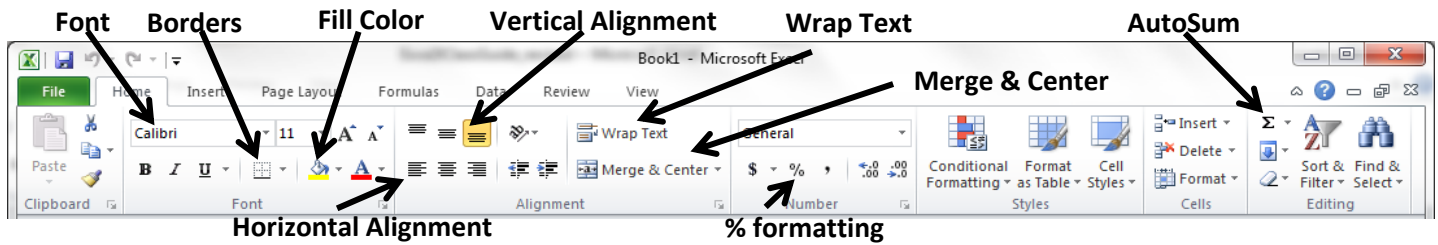# Excel 2 Class Guide
Instructor: Susan Jerger

Part 1: Excel 1 Recap
1.1 Formatting Refresher
   Below is a picture of the Home tab of the Ribbon which contains most, but not all, of the features we'll go over in class today.

Exercise 1: Open the Grand Opening Contacts spreadsheet (in Excel2ClassSpreadsheets.xlsx). Spruce up the spreadsheet with colors and borders. Merge & Center the "Grand Opening Contacts" across the top of the table.

Part 2: Sorting & Filtering
2.1 Sorting
   You can easily sort your data alphabetically, chronologically, or numerically…and even by color. Sorting can be *Ascending* (A-Z) or *Descending* (Z-A). If you have a *Header Row* (a top row that labels the data of your table), it is a good idea to format this row to stand out from your actual data.
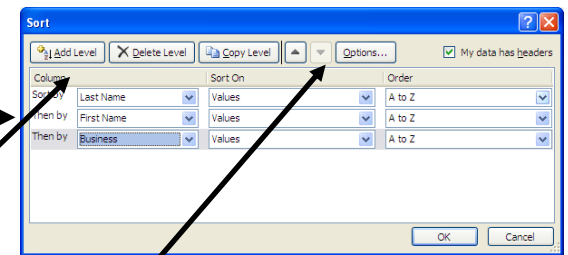
Exercise 2: In the Grand Opening Contacts spreadsheet…
- Place the cell pointer on one of the last names in column A.
- Click on **Sort & Filter** and then
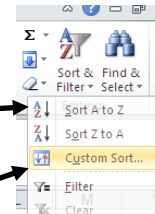
Exercise 3: In the Grand Opening Contacts spreadsheet…
- Place the cell pointer on any cell within A4 to K26
- Click on **Sort & Filter→Custom Sort**
- Choose to sort by **Last Name** and then **First Name** and then **Business** on the window that pops up.
- Click **OK**.

Exercise 4: In the Grand Opening Contacts spreadsheet…
- Change the background color of 5 Last Name cells (that are not all next to each other alphabetically).
- Click on **Sort & Filter→Custom Sort**
- Add another level and make sure it is at the top. Sort it by **Last Name** and sort on **Color**.
- Choose the *Order* and click **OK**

NOTE: You can also sort horizontally if needed by clicking on **Options** in the Sort box and then choosing the **Sort left to right** orientation.

2.2 Filtering

Filtering is a quick and easy way to hide data so that you can see only the relevant data you need. It is a cinch to turn off and on.

<u>Exercise 5:</u> In the Grand Opening Contacts spreadsheet…
- Place the cell pointer on any cell within A4 to K26
- Click on **Sort & Filter→Filter**
- On the spreadsheet, click on the down arrow to the right of City and select only Greenwood to limit your list.
- Click **OK**

*To turn off filtering, simply click on **Sort & Filter→Filter***
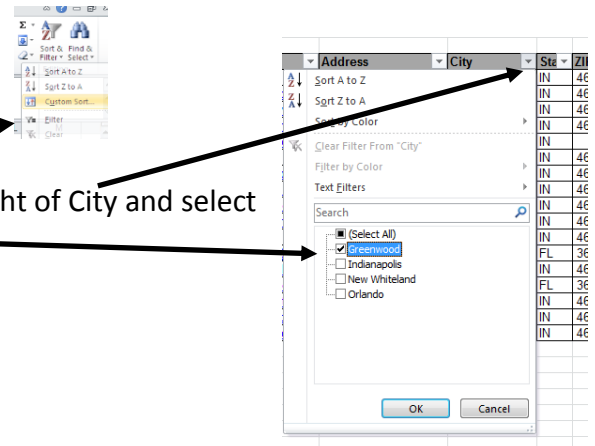

Part 3: Altering Your View
3.1 Freezing Panes

You can freeze panes—sections of the spreadsheet—so you can easily view them even when you scroll up and down/left and right. Freezing Panes does not affect how your spreadsheet prints.

<u>Exercise 6:</u> In the Grand Opening Contacts spreadsheet…
- Click on cell **A4**.
- Click on **View**.
- Click on **Freeze Panes→Freeze Panes**
- Now scroll down and see if Rows 1-3 stay in place

*Click on **Freeze Panes→UnFreeze Panes** to turn this feature off.*
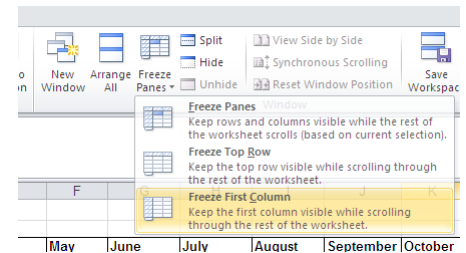
3.2 Hiding Columns & Rows

You can block columns or rows from view to make it easier to read and compare data or possibly to hide some areas of your spreadsheet when printing or saving as a PDF file.

<u>Exercise 7:</u> In the Grand Opening Contacts spreadsheet…
- Highlight Columns D through G (click on drag in the gray Column Letter area)
- Right-click on the highlighted area and left click on **Hide**
     OR Click on **Format→Hide or Unhide→Hide Columns**

To Unhide columns, highlight the two columns that surround the hidden area.
Right-click on the highlighted area and left click on Hide
   *OR Click on **Format→Hide & Unhide→Unhide Columns***
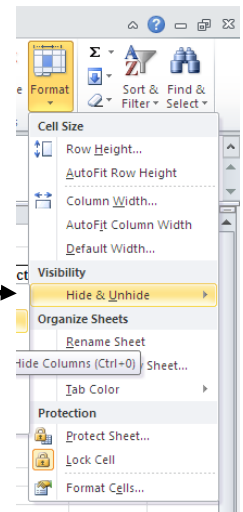
Part 4: Formulas & Functions
4.1 Formula Basics

Formulas are equations that perform calculations on values in your spreadsheet and always start with an equal sign **(=)**. Here are the symbols/operators for simple calculations:

+ Addition - Subtraction * Multiplication / Division

Ordering = Excel calculates from left-to-right with multiplication and division always completed first (*use () to change this order*)

Copying Formulas = You can copy & paste or use AutoFill to easily copy formulas from cell to cell.

4.2 Functions

Functions are prewritten formulas—you just need to supply the value(s) and not the operator(s). The same rules for formulas apply to functions. Some other info:

- ❖ You can calculate *ranges of cells* using the colon **(:)**.
- ❖ You can use a comma **(,)** to separate cells you want to include that are not in a range.
- ❖ If you don't highlight what cells you want to include in a function, Excel automatically looks above the cell you're at to locate numbers. If nothing is there, it will look to the left then the right.

<u>**Exercise 8**</u>: AutoSum Σ is the function we used in Excel 1. On the Widget Sales Data spreadsheet…

- Click on cell **B13**.
- Click on the **AutoSum** shortcut at the top right.
- Click the checkmark at the top or **Enter**.
- Tally the rest of the months as well as column N using AutoSum (*and AutoFill*).
- Use AutoSum in cells **N4** to **N12** to tally each widget type.

NOTE: If **#####** appears in a cell, widen the column so the number will fit.
HINT: You can automatically widen all columns in your spreadsheet. We won't use it for this exercise, but here's how:

- Click on the empty *gray rectangle* to the left of column A.
- Click on **Format→Autofit Column Width**

4.3 MAX, AVERAGE, & Percentage

We will explore other functions (there are hundreds of them!) as well as create a percentage formula. You can get to all functions in Excel by clicking on **AutoSum→More Functions** or by clicking on the **Formulas** tab of the Ribbon.
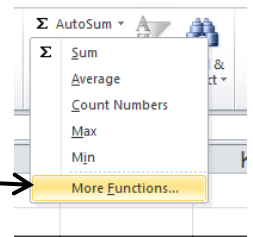
<u>**Exercise 9:**</u> On the Widget Sales Data spreadsheet…

- Use Wrap Text on **Row 15** so the labels are easier to see.
- Put the cell pointer on B16.
- Click on the **arrow next to AutoSum** near the top
- Find the **MAX** listing and click on it.
- Next, a formula will show up in your spreadsheet with cells Excel thinks you want to use. Make sure they are **B4 through M4**. If they aren't, highlight those cells.
- Click the checkmark or press **Enter**.
- Calculate the MAX monthly sales figure for the other colors plus the Total
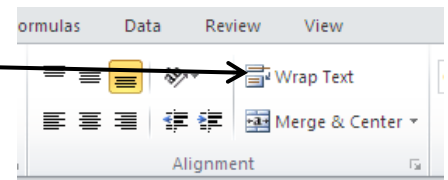
<u>**Exercise 10**</u>: On the Widget Sales Data spreadsheet…

- Put the cell pointer on C16
- Click on the **arrow next to AutoSum** near the top
- Find the **AVERAGE** listing and click on it.
- Next, a formula will show up in your spreadsheet with cells Excel thinks you want to average. They are not the correct ones, so highlight cells **B4 through M4**.
- Press **Enter**.
- Calculate the AVERAGE number for the other colors plus the Total

Exercise 11: On the Widget Sales Data spreadsheet, we will figure each color's Average Monthly Sales percentage of the Average Monthly Total.

- Put the cell pointer on D16.
- Type **=c16/c25** and press **Enter**.
- Format the result to a percentage by clicking on the % in the Number area of the Home tab ribbon.
- Try to copy this formula into cell **D17**. You will notice that this will not work since Excel will change the **_Relative Reference_** from cell C25 down to C26 which is blank. To get copying and pasting to work, we'll redo our percentage formula so that the reference to C25 is partially <u>ABSOLUTE</u> instead of all <u>RELATIVE</u>.
- Go back to cell D16 and type **=c16/c$25**
- Copy and paste the formula into cells D17 through D24.

4.4 COUNT

  COUNT is one function from a group called *Count Functions*. Its goal is to add up the cells in a selected range that contain numbers (not text…just numbers).
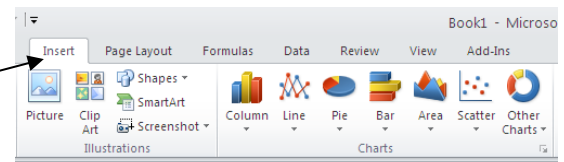
Exercise 12: On the Widget Orders spreadsheet…

- Click on cell **B16**
- Either type **=count(b4:b10)** or click on the arrow next to AutoSum and choose **Count Numbers** (and then highlight **B4:B10**)
- Use AutoFill on cells **C16 to E16**.

There may be occasions when you need an **Absolute Cell Reference** (or a combination of Relative and Absolute) so that one or more of the cells in your formula or function never change…or only change by column or row. "**$**" symbols indicate an absolute reference.

| Example	When copied…
=a4/b3	A4 can change; B3 will never change
=a4/$b3	A4 can change; Column B will never change but Row 3 can
=a4/b$3	A4 can change; Column B can change but Row 3 will

Part 5: Charts…As Easy As Pie

5.1 Chart Wizard

  The Chart Wizard has disappeared in Excel 2010, but it is still super easy to make charts of a table in Excel using the **Insert** tab menu. The exercise below will demonstrate this feature.

Exercise 13: Back on the Widget Sales Data spreadsheet…

- Highlight the data range **A3 to M12** for our chart.
- Click on the **Insert** tab and then Line. Choose a **2-D Line** from the Line dropdown list.
- Notice that three new **Chart Tools** tabs appear above the Ribbon. These will help you customize your chart.
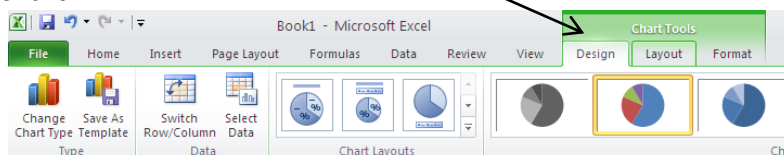
- Click on the **Layout** tab. Use the Chart Title, Legend, and Data Labels menu to change your chart if you would like.
- Next, click on the **Move Chart** option on the Design tab will give you the option to place your chart in a new worksheet. Let's do that!

Part 6: Copying & Pasting into Word
6.1 Paste Special
   You can conveniently copy an Excel spreadsheet section or chart into Word if you are typing a report. If you use the *Past Special* feature, you can make it so that updating the spreadsheet in Excel will automatically update the copied section/graph in Word.

Exercise 14: Using the chart from earlier in class…
- Click on the chart once
- Click on **Copy** or press **Ctrl+C**.
- Open Word and click on the **arrow** below Paste.
- Select **Paste Special**. In the box that pops up, choose **Paste Link** and **Microsoft Excel Chart Object**.
- Click **OK**.
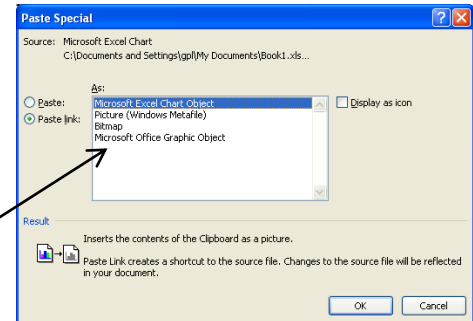
Now when you update the chart's underlying spreadsheet, the information will automatically transfer to the Word document.

Part 7: Sparklines: Easy Inserts
7.1 Sparklines
   Sparklines (new in Excel 2010) are tiny charts that can show data trends very easily. Here is how they work:

Exercise 15: Using the Widget Sales Data spreadsheet…
- Click on Cell **O3** and type in **Graphs**. Draw in borders around cells **O3-O13**.
- Click on Cell **O4**.
- Click on the **Insert tab** and then on **Line** in the Sparklines group.
- Make **B4:M4** the data range and click **OK**.
- Use Autofill to copy the sparkline into cells **O5-O13**.
- Click on the **Sparkline Tools Design** tab to mark the **High Point**.
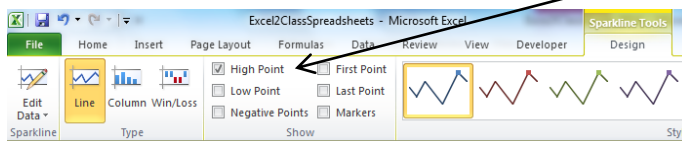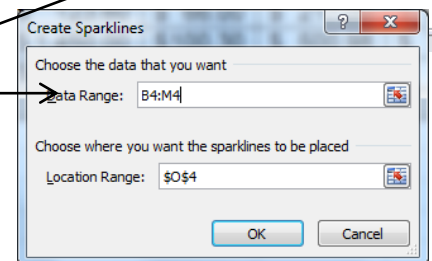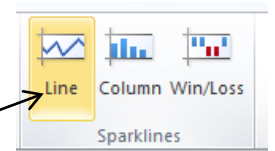
Part 8: Further Help

8.1 HELP!

Excel has a help feature that can aid you in refreshing your memory on certain tasks or by even learning new tasks. Help can be reached at by clicking the Question mark in the upper right hand corner. You will most likely be directed to Office.com's online help, but there is an offline version if needed.

8.2 Additional Help

   You can find additional resources on our Excel Class webpage:
http://www.greenwoodlibrary.us/excelclass.asp

8.3 Google Sheets

   Don't have Excel on your personal computer? Try using Google Sheets –
https://docs.google.com/spreadsheets. The caveat: you will need a (free) Google account to use it.

Thank you for coming!

Please fill out a Computer Class Survey before leaving.
www.greenwoodlibrary.us/computersurvey.asp

Instructor's Name: Susan J. Class: Excel 2