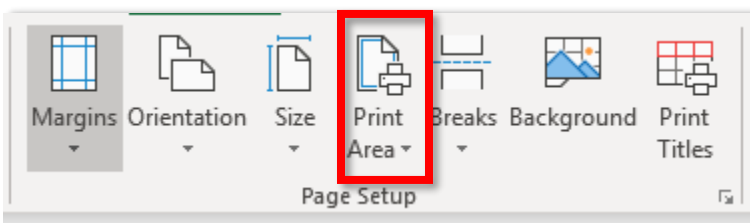
If you've used the **Print Area** option to print a selected area in your spreadsheet, but would prefer to print the entire spreadsheet instead, then you'll need to clear your print area.

To clear your print area:

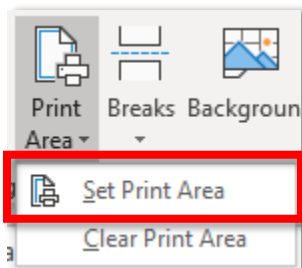
1. Navigate to the **Page Layout** tab



2. In the **Page Setup** group, select the **Print Area** command.



3. The **Print Area** command will display a drop-down menu. Select the **Clear Print Area** option.

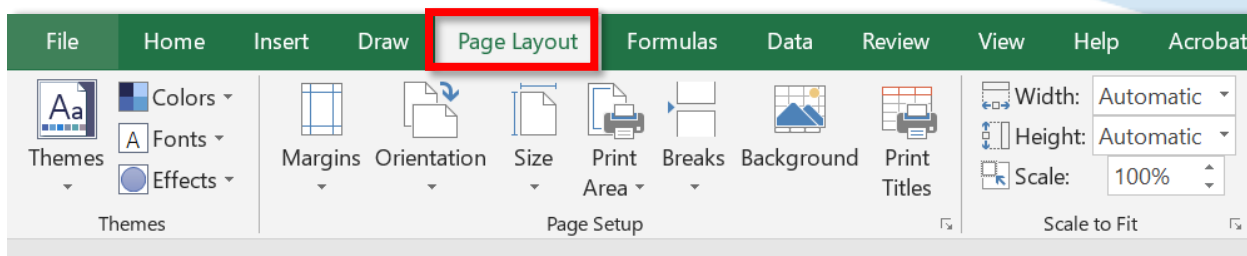


Printing Titles

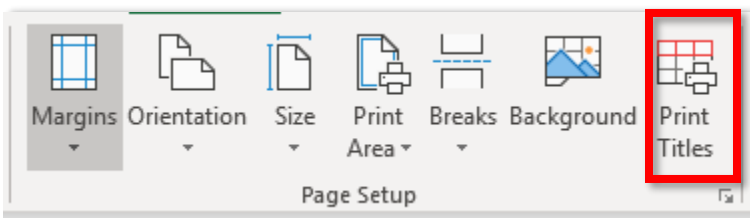
Most of us work with lots of data which means that if we decide to print a spreadsheet, the spreadsheet will most likely need to be printed in more than one page. When this happens, only page one will include your table's headers, but the rest of the pages will only print the data without the table's headers. The good news is that you can print the table's headers on every page.

To include/print your table's headers on every page:

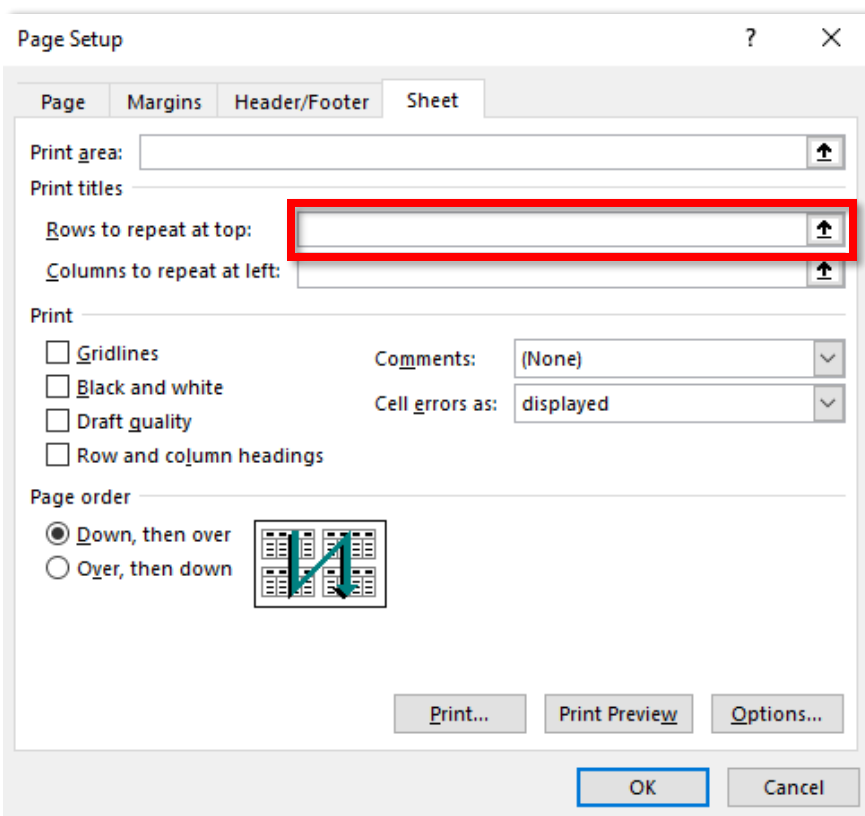
1. Navigate to the **Page Layout** tab



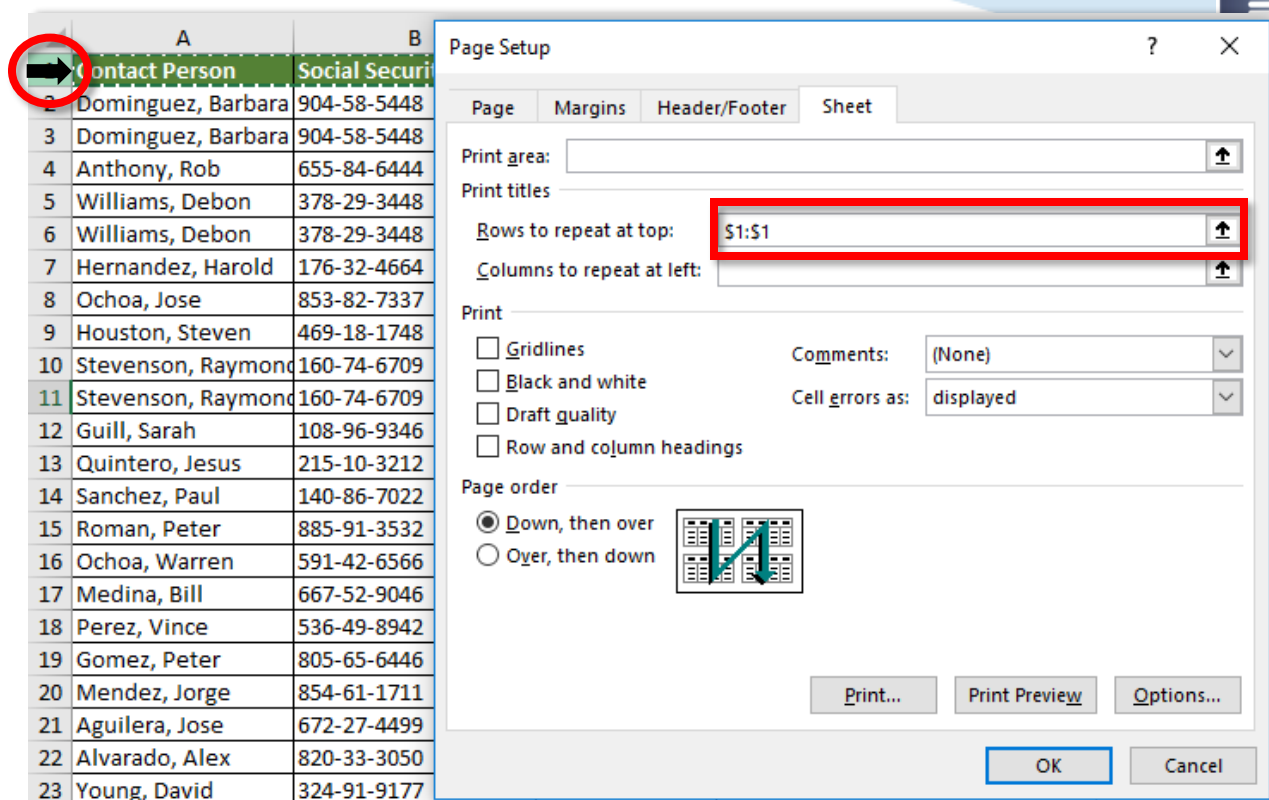
2. In the **Page Setup** group, select the **Print Titles** command.



3. Selecting the **Print Titles** command will display a new window. Click in the area titled *Rows to repeat at top*.



4. Move your cursor outside of the window to select the row *number* that has your table's headers.



5. Select the **OK** button.

If you followed these steps correctly, you'll see how every page you print will include your table's headers.

Other Sheet Options

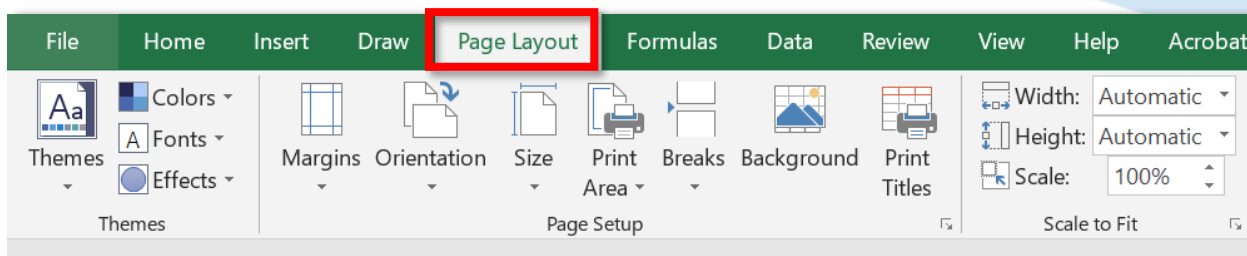
As described before, the ribbons can only fit a limited number of commands. However, you can customize what is displayed on your spreadsheet if you want. In this short section, you'll learn how to remove the gridlines or headings from your spreadsheet.

Gridlines

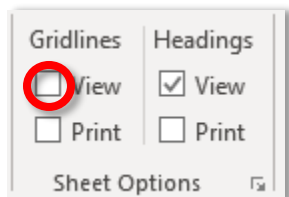
By default, Excel spreadsheets will display the gridlines to give you a good idea of the distance between your data. Remember, though, that gridlines will not print unless otherwise indicated by you. Regardless, you can decide to not display the gridlines in your spreadsheet.

To remove the gridlines from your view:

1. Navigate to the **Page Layout** tab



2. In the **Sheet Options** group, uncheck the **Gridlines View** checkbox.



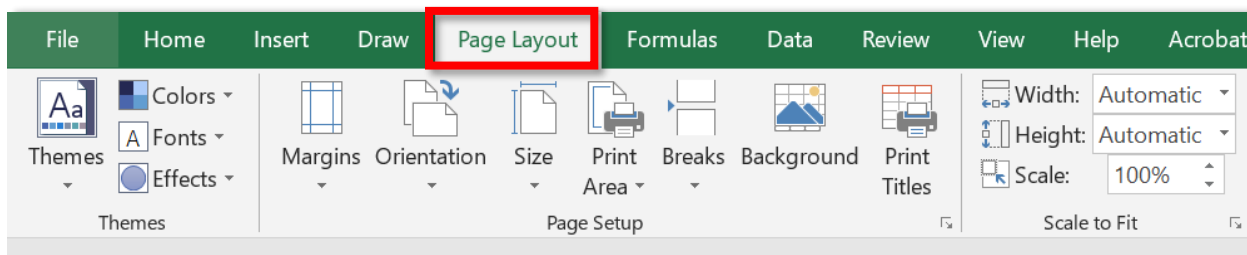
You can also decide to print the gridlines if you want by checking the **Gridlines Print** checkbox.

Headings

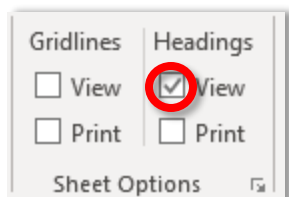
By default, Excel displays the column *letters* and the row *numbers*. These are called headings and they can also be removed from your view.

To remove the headings from your view:

1. Navigate to the **Page Layout** tab



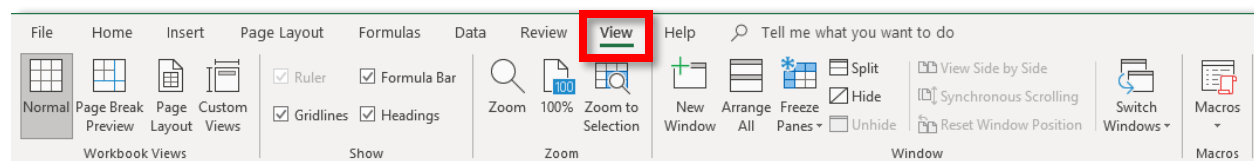
2. In the **Sheet Options** group, uncheck the **Headings View** checkbox.



You can also decide to print the headings by checking the **Headings Print** checkbox.

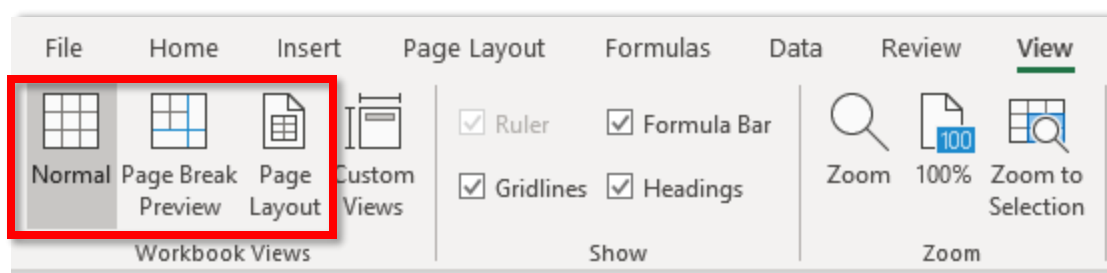
Navigating the View Tab

The **View** tab allows you to view a spreadsheet from different angles, zoom in and out of your spreadsheet, and focus on areas within your spreadsheet. In this section, you'll explore the options that the **View** tab provides.



Workbook Views

There are three diverse types of Workbook views in Excel. Each view allows you to see your spreadsheet from a different point of view to help you edit, zoom out and understand how your spreadsheet will look when printed. Let's explore the three types of views available in Excel by exploring the **Workbook Views** group.

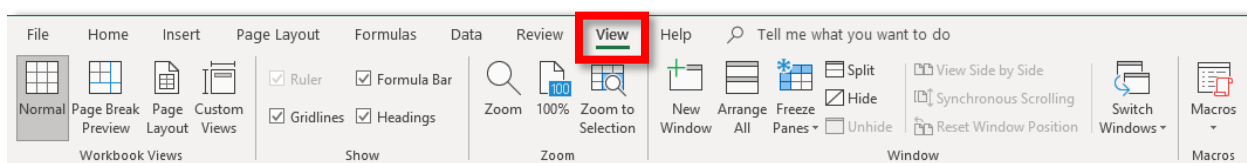


Normal View

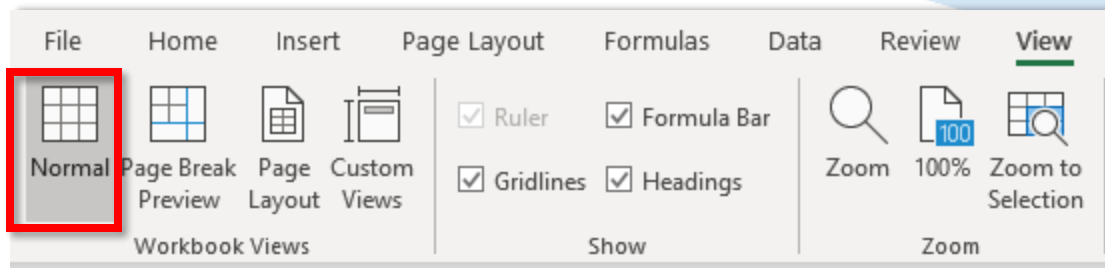
By default, the **Normal** view is what Excel displays when you work on a spreadsheet. If you use a different view, most likely, you will want to come back to the Normal View to edit formulas, manipulate the cells and change the sizes of your columns or rows. The Normal view is the most common view to use when working on Excel.

If you are in another view and need to get back to the **Normal** view, this is how you access the **Normal** view:

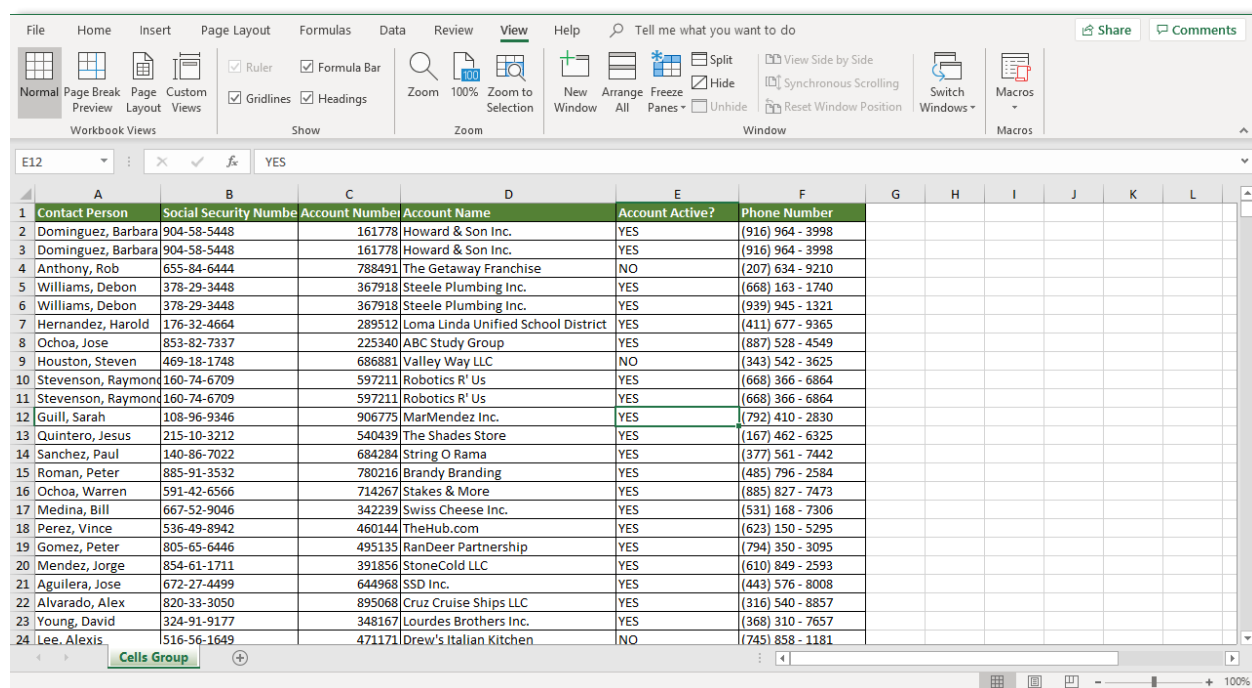
1. Select the **View** tab



2. In the **Workbook Views** group, select the **Normal** view.



The **Normal** will display the view that you are most familiar with in Excel.

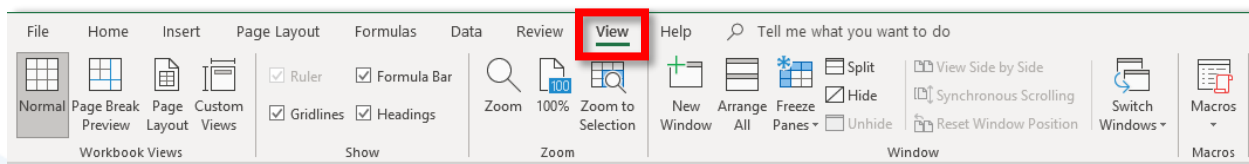


Page Break Preview

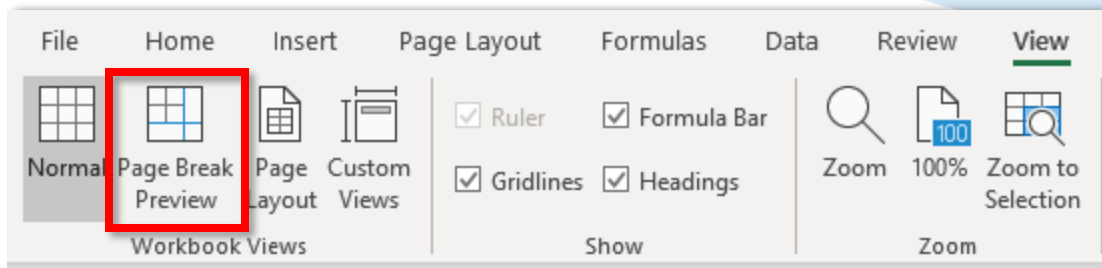
The **Page Break Preview** allows you to see your workbook's pages and the breaks within each page. This view is helpful when printing your work because it helps you visualize the number of pages per spreadsheet and where your content may get cut off.

To use the **Page Break Preview**:

1. Select the **View** tab



2. In the **Workbook Views** group, select the **Page Break Preview** option.



The **Page Break Preview** will display blue lines, indicating where your pages start and end.

	A	B	C	D	E	F
1	Contact Person	Social Security	Account No	Account Name	Account Active	Phone Number
2	Dominguez, Barbara	904-58-5448	161778	Howard & Son Inc.	YES	(916) 964 - 3998
3	Dominguez, Barbara	904-58-5448	161778	Howard & Son Inc.	YES	(916) 964 - 3998
4	Anthony, Rob	655-84-6444	788491	The Getaway Franchise	NO	(207) 634 - 9210
5	Williams, Debon	378-29-3448	367918	Steele Plumbing Inc.	YES	(668) 163 - 1740
6	Williams, Debon	378-29-3448	367918	Steele Plumbing Inc.	YES	(939) 945 - 1321
7	Hernandez, Harold	176-32-4664	289512	Loma Linda Unified School Dist	YES	(411) 677 - 9365
8	Ochoa, Jose	853-82-7337	225340	ABC Study Group	YES	(887) 528 - 4549
9	Houston, Steven	469-18-1748	686881	Valley Way LLC	NO	(343) 542 - 3625
10	Stevenson, Raym	160-74-6709	597211	Robotics R' Us	YES	(668) 366 - 6864
11	Stevenson, Raym	160-74-6709	597211	Robotics R' Us	YES	(668) 366 - 6864
12	Guill, Sarah	108-96-9346	906775	MarMendez Inc.	YES	(792) 410 - 2830
13	Quintero, Jesus	215-10-3212	540439	The Shades Store	YES	(167) 462 - 6325
14	Sanchez, Paul	140-86-7022	684284	String O Rama	YES	(377) 561 - 7442
15	Roman, Peter	885-91-3532	780216	Brandy Branding	YES	(485) 796 - 2584
16	Ochoa, Warren	591-42-6566	714267	Stakes & More	YES	(885) 827 - 7473
17	Medina, Bill	667-52-9046	342239	Swiss Cheese Inc.	YES	(531) 168 - 7306
18	Perez, Vince	536-49-8942	460144	TheHub.com	YES	(623) 150 - 5295
19	Gomez, Peter	805-65-6446	495135	RanDeer Partnership	YES	(794) 350 - 3095
20	Mendez, Jorge	854-61-1711	391856	StoneCold LLC	YES	(610) 849 - 2593
21	Aguilera, Jose	672-27-4499	644968	SSD Inc.	YES	(443) 576 - 8008
22	Alvarado, Alex	820-33-3050	835068	Cruz Cruise Ships LLC	YES	(316) 540 - 8857
23	Young, David	324-91-9177	348167	Lourdes Brothers Inc.	YES	(368) 310 - 7657
24	Lee, Alexis	516-56-1649	471171	Drew's Italian Kitchen	NO	(745) 858 - 1181
25	Chin, Jade	423-34-5434	765631	XLT Inc.	YES	(656) 744 - 6392
26	Jefferson, Erica	855-38-6695	145650	Mutual Real Investments	YES	(259) 190 - 7535
27	Jefferson, Erica	855-38-6695	145650	Mutual Real Investments	YES	(545) 558 - 1618
28	Washington, Mari	174-76-7081	391146	Hut Hut Inn	YES	(840) 648 - 6554
29	Fernandez, Juan	467-89-1558	178402	Lou D Consulting	YES	(941) 673 - 7939
30	Perez, Oscar	104-92-1740	324424	Plaques Inc.	YES	(747) 859 - 6992
31	Salazar, Rudy	144-52-6164	168405	Love Notes & More	YES	(671) 341 - 6542
32	Aguilar, David	158-46-9774	857093	Sky Is The Limit Inc.	YES	(829) 941 - 8584
33	Valenzuela, Pedro	379-33-6540	737945	N.O.E.L. Inc.	YES	(599) 438 - 5585
34	Nikomo, Lee	270-96-9914	787669	Green B LLC	YES	(829) 615 - 9611
35	Ramirez, Xavi	949-53-9039	542581	Azel Furniture	NO	(762) 912 - 4727
36	Ramirez, Xavi	949-53-9039	542581	Azel Furniture	NO	(762) 912 - 4727
37	Ramirez, Xavi	949-53-9039	542581	Azel Furniture	NO	(318) 443 - 5219
38	Lauren, Sophia	589-97-2449	311403	KLIM Inc.	YES	(859) 148 - 4597
39	Stankevich, Loren	332-66-1290	769147	ADA LLC	YES	(659) 642 - 1758
40	Wilson, Johnny	110-61-1868	881603	Corkie's LLC	YES	(444) 226 - 8305
41	Williams, Hue	615-72-7376	107028	Howard's Restaurante	YES	(660) 942 - 9658
42	Clinton, Todd	791-49-2470	218966	Six Sigma Edu	YES	(756) 833 - 6043

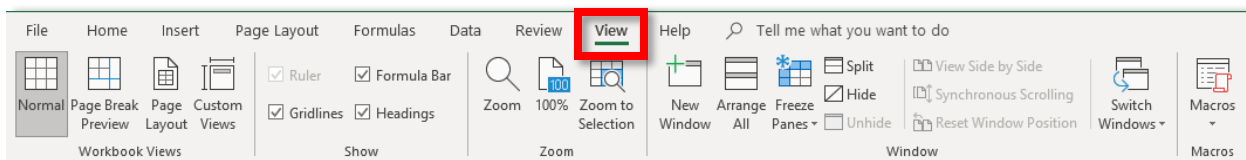
Page Layout View

The **Page Layout** view will automatically include the ruler at the top that will help you measure the length of the page in inches. This specific view is helpful when editing the **Header** and **Footer** of your page. If you decide to edit the **Header** or **Footer** of a spreadsheet, Excel will automatically take you to this view. The **Page Layout** view will also help you visualize the

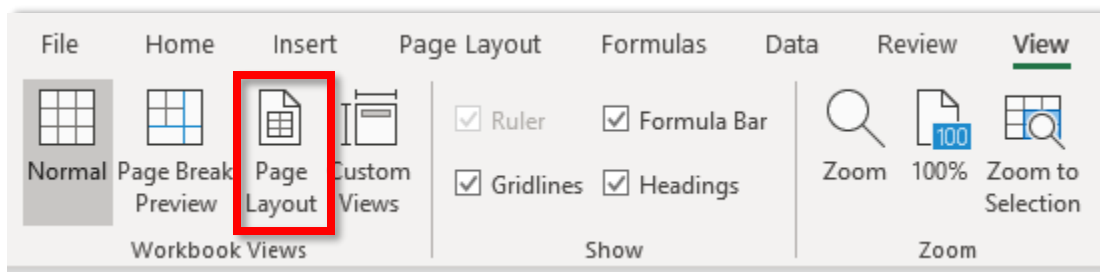
different pages that make up your spreadsheet when printing. However, this view will not allow you to consolidate pages.

To use the **Page Layout** view:

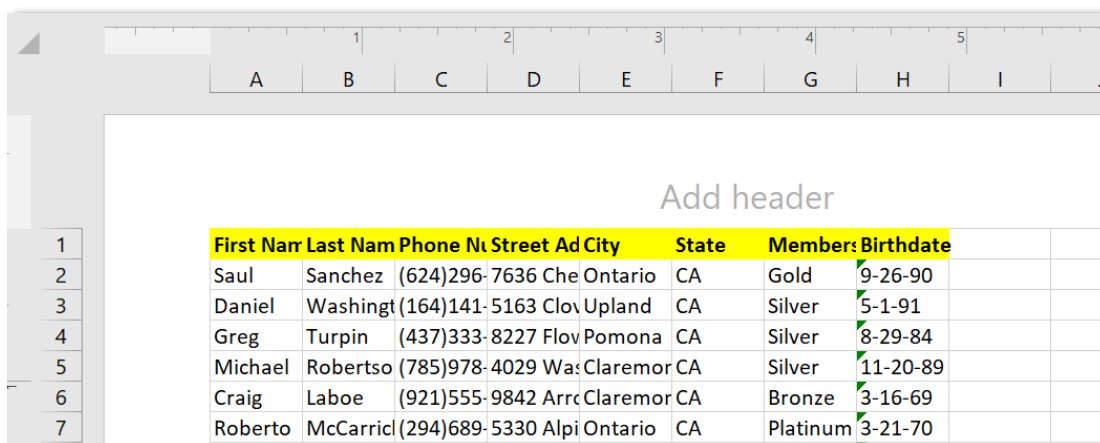
1. Select the **View** tab



2. In the **Workbook Views** group, select the **Page Layout** option.



The **Page Layout** view is great to use when using **Headers** and **Footers**.

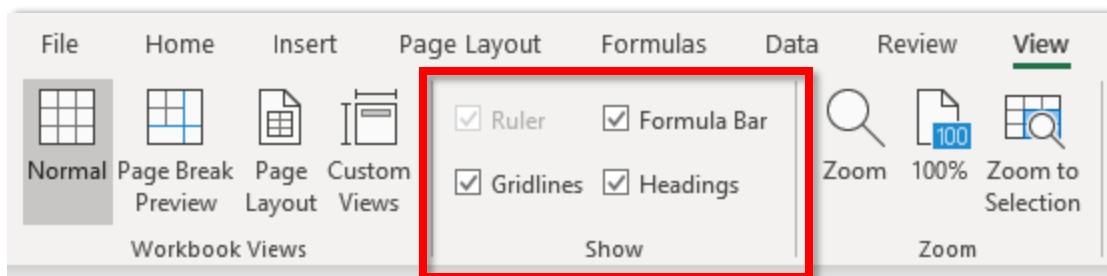


The screenshot shows an Excel spreadsheet in Page Layout view. The table has the following data:

	First Name	Last Name	Phone Number	Street Address	City	State	Member Since	Birthdate
1	Saul	Sanchez	(624)296-7636	Chester	Ontario	CA	Gold	9-26-90
2	Daniel	Washington	(164)141-5163	Cloverdale	Upland	CA	Silver	5-1-91
3	Greg	Turpin	(437)333-8227	Florence	Pomona	CA	Silver	8-29-84
4	Michael	Robertson	(785)978-4029	Washington	Claremore	CA	Silver	11-20-89
5	Craig	Laboe	(921)555-9842	Arrington	Claremore	CA	Bronze	3-16-69
6	Roberto	McCarrick	(294)689-5330	Alpine	Ontario	CA	Platinum	3-21-70

Show Group

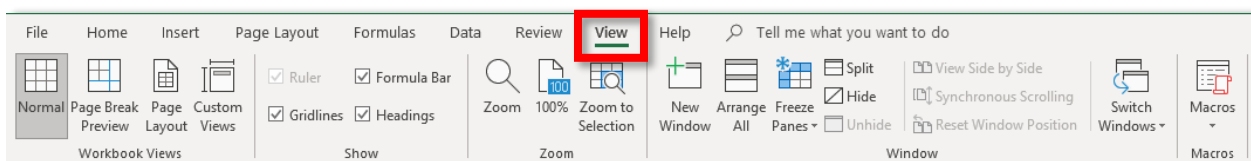
Although you learned how to hide the **Gridlines** and the **Headings** in a previous section of this booklet, the **View** tab has this option and other options available. Let's explore some of the settings in the **Show** group.



How to Hide the Gridlines in a Spreadsheet

To hide the gridlines from your spreadsheet:

1. Select the **View** tab



2. In the **Show** group, unselect the **Gridlines** option.

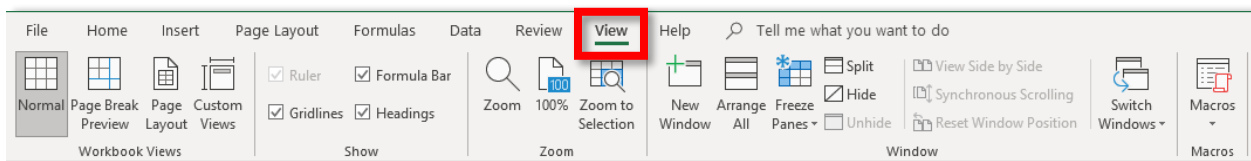


How to Hide the Formula Bar

We recommend that you always display the Formula Bar, but Excel does give you the option to hide it from plain sight.

To hide the **Formula Bar**:

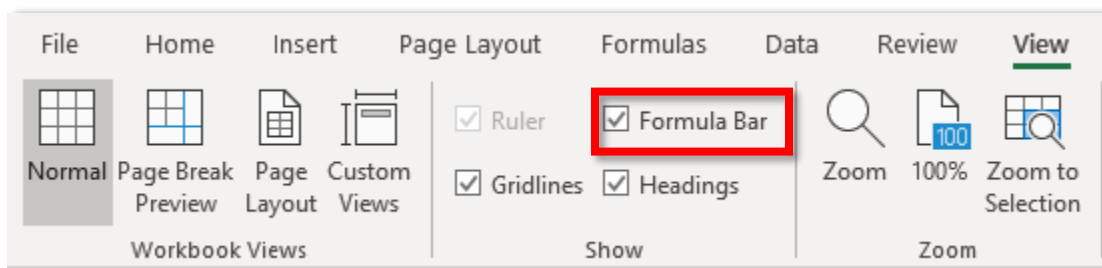
1. Select the **View** tab



2. In the **Show** group, unselect the **Formula Bar** option.

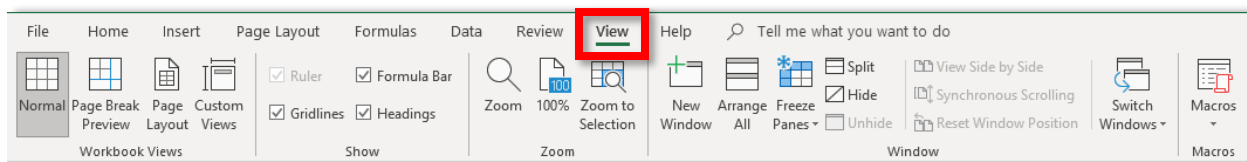
How to Hide the Headings in Your Spreadsheet

The **Headings** in Excel are the column *letters* and the row *numbers*.

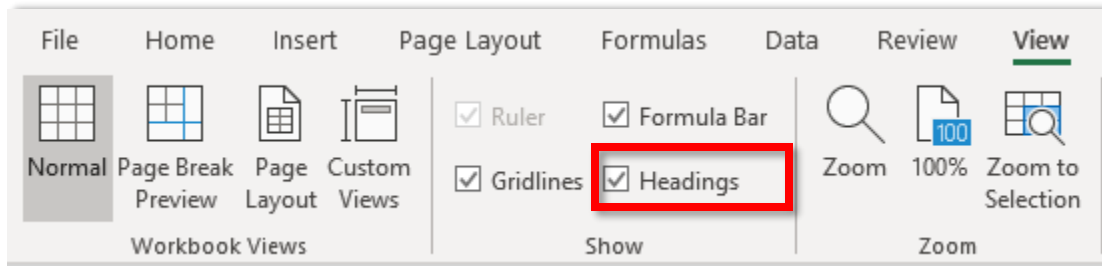


To hide the headings in your spreadsheet:

1. Select the **View** tab



2. In the **Show** group, unselect the **Headings** option.

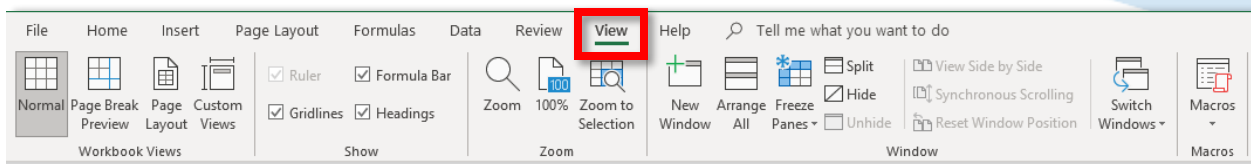


How to Hide the Ruler in Excel

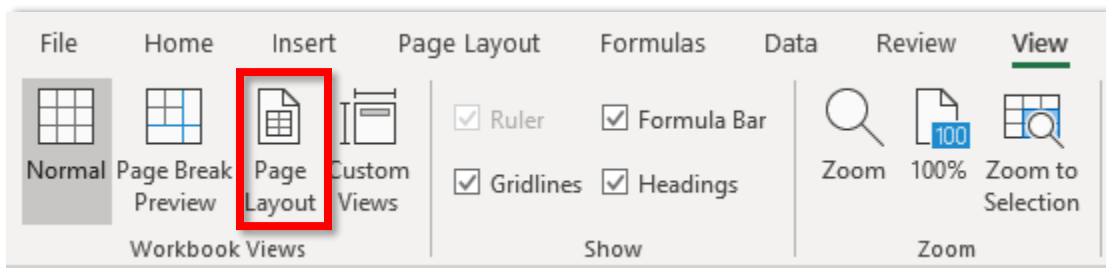
When using the **Page Layout** view, Excel displays a ruler that helps you measure the cells, columns or data in your spreadsheet. You can also hide the **Ruler** in Excel, but this can only be done in the **Page Layout** view. If you are using any other view the **Ruler** will be grayed out.

To hide the **Ruler** in Excel:

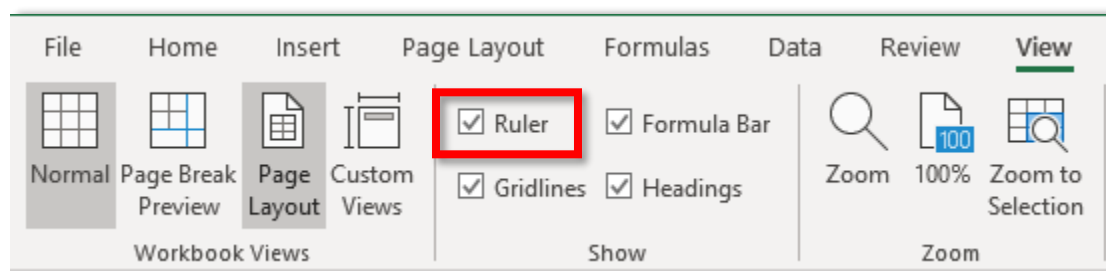
1. Select the **View** tab



2. In the **Workbook Views** select the **Page Layout** view.

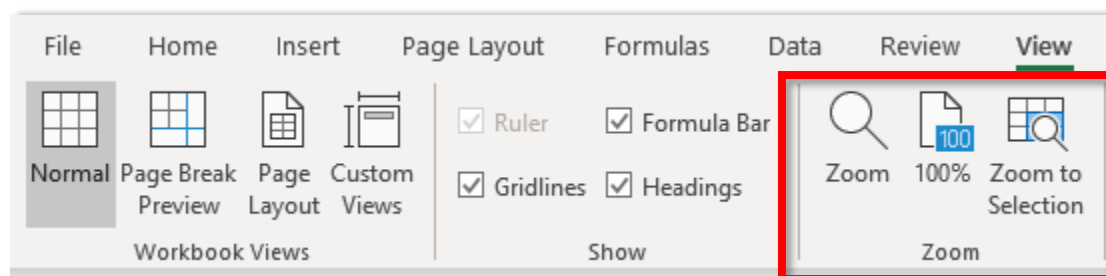


3. In the **Show** group, unselect the **Ruler** option.



Zoom Group

The **Zoom** group of the **View** tab has three options that allow you to magnify the content of your spreadsheet. This section is useful when the font or content is too small or if your vision isn't that great and you need to see things in a much larger scale. Let's explore the commands available in this group.

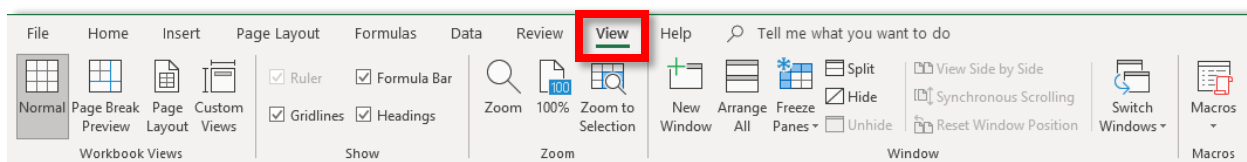


The Zoom (Magnifying Glass) Command

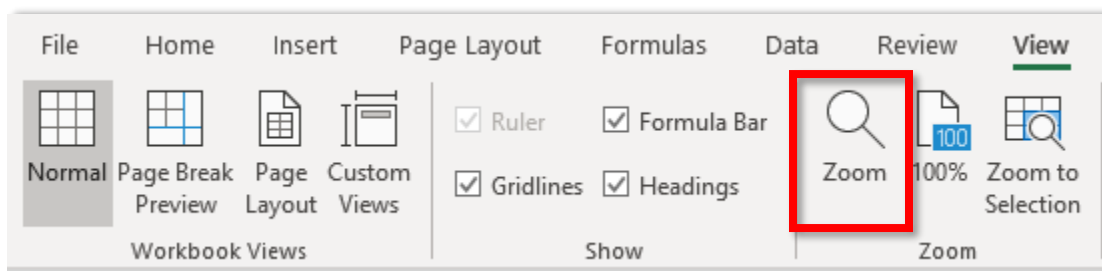
The magnifying glass located in the **Zoom** group allows you to zoom in and out of your spreadsheet. Excel defaults to a 100% view. The 100% view is a good representation of the printed version of your spreadsheet.

To use the **Zoom** command (or magnifying glass):

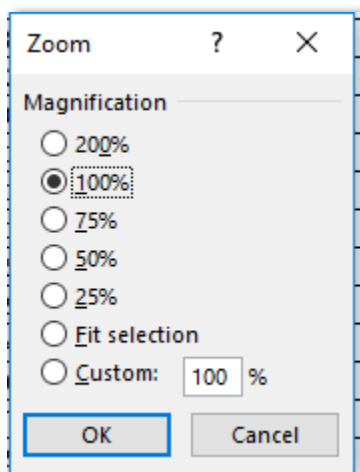
1. Select the **View** tab



2. In the **Zoom** group click on the **Zoom** command.



3. After selecting the **Zoom** button, Excel will prompt a window where you can select the magnification of your choice. Select the best option and click on the **OK** button.



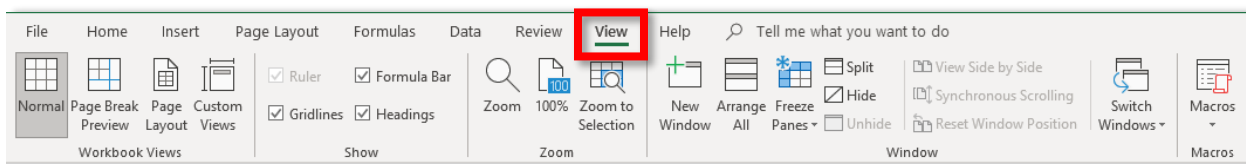
Remember – you can also use the Zoom bar located in the lower right-hand corner of your spreadsheet.

100% Zoom

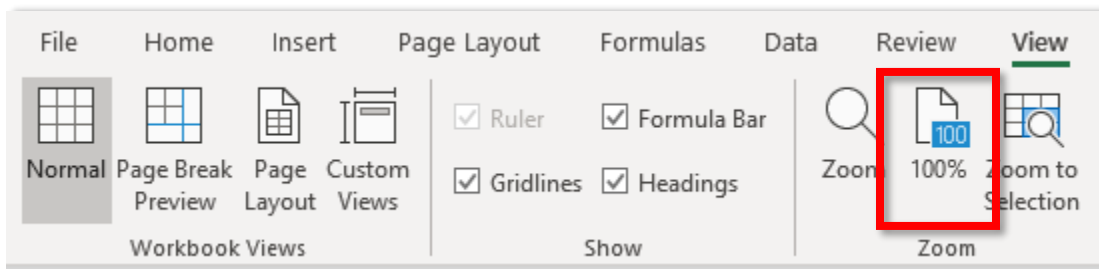
If you zoomed in or out and need to get back to the original zoom settings in Excel, you can use the **100%** zoom command.

To use the **100%** zoom button:

1. Select the **View** tab



2. In the **Zoom** group click on the **100%** command.



Zoom to Selection

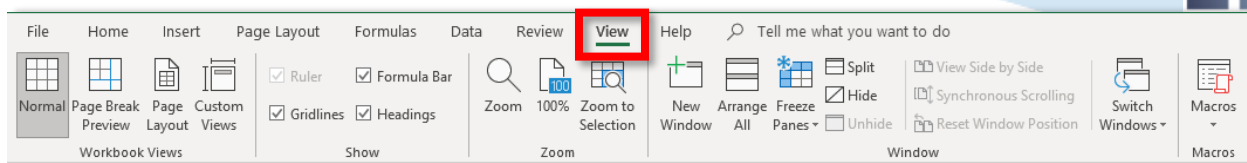
The **Zoom to Selection** command allows you to super-magnify the cell(s) you are currently working on. When clicking on this button, Excel can magnify up to 400%, allowing you to get a closer look at the cells you're currently working on.

To use the **Zoom to Selection** button:

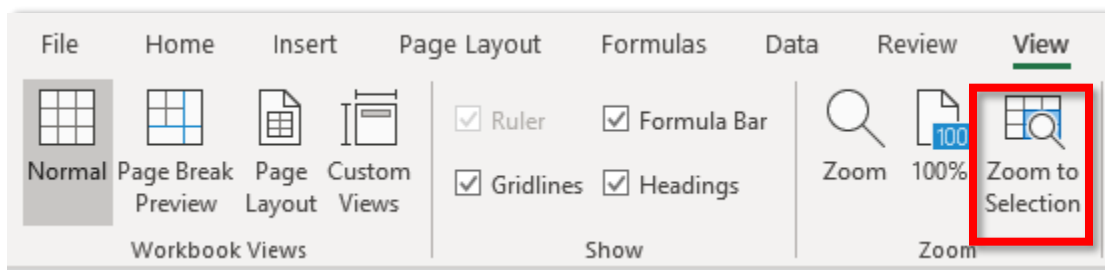
1. Click on a cell or range of cells where you plan to zoom super-magnify the content.

D	E	F
Account Name	Account Active?	Phone Number
Howard & Son Inc.	YES	(916) 964 - 3998
Howard & Son Inc.	YES	(916) 964 - 3998
The Getaway Franchise	NO	(207) 634 - 9210
Steele Plumbing Inc.	YES	(668) 163 - 1740
Steele Plumbing Inc.	YES	(939) 945 - 1321
Loma Linda Unified School District	YES	(411) 677 - 9365
ABC Study Group	YES	(887) 528 - 4549
Valley Way LLC	NO	(343) 542 - 3625
Robotics R' Us	YES	(668) 366 - 6864
Robotics R' Us	YES	(668) 366 - 6864
MarMendez Inc.	YES	(792) 410 - 2830
The Shady Grove	YES	(167) 462 - 6225

2. Select the **View** tab



3. In the **Zoom** group, select the **Zoom to Selection** button

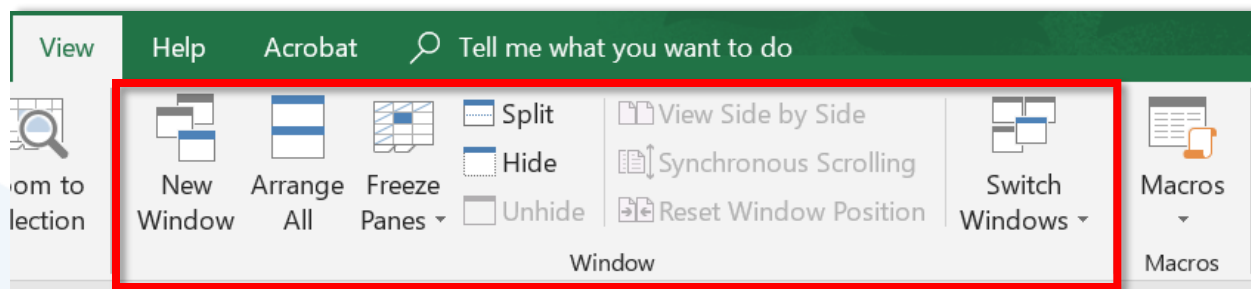


If you followed these steps correctly, you'll see your data magnified.

	D	E
6	Steele Plumbing Inc.	YES
7	Loma Linda Unified School District	YES
8	ABC Study Group	YES
9	Valley Way LLC	NO
10	Robotics R' Us	YES
11	Robotics R' Us	YES
12	MarMendez Inc.	YES

The Window Group

Excel allows you to customize how you toggle back and forth between files and spreadsheets. The **Window** group allows you to personalize the way you view data from your workbook, other Excel files, or parts of your spreadsheet.

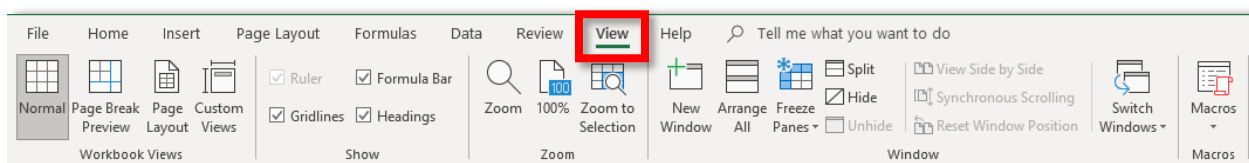


How to Use the New Window Command

The **New Window** command will open a second window for the file you are currently working on. This option is supposed to facilitate the way you work between sheets. This way, you can see two spreadsheets from the same file across two windows. Excel will name the second window with the name of your file but with the number '2' next to it. You'll be able to toggle between both windows through the bottom view of your screen.

To open a second window (aka a new window):

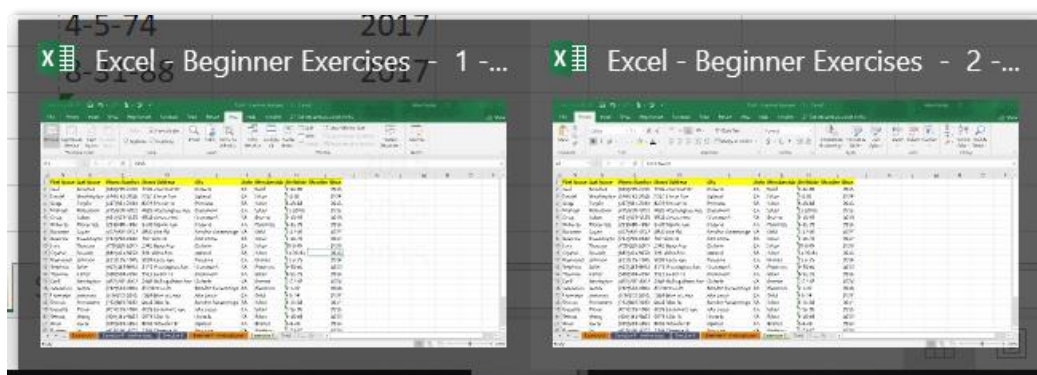
1. Select the **View** tab



2. From the **Window** group, select the **New Window** command.



If you followed these steps correctly, you'll be able to see your spreadsheet across two windows.

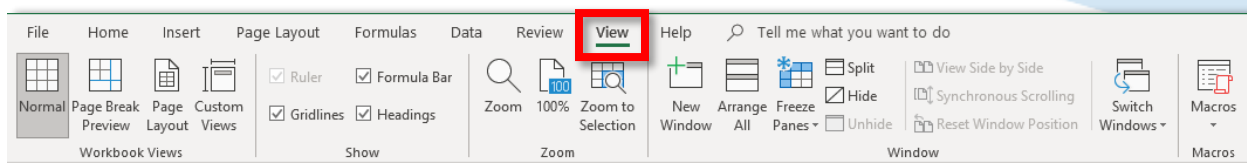


Using the 'Arrange All' Window View

If you are working across multiple windows, you can customize the way the windows are arranged. You can split your screen in half so that one window takes up the left half of your screen and the other window covers the right half of your screen. You can also choose to have one window cover the top half of the screen while the other window covers the bottom half of your screen.

To arrange your windows in Excel:

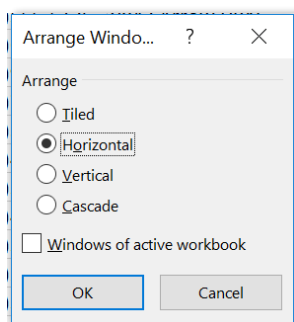
1. Select the **View** tab



2. From the **Window** group, select the **Arrange All** command.



3. After clicking the **Arrange All** button a window will appear where you get to select the arrangement of your windows. Select the best option and click the **OK** button.



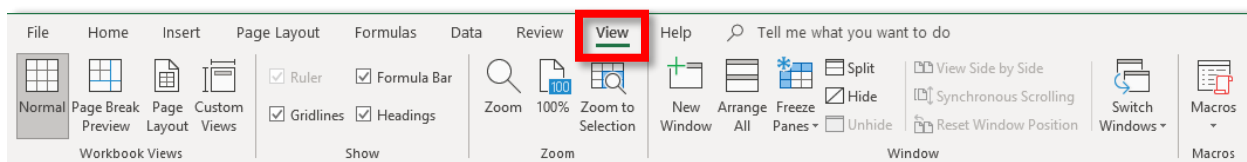
You can always edit the size of any window even after you select a certain arrangement. You can change the size of the window by dragging the little arrow on the edges. This may be a good option, for example, if there is a window you'd prefer to cover most of your screen.

How to Freeze Panes

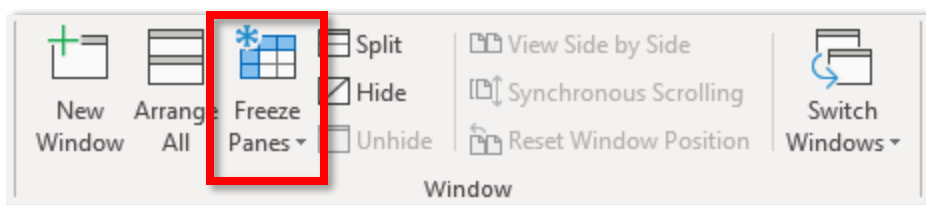
When we work with very long spreadsheets, we may find ourselves scrolling down for quite a long time but realize that we no longer see our table's headers. Excel always provides a way to make your headers visible by using the **Freeze Panes** option. By using the **Freeze Panes** button, you can *freeze* the top row and have it visible as you scroll down your table.

To use the **Freeze Panes** command:

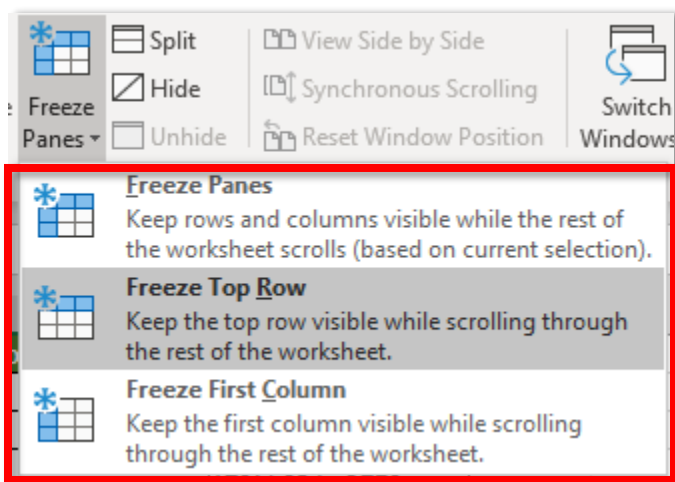
1. Select the **View** tab



- From the **Window** group, select the **Freeze Panes** command.



- The **Freeze Panes** command will display a drop-down menu with different options. Select the panes you want to freeze.

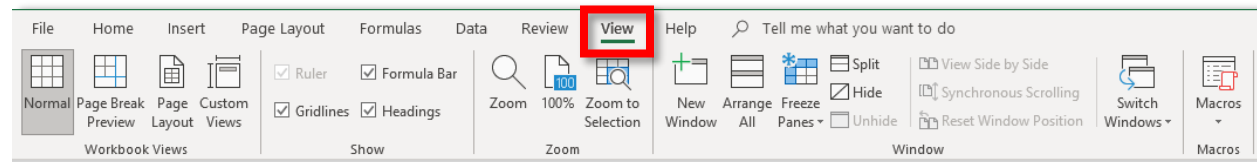


If you followed these steps correctly, you'll be able to move around your spreadsheet and still see the panes that you froze.

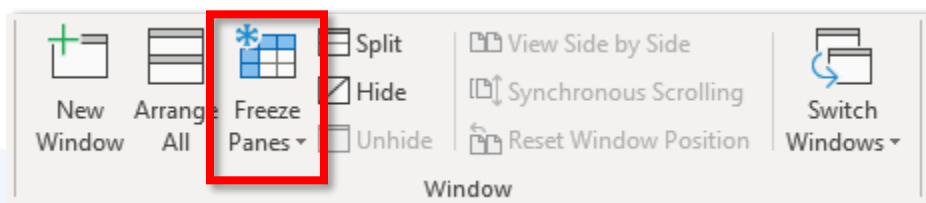
How to Unfreeze Panes

If you want to remove the frozen panes for your column or row, you'll need to follow these steps:

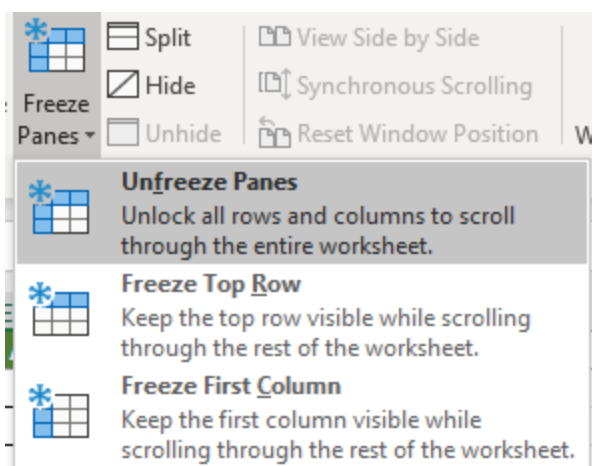
- Select the **View** tab



- From the **Window** group, select the **Freeze Panes** command.



- After selecting the **Freeze Panes** button, Excel will display a drop-down menu. Select the **Unfreeze Panes** option to remove the frozen panes.



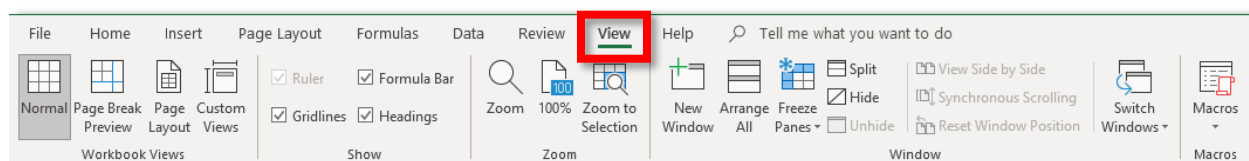
If you haven't used the **Freeze Panes** button, you will not see the **Unfreeze Panes** option from the dropdown menu. The **Unfreeze Panes** option only shows when you have used the **Freeze Panes** button.

The Split (Window) View

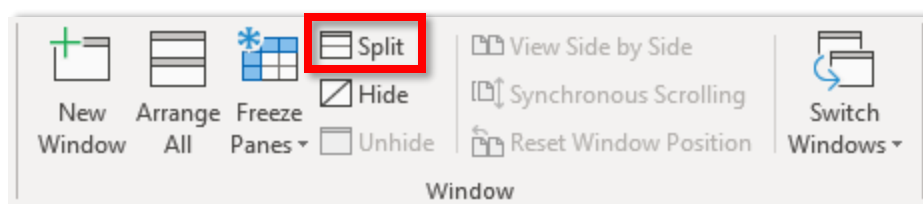
Previously, you learned how to use the **New Windows** option. Similarly, you can use the **Split** window option to view your spreadsheet across two windows. One reason you may want to use the **Split** window option is to use one window to view a still image of your data while you scroll to find information in the other window.

To use the **Split** window option:

- Select the **View** tab



- From the **Window** group, select the **Split** command.



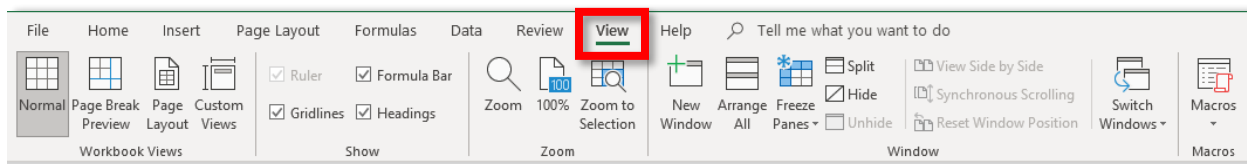
If you've followed these steps correctly, you'll see your spreadsheet visible in two screens (or windows).

E7					YES
	A	B	C	D	E
1	Customer Last Name	Customer First Name	Account ID	Account Name	Account Active?
2	Dominguez	Barbara	46941	Howard & Son Inc.	YES
3	Anthony	Rob	42897	Howard & Son Inc.	YES
4	Williams	Debon	19751	The Getaway Franchise	YES
5	Hernandez	Harold	87321	Steele Plumbing Inc.	YES
6	Ochoa	Jose	25829	Steele Plumbing Inc.	YES
7	Houston	Steven	29520	Loma Linda Unified School District	YES
8	Stevenson	Raymond	86884	ABC Study Group	YES
9	Guill	Sarah	68587	Valley Way LLC	YES
10	Quintero	Jesus	80761	Robotics R' Us	YES
11	Sanchez	Paul	64914	Robotics R' Us	YES
12	Roman	Peter	70275	MarMendez Inc.	YES

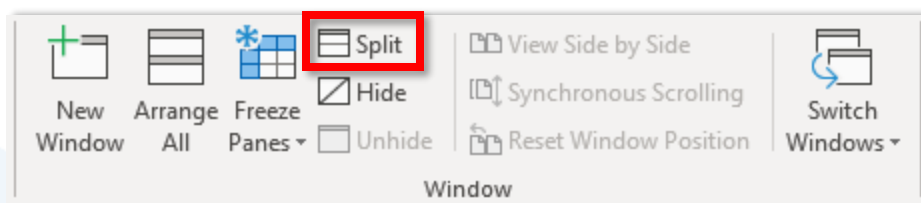
How to remove the Split Window View

To remove the Split view:

1. Select the **View** tab



2. From the **Window** group, select the **Split** command to unselect it.

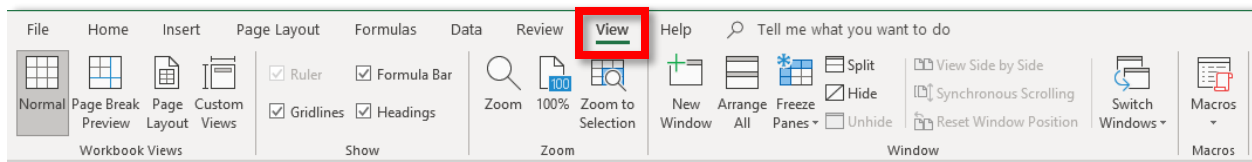


How to Hide Your Current Workbook

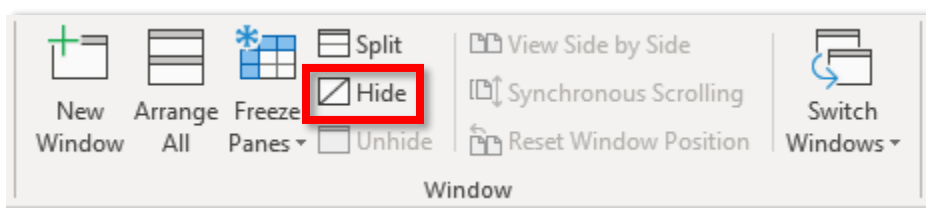
Excel allows you to hide your current workbook. Although it is unlikely that you will need to do this, you can use this feature to not display the current spreadsheet on your screen.

To hide your current workbook:

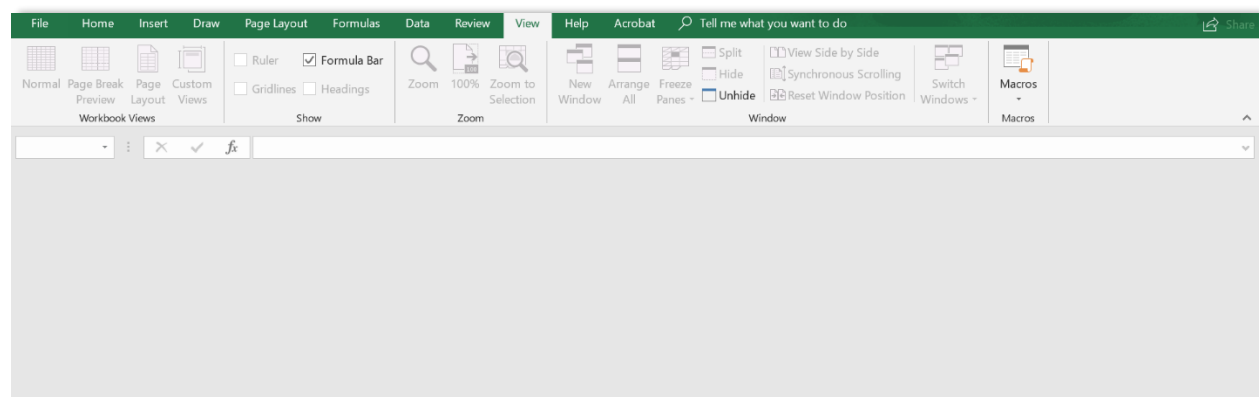
1. Select the **View** tab



2. From the **Window** group, select the **Hide** command to hide your window.



If you've followed these steps correctly, you'll find that your spreadsheet seemed to have disappeared.

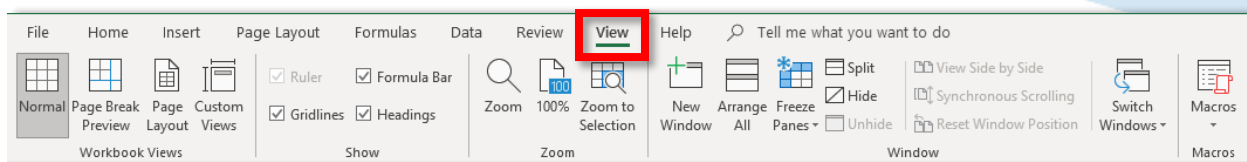


How to Unhide a Hidden Workbook

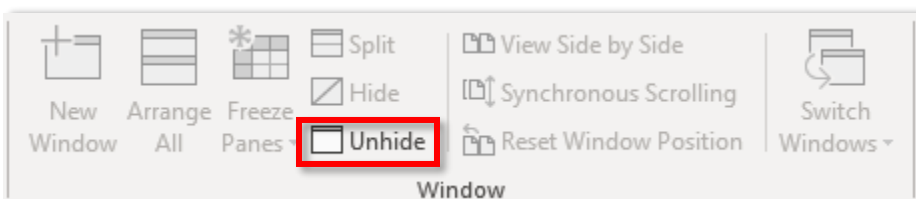
The **Unhide** window command is typically grayed out and can't be selected unless you have used the **Hide** option.

To unhide a hidden window:

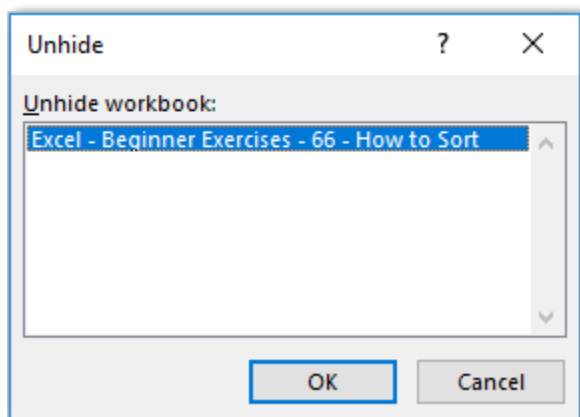
1. Select the **View** tab



2. From the **Window** group, select the **Unhide** command.



3. After selecting the **Unhide** command, Excel will display a small window with the list of windows that are hidden from your view. Select the window you want to unhide and click the **OK** button to display your workbook.



Additional Excel Functions for Beginners

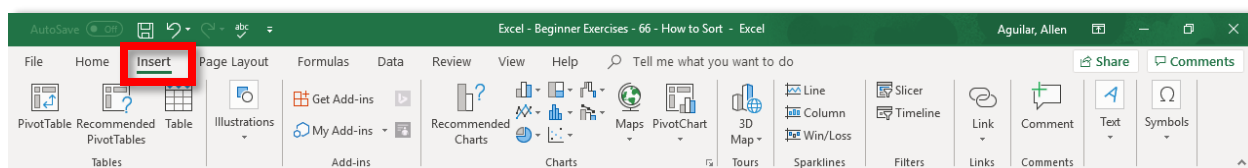
In this section, you'll learn additional Excel functions for beginners. These functions are also easy to use and don't require any understanding of formulas.

Inserting A Header to Your Sheet

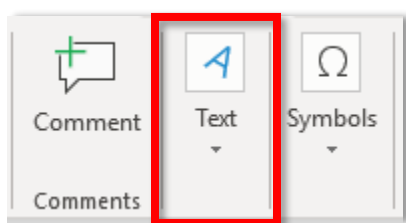
Just like with most documents, you can add a tile to your file that will print on every page. In Excel, you can add this title so that it will appear on every page after you print. This title is called a **Header**.

To add a **Header** to your spreadsheet:

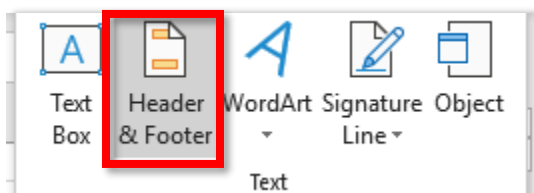
1. Click on the **Insert** tab.



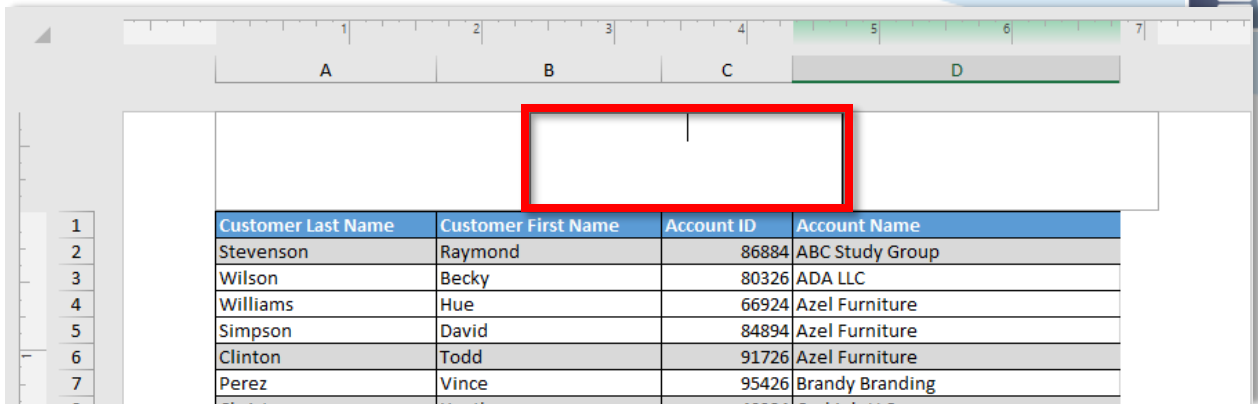
2. Select the **Text** command from the ribbon.



3. The **Text** command will display a drop-down menu with options. Select the **Header & Footer** option.



4. The **Header & Footer** command will display the **Page Layout** view. At the top of your sheet, you'll be able to type your **Header**.



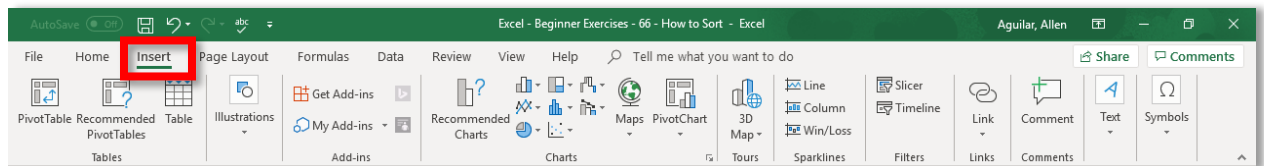
Customer Last Name	Customer First Name	Account ID	Account Name
Stevenson	Raymond	86884	ABC Study Group
Wilson	Becky	80326	ADA LLC
Williams	Hue	66924	Azel Furniture
Simpson	David	84894	Azel Furniture
Clinton	Todd	91726	Azel Furniture
Perez	Vince	95426	Brandy Branding

Inserting a Footer to Your Sheet

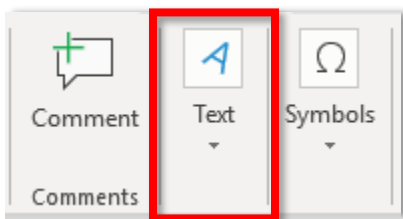
The **Footer** is an area at the bottom of your spreadsheet that you can include on every single page when you print your workbook.

To add a **Footer** to your spreadsheet:

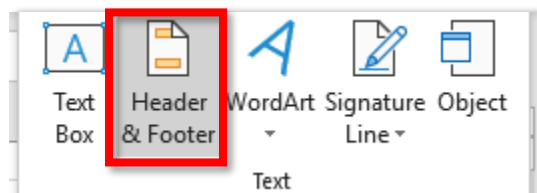
1. Click on the **Insert** tab.



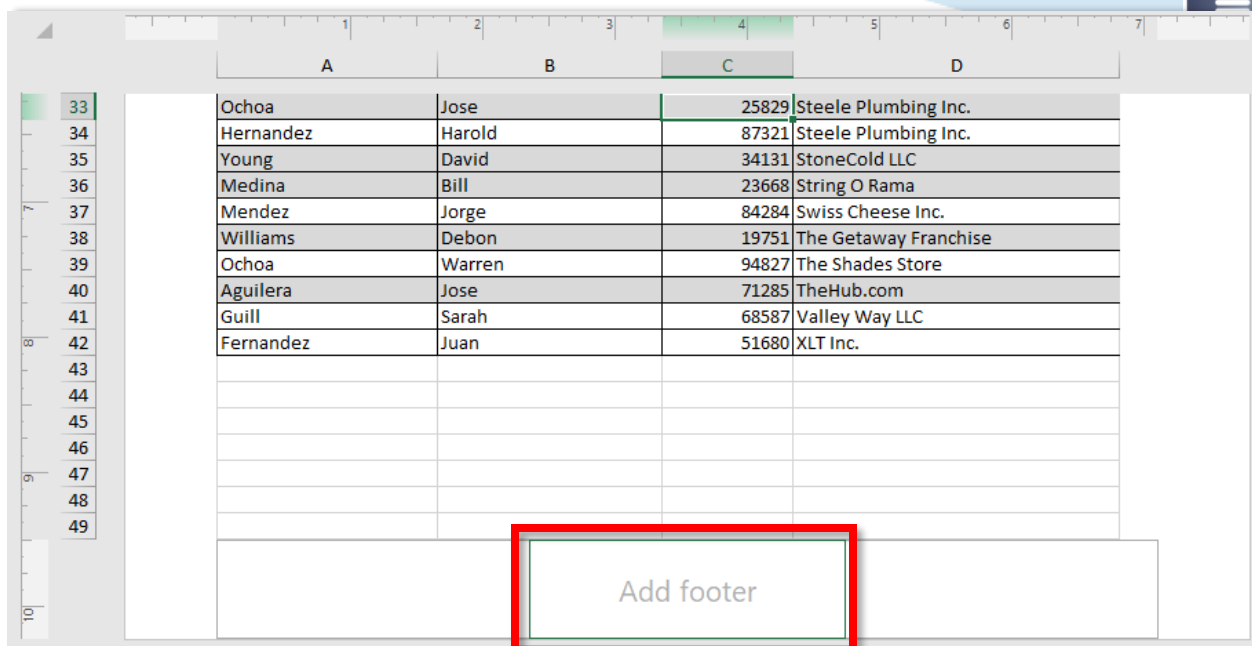
2. Select the **Text** command from the ribbon.



3. The **Text** command will display a drop-down menu with options. Select the **Header & Footer** option.



4. The **Header & Footer** command will display the **Page Layout** view. Scroll down to the bottom of the spreadsheet until you see an area with the words *Add Footer*. Click on the *Add Footer* section to add your **Footer**.



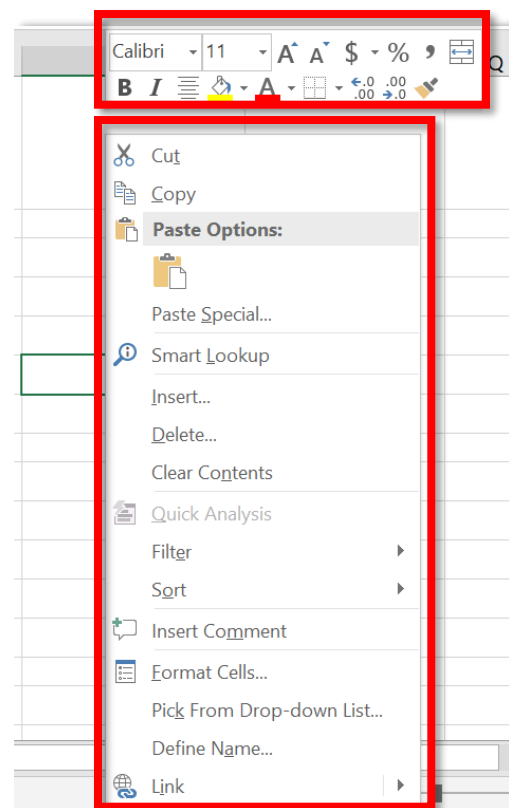
Right-Clicking

Currently, we have covered most of the ribbon on the **Home** tab. Obviously, it's difficult to memorize where all these buttons are located when using Excel. This is why we also recommend to use shortcuts when using Excel. Although some shortcuts require you to press a few buttons on your keyboard, another alternative is to right-click on a cell, column or row.

When right-clicking on a cell, column, or row you will find that two menus will appear for you to use. Most of the options in these two menus are exactly what you would find in the **Home** tab.

To try this out, just right-click on a cell and compare the top menu and the bottom menu to the commands available in the **Home** tab ribbon. Notice that the top menu is used for font changes, number styles and format painting. The bottom menu allows you to cut, copy, insert and delete items.

As you continue to learn more about the different functions of Excel, try using the right-click option to speed up the process of getting things done. This might help you save some time instead of continuously navigating



through the different ribbons that Excel has available. Plus, Excel is consistently changing the user interface, but the right-click menus typically stay the same.

Auto Fill

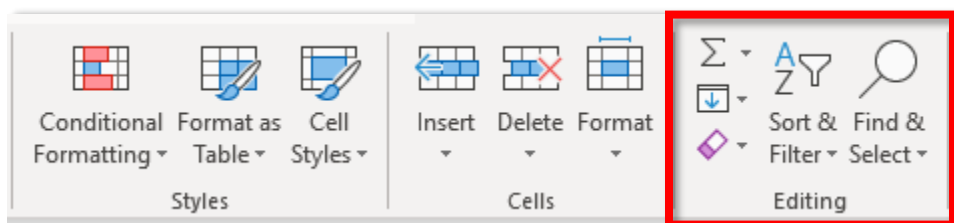
Microsoft Excel prioritizes efficiency which is why there are many shortcuts used in Excel. Additionally, Excel tries its best to guess your intentions and will automatically complete certain functions for you. One such function is the **Fill** function. The **Fill** function allows you to copy the functionality of your cells to other cells. This way, you don't have to create formulas repeatedly. You'll only have to create a formula once and Excel will auto fill to other cells. Let's look at some examples of the Auto Fill function.

The Fill Button

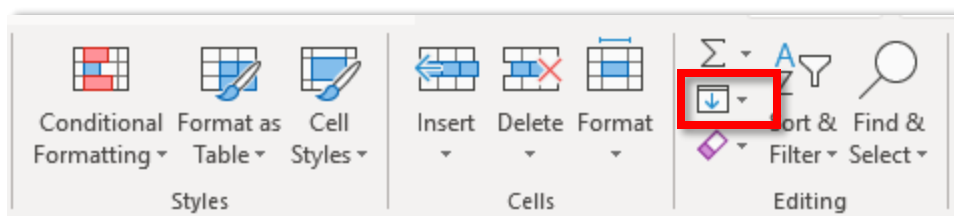
The **Fill** button helps you automatically complete your formulas on to other cells in a vertical or horizontal manner. However, this button only limits your ability to copy/paste the formulas one at a time. The Fill Button basically performs the same function as the Auto Fill Handle which will be covered in the next section.

To use the **Fill** command:

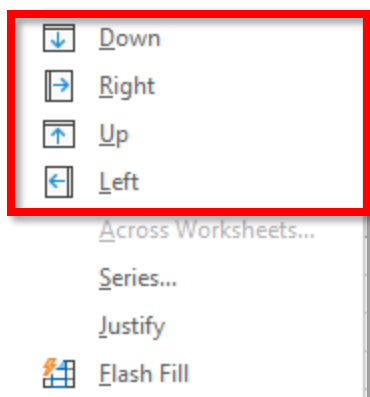
1. Select the cells where you want Excel to fill the computations for you.
2. Navigate to the **Editing** group in the **Home** tab ribbon.



3. Click on the **Fill** command.

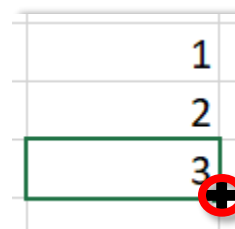


4. After selecting the **Fill** command, Excel will display a drop-down menu. Select the direction for Excel to automatically complete the computations for you.



The Auto Fill Handle

Anytime you have a column or row where a pattern is formed, you'll be able to use a powerful feature called the **Auto Fill Handle**. The **Auto Fill Handle** will appear in the lower right-hand corner of a cell and is represented by a very small, black cross. The **Auto Fill Handle** will only appear when Excel recognizes a pattern in your cells or a computation, such as a formula.

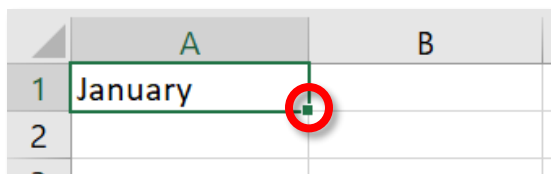


How to Use the Auto Fill Handle

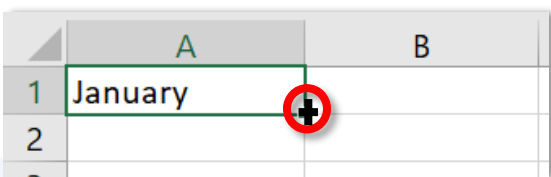
The **Auto Fill Handle** is used to copy patterns of data across multiple cells or to copy computations across a column or row. It is recognized as a little black cross that appears in the lower-right hand corner of a cell.

To use the Auto Fill Handle:

1. Place your cursor over the lower-right hand corner of a cell that contains content, such as a pattern or a formula.



2. Once you see the black cross (or the **Auto Fill Handle**) appear, click *and hold* and move your cursor in the direction of where you want the pattern or calculations to occur.



3. (While holding) move your cursor to the desired cell and let go of the mouse

How to Use the Auto Fill Handle with patterns

Microsoft Excel is such a powerful software that it can recognize patterns in a spreadsheet. For example, if you want to include every month of the year in your spreadsheet, you would literally have to type in the name of those months in every cell. However, the **Auto Fill Handle** recognizes patterns which will save you time and energy. For Excel to recognize a pattern, you'll have to first create a pattern with at least two cells.

To use the **Auto Fill Handle** with a pattern:

1. Create a pattern in at least two cells.

	A	B	C	D
1	January	February		
2				

2. Select both cells.

	A	B	C	D
1	January	February		
2				

3. Place your cursor in the lower-right hand corner of your range until you see the black cross (or the **Auto Fill Handle**).

	A	B	C	D
1	January	February		
2				

4. Click and hold the **Auto Fill Handle**
5. Move your cursor in the direction in which you want Excel to fill the rest of the pattern or computation.

	A	B	C	D	E	F	G	H
1	January	February	March	April	May	June	July	August
2								

Since Excel recognized your pattern, it automatically filled the rest of the data for you. The **Auto Fill Handle** can identify years, numbers, days of the weeks and formulas.

Hiding & Grouping Commands

Previously, you learned how to hide columns, rows and sheets. In Excel, it is very common to hide columns or rows you don't need to see. As stated previously, there is an alternative to hiding your data, and that alternative is called **Grouping**.

Hiding vs Grouping Columns and Rows

Hiding columns can be problematic when working with a lot of data because you may forget that you hid a few columns, or you may be sharing an Excel file and were never informed that there were some rows hidden. In this case, the better option is to use the *Outline* functionality called **Grouping**. **Grouping** columns or rows allows you to collapse or expand your hidden columns or rows and makes it clear where data is hidden.

	A	B	C	D	E
1	Customer Last Name	Customer First Name	Account ID	Account Name	Account Active?
2	Stevenson	Raymond	86884	ABC Study Group	YES
3	Wilson	Becky	80326	ADA LLC	YES
4	Williams	Hue	66924	Azel Furniture	YES
5	Simpson	David	84894	Azel Furniture	YES

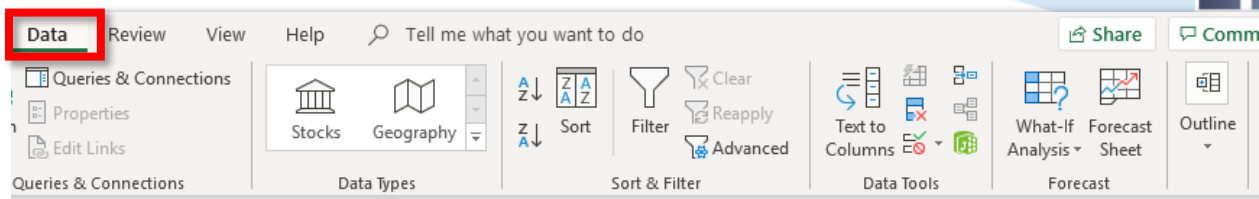
How to Use the Group Function

To use the **Group** function:

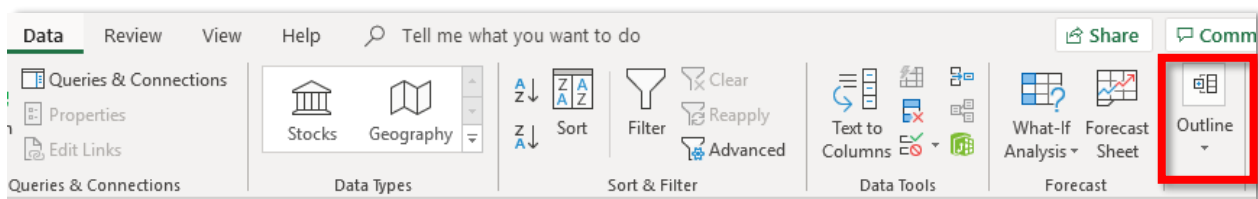
1. Select the column(s) or row(s) you want to group.

	A	B	C	D	E
1	Customer Last Name	Customer First Name	Account ID	Account Active?	Account Name
2	Stevenson	Raymond	86884	YES	ABC Study Group
3	Wilson	Becky	80326	YES	ADA LLC
4	Williams	Hue	66924	YES	Azel Furniture
5	Simpson	David	84894	YES	Azel Furniture
6	Clinton	Todd	91726	YES	Azel Furniture
7	Perez	Vince	95426	YES	Brandy Branding

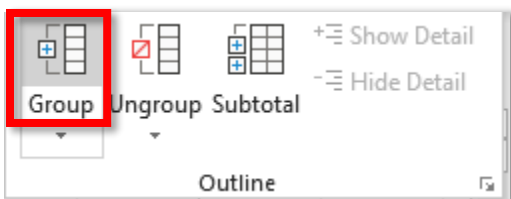
2. Navigate to the Data Tab



3. Select the **Outline** command. In some Excel versions, there may not be an **Outline** command, in which you'll just need to skip to step 4.



4. The **Outline** command will display a drop-down menu. From the drop-down menu, select the **Group** option.



5. Selecting the **Group** command will add an *outline* or an expandable line across the columns or rows you selected. Click on the minus symbol to contract the columns or rows.

	A	B	C	D	E
1	Customer Last Name	Customer First Name	Account ID	Account Active?	Account Name
2	Stevenson	Raymond	86884	YES	ABC Study Group
3	Wilson	Becky	80326	YES	ADA LLC
4	Williams	Hue	66924	YES	Azel Furniture
5	Simpson	David	84894	YES	Azel Furniture

6. If you followed these steps correctly, you'll find that the columns or rows that you selected are now hidden or grouped. To display the grouped columns or rows, click on the plus symbol.

1			
2			
	A	B	E
1	Customer Last Name	Customer First Name	Account Name
2	Stevenson	Raymond	ABC Study Group
3	Wilson	Becky	ADA LLC
4	Williams	Hue	Azel Furniture
5	Simpson	David	Azel Furniture

Ungrouping Columns or Rows

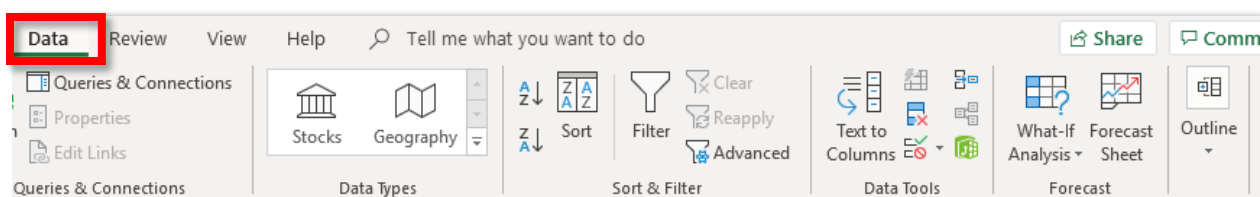
If you no longer want your columns or rows grouped, you'll need to ungroup those columns or rows.

To ungroup columns or rows:

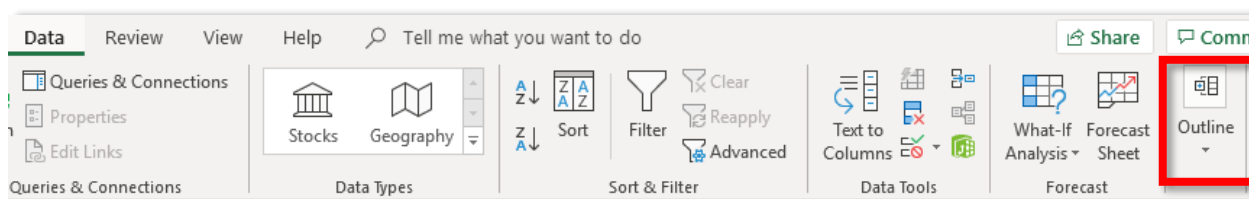
1. Select the column(s) or row(s) you want to ungroup.

1				
2				
	A	B	C	D
1	Customer Last Name	Customer First Name	Account ID	Account Active?
2	Stevenson	Raymond	86884	YES
3	Wilson	Becky	80326	YES
4	Williams	Hue	66924	YES
5	Simpson	David	84894	YES

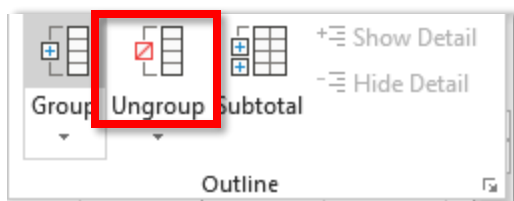
2. Navigate to the Data Tab



3. Select the **Outline** command. In some Excel versions, there may not be an **Outline** command, in which you'll just need to skip to step 4.



4. The **Outline** command will display a drop-down menu. From the drop-down menu, select the **Ungroup** option.



5. Selecting the **Ungroup** command will remove the *outline* feature and your columns or rows will no longer be grouped.

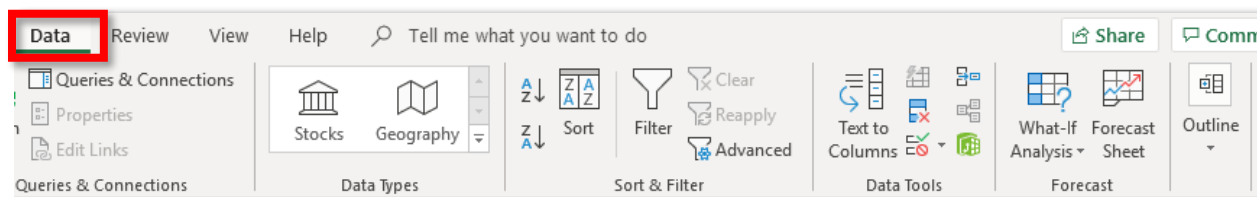
	A	B	C	D	E
1	Customer Last Name	Customer First Name	Account ID	Account Active?	Account Name
2	Stevenson	Raymond	86884	YES	ABC Study Group
3	Wilson	Becky	80326	YES	ADA LLC
4	Williams	Hue	66924	YES	Azel Furniture
5	Simpson	David	84894	YES	Azel Furniture
6	Clinton	Todd	91726	YES	Azel Furniture
7	Perez	Vince	95426	YES	Brandy Branding

Removing Duplicates

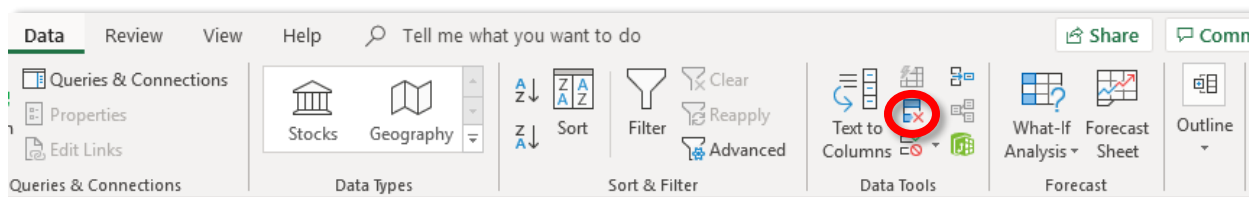
Excel understand that we sometimes make mistakes, which is why there are many functions that users can use to correct mistakes. One such mistake that most Excel users commonly make is misspelling or accidentally creating duplicate entries. In this section you'll learn how to use the **Remove Duplicates** command in Excel. The **Remove Duplicates** function in Excel will identify all duplicate entries and remove them from your table or data.

To use the **Remove Duplicates** command:

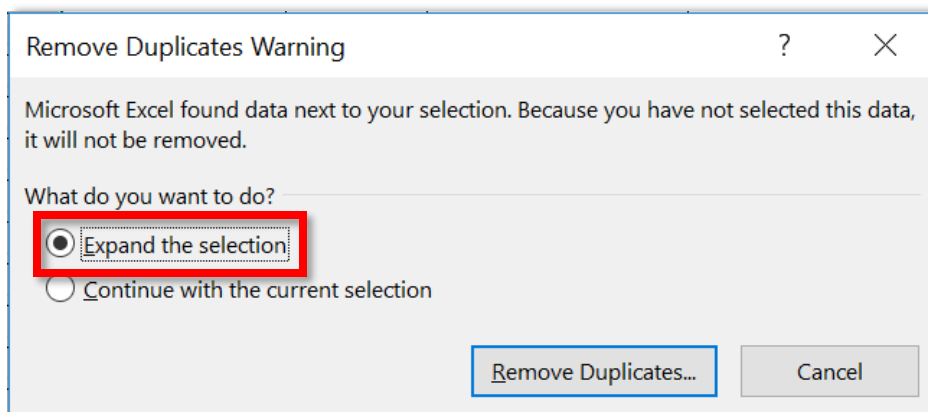
1. Click in any cell within your data.
2. Navigate to the Data Tab



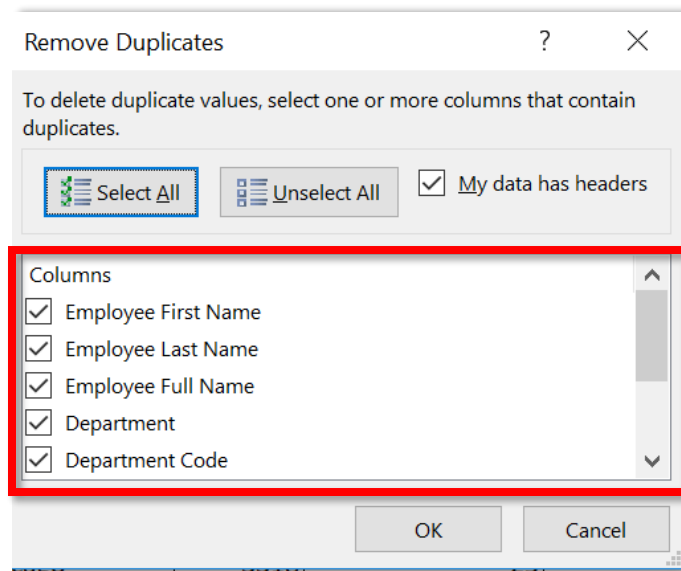
3. In the **Data Tools** group, select the **Remove Duplicates** command.



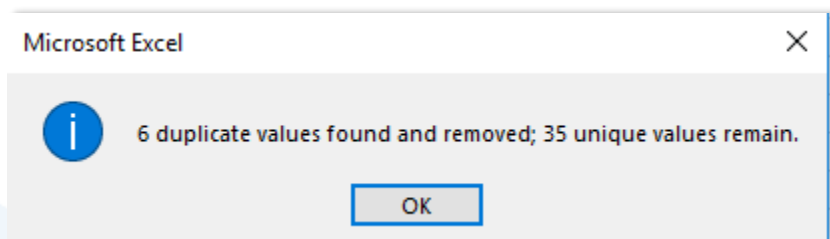
4. Selecting the **Remove Duplicates** command will display a dialog box. Excel will identify that you have more data than one cell and wants to expand your selection to include all your data, which will allow you to select additional criteria. Select the *Expand the selection* option and click on the **Remove Duplicates** button.



5. Selecting the **Expand the selection** option will prompt another pop-up window where you get to pick and choose which data will determine the duplicate entries to remove. Check the appropriate boxes and select the **OK** button.



6. Excel will then remove your duplicates and display a box with the number of duplicates that it removed and the number of entries that remain. Select the **OK** button to complete the process.



Introduction to Excel Formulas

Excel formulas can be a scary thing if you have never worked with them before. Once you get the hang of them, they make your life much easier and help you do less manual work on spreadsheets. Before you get a chance to work with Excel formulas, let's first explore a few tips and learn the basic structure of Excel formulas.

5 Tips to Remember About Excel Formulas

The following are a few tips that will help you grasp the way formulas work and how to work with them.

1. *Excel speaks its own language*

Think about Excel formulas in this way: your goal is to learn Excel's language so that you can tell Excel what you want it to do in its own language. Luckily, most of the way we think and speak can be easily *translated* into Excel's language. Keep this concept in mind while you work on Excel formulas and pretend that you are a *translator* writing in Excel's language.

2. *You always start a formula with an Equal Sign*

When you include an equal sign to start a formula, Excel understands that you're about to give it a command. In other words, the equal signs tell Excel that a formula is coming and that you're about to speak its language. If you write a formula but forget to place the equal sign in the beginning, there is no need to worry because Excel will give you an error message that will inform you that you forgot the equal sign.

3. *An Excel Formula cannot read words or text*

In more advanced formulas, you'll want Excel to return (or display) certain values. For example, if you create a formula that will tell you when employees have completed all compliance training, then you might want Excel to show the word 'Complete' next to the employees' name. In your formula, you'll need to tell Excel to return the word 'Complete', but the only way Excel will know that you want it to return a word (or text) is if you include those words inside quotation marks. Therefore, anytime you include a word in Excel that is not a formula, you'll need to place it inside quotations marks (i.e. "Complete").

4. If you're stuck with a formula, read it out loud

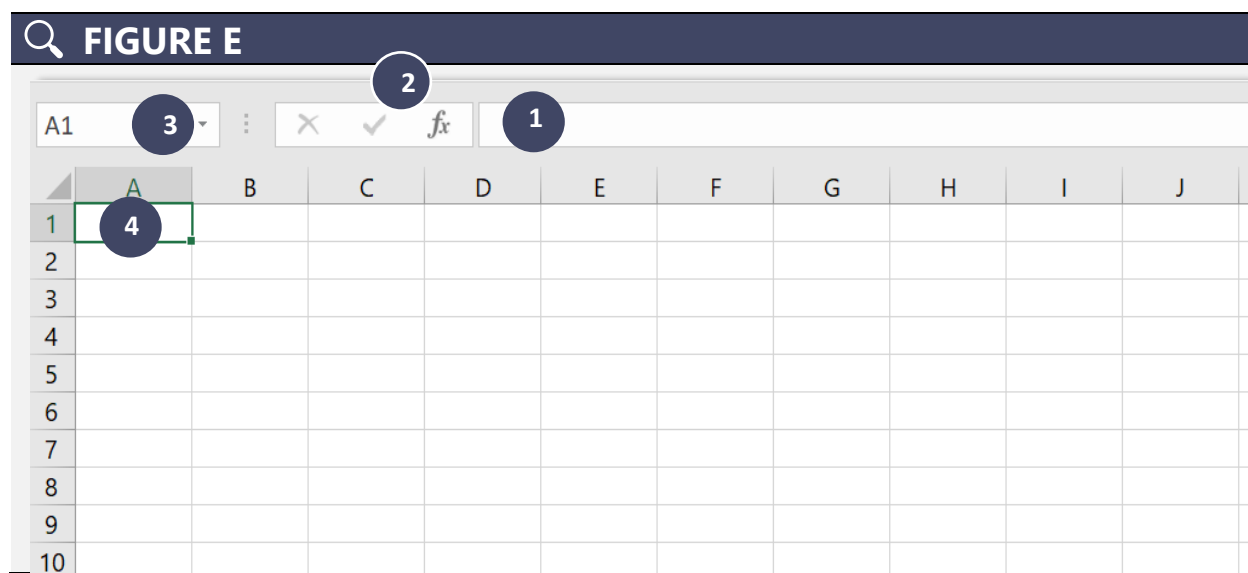
The best habit to develop as an Excel beginner is the habit of reading the formulas out loud. Remember, you're basically learning to write a new language and it may take you some time to get the hang of this. If you read the formulas out loud, it will help you find a mistake if there is one. Additionally, if you say out loud what you want Excel to do, it will also help you to appropriately write a flawless formula.

5. In Excel, there are multiple ways to do the same thing

In previous sections of this booklet, you learned that one Excel function can be accessed in multiple ways. In fact, there could be a button in Excel that exists in two or three different ribbons. This is also true with Excel formulas. For example, there are multiple ways to add in Excel. Just like there are multiple ways to say the same thing in the English language, there are diverse ways that you can tell Excel to do something. Much of it depends on how your brain works.

Writing Excel formulas

In the beginning of this booklet, you learned about the two different areas where formulas can be written. Let's recap those two areas where we can write our formulas. Explore Figure E to learn more.



1 **The Formula Bar**

The preferred area to write formulas is the formula bar. The formula bar always displays the content of the cells. The formula bar also has a help function where you can enter the function you want Excel to perform.

2 **Insert Function Option**

To the left of the formula bar there are three buttons. The most helpful of those buttons is the Insert Function option. The Insert Function button is like a formula wizard that will guide you step-by-step in creating your formula. The other two buttons are not commonly used since you can technically delete parts of your formula without having to click the 'X' button and instead of clicking on the checkmark, you can hit the Enter button on your keyboard.

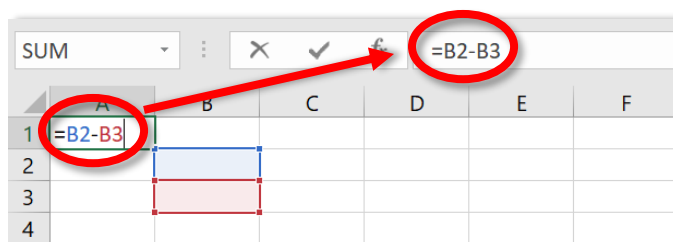
3 **The Name Box**

The Name Box can simply be used in two ways. One way the Name Box can be used is by easily referencing the tables that you create. In Excel, you can name your tables (or ranges) to easily do calculations or reference your data. Once you name your data, the names of the tables that you created will show up in the Name Box section. You can also use the name box when you're in the middle of writing a formula. In this case, the Name Box will help you find a formula, but there are other ways that we recommend that you do this instead. In this booklet, we will not cover much use of the Name Box.

4 **Writing Formulas in Cells**

Instead of using the Formula Bar to write your formulas, it is sometimes easier (or more convenient) to write formulas by typing them directly in the cells. For longer formulas or to edit formulas, we recommend the Formula

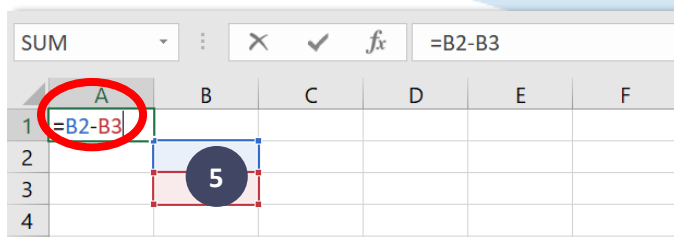
Bar because it's easier to see the formulas written in the long bar. For short or quick formulas, typing them directly in the cells will probably be quicker than going up to the Formula Bar. Most beginners always tend to want to use the cells for formulas. We recommend that you get used to writing formulas in both sections. When writing a formula in a cell, the formula gets automatically written in the formula bar as well.



5 **The colors of the Cells**

Newer versions of Excel help you easily identify the cells included in your formulas. Excel does this by including unique color for every one of the cells you include in your formula. This allows

users to visualize the cell references because they are color coded. Therefore, the cell reference's color corresponds with the shaded color of the cell when you're writing or editing a formula.



Basic Overview of Formulas

To easily understand how to *read* Excel's language, let's start with a basic overview and explore the various parts that make up simple Excel formulas.

The Equal Sign in Excel Formulas

All formulas must start with an equal sign. This is how Excel knows that you are communicating in its language. Advanced users will use the equal sign with other functions, but the number one rule when writing a formula is to start with an equal sign.

Examples of the equal sign in a formula

$$=8 + 8$$

or

$$=SUM(H4,I4,J4)$$

Using Operators in Excel Formulas

If you remember back in math class, operators are simple calculations that you use, such as a plus sign or a multiplication sign. Excel recognizes most of our common operators, but you'll need to make sure that you use the correct symbol when communicating with Excel.

Operator Type	Example of operators in Excel Formulas
Addition	=8+8
Subtraction	=10-3
Multiplication	=15*7
Division	=96/3
Power	=4^10

Cell References vs. Constants

Previously, we used simple formulas to make calculations. However, the power of Excel exists in using different cells to make calculations. Therefore, most of us use Excel – so that the software does the computation for us.

In Excel, you can add two cells or add two numbers that you choose. If you create a formula and you type a number directly into your formula, this number is called a **Constant**.

Examples of Constants in a formula

$$=8 + 8$$

or

$$=B2 * 10$$

In Excel, there are no rules to the number of **Constants** you can use but you're not limited to using **Constants** exclusively. **Cell References** allow you to make calculations based on the numbers, or content, that exists inside a cell. Therefore, Excel will make calculations based on the cells you're referencing.

Examples of Cell References in a formula

$$=B2 * 10$$

or

$$=B16 - C12$$

How to Write Formulas

Now that you have a basic overview of how formulas work and some of the terminology we will use in the remainder of this booklet, let's discuss how formulas are written. Our goal in this booklet is to help you gain the conceptual understanding of how formulas are structured, which will help you read and write basic formulas and will eventually help you read and write the more advanced formulas as you continue your Excel journey.

The Formula Function

The equal sign is always first. The equal sign tells Excel that you're about to speak its language. After the equal sign, you'll need to write the name of the formula that you will use. This is also sometimes called the function. Excel formulas will tell Excel what calculation to make. A description of the formulas will come in the following sections but for now, it's important for you to know that the formula comes after the equal sign.

Example of a formula after the equal sign

=AVERAGE

The Parentheses in Excel formulas

First comes the equal sign. Then goes the formula function. Then, you'll need an open parenthesis. The open parentheses will explain to excel the details of your formula.

Example of how parentheses are used in formulas

=AVERAGE(

Arguments in Excel formulas

After your open parenthesis, a formula will need an **Argument**. An **Argument** in Excel describes the details of the formula in Excel's language. Each formula requires specific details, which you will learn later. In the meantime, just remember that the argument belongs inside the parentheses.

Example of an argument in a formula

=SUM(B1,B2,B3)

Completing a Formula

Formulas must end with a parenthesis. Once you have written your formula, you can press the Enter key or the tab key on your keyboard to confirm the calculation with Excel. Technically, you don't have to write the closed parenthesis at the end of your formula. Instead, you can press the Enter key and the closed parenthesis will be included by Excel automatically.

Example to complete a formula with a closed parenthesis

=SUM(B1,B2,B3)

Writing Basic Excel Formulas

Now that we have covered the basic make-up of formulas, the formulas presented in this section will make a lot more sense. Knowing how formulas are structured is key to understanding how to use and write formulas. Much of the formulas that we will introduce in this section will come to you easier than you might have imagined.

The AutoSum Function

Before getting into the depths of writing and using basic formulas, let's begin with a simple Excel function that allows you to make a simple calculation: The AutoSum function is an important function that will also help introduce the world of formulas in Excel. Although the **AutoSum** function does not require you to write a formula it will automatically add your data and will introduce you to the **SUM** formula.

Using the AutoSum Button

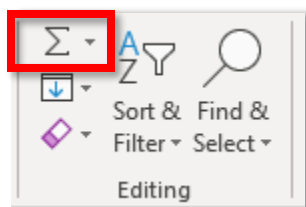
The **AutoSum** button works well when your data is organized in columns. However, even if your data isn't organized this way, you may still use it. The **AutoSum** function will add your cells together providing you with the total computation.

To use the **AutoSum** function:

1. Select a cell where you want the computation to appear (which would typically be next to your set of organized data).

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	

- Click on the **AutoSum** button which is in the **Editing** section of the **Home** tab



- The **AutoSum** command will automatically generate a **SUM** formula in the cell that you selected, indicating in the highlighted area (with the active dashes) which cells will be included in the calculation. Hit the **Enter** key on your keyboard

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	=SUM(B2:B15)

Notice how the **AutoSum** function simply creates a formula for you automatically. We'll discuss these formulas in detail later in this booklet. After hitting the **Enter** key, the computation will now show in the cell you selected.

Other AutoSum Calculations

The **AutoSum** function can do other types of calculations other than summing your data. The **AutoSum** can

	A	B	C
1	Account Name	Sales Amount	Average Order
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65	100.3343444
3	ESPINOZA YARD LLC	\$295,231.23	89.9999999
4	NGUYEN INSTITUTE	\$294,923.13	85.25
5	DAN & CRADSTREED INC.	\$246,715.65	78.5
6	GRACE WARE LLC	\$224,816.89	75.6666666
7	STANFORD LAW INC.	\$213,352.65	70.321
8	DAVID&MIMIS INC	\$211,193.76	67.67777
9	ROBERT SATIN, MD.	\$196,825.43	65.555555
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38	40.33333333
11	FLOYD INC.	\$147,635.76	38.75
12	BASIC TEES, LLC	\$131,281.65	36.55
13	ONE WORLD FINANCIAL	\$113,949.66	27.87
14	ITALIANO BISTRO FRANCHISE	\$109,443.01	25.25
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50	20.2
16	TOTAL	\$2,722,253.35	

also calculate averages and count your content as well.

To use **AutoSum** for other calculations:

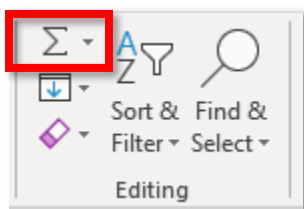
The **AutoSum** button works well when your data is organized in columns. However, even if your data isn't organized this way, you may still use it. The **AutoSum** function will add your cells together providing you with the total computation.

To use the **AutoSum** function:

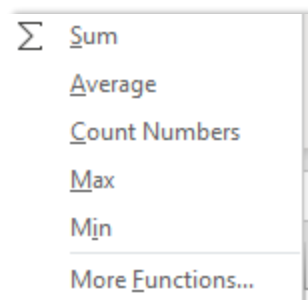
1. Select a cell where you want the computation to appear (which would typically be next to your set of organized data).

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	

2. Click on the **AutoSum** button which is in the **Editing** group of the **Home** tab.



3. From the **AutoSum** drop-down menu, select the calculation of your choice.



- The **AutoSum** command will automatically generate a formula in the cell that you selected, based on the computation you chose from the **AutoSum** drop-down menu. Confirm that the selected cells are the correct cell references and press the **Enter** key on your keyboard to complete the calculation.

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	=SUM(B2:B15)

SUM formula

We haven't formally introduced the SUM formula, but this is one of the most basic and easiest formulas to understand and write because it's a calculation we learned in grade school. The SUM formula basically adds cells, ranges or digits. The structure of the SUM formula (just like all the other formulas we will be covering in this booklet) is the same as what was previously discussed in the previous section.

Example of a SUM formula

=SUM(A1:H25)

To create a SUM formula:

1. Select the cell in your spreadsheet where you want Excel to do the calculation.

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	

2. In the cell you selected type **=SUM(**

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	=SUM(

3. With your mouse, select the range you want to add.

	A	SUM(number1, [number2])
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	=SUM(B2:B15)

4. Selecting the data you want to add with your mouse will automatically include a range in your formula. Press the **Enter** key on your keyboard to complete the formula.

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	=SUM(B2:B15)

Following these steps correctly will display the computation in the cell that you selected.

14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	\$2,722,253.35

Cell Ranges in formulas

In Excel formulas, a range of data is displayed in an *argument* with a colon. For example, the range between C3 and C20 would be represented in Excel's language as C3:C20. Using the colon will tell Excel to include all the cells between the two cell references. When the range of an entire column is selected, you'll see the letter of that column twice with a colon in between as shown below.

Example of a range in a formula

=SUM(**A1:H25**)

Example of using a column as a range in a formula

=SUM(**C:C**)

Using Commas in Formulas

Previously, you uncovered the colon that is used to represent cell ranges when using Excel formulas. There is another symbol that plays an important part when using formulas: the comma. The comma is used in Excel for two purposes:

1. To include additional cell reference; typically used to mean "with" or "and"
2. To determine different parts of a formula (which we will not cover in this booklet).

The comma, for example, will determine which individual cells to compute.

Example of commas used in an argument

=SUM(B1,**C1**,D1)

In this example, the formula would include the *SUM* of cells B1, C1, and D1.

AVERAGE formula

The AVERAGE formula is used to calculate the average of a set of values.

Example of an AVERAGE formula

=**AVERAGE**(A1:H25)

To create an AVERAGE formula:

1. Select the cell in your spreadsheet where you want Excel to do the calculation.

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	

2. In the cell you selected type **=AVERAGE(**

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	=AVERAGE(
17		AVERAGE(number1,

3. With your mouse, select the range you want to average.

	A	B	
1	Account Name	Sales Amount	Av
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65	
3	ESPINOZA YARD LLC	\$295,231.23	
4	NGUYEN INSTITUTE	\$294,923.13	
5	DAN & CRADSTREED INC.	\$246,715.65	
6	GRACE WARE LLC	\$224,816.89	
7	STANFORD LAW INC.	\$213,352.65	
8	DAVID&MIMIS INC	\$211,193.76	
9	ROBERT SATIN, MD.	\$196,825.43	
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38	
11	FLOYD INC.	\$147,635.76	
12	BASIC TEES, LLC	\$131,281.65	
13	ONE WORLD FINANCIAL	\$113,949.66	
14	ITALIANO BISTRO FRANCHISE	\$109,443.01	
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50	
16	TOTAL	=AVERAGE(B2:B15)	

4. Selecting the data you want to add with your mouse will automatically include a range in your formula. Press the **Enter** key on your keyboard to complete the formula.

	A	B	
1	Account Name	Sales Amount	Av
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65	
3	ESPINOZA YARD LLC	\$295,231.23	
4	NGUYEN INSTITUTE	\$294,923.13	
5	DAN & CRADSTREED INC.	\$246,715.65	
6	GRACE WARE LLC	\$224,816.89	
7	STANFORD LAW INC.	\$213,352.65	
8	DAVID&MIMIS INC	\$211,193.76	
9	ROBERT SATIN, MD.	\$196,825.43	
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38	
11	FLOYD INC.	\$147,635.76	
12	BASIC TEES, LLC	\$131,281.65	
13	ONE WORLD FINANCIAL	\$113,949.66	
14	ITALIANO BISTRO FRANCHISE	\$109,443.01	
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50	
16	TOTAL	=AVERAGE(B2:B15)	

Following these steps correctly will display the computation in the cell that you selected.

14	ITALIANO BISTRO FRANCHISE	\$109,443.01	
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50	
16	TOTAL	\$194,446.67	

COUNT formula

The COUNT formula counts the number of entries with numbers, not words or other values.

Example of a COUNT formula

=COUNT(A1:A25)

To create a COUNT formula:

1. Select the cell in your spreadsheet where you want Excel to do the calculation.

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	

2. In the cell you selected type **=COUNT(**

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	=COUNT(

- With your mouse, select the range you want to count.

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	=COUNT(B2:B15)

- Selecting the data you want to add with your mouse will automatically include a range in your formula. Press the **Enter** key on your keyboard to complete the formula.

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	=COUNT(B2:B15)

14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	14

Following these steps correctly will display the computation in the cell that you selected.

COUNTA formula

The COUNT formula counts any entry that is *not* empty, including numbers and words.

Example of a COUNT formula

=**COUNTA**(A1:A25)

To create a COUNTA formula:

1. Select the cell in your spreadsheet where you want Excel to do the calculation.

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	

2. In the cell you selected type =**COUNTA**(

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	=COUNTA(

- With your mouse, select the range you want to count.

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	=COUNTA(A2:A15)

- Selecting the data you want to add with your mouse will automatically include a range in your formula. Press the **Enter** key on your keyboard to complete the formula.

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	=COUNTA(A2:A15)

Following these steps correctly will display the computation in the cell that you selected.

14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	14

MAX Formula

Use the MAX formula to display the highest amount in a selected range.

Example of the MAX formula

=MAX(A1:A78)

To create a MAX formula:

1. Select the cell in your spreadsheet where you want Excel to do the calculation.

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	

2. In the cell you selected type **=MAX(**

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	=MAX(

- With your mouse, select the range where you want to attain the highest amount.

1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	=MAX(B2:B15)

- Selecting the data you want to add with your mouse will automatically include a range in your formula. Press the **Enter** key on your keyboard to complete the formula.

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	=MAX(B2:B15)

Following these steps correctly will display the computation in the cell that you selected.

14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	MAX	\$302,465.65

MIN Formula

Use the MIN formula to display the lowest amount in a selected range.

Example of the MIN formula

=MIN(A1:A78)

To create a MIN formula:

1. Select the cell in your spreadsheet where you want Excel to do the calculation.

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	

2. In the cell you selected type **=MIN(**

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	TOTAL	=MIN(

3. With your mouse, select the range where you want to attain the lowest amount.

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	MIN	=MIN(B2:B15)

4. Selecting the data you want to add with your mouse will automatically include a range in your formula. Press the **Enter** key on your keyboard to complete the formula.

	A	B
1	Account Name	Sales Amount
2	THE DAILY BREAD CRUMBS LLC	\$302,465.65
3	ESPINOZA YARD LLC	\$295,231.23
4	NGUYEN INSTITUTE	\$294,923.13
5	DAN & CRADSTREED INC.	\$246,715.65
6	GRACE WARE LLC	\$224,816.89
7	STANFORD LAW INC.	\$213,352.65
8	DAVID&MIMIS INC	\$211,193.76
9	ROBERT SATIN, MD.	\$196,825.43
10	RAIN INSTITUTE OF THE ARTS	\$150,326.38
11	FLOYD INC.	\$147,635.76
12	BASIC TEES, LLC	\$131,281.65
13	ONE WORLD FINANCIAL	\$113,949.66
14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	MIN	=MIN(B2:B15)

Following these steps correctly will display the computation in the cell that you selected.

14	ITALIANO BISTRO FRANCHISE	\$109,443.01
15	ABC DISTRIBUTION CENTER INC.	\$84,092.50
16	MIN	\$84,092.50

PROPER Formula

Many times, Excel documents are shared across multiple people which could lead to some data entry errors. Although there is no formula to make sure that people aren't making mistakes, there are some formulas that can do some clean up. The PROPER formula will capitalize the first letters of words in a cell and will keep the other letters in lower case. The PROPER formula is useful when your goal is to have presentable and consistent data.

Example of the PROPER formula

=**PROPER**(A1)

Example of how the Proper formula works

GEORGE WASHINGTON → PROPER FORMULA → George Washington

To use the PROPER formula:

1. Select a cell where you want to display the PROPER formula.

	A	B
1	Account Name	PROPER ACCOUNT NAME
2	THE DAILY BREAD CRUMBS LLC	
3	ESPINOZA YARD LLC	
4	NGUYEN INSTITUTE	
5	DAN & CRADSTREED INC.	

2. Type the following formula: =**PROPER**(

	A	B
1	Account Name	PROPER ACCOUNT NAME
2	THE DAILY BREAD CRUMBS LLC	=PROPER(
3	ESPINOZA YARD LLC	PROPER(text)
4	NGUYEN INSTITUTE	
5	DAN & CRADSTREED INC.	

3. Select *one* cell where you want to use the PROPER formula.

	A	B
1	Account Name	PROPER ACCOUNT NAME
2	THE DAILY BREAD CRUMBS LLC	=PROPER(A2
3	ESPINOZA YARD LLC	PROPER(text)
4	NGUYEN INSTITUTE	
5	DAN & CRADSTREED INC.	

4. Complete your formula by pressing the **Enter** key in your keyboard.

	A	B
1	Account Name	PROPER ACCOUNT NAME
2	THE DAILY BREAD CRUMBS LLC	=PROPER(A2)
3	ESPINOZA YARD LLC	
4	NGUYEN INSTITUTE	
5	DAN & CRADSTREED INC.	

If you followed these steps correctly, you'll see that the selected text will now be in PROPER format.

	A	B
1	Account Name	PROPER ACCOUNT NAME
2	THE DAILY BREAD CRUMBS LLC	The Daily Bread Crumbs Llc
3	ESPINOZA YARD LLC	
4	NGUYEN INSTITUTE	
5	DAN & CRADSTREED INC.	

LOWER Formula

The LOWER formula converts all letters inside a cell into lower-case text. This formula is not too commonly used but exists in lieu of the PROPER or UPPER formulas.

Example of the Lower formula

=**LOWER**(A1)

Example of how the Lower formula works

GEORGE WASHINGTON → LOWER FORMULA → george washington

To use the LOWER formula:

1. Select a cell where you want to display the LOWER formula.

	A	B
1	Account Name	PROPER ACCOUNT NAME
2	THE DAILY BREAD CRUMBS LLC	
3	ESPINOZA YARD LLC	
4	NGUYEN INSTITUTE	
5	DAN & CRADSTREED INC.	

2. Type the following formula: =**LOWER**(

	A	B
1	Account Name	PROPER ACCOUNT NAME
2	THE DAILY BREAD CRUMBS LLC	=LOWER(
3	ESPINOZA YARD LLC	
4	NGUYEN INSTITUTE	
5	DAN & CRADSTREED INC.	

3. Select *one* cell where you want to use the LOWER formula.

	A	B
1	Account Name	PROPER ACCOUNT NAME
2	THE DAILY BREAD CRUMBS LLC	=LOWER(A2
3	ESPINOZA YARD LLC	LOWER(text)
4	NGUYEN INSTITUTE	
5	DAN & CRADSTREED INC.	

4. Complete your formula by pressing the **Enter** key in your keyboard.

	A	B
1	Account Name	PROPER ACCOUNT NAME
2	THE DAILY BREAD CRUMBS LLC	=LOWER(A2)
3	ESPINOZA YARD LLC	
4	NGUYEN INSTITUTE	
5	DAN & CRADSTREED INC.	

If you followed these steps correctly, you'll see that the selected text will now be in LOWER format.

	A	B
1	Account Name	PROPER ACCOUNT NAME
2	THE DAILY BREAD CRUMBS LLC	the daily bread crumbs llc
3	ESPINOZA YARD LLC	
4	NGUYEN INSTITUTE	
5	DAN & CRADSTREED INC.	

UPPER Formula

UPPER formula converts the text inside a cell into all upper-case letters.

Example of the Upper formula

=**UPPER**(A1)

Example of how the Upper formula works

george washington → UPPER FORMULA → GEORGE WASHINGTON

To use the UPPER formula:

1. Select a cell where you want to display the UPPER formula.

	A	B
1	Account Name	PROPER ACCOUNT NAME
2	THE DAILY BREAD CRUMBS LLC	
3	ESPINOZA YARD LLC	
4	NGUYEN INSTITUTE	
5	DAN & CRADSTREED INC.	

2. Type the following formula: **=UPPER(**

	A	B
1	Account Name	UPPER ACCOUNT NAME
2	the daily bread crumbs llc	=UPPER(
3	espinoza yard llc	UPPER(text)
4	nguyen institute	
5	dan & cradstreed inc.	

3. Select *one* cell where you want to use the UPPER formula.

	A	B
1	Account Name	UPPER ACCOUNT NAME
2	the daily bread crumbs llc	=UPPER(A2
3	espinoza yard llc	UPPER(text)
4	nguyen institute	
5	dan & cradstreed inc.	

4. Complete your formula by pressing the **Enter** key in your keyboard.

	A	B
1	Account Name	UPPER ACCOUNT NAME
2	the daily bread crumbs llc	=UPPER(A2)
3	espinoza yard llc	
4	nguyen institute	
5	dan & cradstreed inc.	

If you followed these steps correctly, you'll see that the selected text will now be in UPPER format.

	A	B
1	Account Name	UPPER ACCOUNT NAME
2	the daily bread crumbs llc	THE DAILY BREAD CRUMBS LLC
3	espinoza yard llc	
4	nguyen institute	
5	dan & cradstreed inc.	

Translating Excel Formulas

As previously stated before, to use formulas in Excel, you'll need to learn how to *read and write* in Excel's language. You now know that the colon is used to indicate ranges and the comma is used to include cell references (translating a comma to mean "with" or "and" when writing formulas). Let's look at translating some examples.

Formula	How to read it/translate it
=SUM(C4:C20)	Excel - calculate the SUM of the range between Cells C4 and C20.
=AVERAGE(B1,B2,B3)	Excel - calculate the AVERAGE of cells B1 <i>and</i> B2 <i>and</i> B3
=AVERAGE(A1:A25,C1:25)	Excel - calculate the AVERAGE of the range between Cells A1 and A25 <i>and</i> the range between Cells C1 and C25
=SUM(A4:A18)*10	Excel - calculate the SUM of the range between Cells A4 and A18 and multiply it by 10
=B3/B9	Excel - divide Cell B3 by B9

Quick Excel Calculations

The following section will provide some quick tips on how to attain calculations quickly.

The Status Bar

One quick way to get the average, sum and count of a range is by looking at the **Status Bar**. The **Status Bar** automatically gives you the calculations without the need of a formula.

To get these quick calculations:

1. Select a range in your spreadsheet.
2. Look in the lower-right hand corner of your screen (which is where you will find the **Status Bar**).

Please note that the **Status Bar** will only calculate numbers, so make sure that you only select numbers when checking the **Status Bar**.

	A	B	C	D	E	F	G	H	I	J	K
1	Product Name	Product SKU	Price	Inventory	Weight	Product Description					
2	Black and Brown Wooden Chair	BBWC-089	22.99	8	6	N/A					
3	White Dining Chair	WDCH-189	39.99	2	6	N/A					
4	Black Barstools	BLBA-1219	49.99	11	7	N/A					
5	Hightop Black & Brown Tables	HBBT-1944	69.99	31	15	N/A					
6	Hightop Black & Brown Tables	HBBT-1944	69.99	31	15	N/A					
7	White Dining Tables	WDTA-4301	72.99	0	22	N/A					
8	Brown Wooden Chairs	BWCH-2292	32.99	3	6	N/A					
9	Brown Wooden Tables	BWTA-2291	69.99	8	15	N/A					
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

Ready

Exercise 1 Exercise 2 - Instructions **Exercise 2** Exercise 3 - Instructions Exercise 3 Exercise ... + - < >

Average: 53.615 Count: 8 Sum: 428.92

Using the AutoFill Handle to Copy Formulas

Previously in this booklet, you discovered how the **AutoFill** Handle allows you to create a pattern in your cells. The Auto Fill Handle can also be used to copy formulas to other cells.

To use the **AutoFill** handle:

1. On a table, create a calculation by completing a formula.

	A	B	C	D
1	Account Name	Income	Expenses	Total Profit
2	THE DAILY BREAD CRUMBS LLC	\$297,083.00	\$26,665.00	=B2-C2
3	ESPINOZA YARD LLC	\$295,231.00	\$24,182.00	
4	NGUYEN INSTITUTE	\$294,923.00	\$23,324.00	
5	DAN & CRADSTREED INC.	\$246,715.00	\$30,224.00	

2. Hit the **Enter** key on your keyboard so that Excel will display the calculation in the cell. Notice that when you hit the **Enter** key, Excel will move you to the cell below the one with the calculation.

	A	B	C	D
1	Account Name	Income	Expenses	Total Profit
2	THE DAILY BREAD CRUMBS LLC	\$297,083.00	\$26,665.00	\$270,418.00
3	ESPINOZA YARD LLC	\$295,231.00	\$24,182.00	
4	NGUYEN INSTITUTE	\$294,923.00	\$23,324.00	
5	DAN & CRADSTREED INC.	\$246,715.00	\$30,224.00	

- Go back to the original cell in which you created the formula or calculation and click once.

	A	B	C	D
1	Account Name	Income	Expenses	Total Profit
2	THE DAILY BREAD CRUMBS LLC	\$297,083.00	\$26,665.00	\$270,418.00
3	ESPINOZA YARD LLC	\$295,231.00	\$24,182.00	
4	NGUYEN INSTITUTE	\$294,923.00	\$23,324.00	
5	DAN & CRADSTREED INC.	\$246,715.00	\$30,224.00	
6	GRACE WARE LLC	\$224,816.00	\$62,484.00	

- Locate the **AutoFill** handle and with your mouse and click *and* hold.

	A	B	C	D
1	Account Name	Income	Expenses	Total Profit
2	THE DAILY BREAD CRUMBS LLC	\$297,083.00	\$26,665.00	\$270,418.00
3	ESPINOZA YARD LLC	\$295,231.00	\$24,182.00	
4	NGUYEN INSTITUTE	\$294,923.00	\$23,324.00	
5	DAN & CRADSTREED INC.	\$246,715.00	\$30,224.00	
6	GRACE WARE LLC	\$224,816.00	\$62,484.00	

- While holding the **AutoFill** handle, move your cursor down until you reach the last entry on your table and let go of your mouse.

	A	B	C	D
1	Account Name	Income	Expenses	Total Profit
2	THE DAILY BREAD CRUMBS LLC	\$297,083.00	\$26,665.00	\$270,418.00
3	ESPINOZA YARD LLC	\$295,231.00	\$24,182.00	
4	NGUYEN INSTITUTE	\$294,923.00	\$23,324.00	
5	DAN & CRADSTREED INC.	\$246,715.00	\$30,224.00	
6	GRACE WARE LLC	\$224,816.00	\$62,484.00	
7	STANFORD LAW INC.	\$213,352.00	\$64,865.00	
8	DAVID&MIMIS INC	\$211,193.00	\$56,275.00	
9	ROBERT SATIN, MD.	\$196,825.00	\$40,561.00	
10	RAIN INSTITUTE OF THE ARTS	\$150,326.00	\$93,200.00	
11	FLOYD INC.	\$147,635.00	\$46,564.00	
12	BASIC TEES, LLC	\$131,281.00	\$65,674.00	
13	ONE WORLD FINANCIAL	\$113,949.00	\$74,210.00	
14	ITALIANO BISTRO FRANCHISE	\$109,443.00	\$19,412.00	
15	ABC DISTRIBUTION CENTER INC	\$84,092.00	\$13,557.50	

If you followed these steps correctly, you'll see how the **AutoFill** handle copied the formula to the other cells (appropriately updating the cell references).

	A	B	C	D
1	Account Name	Income	Expenses	Total Profit
2	THE DAILY BREAD CRUMBS LLC	\$297,083.00	\$26,665.00	\$270,418.00
3	ESPINOZA YARD LLC	\$295,231.00	\$24,182.00	\$271,049.00
4	NGUYEN INSTITUTE	\$294,923.00	\$23,324.00	\$271,599.00
5	DAN & CRADSTREED INC.	\$246,715.00	\$30,224.00	\$216,491.00
6	GRACE WARE LLC	\$224,816.00	\$62,484.00	\$162,332.00
7	STANFORD LAW INC.	\$213,352.00	\$64,865.00	\$148,487.00
8	DAVID&MIMIS INC	\$211,193.00	\$56,275.00	\$154,918.00
9	ROBERT SATIN, MD.	\$196,825.00	\$40,561.00	\$156,264.00
10	RAIN INSTITUTE OF THE ARTS	\$150,326.00	\$93,200.00	\$57,126.00
11	FLOYD INC.	\$147,635.00	\$46,564.00	\$101,071.00
12	BASIC TEES, LLC	\$131,281.00	\$65,674.00	\$65,607.00
13	ONE WORLD FINANCIAL	\$113,949.00	\$74,210.00	\$39,739.00
14	ITALIANO BISTRO FRANCHISE	\$109,443.00	\$19,412.00	\$90,031.00
15	ABC DISTRIBUTION CENTER INC	\$84,092.00	\$13,557.50	\$70,534.50

Double-Clicking the AutoFill Handle to copy formulas

A quick (and easier way) to use the **AutoFill** handle is by double-clicking. When double-clicking the **AutoFill** handle, the formulas will automatically copy down to the last entry it finds on your table. This means that the **AutoFill** handle will only copy formulas until it finds an empty cell.

To use the **AutoFill** handle:

1. On a table, create a calculation by completing a formula.

	A	B	C	D
1	Account Name	Income	Expenses	Total Profit
2	THE DAILY BREAD CRUMBS LLC	\$297,083.00	\$26,665.00	=B2-C2
3	ESPINOZA YARD LLC	\$295,231.00	\$24,182.00	
4	NGUYEN INSTITUTE	\$294,923.00	\$23,324.00	
5	DAN & CRADSTREED INC.	\$246,715.00	\$30,224.00	

- Hit the **Enter** key on your keyboard so that Excel will display the calculation in the cell. Notice that when you hit the **Enter** key, Excel will move you to the cell below the one with the calculation.

	A	B	C	D
1	Account Name	Income	Expenses	Total Profit
2	THE DAILY BREAD CRUMBS LLC	\$297,083.00	\$26,665.00	\$270,418.00
3	ESPINOZA YARD LLC	\$295,231.00	\$24,182.00	
4	NGUYEN INSTITUTE	\$294,923.00	\$23,324.00	
5	DAN & CRADSTREED INC.	\$246,715.00	\$30,224.00	

- Go back to the original cell in which you created the formula or calculation and click once.

	A	B	C	D
1	Account Name	Income	Expenses	Total Profit
2	THE DAILY BREAD CRUMBS LLC	\$297,083.00	\$26,665.00	\$270,418.00
3	ESPINOZA YARD LLC	\$295,231.00	\$24,182.00	
4	NGUYEN INSTITUTE	\$294,923.00	\$23,324.00	
5	DAN & CRADSTREED INC.	\$246,715.00	\$30,224.00	

- Locate the **AutoFill** handle and with your mouse and double-click.

	A	B	C	D
1	Account Name	Income	Expenses	Total Profit
2	THE DAILY BREAD CRUMBS LLC	\$297,083.00	\$26,665.00	\$270,418.00
3	ESPINOZA YARD LLC	\$295,231.00	\$24,182.00	
4	NGUYEN INSTITUTE	\$294,923.00	\$23,324.00	
5	DAN & CRADSTREED INC.	\$246,715.00	\$30,224.00	

If you followed these steps correctly, you'll see how the **AutoFill** handle automatically copied your formula from the original cell to all other cells in your table (appropriately updating the cell references).

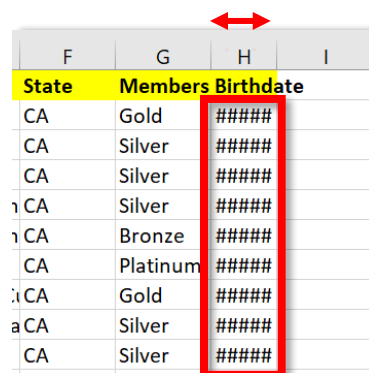
	A	B	C	D
1	Account Name	Income	Expenses	Total Profit
2	THE DAILY BREAD CRUMBS LLC	\$297,083.00	\$26,665.00	\$270,418.00
3	ESPINOZA YARD LLC	\$295,231.00	\$24,182.00	\$271,049.00
4	NGUYEN INSTITUTE	\$294,923.00	\$23,324.00	\$271,599.00
5	DAN & CRADSTREED INC.	\$246,715.00	\$30,224.00	\$216,491.00
6	GRACE WARE LLC	\$224,816.00	\$62,484.00	\$162,332.00
7	STANFORD LAW INC.	\$213,352.00	\$64,865.00	\$148,487.00
8	DAVID&MIMIS INC	\$211,193.00	\$56,275.00	\$154,918.00
9	ROBERT SATIN, MD.	\$196,825.00	\$40,561.00	\$156,264.00
10	RAIN INSTITUTE OF THE ARTS	\$150,326.00	\$93,200.00	\$57,126.00
11	FLOYD INC.	\$147,635.00	\$46,564.00	\$101,071.00
12	BASIC TEES, LLC	\$131,281.00	\$65,674.00	\$65,607.00
13	ONE WORLD FINANCIAL	\$113,949.00	\$74,210.00	\$39,739.00
14	ITALIANO BISTRO FRANCHISE	\$109,443.00	\$19,412.00	\$90,031.00
15	ABC DISTRIBUTION CENTER INC	\$84,092.00	\$13,557.50	\$70,534.50

Common Formula Errors in Excel

As you continue to work through formulas and learn how to use more advanced formulas in your Excel journey, you'll at some point encounter error messages. Error messages in Excel usually occur when there is an incorrect digit or misspelling in a formula. Excel will then display a message that begins with a pound sign (#). Below is a quick reference guide to common Excel errors you will encounter as a beginning Excel user.

#####

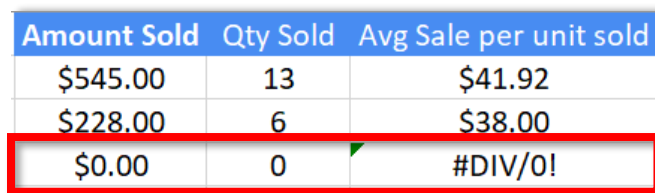
You probably have already seen a cell with a bunch of pound signs inside the cell. You are 100% sure that you never typed those pound signs inside those cells, and you're right. You will encounter a cell filled with pound signs any time that the content of a cell does not fit inside a cell. To fix this error message, simply make the width of the cell longer to display the contents inside the cell. This error message typically happens with numbers (dollar amounts, dates, etc.)



F	G	H	I
State	Members	Birthdate	
CA	Gold	#####	
CA	Silver	#####	
CA	Silver	#####	
CA	Silver	#####	
CA	Bronze	#####	
CA	Platinum	#####	
CA	Gold	#####	
CA	Silver	#####	
CA	Silver	#####	

#DIV/0

If you recall from math class, we were taught that you cannot divide by 0. Excel knows this too and whenever you try to divide by 0, it will give you the error message #DIV/0. This error message typically occurs with formulas that divide by

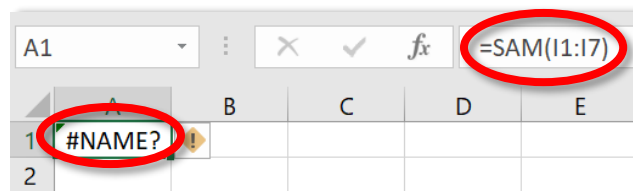


Amount Sold	Qty Sold	Avg Sale per unit sold
\$545.00	13	\$41.92
\$228.00	6	\$38.00
\$0.00	0	#DIV/0!

0 or that divide by a blank entry. To fix this error message you can make sure that none of your cells are blank or you can use an advanced formula to not display the error message.

#NAME?

At times, you will encounter the #NAME? error message. This error message typically appears because of a misspelling in your formula. When you see the #NAME? message, Excel is telling you that either (1) the name of the formula is wrong (i.e., you accidentally wrote =SAM(I4:I15) instead of =SUM(I4:I15) or (2) there is something wrong with the entries you entered in your formula (which typically happens with

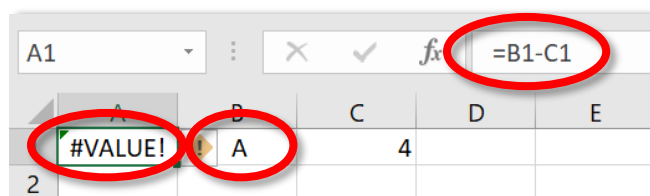


A	B	C	D	E
#NAME?				

more advanced formulas). To correct the **#NAME?** error message, check your spelling and that every part in your formula was properly written.

#VALUE!

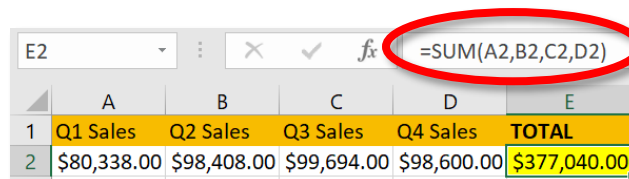
The **#VALUE!** message typically shows when there is something wrong with the cells that Excel is referencing. As previously mentioned, the **#NAME?** occurs when you have a possible misspelling in your formula, but the **#VALUE!** error message shows when you ask Excel to do a calculation with cells that do not have numbers as the content. In other words, you can't multiply two cells that have words inside them. You can only multiply numeric values. To correct the **#VALUE!** error, make sure to check your cell references and spelling.



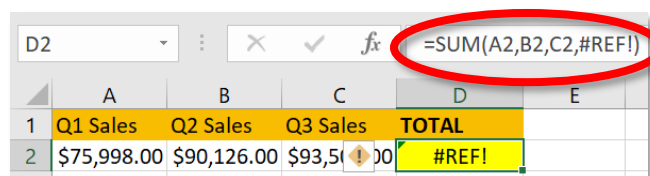
A1				
	A	B	C	D
2	#VALUE!	A	4	

#REF!

The **#REF!** error occurs when you have removed a cell that Excel was referencing in one of your formulas. This error is also common when using formulas that read from other Excel files. When the file lives in another computer, for example, Excel cannot reference the cells to make calculations. There are some more advanced techniques to fix this error, but the basic resolution is to ensure that the cell references appropriately exist in your spreadsheet or file.



E2				
	A	B	C	D
1	Q1 Sales	Q2 Sales	Q3 Sales	Q4 Sales
2	\$80,338.00	\$98,408.00	\$99,694.00	\$98,600.00



D2				
	A	B	C	D
1	Q1 Sales	Q2 Sales	Q3 Sales	TOTAL
2	\$75,998.00	\$90,126.00	\$93,510.00	#REF!

Basic Excel Shortcuts

Excel has plenty of shortcuts that can save you some time. Many of these shortcuts are basic keyboard shortcuts that are universally recognized. Please note that the shortcuts listed below are only compatible with Windows.

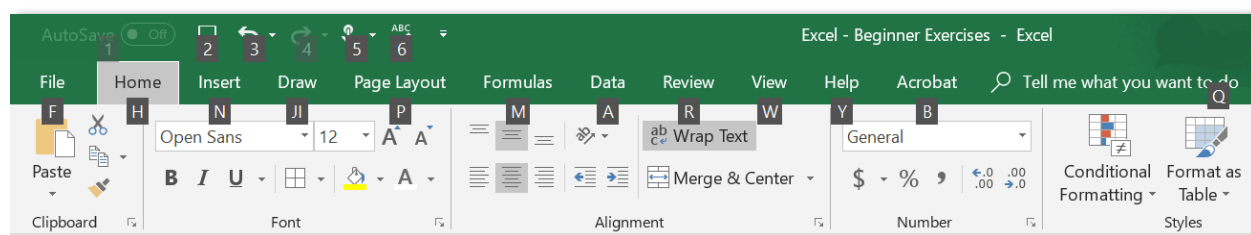
Commonly Used Shortcuts

The table below lists the most commonly used shortcuts. Please note that the command 'CTRL' stands for the 'Control' button located on your keyboard. Additionally, the plus sign signifies the following button to press on your keyboard. For example, 'CTRL + C', means that you'll need to press the 'Control' button and the letter 'C' button on your keyboard.

Shortcut Type	Buttons on your keyboard
<i>Copy</i>	CTRL + C
<i>Paste</i>	CTRL + V
<i>Cut</i>	CTRL + X
<i>Highlight All</i>	CTRL + A
<i>Bold</i>	CTRL + B
<i>Underline</i>	CTRL + U
<i>Italicize</i>	CTRL + I
<i>Find text</i>	CTRL + F
<i>Undo</i>	CTRL + Z
<i>Save a Workbook</i>	CTRL + S
<i>Close a Workbook</i>	CTRL + W
<i>Open a Workbook</i>	CTRL + O
<i>Center align cell contents</i>	ALT + H + A + C
<i>Delete column</i>	ALT + H + D + C
<i>Add borders</i>	ALT + H + B
<i>Hide selected rows</i>	CTRL + 9
<i>Hide selected columns</i>	CTRL + 0

Keyboard Shortcuts for Ribbons

When using any Microsoft Office programs, you can navigate through the different ribbons without using a mouse. The keyboard can be used to navigate through all the ribbons and buttons. The ALT button will display letters that show you which keys will take you to which ribbon or button. For example, after pressing the ALT key on the keyboard, Excel gives me the following options (in the screenshot below). If the 'P' button is pressed, then Excel will display the Page Layout ribbon.



Below are a few shortcuts that will help you navigate through the ribbons and buttons in Excel by using your keyboard.

To do the following...	Buttons on your keyboard
Go to the Home Tab	ALT + H
Go to the Insert Tab	ALT + N
Go to the Draw Tab	ALT + J + I
Go to the Page Layout Tab	ALT + P
Go to the Formulas Tab	ALT + M
Go to the Data Tab	ALT + A
Go to the Review Tab	ALT + R
Go to the View Tab	ALT + W
Go to the Help Tab	ALT + Y

Keyboard Shortcuts for Navigating Through a Spreadsheet

Below are additional shortcuts that you can use to navigate through cells. Unlike most of the previously mentioned shortcuts, most of the following shortcuts are Excel specific.

To do the following...	Buttons on your keyboard
<i>Move one cell right in a spreadsheet</i>	Right arrow key
<i>Move one cell left in a spreadsheet</i>	Left arrow key
<i>Move one cell up in a spreadsheet</i>	Up arrow key
<i>Move one cell down in a spreadsheet</i>	Down arrow key
<i>Move one cell right on a spreadsheet (or the next unlocked cell)</i>	Tab key
<i>Move to the last entry of a region</i>	CTRL + Arrow key
<i>Move to the last cell on a spreadsheet</i>	CTRL + End key
<i>Move to the last used cell on a spreadsheet</i>	CTRL + Shift + End key
<i>Move to the top of a spreadsheet</i>	CTRL + Home key
<i>Move one screen down in a spreadsheet</i>	Page Down key
<i>Move one screen to the right in a spreadsheet</i>	ALT + Page Down key
<i>Move one screen up in a spreadsheet</i>	Page Up key
<i>Move one screen to the left in a spreadsheet</i>	ALT + Page Up key
<i>Move to the next spreadsheet in a workbook</i>	CTRL + Page Down key
<i>Move to the previous spreadsheet in a workbook</i>	CTRL + Page Up key

Excel Exercises

Below, please find a table with a list of all Excel exercises you can use with some of the topics taught in this booklet. The URLs listed below are case sensitive.

Exercise Type	Exercise Number	Exercise URL
<i>Identifying A Cell</i>	Exercise 1	https://bit.ly/Excel-Beg-Exercise-1
<i>Cut, Copy & Paste</i>	Exercise 2	https://bit.ly/Excel-Beg-Exercise-2
<i>Using the Format Painter</i>	Exercise 3	https://bit.ly/Excel-Beg-Exercise-3
<i>The Alignment & Font group</i>	Exercise 4	https://bit.ly/Excel-Beg-Exercise-4
<i>The Number Format Section</i>	Exercise 5	https://bit.ly/Excel-Beg-Exercise-5
<i>The Cells group</i>	Exercise 6	https://bit.ly/Excel-Beg-Exercise-6
<i>Using Workbook Views</i>	Exercise 7	https://bit.ly/Excel-Beg-Exercise-7
<i>Freezing Panes</i>	Exercise 8	https://bit.ly/Excel-Beg-Exercise-8
<i>Find & Replace Function</i>	Exercise 9	https://bit.ly/Excel-Beg-Exercise-9
<i>Sorting Data</i>	Exercise 10	https://bit.ly/Excel-Beg-Exercise-10
<i>Filter Data</i>	Exercise 11	https://bit.ly/Excel-Beg-Exercise-11
<i>The Auto Fill Handle</i>	Exercise 12	https://bit.ly/Excel-Beg-Exercise-12
<i>Grouping Cells</i>	Exercise 13	https://bit.ly/Excel-Beg-Exercise-13
<i>Removing Duplicates</i>	Exercise 14	https://bit.ly/Excel-Beg-Exercise-14
<i>Using AutoSum Function</i>	Exercise 15	https://bit.ly/Excel-Beg-Exercise-15
<i>Using Operators in Formulas</i>	Exercise 16	https://bit.ly/Excel-Beg-Exercise-16
<i>Constants & Cell References in Formulas</i>	Exercise 17	https://bit.ly/Excel-Beg-Exercise-17
<i>Using the SUM Formula</i>	Exercise 18	https://bit.ly/Excel-Beg-Exercise-18
<i>Using the AVERAGE Formula</i>	Exercise 19	https://bit.ly/Excel-Beg-Exercise-19
<i>Using COUNT & COUNTA Formulas</i>	Exercise 20	https://bit.ly/Excel-Beg-Exercise-20
<i>Using MAX & MIN Formulas</i>	Exercise 21	https://bit.ly/Excel-Beg-Exercise-21
<i>Using PROPER, LOWER & UPPER Formulas</i>	Exercise 22	https://bit.ly/Excel-Beg-Exercise-22

