
Microsoft Excel Basics

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Class Outline:

- 1) What is Microsoft Excel?
- 2) Features of the Ribbon
- 3) Processing and Saving your work
- 4) Questions, Answers and Review

Expected Outcomes:

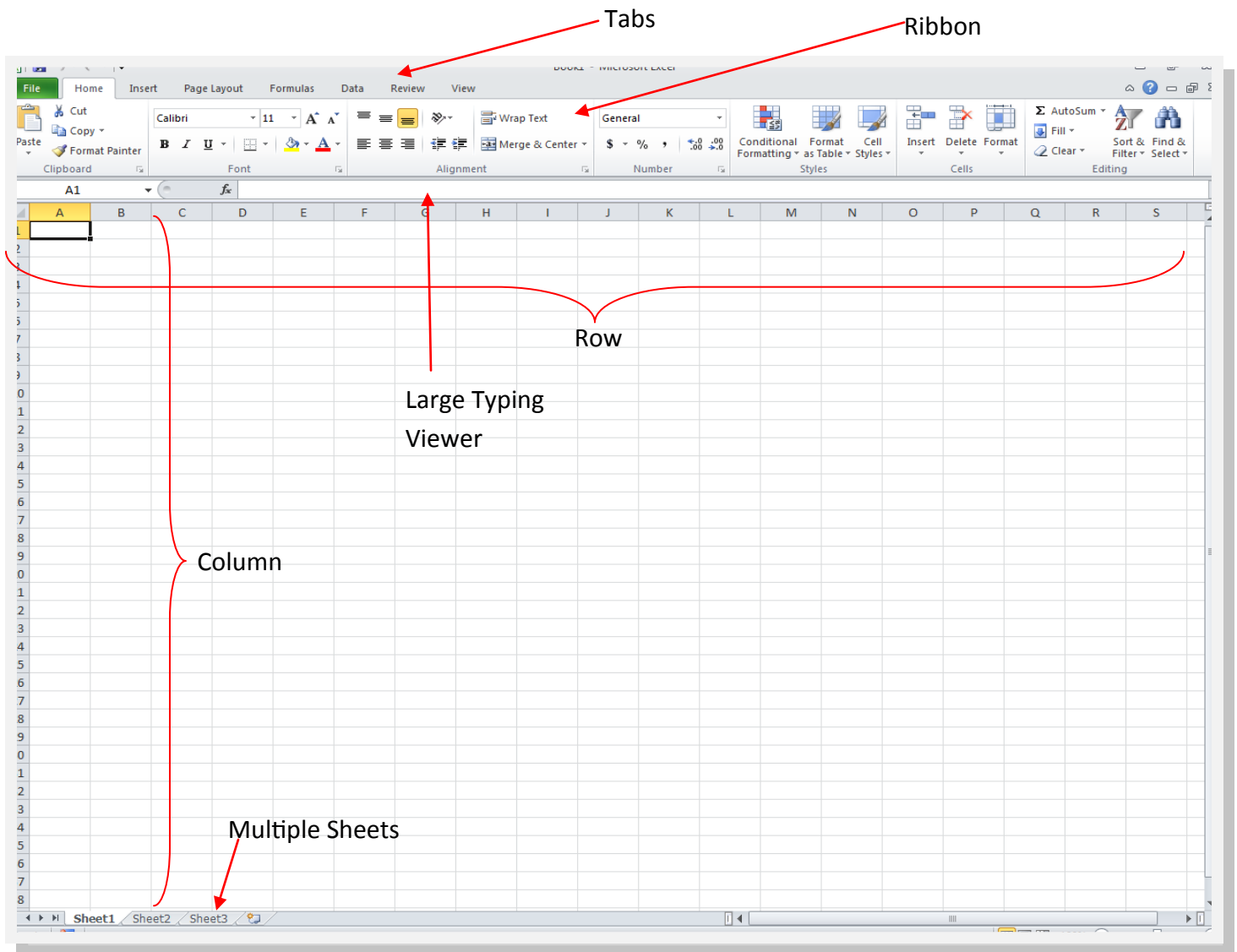
- 1) Familiarity with the functions of Excel
- 2) Ability to customize and save your work

What is Microsoft Excel?



Microsoft Excel is a spreadsheet is the computer equivalent of a paper ledger sheet. It consists of a grid made from columns and rows. It is an environment that can make number manipulation easy and somewhat painless.

Understanding What You See on the Home tab



Ribbon and Tabs: The Ribbon/Tab presentation style is pretty standard across all of Microsoft Office Suite programs. Microsoft Word has tried to streamline the appearance of its options by hiding away extra menus. This is called backstaging and occurs inside each Tab. There are a few popular buttons up front on the Ribbon to help with certain tasks, but there are many more options behind the scenes. You can get to the extra options by clicking the grey arrows in the lower right hand corner of each grouping.

Multiple Sheets: Spreadsheets can use multiple sheets, and you can move from one sheet to another. There are even functions that are built into Excel (under the Formulas tab) that will make your sheets automatically coordinate.

Row vs. Column: Rows are the lines that move HORIZONTALLY across the paper and have a number at the beginning. COLUMNS are the divisions that run VERTICALLY across the paper and have a letter at the top. When you are identifying a cell, it will be done with the Letter:Number (Column:Row).

Larger Typing View: The long bar across the top is a place for you to see how your text will appear as you are entering it. The text can also be entered directly into the cell, but it is a bit easier to edit the text in the larger

How Tos:

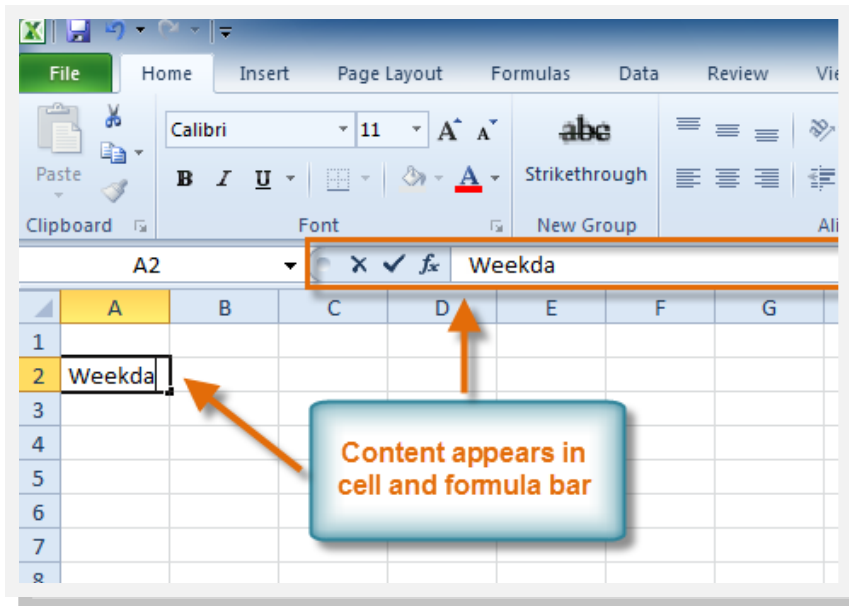
Cell Content

Each cell can contain its own text, formatting, comments, formulas, and functions.

- **Text:** Cells can contain letters, numbers, and dates.
- **Formatting attributes:** Cells can contain formatting attributes that change the way letters, numbers, and dates are displayed. For example, dates can be formatted as MM/DD/YYYY or Month/D/YYYY.
- **Comments:** Cells can contain comments from multiple reviewers.
- **Formulas and Functions:** Cells can contain formulas and functions that calculate cell values. For example, *SUM(cell 1, cell 2...)* is a formula that can add the values in multiple cells.

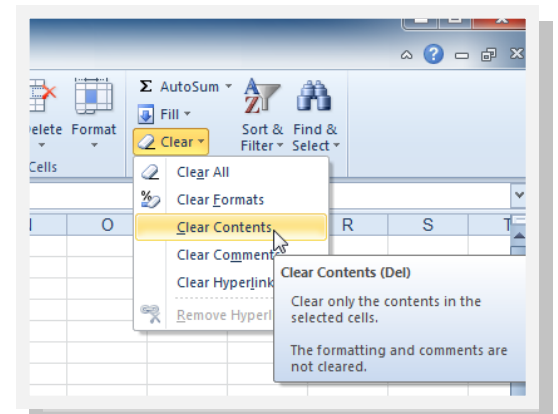
To Insert Content:

1. Click on a cell to select it.
2. Enter content into the selected cell using your keyboard. The content appears in the **cell** and in the **formula bar**. You also can enter or edit cell content from the formula bar.



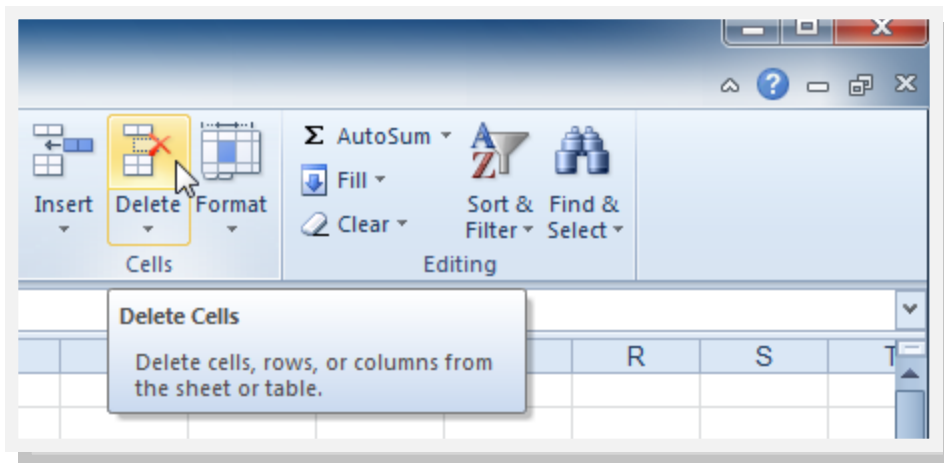
To Delete Content Within Cells:

1. Select the cells which contain content you want to delete.
2. Click the **Clear** command on the ribbon. A **dialog box** will appear.
3. Select **Clear Contents**.
4. You can also use your keyboard's **Backspace** key to delete content from a **single cell** or **Delete** key to delete content from **multiple cells**.



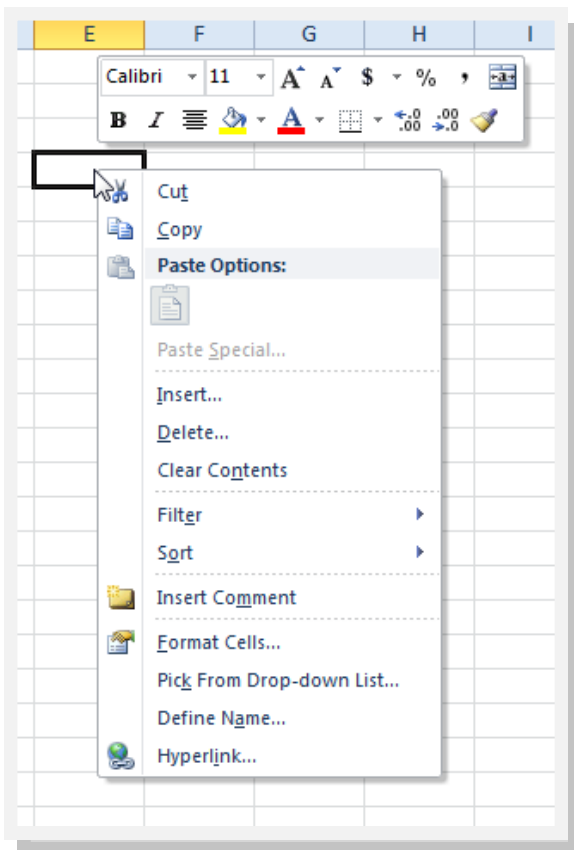
Delete Cells:

1. Select the cells that you want to delete.
2. Choose the **Delete** command from the ribbon.
3. There is an important difference between **deleting the content of a cell** and **deleting the cell itself**. If you delete the cell, by default the cells underneath it will shift up and replace the deleted cell.



Cut, Copy and Paste:

1. Select the cells you want to format.
2. **Right-click** on the selected cells. A **dialog box** will appear where you can easily access many commands that are on the ribbon. The area of cells you selected will have a blinking border.



2			
3	Employee	Attending	Not Attending
4			
5	Peraza, Brian	X	
6	Swensen, Liz		
7	Harris, Jane		
8	Lewty, Alice		

To Access More Paste Options:

There are more Paste options that you can access from the drop-down menu on the Paste command. These options may be convenient to advanced users who are working with cells that contain formulas or formatting.

To Drag and Drop Cells:

1. Select the cells that you wish to move.
2. Position your mouse on one of the outside edges of the selected cells. The mouse changes from a white cross to a black four pointed arrow.
3. Click and drag the cells to the new location.
4. Release your mouse and the cells will be dropped there.

	A	B	C	D	E
1	\$1,799.00				
2	\$200.00				
3	\$99.00				
4					
5					
6					

	A	B	C	D	E
1			\$1,799.00		
2			\$200.00		
3			\$99.00		
4					
5					
6					

To Use the Fill Handle to Fill Cells:

1. Select the cell or cells containing the content you want to use. You can fill cell content either vertically or horizontally.
2. Position your mouse over the fill handle so that the white cross becomes a black cross.
3. Click and drag the fill handle until all the cells you want are highlighted.
4. Release the mouse and your cells will be filled.
(This is a great tool when you're doing a multi-add!)

	A	B	C
1	Office Christmas Party		
2			
3	Employee	Attending	Not Attending
4			
5	Peraza, Brian	X	
6	Swensen, Liz		X
7	Harris, Jane		X
8	Lewty, Alice	X	
9	Olvera, Emily K.		
10	Wodal, Matthew		
11	McMillan, J.E.		
12	Dees, Robert		
13	Wimblet, Grace		
14	Salter, Joe Ann		

	A	B	C
1	Office Christmas Party		
2			
3	Employee	Attending	Not Attending
4			
5	Peraza, Brian	X	
6	Swensen, Liz		X
7	Harris, Jane		X
8	Lewty, Alice	X	
9	Olvera, Emily K.	X	
10	Wodal, Matthew	X	
11	McMillan, J.E.	X	
12	Dees, Robert		
13	Wimblet, Grace		
14	Salter, Joe Ann		

Modifying Columns, Rows and Cells

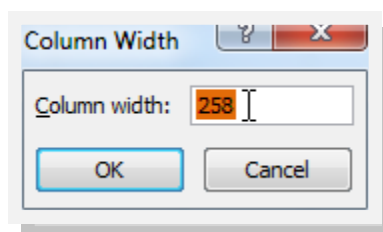
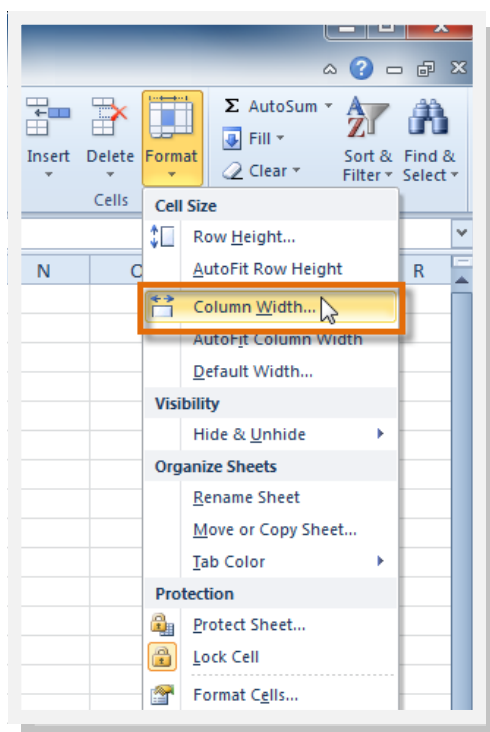
When you open a new, blank workbook, the cells are set to a default size. You do have the ability to modify cells, and to insert and delete columns, rows, and cells, as needed. Excel allows you to change row height and column width; insert and delete rows and columns; wrap text in a cell; and merge cells.

1. Position your mouse over the column line in the column heading so that the white cross becomes a double arrow .
2. Drag your double arrow in the direction that you want to stretch or shorten the cells. The process will modify the entire row or column, but not ALL of them.

To Set Column Width with a Specific Measurement:

1. Select the columns you want to modify.
2. Click the **Format** command on the **Home** tab. The format drop-down menu appears.
3. Select **Column Width**.
4. The **Column Width** dialog box appears. Enter a specific measurement (this is measured in pixels).
5. Click **OK**. The width of each selected column will be changed in your worksheet.

****Select AutoFit Column Width from the format drop-down menu and Excel will automatically adjust each selected column so that all the text will fit.****




You can do the same process with your ROWS, too. They will just be called ROW width instead!

To Insert a Row or a Column:

1. Select the row BELOW where you would like the new row/column to appear.
2. Hover over the header for your column or row.
3. Right Click to bring up your menu.
4. Select Insert, and the new row will appear above the one you selected.

	A	B	C
1	Ashberry, Jane	919-882-6561	ashberryj@hpasnc.org
2	Davis, Garrett	919-576-4562	davisg@hpasnc.org
3	Eberhardt, Elizabeth	252-985-3558	eberhardtte@hpasnc.org
4	Everett, Carol	919-503-9560	everettc@hpasnc.org
5	Hepburn, Katie H.	704-882-5559	hepburnk@hpasnc.org
6	Lovelace, Deb	919-785-9656	lovelaced@hpasnc.org
→7	McBride, Rebecca	828-357-0072	mcbrider@hpasnc.org
8	Mixon, Daniel	919-821-7425	mixond@hpasnc.org
9	Stevens, Kevin	919-783-8564	stevensk@hpasnc.org

	A	B	C
1	Ashberry, Jane	919-882-6561	ashberryj@hpasnc.org
2	Davis, Garrett	919-576-4562	davisg@hpasnc.org
3	Eberhardt, Elizabeth	252-985-3558	eberhardtte@hpasnc.org
4	Everett, Carol	919-503-9560	everettc@hpasnc.org
5	Hepburn, Katie H.	704-882-5559	hepburnk@hpasnc.org
6	Lovelace, Deb	919-785-9656	lovelaced@hpasnc.org
7			
8	 Bride, Rebecca	828-357-0072	mcbrider@hpasnc.org
9	Mixon, Daniel	919-821-7425	mixond@hpasnc.org
10	Stevens, Kevin	919-783-8564	stevensk@hpasnc.org

The Paintbrush that appears will allow you to edit the formatting of the row you've just inserted. By default, it will have the formatting of the other rows.

****You follow the same process for adding a column, but the new column will appear to the LEFT of what you've selected.****

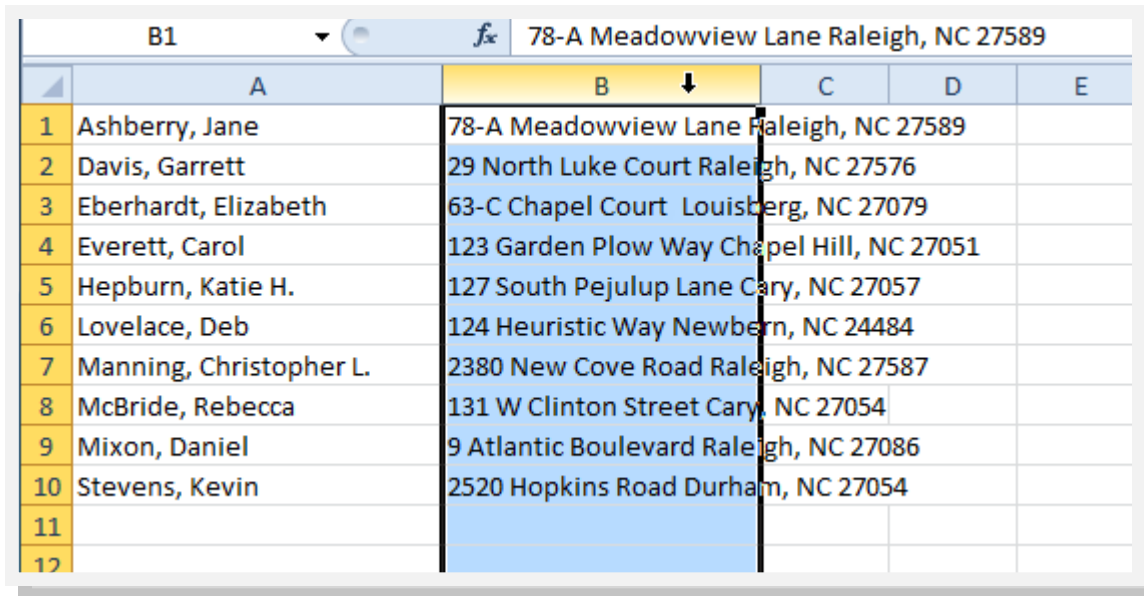
Deleting Rows or Columns is similar -

1. Select the row/column you want deleted by clicking on the header.
2. Right click to bring up your menu and select Delete.
3. The information for the whole row will disappear.

Wrap Text and Merge Cells:

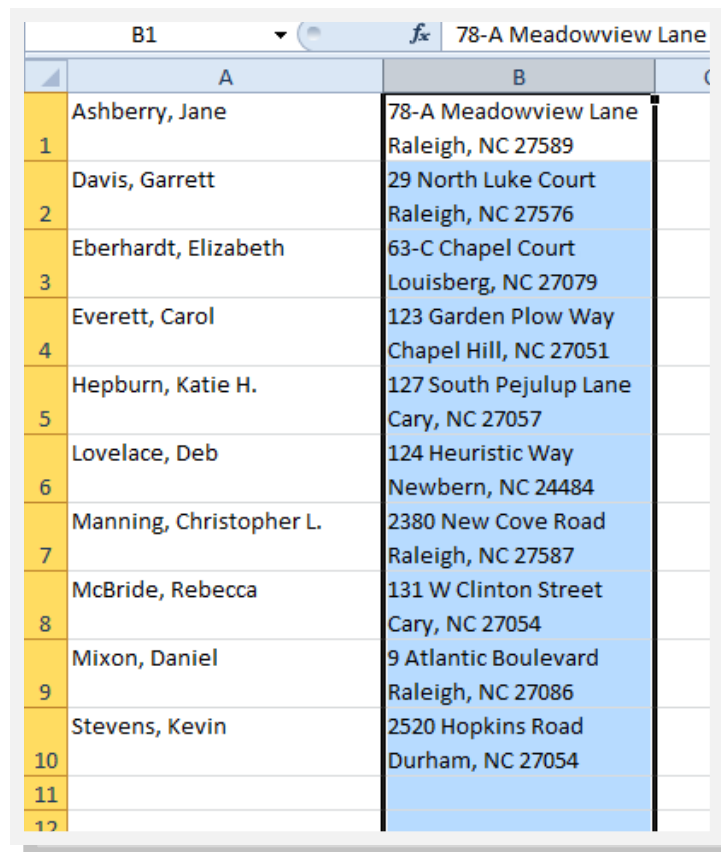
If a cell contains more text than can be displayed, you can choose to wrap the text within the cell or merge the cell with empty, adjoining cells. **Wrap text** to make it display on multiple lines of the cell. **Merge cells** to combine adjoining cells into one larger cell.

1. Select the cells you want to wrap.



	A	B	C	D	E
1	Ashberry, Jane	78-A Meadowview Lane Raleigh, NC 27589			
2	Davis, Garrett	29 North Luke Court Raleigh, NC 27576			
3	Eberhardt, Elizabeth	63-C Chapel Court Louisberg, NC 27079			
4	Everett, Carol	123 Garden Plow Way Chapel Hill, NC 27051			
5	Hepburn, Katie H.	127 South Pejulup Lane Cary, NC 27057			
6	Lovelace, Deb	124 Heuristic Way Newbern, NC 24484			
7	Manning, Christopher L.	2380 New Cove Road Raleigh, NC 27587			
8	McBride, Rebecca	131 W Clinton Street Cary, NC 27054			
9	Mixon, Daniel	9 Atlantic Boulevard Raleigh, NC 27086			
10	Stevens, Kevin	2520 Hopkins Road Durham, NC 27054			
11					
12					

2. Select Wrap Text on the Home Tab.
3. The text in your selected is now wrapped.



	A	B	C	D	E
1	Ashberry, Jane	78-A Meadowview Lane Raleigh, NC 27589			
2	Davis, Garrett	29 North Luke Court Raleigh, NC 27576			
3	Eberhardt, Elizabeth	63-C Chapel Court Louisberg, NC 27079			
4	Everett, Carol	123 Garden Plow Way Chapel Hill, NC 27051			
5	Hepburn, Katie H.	127 South Pejulup Lane Cary, NC 27057			
6	Lovelace, Deb	124 Heuristic Way Newbern, NC 24484			
7	Manning, Christopher L.	2380 New Cove Road Raleigh, NC 27587			
8	McBride, Rebecca	131 W Clinton Street Cary, NC 27054			
9	Mixon, Daniel	9 Atlantic Boulevard Raleigh, NC 27086			
10	Stevens, Kevin	2520 Hopkins Road Durham, NC 27054			
11					
12					

Merge Cells:

	A	B	C	D
1	HPAS North Carolina Board of Directors			
2	Ashberry, Jane	78-A Meadowview Lane Raleigh, NC 27589	919-882-6561	ashberryj@hpasnc.org
3	Davis, Garrett	29 North Luke Court Raleigh, NC 27576	919-576-4562	davisg@hpasnc.org
4	Eberhardt, Elizabeth	63-C Chapel Court Louisberg, NC 27079	252-985-3558	eberhardtte@hpasnc.org

1. Select the cells you want to Merge together.
2. Select the Merge and Center option on the Home Tab to bring the cells together.
3. In the drop down arrow next to Merge and Center, there are other options than Center. You can change the alignment here.

Simple Formulas:

A formula is an equation that performs a calculation. Like a calculator, Excel can execute formulas that add, subtract, multiply, and divide. One of the most useful features of Excel is its ability to calculate using a cell address to represent the value in a cell. This is called using a cell reference. In order to maximize the capabilities of Excel, it is important to understand how to create simple formulas and use cell references.

Excel uses standard operators for equations, such as a **plus sign** for addition (+), a **minus sign** for subtraction (-), an **asterisk** for multiplication (*), a **forward slash** for division (/), and a **caret** (^) for exponents.

The key thing to remember when writing formulas for Excel is that all formulas must begin with an equal sign (=). This is because the cell contains, or is equal to, the formula and its value.

Addition	+	=5+5
Subtraction	-	=5-5
Multiplication	*	=5*5
Division	/	=5/5
Exponents	^	=5^5

AutoFill

One of Excel's very useful features is the **AutoFill** tool. When you make a cell active a small fill handle appears in the lower right corner of the cell. You can use the fill handle to create an **AutoFill series**. This will work with text, dates, numbers or years; any recognizable pattern.

AutoFill dates in a spreadsheet by placing your mouse pointer over the small square in the bottom-right of the active cell (the first in the data series you want to fill). Your pointer will turn into a black plus sign when it is placed correctly. Click and hold the left mouse button and drag over the cells you want to fill. Notice Excel shows the dates it will fill in when you release the mouse button.

	A	B	C	D	E
1	Number of Questions at the Reference Desk				
2					
3	Date	Morning	Afternoon	Evening	
4	5-May	12	29	27	
5		18	35	35	
6		34	44	26	
7		15	29	47	
8		28	33	42	
9		17	41	38	
10		32	39	52	
11		26	27	32	
12		29	28	51	
13		25	46	22	
14		13	34	42	
15					
16	Total				
17	Maximum				
18	Average				

	A	B	C	D	E
1	Number of Questions at the Reference Desk				
2					
3	Date	Morning	Afternoon	Evening	
4	5-May	12	29	27	
5	6-May	18	35	35	
6	7-May	34	44	26	
7	8-May	15	29	47	
8	9-May	28	33	42	
9	10-May	17	41	38	
10	11-May	32	39	52	
11	12-May	26	27	32	
12	13-May	29	28	51	
13	14-May	25	46	22	
14	15-May	13	34	42	
15					
16	Total				
17	Maximum				
18	Average				

Once Excel has AutoFilled the dates, notice there is now a smart tag with additional AutoFill options. This allows you to change what Excel displays (for example, you want the dates listed by months instead of days.)

NOTE: **AutoFill** can also be used to fill in Formulas in a range of cells. Notice that Excel automatically adjusts the cell references in the filled formulas. These are known as **Relative Cell References**.

	C	D	E
	Hourly Rate	Hours Worked	Salary Owed
1	24	27	=c2*d2
	18	32	
	21	39	
	17	16	
	20	20	
	18	15	
	23	23	
	19	28	
	17	18	
	22	33	
	23	25	

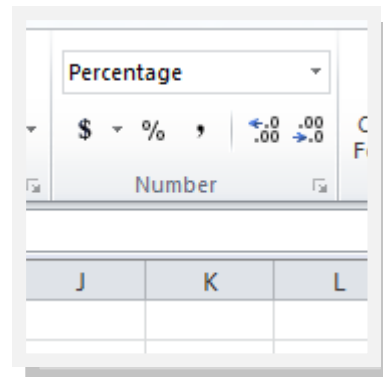
	C	D	E
	Hourly Rate	Hours Worked	Salary Owed
	24	27	c2*d2
	18	32	c3*d3
	21	39	c4*d4
	17	16	c5*d5
	20	20	c6*d6
	18	15	c7*d7
	23	23	c8*d8
	19	28	
	17	18	
	22	33	
	23	25	

Calculating the Percentage of a Whole—

This formula divides the points answered correctly (column C) by the total points possible (column E) in order to get a percentage of points correct.

	A	B	C	D	E	F	G	H
1	Calculating Percentage:							
2								
3			Points answered correctly		Total points possible		Percent Correct	
4	Test 1		35		50		=C4/E4	
5	Test 2		50		50			
6	Test 3		42		50			
7	Test 4		29		50			
8								
9								
10								

With **Number Format** you can choose how the values in the cells are displayed (in this case, as percentage).



Calculating sales tax and total sale—

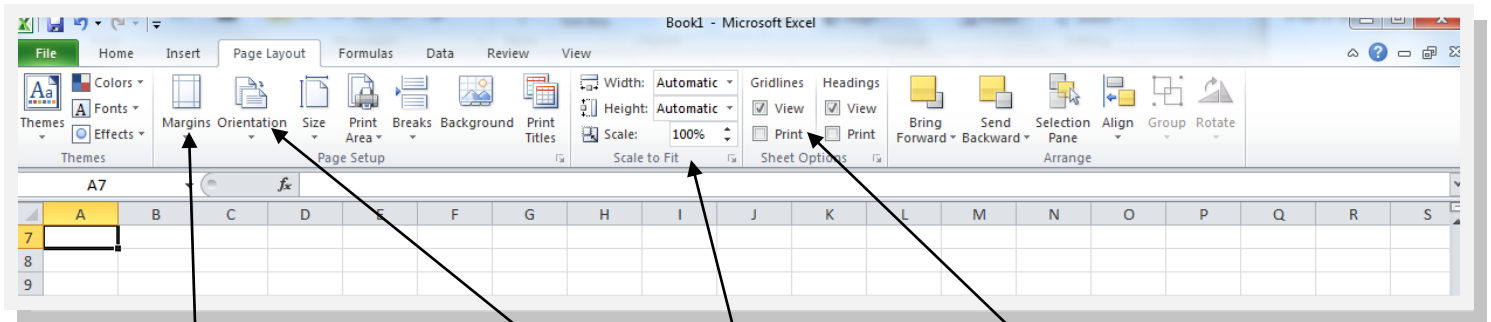
These formulas tell Excel to multiply the purchase price by the sales tax percentage and then add the purchase price to the

	A	B	C	D	E	F	G	H	I	J	K
1	Calculating Sales Tax and Total Sale:										
2	Purchase Price		Sales Tax			Dollar Amount of Tax			Total Sale Amount		
3		\$120.00	11%				=B3*D3		(=B3+G3)	\$133.20	
4		\$35.00	11%			\$3.85				\$38.85	
5		\$230.00	11%			\$25.30				\$255.30	
6		\$56.00	11%			\$6.16				\$62.16	
7											

Note: Number Format shows "Currency". This automatically fills in \$ and 2 decimal points.

Printing Options —

The **Page Layout** tab allows you set up how you want your spreadsheet to look when it is printed.



The **Margins** option lets you adjust your margins and gives you the option of centering your spreadsheet horizontally or vertically on the page.

The **Orientation** option allows you to switch from portrait to landscape orientation and adjust the scale of your spreadsheet.

Choose to print the gridlines and headings (the column letters and row numbers) by checking boxes in the **Sheet Options** area.

The **Scale to Fit** option lets you change size of your data by adjusting the percentage in order to fit on fewer pages. Just be careful it does not get too difficult to read.

For more Microsoft Excel tutorials try:

- Gale Courses, a Rolling Meadows Library Online Resource
- www.gcflearnfree.org (choose “Microsoft Office” box)
- www.youtube.com (search “Microsoft Excel”)
- The non-fiction bookshelves, call number 005.54/EXCEL