

MS Office - Excel

File Management

When working in MS Office (Excel, PowerPoint...) files need to be saved and edited on your Mac—not in Google Drive. However, when done, they must be stored on GoogleDrive since all files on your Mac are deleted when it restarts.

Google Drive and Mac Desktop

In Google Drive

1. Create a folder in Google Drive. Name it something like **My MS Sample Files**. This is where you will store your files before shutting off your Mac.
2. Close everything.

On Your Mac Desktop

1. Create a folder on your Desktop. Name it something like **Todays Desktop Files**. This is where we will put today's files while working in Excel.
2. Browse to www.mrspeterson220.com/incubator
3. Right click and save the sample file to your desktop folder.
4. Close everything, then open your desktop folder. You should see your sample file there.
5. Open your sample file. Enter your name in the first cell. Close and save your sample file (again, in your desktop folder.
6. Close everything

In Google Drive

1. Open Google Drive
2. Open you're my **MS Office Files** folder
3. Upload your sample Excel file to your **My MS Samples Files** folder

Let's Pretend it's the Next Day

1. Close everything—Let's pretend this is a new day, an your desktop folder is gone. Remove the **Todays Desktop Files** folder from your desktop, or just restart your Mac and it will be removed.
2. Create a folder for today's files on your Desktop. (use the same name as before—**Todays Desktop Files**)
3. Download your Excel File from Google Drive to your desktop folder.
 - a. Note—Excel files cannot be edited in Google Drive—they can only be viewed.
4. Open your Excel file. Enter today's date and time below your name.
 - a. *The shortcut for today's date is Ctrl ;*
 - b. *The shortcut for the current time is Command ;*
5. Save the Excel sample file, and close everything.
6. Upload the Excel sample file to your drive.
 - a. Do you have two Excel files? Can you tell which is which? You should only have the latest version—the one with your name, date, and time.

- b. If you want to keep two versions of the same file, that's ok, but be sure to have a file system so you know which is which—perhaps enter a version number at the end of each file name.
- c. Long file names can be confusing. Meaningless file names are even more confusing.

Excel Basics

Cell Addresses

1. Just like Battleship, a cell address is its Column letter and Row number. (The address of the top left is cell A1).
2. Cell addresses can be named.
 - a. Enter your age in Cell F5.
 - b. Name the cell F5 *age* (type the word *age* in the box that shows F5.)
 - c. Click anywhere else.
 - d. Click the down arrow next to the cell address. Select *age*. You'll go straight there. Cell names can also be used in formulas. (more on formulas later)
3. Lots of columns and rows:
 - a. 16,384 columns x 1,048,576 rows = 17,179,869,184 cells
 - b. Multiple sheets—more than you'll need. Limited only by computer memory.

Pointers

1. Left arrow (point to row number). Click to select an entire row. Drag to select several rows. Right click > Delete to delete entire row.
2. Down arrow (point to column letter). Click to select an entire column. Drag to select several columns. Right click > Delete to delete entire column.
3. Two-way horizontal arrow (point to line between column letters). Drag and resize a column width.
 - a. Select several columns, then drag to adjust one. All will be adjusted equally.
 - b. Double click to auto fit columns.
4. Two-way vertical arrow (point to line between row numbers). Drag and resize a row height.
 - a. Select several rows, then drag to adjust one. All will be adjusted equally.
 - b. Double click to auto fit rows.
5. White Cross (point in the middle of any cell). Drag to select cells.
6. Four-way arrow (point to border of a cell). Drag to move the cell contents to a new location.
7. Cross hair (Point to the lower-right corner of a cell). Drag to fill cell contents to adjacent cells (vertically or horizontally). Content that can be filled includes:
 - a. Formulas (we'll talk about these later)
 - b. Date
 - c. Time
 - d. Select two cells with numbers. Drag to fill the counting pattern.

More Selection Tips

1. Click one cell. Hold Shift and click another cell. Everything between is selected,
2. Click one cell. Hold Ctrl and click another cell. Only those two are selected.
3. Click the top-left square (between A and 1). The entire sheet is selected.
4. Use Shift with arrows to use the keyboard to select cells.

Home Ribbon

- The Ribbon (Home, Layout, Tables...) is like a drop down menu turned sideways.
- Most common commands are on the Home Ribbon.
 - Font, borders, fill color
 - Alignment (vertical and horizontal), angle, wrap text, merge across cells, indent
 - Number (Currency, percent, comma, decimals)
 - Format (conditional formatting, styles)
 - Cells (insert or delete rows or columns)
 - Themes (color/font schemes)

Formatting

Merge and Center

1. Enter content in first cell.
2. Select cells the text should go across.
3. Click Merge/Center button.

Practice

Merge and center your name across columns A through D.

Word Wrap

1. **Home Ribbon > Word Wrap** so longer text will wrap if column is narrow.
2. Enter your full name in cell F1.

Practice

Set Word Wrap, then adjust the column width so your name wraps into two or three lines.

Borders and Fill

1. Select the cells to contain a border.
2. Select the type of border (all borders, top/bottom, thick outside...)
3. Use the Paint Bucket to fill cells with color.

Practice

Format your name with a border and fill color of your choice

Formulas

The Basic Steps

1. Click a cell to contain the answer
2. Press = *Every formula starts with an =*

3. Build the formula by clicking in cells to be included and using basic math symbols: () ^ * / + -
4. When done entering a formula, press the Enter key
5. When the first formula is done, drag the Fill handle to copy it to adjacent cells.

Sum Function

1. Click the cell to contain the answer.
2. Click the Auto Sum button.
3. Select the cells to be summed.
4. Press Enter.
5. Once the first answer is displayed, drag the Fill handle to copy it to adjacent cells.

Practice

1. Calculate the total (quantity * unit price) for each item.
2. Calculate the total for each column.
3. Apply borders as shown.
4. Merge and Center *Fruit*
5. Word Wrap *Item Number*
6. Bold, adjust font size, and align as shown.
7. Format numbers as shown (comma, currency, decimal places)

Fruit					
Item Number	Description	Quantity	Unit Price	Total	
1	Apples	500	1	=C3*D3	
2	Oranges	200	2	=C4*D4	
3	Grapefruit	400	3	=C5*D5	
4	Pineapple	100	8	=C6*D6	
5	Grapes	700	2	=C7*D7	
	Total			=SUM(E3:E7)	

Fruit					
Item Number	Description	Quantity	Unit Price	Total	
1	Apples	500	\$ 1.00	\$ 500.00	
2	Oranges	200	2.00	400.00	
3	Grapefruit	400	3.00	1,200.00	
4	Pineapple	100	8.00	800.00	
5	Grapes	700	2.00	1,400.00	
	Total			\$4,300.00	

Order of Operations

	D	E	F	G	H		
2	Value 1	Value 2	Value 3	Value 4	Value 5	Result	Formula
3	10	4	6	8	10	49.25	=D3*E3-F3/G3+H3
4	10	4	6	8	10	7.50	=D4*(E4-F4)/G4+H4
5	10	4	6	8	10	39.67	=D5*E5-F5/(G5+H5)

Absolute Reference

When filling a formula that contains a cell address that shouldn't change, make it an *absolute reference*. This is done by pressing the F4 key when inserting that cell into your formula.

DCOUNT			
	A	B	C
2			
3	Commission Rate	0.07	
4			
5			
6	Sales Person	Sales	Commssion
7	Larry	80000	=B7*\$B\$3
8	Moe	75000	=B8*\$B\$3
9	Curley	87000	=B9*\$B\$3
10	Sum	=SUM(B7:B9)	=SUM(C7:C9)
11			
12	Average	=AVERAGE(B7:B9)	=AVERAGE(C7:C9)
13	Max	=MAX(B7:B9)	=MAX(C7:C9)
14	Min	=MIN(B7:B10)	=MIN(C7:C10)

Practice

1. Calculate the Commission, Sum, Average, Max, and Min.
2. Format as shown.

	A	B	C
2	Commission Rate	7%	
3			
4			
5	Sales Person	Sales	Commssion
6	Larry	80,000	
7	Moe	75,000	
8	Curley	87,000	
9	Sum		
10			
11	Average		
12	Max		
13	Min		

More Absolute Reference

1. Calculate the expected sales if each month is 5% more than the month before.
2. Tip: February will be the (January Sales * the monthly increase rate) + January Sales.

Monthly increase 5%

Expected Sales	January	February	March	April	May	June	Total
Product A	4,500.00						
Product B	5,000.00						
Product C	5,100.00						
Product D	6,000.00						
Total							

Names in Formulas

1. Enter your age in a cell.
2. Name the cell *age*.
3. In a different cell, enter the text *Next year I will be*.
4. In the cell after the statement, enter this formula: =age+1
5. Did it work?

Linking Cells

1. Many times formulas use data from cells on other sheets.
2. To include a cell from another sheet, just press the = in the destination cell, then click the cell in the original sheet, and press the Enter key.

Practice

1. Enter your name on the first sheet.
2. Click near the top of the second sheet.
3. Press the =
4. Return to the first sheet, click on your name, then press Enter.
5. The formula should be = followed the the name of the sheet and cell address.

Charts

1. Select the cells to be included in the chart (use Ctrl to select cells that aren't adjacent)
2. Insert > Chart
3. Select the chart you want, and where you want it (on the same sheet or on a new sheet)

Modify Chart

1. Click inside the chart
2. Chart Tools ribbon, Layout
 - a. Add a Data Table
 - b. Format or remove the Legend
 - c. Add data labels

3. Chart Tools ribbon, Design
 - a. Change chart type

Practice 1

1. Create a pie chart showing the sales of each salesperson.
2. Add data labels to each slice showing the sales person's name, amount, and percent

Practice 2

1. Create a clustered column chart of the sales for each month.
2. Add a data table below the chart.
3. Change the chart type for January to a line chart.

Organizing Sheets

1. Double click the sheet tab to rename the sheet.
2. Drag the sheet tab to move the sheet.
3. Right click the sheet tab to move or copy the sheet to another workbook.
4. Right click the sheet tab to color the tab.
5. Right click a sheet tab to delete it from the workbook.

Auto/Manual Calculation

Every now and then calculation gets switched from automatic to manual.

1. To calculate manually, press the F9 key.
2. To change back to automatic:
 - a. Formula ribbon
 - b. Calculation Options
 - c. Automatic