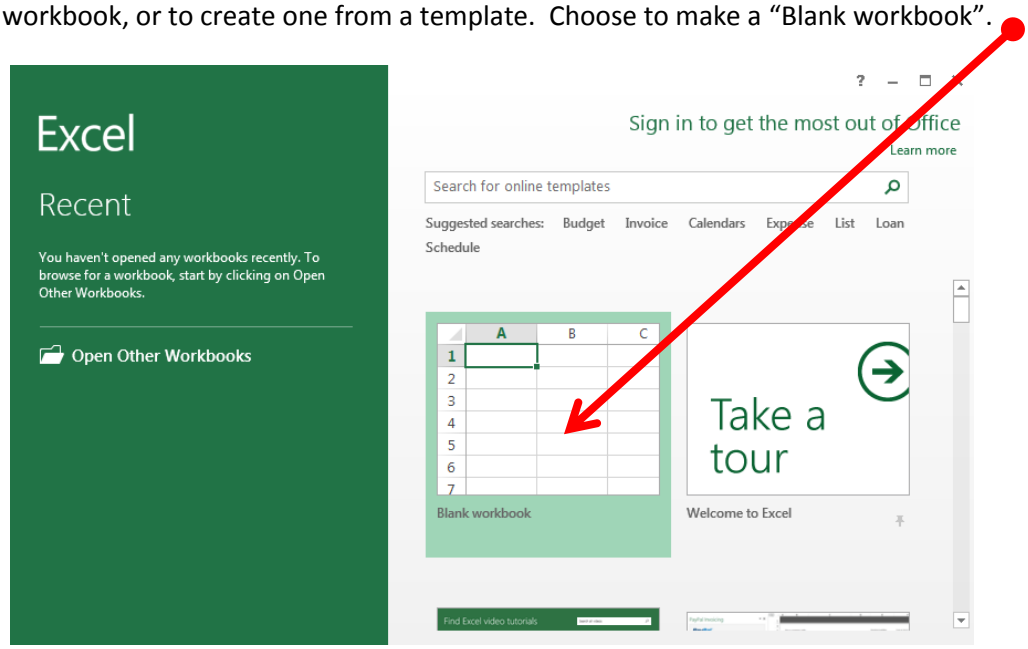
Lab 1: Spreadsheet Basics

The purpose of this lab is to become familiar with the basics of creating spreadsheets.

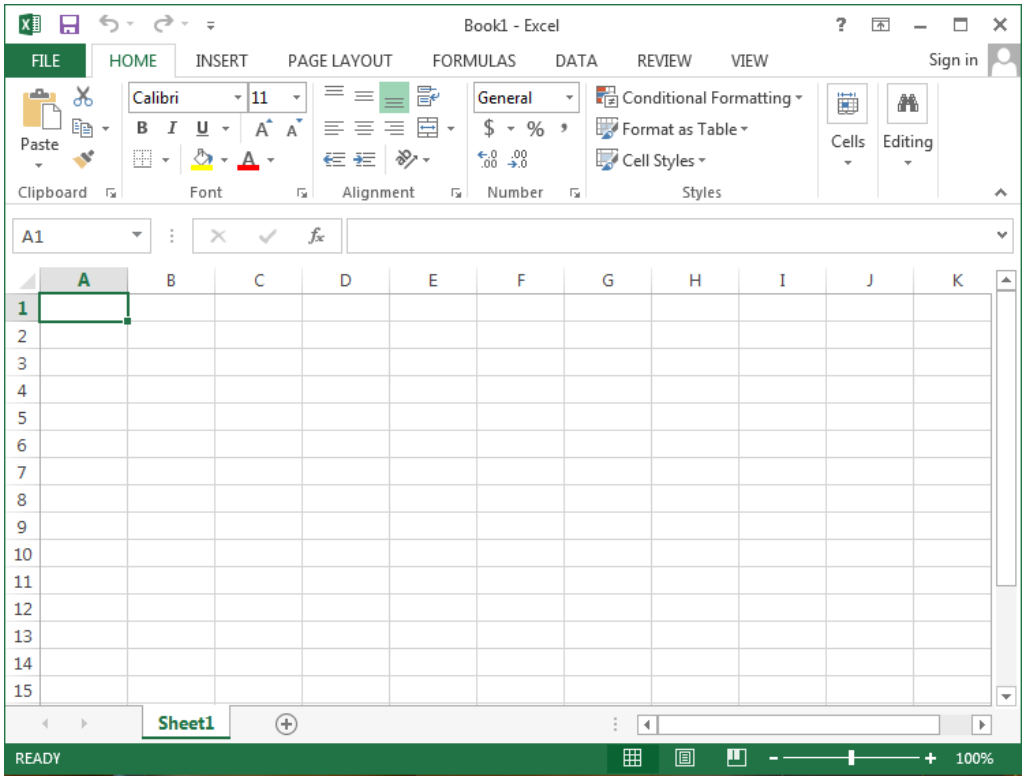
Task 1: Create an Addition Table

Start Excel

You should get a startup panel that shows Excel is launching. You should then be given a choice to open an existing workbook, or to create one from a template. Choose to make a “Blank workbook”.

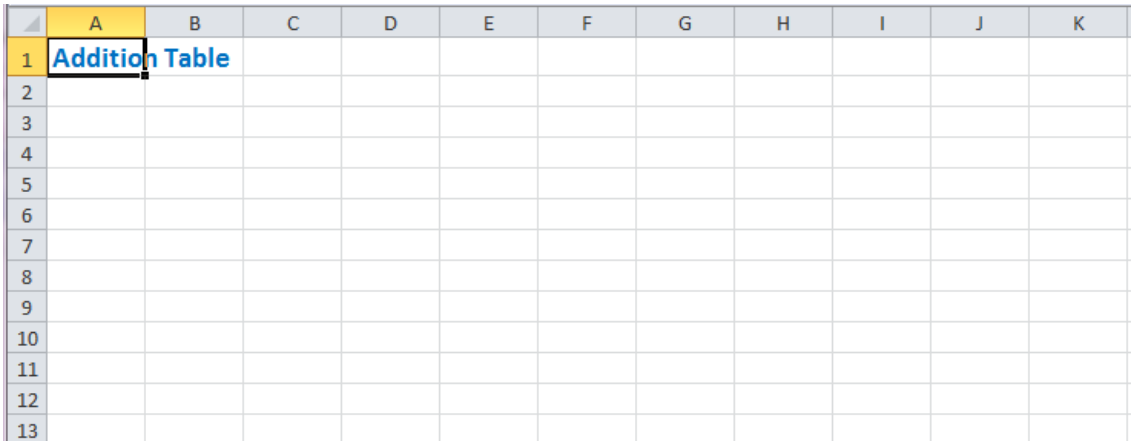


You should then have something that looks like this.


Book1 - Excel
FILE
HOME
INSERT
PAGE LAYOUT
FORMULAS
DATA
REVIEW
VIEW
Sign in
Paste
Calibri
11
General
Conditional Formatting
Format as Table
Cell Styles
Cells
Editing
Clipboard
Font
Alignment
Number
Styles
A1
Sheet1
READY
100%

Add Title

In cell A1 add the title “Addition Table”. Set it in 14 point font. Make it bold and make it blue.



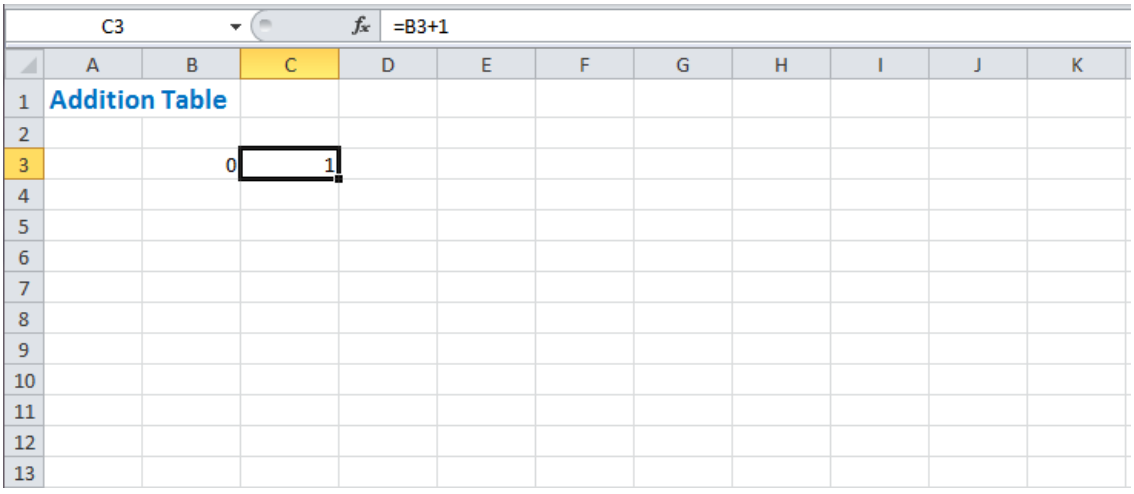
Make the First Two Column Headers

Place the value “0” in cell B3 (don’t put the quotes).

Enter the formula “=B3+1” in cell C3 (again, without the quotes). You can either type the “B3” into the formula, or you can enter it using cursor movement. Entering cell names with cursor movement is easier once you know how, so you should learn.
Complete the following steps

a) Click on cell C3. If there is something in it already, press “Delete” on the keyboard.
b) Type the “=” key. Do not hit “Enter”.
c) Click on the cell B3. The name “B3” should appear in the formula you are building in cell C3.
d) Type “+1” after the “B3” that appeared, then hit “Enter”.

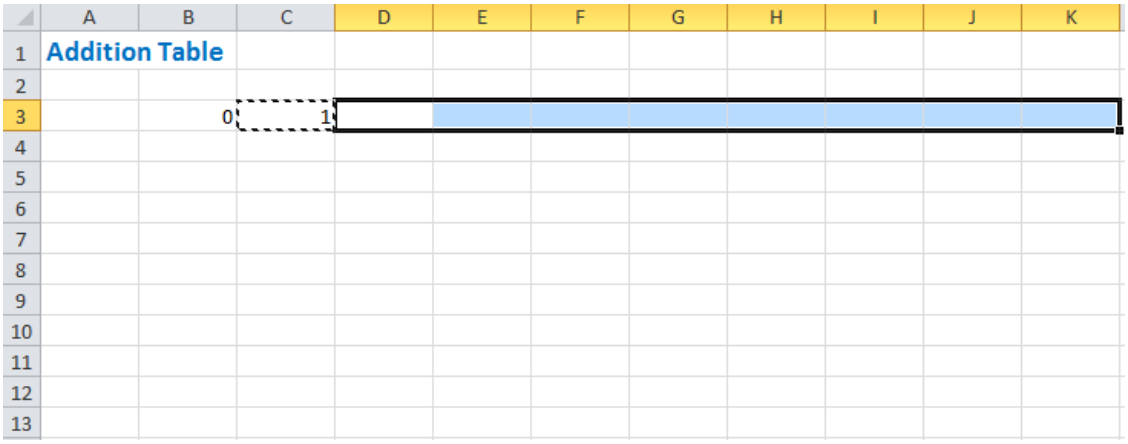
You should now see a “1” in the cell C3, which is the value computed by B3+1.



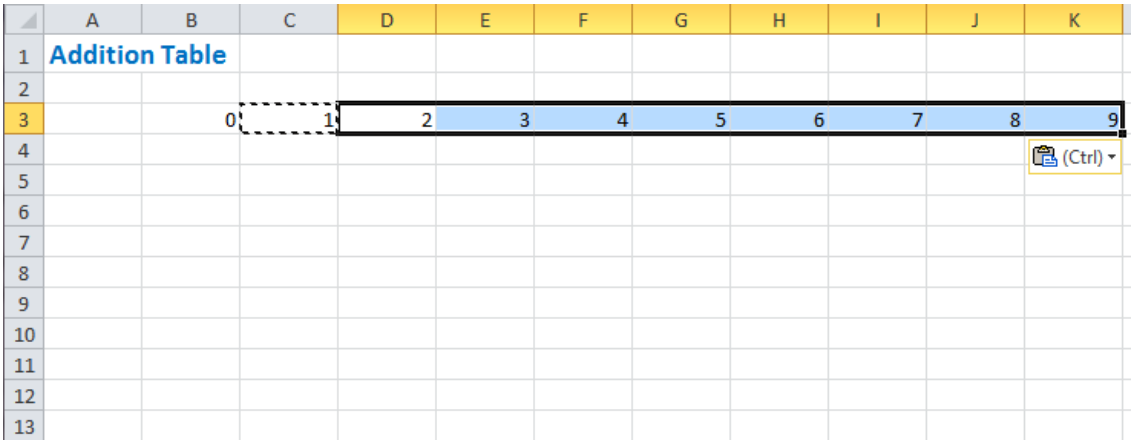
Make the Remaining Column Headers

Copy the formula from cell C3 and paste it into cells D3 to K3 as follows:

a) Click on cell C3 and type “Control” and “C” simultaneously to copy the formula from C3.
b) Move your mouse to cell D3 and click down on the left mouse button, and **do not let the mouse button up**.
c) Drag the mouse to cell K3 **while holding the mouse button down.**
d) Finally, let go of the mouse button. The spreadsheet should look like this:



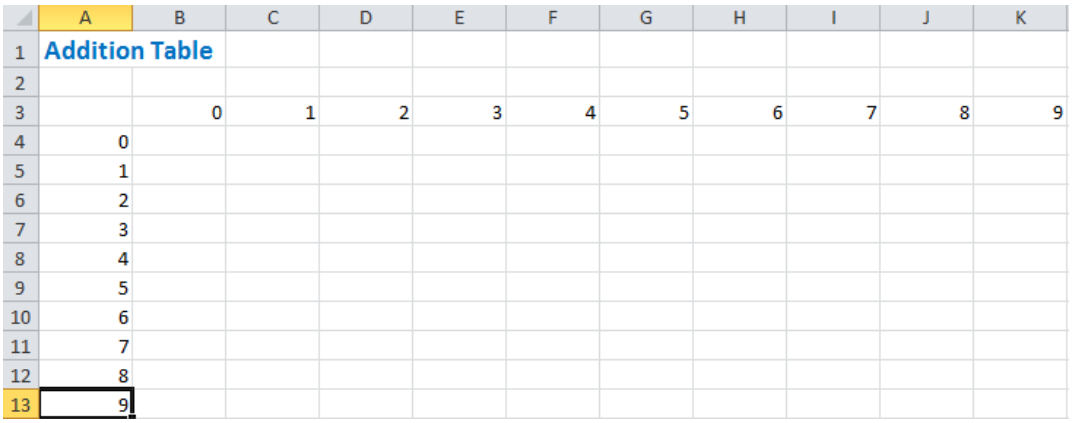
e) Now type “Control” and “V” simultaneously to paste the formula from cell C3 into all the cells D3 to K3. The spreadsheet should look like this:



Use the Same Process to Make the Row Headers

Repeat the same process to make the row headers in column A, start in row 4.

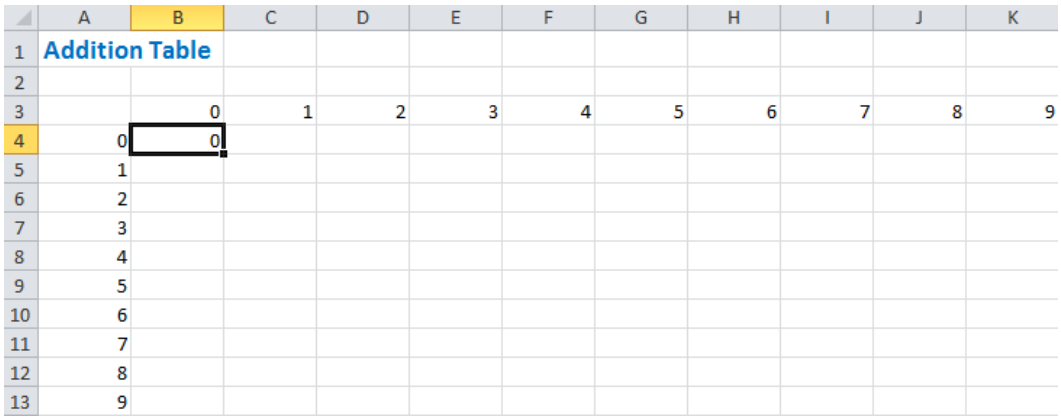
The result should look like this:



	A	B	C	D	E	F	G	H	I	J	K
1	Addition Table										
2											
3		0	1	2	3	4	5	6	7	8	9
4	0										
5	1										
6	2										
7	3										
8	4										
9	5										
10	6										
11	7										
12	8										
13	9										

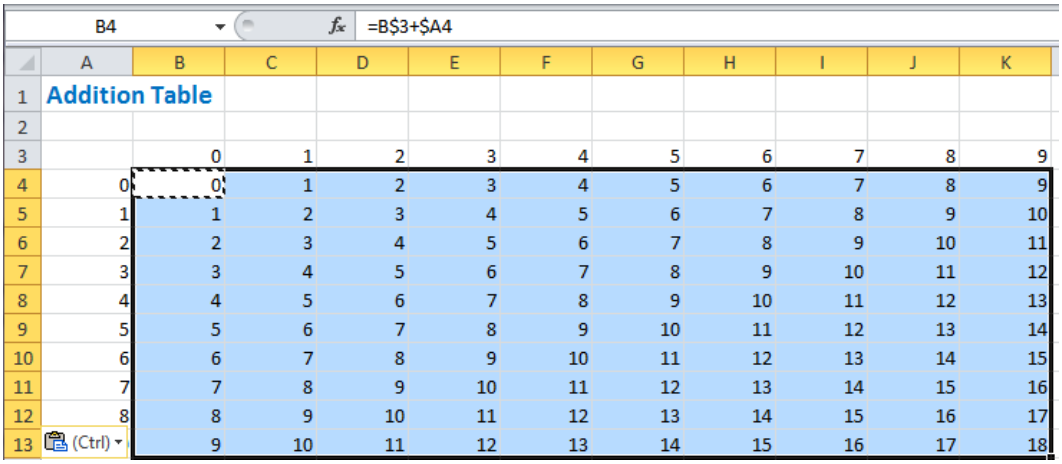
Enter the Formulas for the Body of the Table

In cell B4 enter the formula that gives the sum of the column header B3 and row header A4. We will want to copy and paste this formula into all the cells of the table, so enter the formula as "=B$3 + $A4". Why is this the formula we want? What is the significance of the '$'?



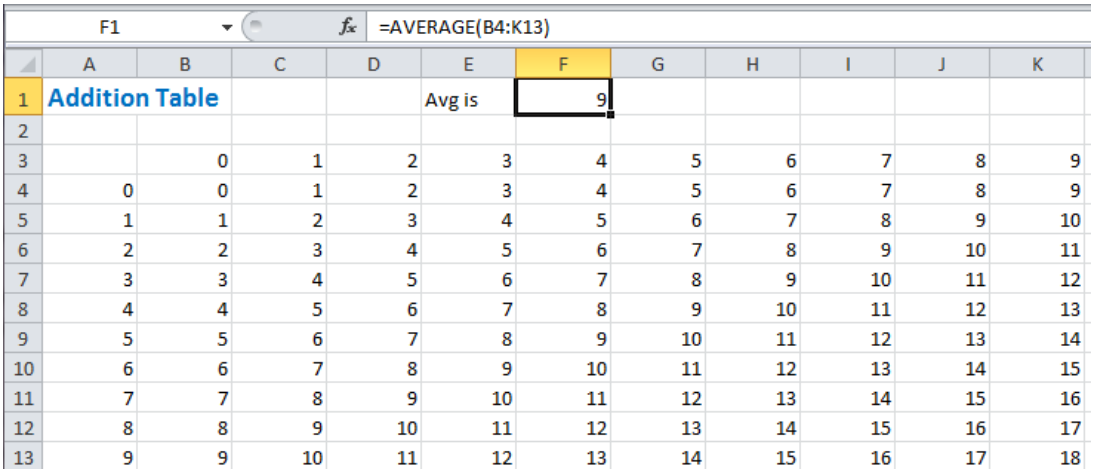
	A	B	C	D	E	F	G	H	I	J	K
1	Addition Table										
2											
3		0	1	2	3	4	5	6	7	8	9
4	0	0									
5	1										
6	2										
7	3										
8	4										
9	5										
10	6										
11	7										
12	8										
13	9										

Now copy the formula from the cell B4 and paste it into all the cells in the rectangle B4:K13.



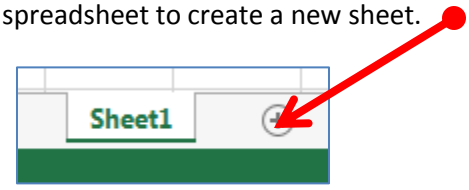
Find the Average Value of all Entries

Enter the text “Avg is” in cell E1, and enter the formula “=AVERAGE(B4:K13)” in cell F1. Try to enter the range “B4:K13” by clicking on cell B4 and dragging to cell K13. Is the average what you would expect?



Task 2: Create a Multiplication Table

Use the controls at the bottom of the spreadsheet to create a new sheet.



Perform steps 3 to 8 again, this time creating a multiplication table and compute the average. Each cell in your multiplication table should show the result of multiplying the row header by the column header, just like the last table did with addition. Check that your results match the table below:

	A	B	C	D	E	F	G	H	I	J	K
1	Multiplication Table				Avg Is	20.25					
2											
3		0	1	2	3	4	5	6	7	8	9
4	0	0	0	0	0	0	0	0	0	0	0
5	1	0	1	2	3	4	5	6	7	8	9
6	2	0	2	4	6	8	10	12	14	16	18
7	3	0	3	6	9	12	15	18	21	24	27
8	4	0	4	8	12	16	20	24	28	32	36
9	5	0	5	10	15	20	25	30	35	40	45
10	6	0	6	12	18	24	30	36	42	48	54
11	7	0	7	14	21	28	35	42	49	56	63
12	8	0	8	16	24	32	40	48	56	64	72
13	9	0	9	18	27	36	45	54	63	72	81

Save Your Work

Save your excel document as “Lab1_Multiplication” and submit it via OWL

Task 3: Complete the Tutorial on Simple Formulas, Complex Formulas and Absolute Cell References from GCFLearnFree

Read and follow the tutorials on below:

Simple Formulas: https://www.gcflearnfree.org/excel2013/simple-formulas/1/

Save this as “Lab1_SimpleFormulas” ” and submit it via OWL

Complex Formulas: https://www.gcflearnfree.org/excel2013/complex-formulas/1/

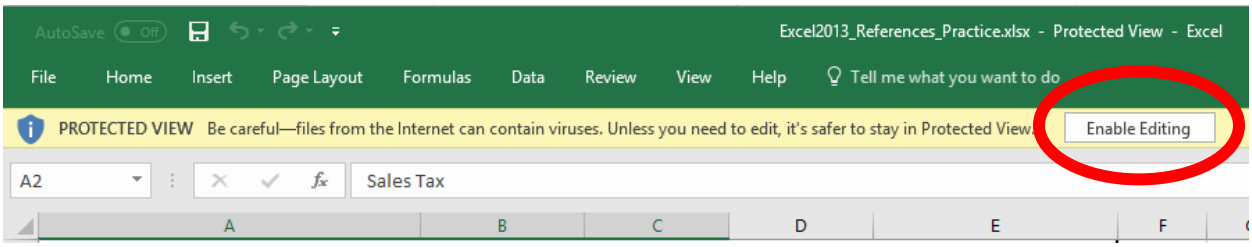
Save this as “Lab1_ComplexFormulas” ” and submit it via OWL

Absolute Cell References: https://www.gcflearnfree.org/excel2013/relative-and-absolute-cell-references/1/

Save this as “Lab1_AbsoluteCellReferences” ” and submit it via OWL

For each tutorial, download the practice workbook and complete the challenges at the end. Make sure to **save your practice workbooks as you will need to submit them**.

When you download Excel files from the Internet you have to click the “Enable Editing” button (shown below) before you can edit or interact with them. If you get this message, make sure you click the “Enable Editing” button before attempting to work on the spreadsheet.


AutoSave
Off
Excel2013_References_Practice.xlsx - Protected View - Excel
File
Home
Insert
Page Layout
Formulas
Data
Review
View
Help
Tell me what you want to do
PROTECTED VIEW
Be careful—files from the Internet can contain viruses. Unless you need to edit, it's safer to stay in Protected View.
Enable Editing
A2
Sales Tax
A
B
C
D
E
F