



CHARLOTTE MECKLENBURG

LIBRARY

Getting Started with Microsoft Excel



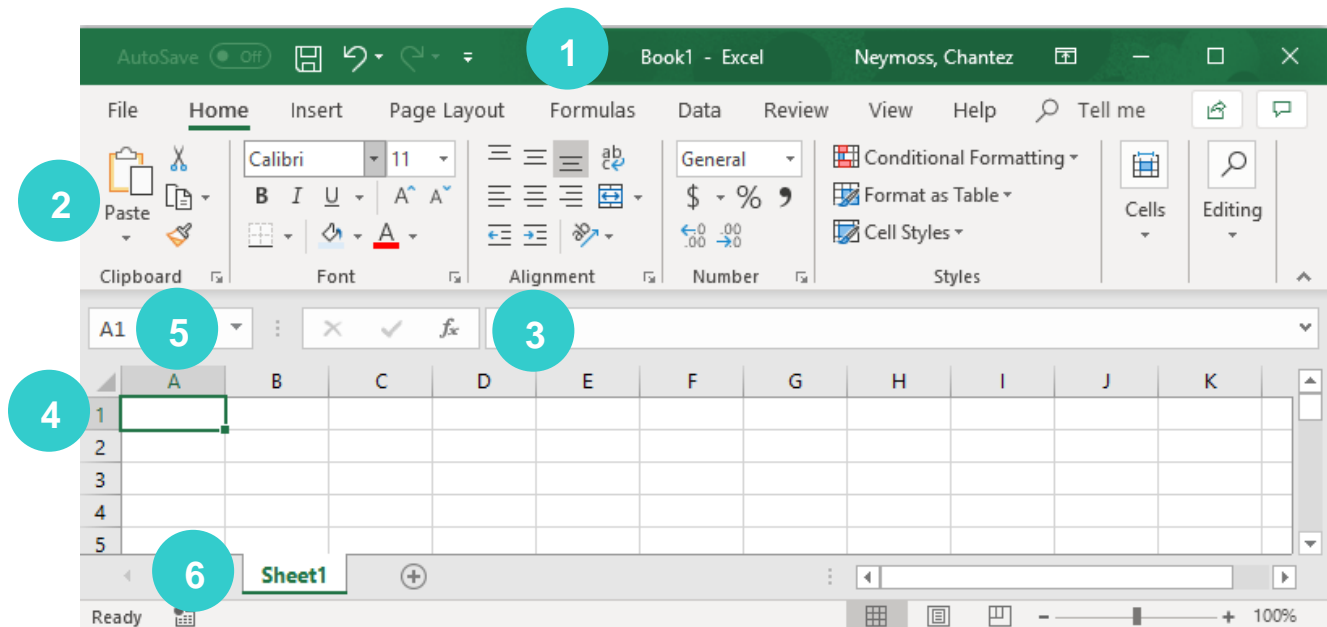
Getting Started Guide



What is a Spreadsheet?

A spreadsheet is a way to organize data into rows and columns. This format allows users to calculate, analyze, and visually represent data. Excel is not the only spreadsheet program. Other examples include Google Sheets and Numbers (by Apple).









Navigating Excel



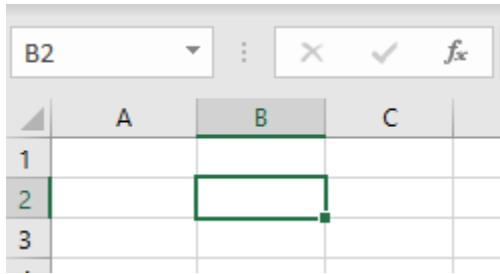
- 1. Title Bar** Displays title of workbook and other quick access information.
- 2. Ribbon Menu** Contains all of your commonly needed options, grouped by category. The ribbon is grouped into tabs and each tab is grouped by category within that tab.
- 3. Formula Bar** Enter and edit data, formulas, and functions that will appear in an active cell.
- 4. Cell** The intersection of a column (noted by a letter) and a row (noted by a number). Cell A1 is selected as an active cell above.
- 5. Name Box** Displays the location of the selected active cell.
- 6. Worksheet Tabs** Each workbook can contain multiple sheets. Here you can rename your sheet and add additional sheets.

Interacting with Excel

Different mouse pointer shapes in Excel will help indicate if you are in the correct place and mode to do a certain task. Pay attention to these when you are selecting multiple cells, adjusting columns and rows, or selecting different commands and menu options.

Shape	Context	Action
	The default pointer shape; appears in most Excel workspace contexts	Moves cell pointer or selects a range of cells
	Appears when the pointer is on the border of a window	Adjusts window size
	Appears when the pointer is between a row or column divider	Adjusts height and width of rows and columns
	Appears when you are editing cell contents	Provides a text insertion point
	Appears when the pointer is on a column or row heading	Selects columns or rows
	Appears when the pointer is placed over a cell border, graphic, or other object	Moves cells, graphics, or objects
	Appears when the pointer is on the "fill corner" of a cell or cell range	AutoFills other cells with similar information
	Appears when mouse is placed over the <i>Ribbon</i>	The standard Microsoft Windows pointer; selects <i>Ribbon</i> and menu options

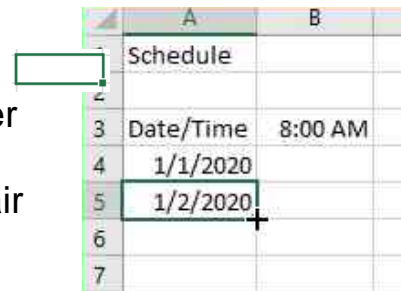
Working with Cells



An active cell will be surrounded by a border, and both the column heading and row heading will be highlighted. Cell B2 is selected in the example, and you can see the **cell address** displayed in the **Name Box** in the top left corner.

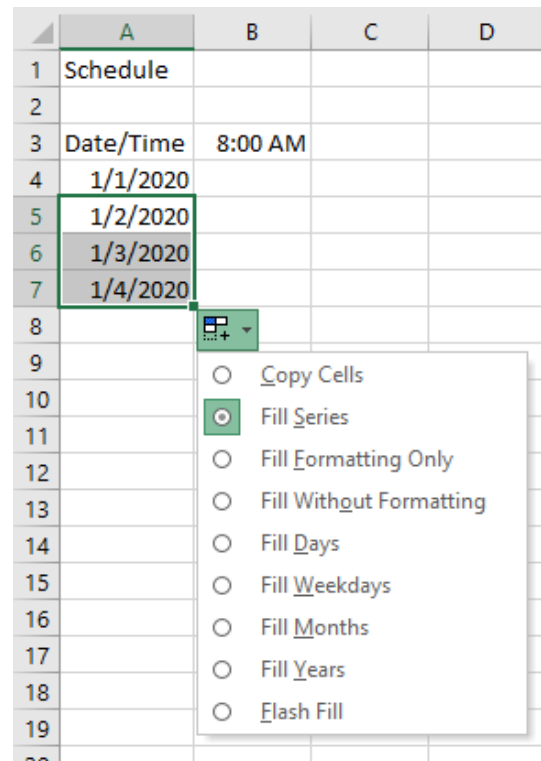
Auto Fill

Auto Fill can be used to quickly fill in repeating information or a series. Select a cell and move the mouse pointer to the **Fill Handle** in the lower right corner where it will turn into a crosshair cursor. You can then click and drag the crosshair cursor to fill in information.



The **Auto Fill Options** button will appear in the lower right corner. Hover over the button and then click the downward arrow to show a menu of options to customize how information is filled.

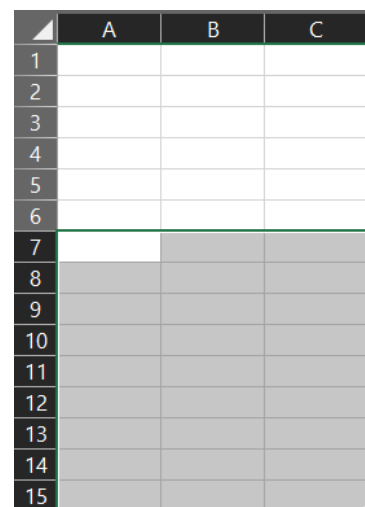
(NOTE: Auto Fill Options button/menu only visible when viewed in Excel desktop app, not Microsoft 365 for web in the browser)



Ranges

A range is any group of two or more adjacent cells. A range is expressed in Excel by the Cell Reference of the top left cell, a colon, and the cell reference of the bottom right cell. Because of this, ranges are always rectangular. In the example shown here, the range highlighted is **A7:C15**.

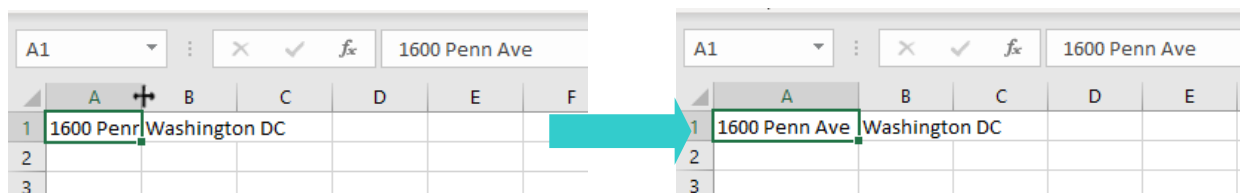
When you select a range of cells you can apply changes or an action to that entire group.



	A	B	C
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

Adjusting Rows & Columns

By hovering above the column or row you want to adjust you can click and drag to increase or decrease the size. You can also double-click, and Excel will autofit your row or column to the content.



	A	B	C	D	E	F
1	1600 Penn Ave	Washington DC				
2						
3						

You can also use row and column headers to insert or delete rows and columns.

To Insert: Right click on the row or column header immediately AFTER the location where you want the row or column to appear. Inserting always places the new row ABOVE the current row or BEFORE the active column.

In the example below, if you wanted to insert a column between “Address” and “Phone,” you would right click on Column D.

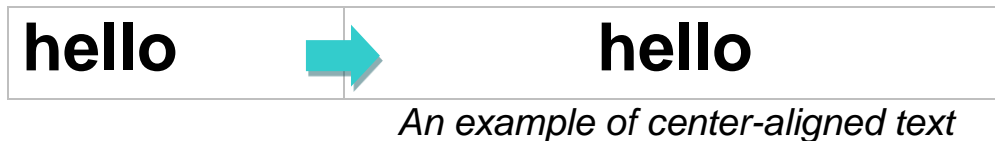
	A	B	C	D
1	Last Name	First Name	Address	Phone
2	Doe	John	123 Any St	999-999-9999
3	Smith	Jane	456 All St	888-888-8888

Right click on a column or row to find the Delete option.

Formatting Your Cells

Excel allows you to change the look of your content in Excel as well as meaningfully change the type of data. Using formatting tools, you can turn a number into currency or a percentage.

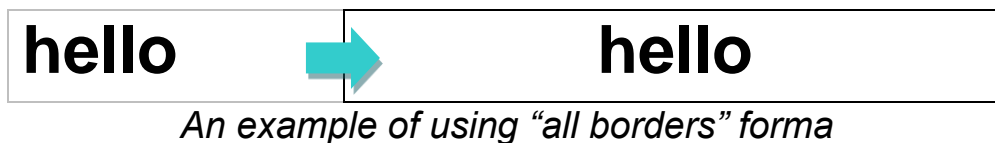
Alignment – This determines how the data will be aligned within the cell (left-side, centered, or right-side).



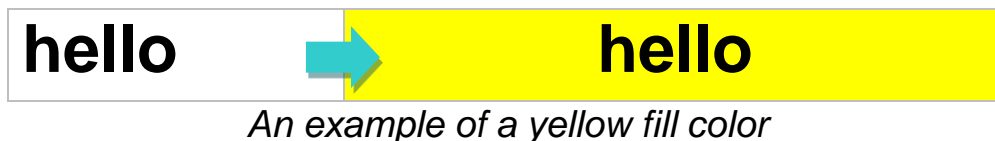
Font – Select the type of font to be used within the cells.



Border – This option lets you choose what type of border, if any, you would like around the cells or some of the cells.



Fill – This allows you to change the background color of the cell.

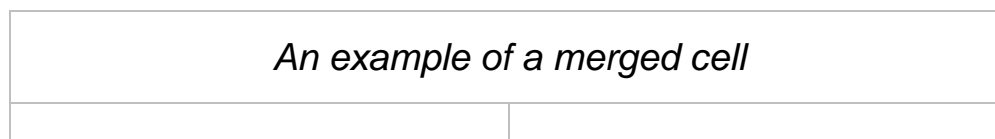


Number – This allows you to choose how to represent the numbers that are entered into a cell (number, currency, time, etc.).

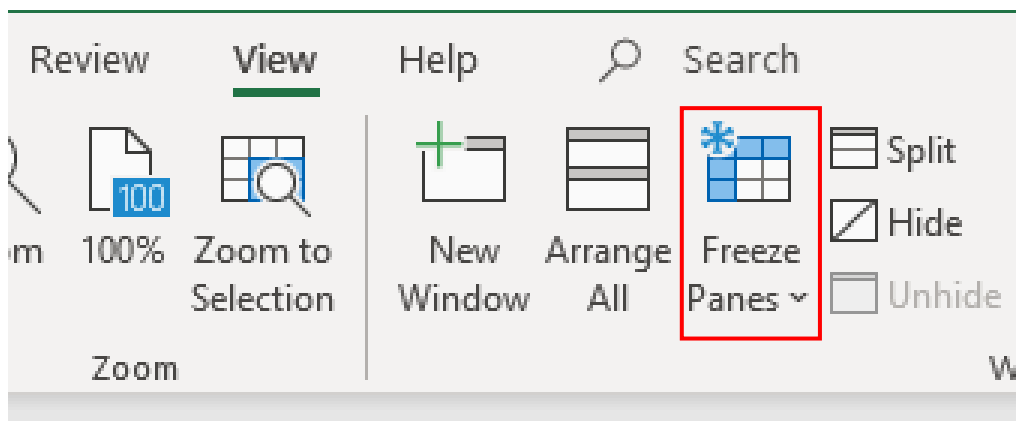


Formatting your numbers is important because Excel can understand and process numbers in a way it can't process text. By being specific in your number formats, you can get the most out of Excel once you start calculating and using formulas.

Merge and Center – You can use **Merge and Center** to combine multiple connected cells into one large cell. Merged Cells must be contiguous in the same row, or the same column. **Merge and Center** automatically centers the content, but you can use the drop-down arrow next to the Merge and Center button to change that or simply use a different alignment after Merge and Center.



Freeze rows or columns if you want to see certain rows or columns all the time in your worksheet while you are scrolling through your data. Everything above or to the left of the cell/row/column selected will be frozen.



Sorting Your Data

Once you have a spreadsheet that contains a lot of data, you may want to sort it in order to locate information more quickly. You can easily sort numerically or alphabetically.

Sorted by
Date



Date	Staff	Hours Worked
2/1/2019	Mark	3
2/2/2019	John	8
2/3/2019	Jenny	5

Sorted by
Name




Date	Staff	Hours Worked
2/3/2019	Jenny	5
2/2/2019	John	8
2/1/2019	Mark	3

To sort your data, click **Sort & Filter** on the home tab and click **Custom Sort**. This will allow you to select what you want to sort (Sort By) and how to sort it (Order). “Sort On” will usually stay on “Cell Values”.

*Make sure you check “my data has headers” if you labeled your columns. You don’t want Excel to sort your headers mixed in with your data!

Excel Formulas & Functions

Excel can calculate basic equations like addition, subtraction, multiplication, and division. By writing an equation in reverse, Excel will calculate it for you. However, Excel has a specific format and set of symbols to use. **All formulas begin with an equal sign (=).**

=2+2		4
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You can also add cells together, instead of numbers. This adds the value of whatever is contained within the cell. These are called **cell references**. If the value of a cell (the number inside it) change, Excel automatically recalculated when you leave that cell.

	A
1	2
2	2
3	

$$=a1+a2 \rightarrow 4$$

Excel uses some of the same symbols that we use when writing math problems, but there are some differences as well:

	Regular	Excel
Addition	+	+
Subtraction	-	-
Multiplication	X	*
Division	÷	/
Equals	=	=
Exponents	x^n	^

Remember that Excel also follows the “Order of Operations.” You might remember this as **P**arentheses, **E**xponents, **M**ultiplication, **D**ivision, **A**ddition, then **S**ubtraction. You can remember this as **PEMDAS** or **P**lease **E**xcuse **M**y **D**ear **A**unt **S**ally.

So $=(3+4)*5+8$ gives you a value of 43, not 91

There are also premade functions you can use that will make equations even easier.

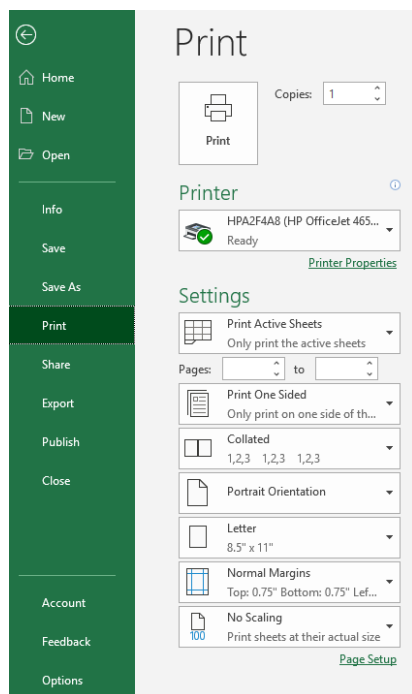
$=SUM(b2:b5)$ is the same as $=b2+b3+b4+b5$

The range B2:B5 contains all of the cells between B2 and B5, but you don’t have to write them out individually.

The “AutoSum” function is a button you can click that will do this calculation for you.

Printing from Excel

To print your spreadsheet, click on the **File Tab**, then click the **Print** option.



A print preview will automatically come up to the right of the print options. Make sure the view is what you want before printing.

You can print multiple copies if needed.

Under **Settings**, you can customize how your document prints.

You can choose to:

- Print Active Sheets
- Print Entire Workbook
- Print Selection

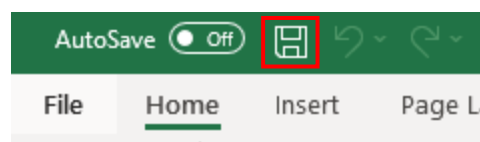
You can also adjust **Margins** and change the **Page Orientation**.

Saving in Excel

When opening or Saving a workbook, you have the option to save files locally to your computer, or to use OneDrive, which is the online file storage service included with your Microsoft 365 account. Using OneDrive allows you to export, share, and collaborate with others directly from Excel.

You can use **Save** and **Save As** to save a file in Excel.

When saving a workbook for the first time: Click the **File Tab**, then click **Save As**, choose the location you'd like to save your document (desktop, Browse for a folder, a USB drive, etc.), enter a file name that is relevant to you document, then click **Save**.



Use the **Save** command in the **Quick Access Toolbar** to save your work quickly and often. If you are logged in to OneDrive, you have the option to use **AutoSave** which

will automatically save your document as you are working. Click to toggle On/Off.

Resources

The following resources can be accessed from the library's resource page:

<https://www.cmlibrary.org/resources>

GCF Learn Free

Find many Microsoft Office, Google Suite, and basic-to-advanced digital literacy lessons for free on www.gcflearnfree.org. They have both text-based and video tutorials on a wide variety of topics.

LinkedIn Learning

Access a library of video tutorials from beginner to advanced level on a variety of technology topics on LinkedIn Learning (formerly Lynda.com). LinkedIn Learning allows you to track your progress and download resources from tutorials. You can view lessons at home or in the library using your library card.

Northstar Digital Literacy

This resource provides interactive online assessments and practice exercises to help individuals master computer and software skills such as using email, navigating the internet, and using Microsoft Word, Excel, and PowerPoint. Learn to navigate technology in your daily life with assessments on topics such as Social Media, Google Documents, Supporting K-12 Distance Learning, and Career Search Skills. Receive certification in one or more topics by completing an assessment (score 85% or higher) during a virtual Library proctored session.

1-on-1 Technology Tutoring

Charlotte Mecklenburg Library offers 1-on-1 tutoring with a library staff member or volunteer. You can call your library branch to check availability or check out our online calendar at www.cmlibrary.org/calendar.



DigiLit

DigiLit is a digital literacy program provided by Charlotte Mecklenburg Library. To find out more information about this program, download class handouts, and access additional resources, visit: www.cmlibrary.org/digilit