PART I: Introduction to Excel 2016

What is it?

Three main uses are:
- Number crunching:
    - Lots of built in formulas with the ability to create your own formulas
    - Ideal for developing budgets, projections and so on.
- Charts and graphs: visual analysis of data
- Databases: great for keeping track of long lists of names and related data

Definitions and Concepts

The **Cursor** can appear in five different ways:
- White cross for basic cell selection

- Thin black cross for dragging cell contents elsewhere

- A thin vertical line with two arrows at the side for widening columns (or the same symbol sideways for rows)

- Downward arrow for selecting an entire column(or the same symbol sideways for rows)

- Small black cross for copying or filling
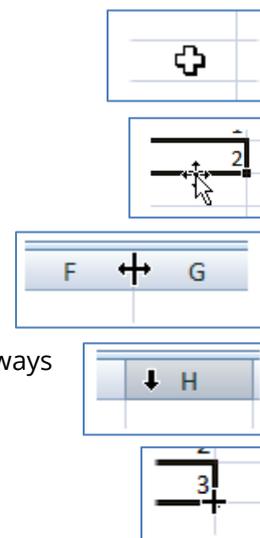
Spreadsheet: A table of values (or cells) arranged in rows and columns. Each value can have a relationship to the other values

Column: the vertical stack of cells in a spreadsheet table identified by a letter name

Row: the horizontal set of cells in a spreadsheet table identified by a number

Cell: an individual box on the spreadsheet grid, identified by the column letter and row number (e.g. A1)

Basic Math Operators: plus +, minus -, multiply *, divide /, brackets ()
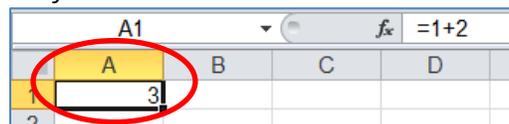
PART II: Ribbons

As in other Microsoft Office products, the toolbar at the top is divided into Ribbons. Ribbons are like trays in a toolbox. Similarly each tray has a different (but related) set of tools available. Use the tabs to access the different Ribbons. Mouse-over each tool for a brief explanation and keyboard shortcut.

File Tab

This is where you **Print**, **Save**, **Open**, **Close**, access **Recent** spreadsheets, and so on.

Home Tab
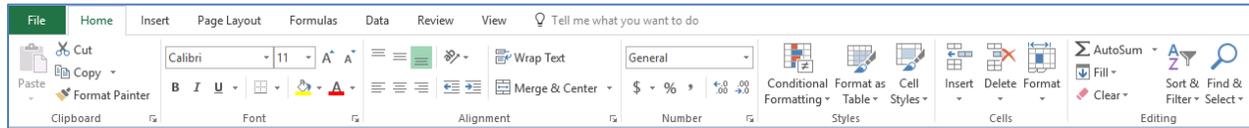
This is where a new spreadsheet opens. It's the tab you'll use most frequently; note that the tools are arranged in groups. The Home Tab groups contain the tools to:
- o   Move and copy material (**Clipboard**)
- o   Format text and numbers (**Font**)
- o   Align material in your spreadsheet (**Alignment**)
- o   Express numbers in different ways - as dollars, percentage, etc. (**Number**)
- o   Show data in different ways (**Styles**)
- o   Insert, delete, or alter cells rows and columns (**Cells**)
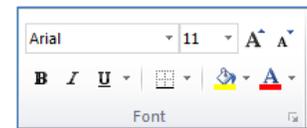- o   Sort, filter, access common formulas (**Editing**)

Clipboard Group
The Clipboard is used exactly the same as in MS Word. This is where you get the tools to cut or copy data and paste it elsewhere in your spreadsheet.
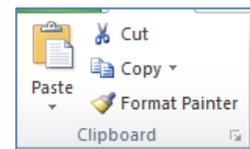

Font Group
Just as with MS Word, the Font group is where you go to increase the text / number size or font type; to **Bold**, *Italicize*, or <u>Underline</u>; change colour, etc.

Alignment Group
The Alignment group contains tools allowing you to arrange your text or numbers for ease of reading, labelling, and so on

- • You can align to the left, centre, right or even justify horizontally within a cell. Unlike with MS Word, you can also align .vertically or even rotate text diagonally to label narrow rows or columns
- • Wrap Text allows you to make text in a cell visible by expressing it on multiple lines while keeping it within one cell
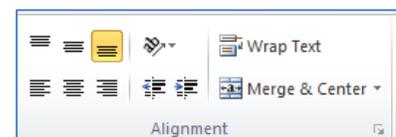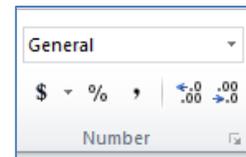

- • Merge & Center joins multiple cells into one – often used for labelling purposes
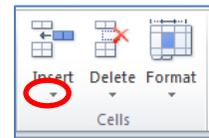
Numbers Group

With these tools, you can express your numerical values in various ways: as dollars (with dollar signs, comma separators, and two decimal places), percentages, more or fewer decimal places, and so on

Cells Group

The Cells group of tools is where you can insert or delete a column or row in your existing dataset – just click the down-arrow beneath the command to access the options

Editing Group

The Editing tool group contains a disparate set of options. **AutoSum** allows you to quickly insert a pre-set formula to add up a column of numbers, get an average, and so on. **Sort & Filter** allows you to sift the data in your table in various ways that make it easier to analyze. **Find & Select** permits you to locate all instances of a piece of data within you dataset and replace that with another
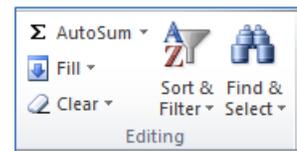
- To use **AutoSum:**
    - o Select the cell where you want the total of a column (or row) of numbers to appear
    - o Click on the AutoSum tool and ensure that the flickering line encompasses all the numbers you want to be included in your total
    - o Press **Enter** or **Return** and you'll have a total
- **Sort & Filter** must be used carefully. Make sure all the data in your table is selected before sorting in ascending or descending order. Otherwise, only part of your dataset will be sorted and your data will be ruined
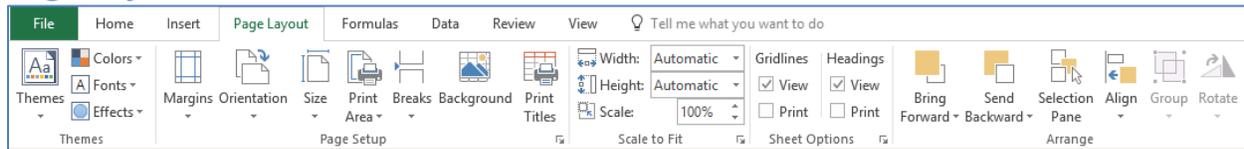- Use **Custom Sort** to specify exactly how you want your data arranged.
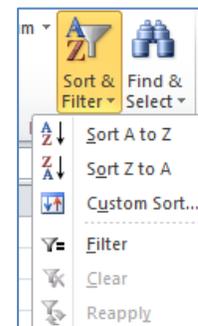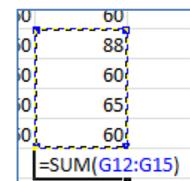
Insert Tab
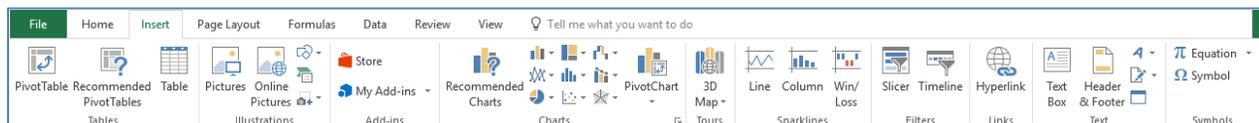
This is where you will find things to add to your spreadsheet – things like pictures, charts, text boxes, symbols and so on.

Page Layout

This is where you'll arrange your spreadsheet for final viewing. You can change the page orientation (portrait to landscape), set the print area, scale to fit, and otherwise adjust how your document will finally look.

Formulas

This is where you will find complex formulas – beyond the range of an introductory class.

Data

This is also quite complex. The **Sort** functions, however, are found here; they are quite easy to use, and very helpful in managing long lists of names and addresses (These are also accessible from the Home tab.)

Review

This is where you'll find tools for proofreading, and items to help you work collaboratively.

View
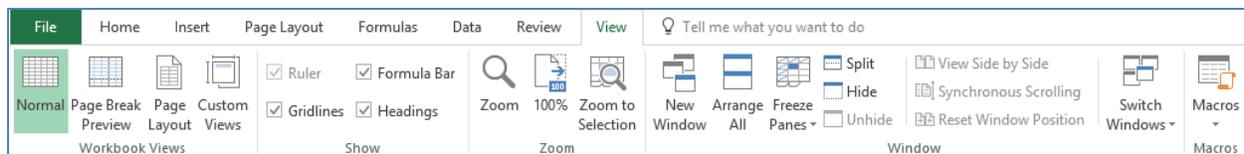
This tab deals with what your spreadsheet looks like on the screen. (By contrast, the Page Layout view allows you to see what the shape of your document will be like when you print it – a kind of print view.) **Freeze Panes** is also available in this tab; this tool allows you to keep the headers in place as you scroll off the bottom of the page with long data sets.

PART III: Create a Formula

To create your own formula in a spreadsheet, you must always begin by entering an **equals sign** into the formula bar (circled). The outcome will display in the cell into which the formula was entered. In the example shown, "=3-1" was typed into cell A1; the outcome (2) shows in the cell, and the formula (i.e., how that outcome was arrived at) shows in the formula bar.
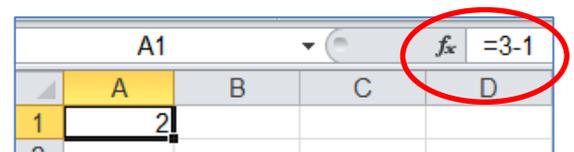
PART IV: **Learn More**

There are lots of resources to explore.

Library Resources

Google **North Vancouver City Library** or type **nvcl.ca** into the URL bar.

- Click on **Using the Library**, then on **Technology Training** (under Services), and **Computer Classes.** Scroll to **Intro to Excel** then click on **Class Resources**.
- Try a tutorial on Lynda.com, accessible for free on the library website: www.nvcl.ca/databases > Lynda.com
- Read more on **Safari Books Online**: **www.nvcl.ca > Research & Learn (tab, centre top) > Databases A-Z > Safari Books Online**. Type "Excel 2016" into the search bar to find a book
- Look for books on the third floor at Row 26, Dewey 005.54
- Set an appointment with a staff member by completing an online request form, calling 604 982 3941, or emailing techconnect@cnv.org

Other Resources

- There are free online tutorials at http://www.gcflearnfree.org/excel2016/
- Visit Microsoft online for more information https://support.office.com/en-us/excel