Being a Leader: MS Excel Session 3

Sorting Data

1. **Sort** by clicking on the **'sheet2'** tab, then click on any cell in column A (last name) and click on the '**Sort & Filter**' button on the ribbon. Then click '**Sort A-Z**'. This is a "simple sort" (one column only).

2. Sort by clicking on any cell in column F (ZIP code) and click on the '**Sort & Filter**' tool on the ribbon. Then click '**Sort Z-A**' ('Largest to Smallest'). This sorts all the rows by the ZIP code column in descending numerical order.

3. Do a 'custom sort' (more than one column) by clicking on any cell in column A and click on the '**Sort & Filter**' button on the ribbon. Then click '**Custom Sort**'. This option first sorts all the rows by the sort-by column, then you can 'Add Levels' for secondary sorts. Try sorting by City, then by ZIP code.

* Important: Now click back to the **'Cell Phone Minutes' sheet tab**

Preparing for Formulas:

1. A quick refresher lesson on the **Order of Operations** in relation to basic math principles:

    1. Parentheses

    2. Exponents

    3. Multiplication & Division (left to right)

    4. Addition & Subtraction (left to right)

2. Operators: **+** is addition   **-** is subtraction   ***** is multiply   **/** is division

3. A video on the 'Order of Operations' in Excel:
   https://www.youtube.com/watch?feature=player_embedded&v=J7Odynlr-Og

Entering Formulas:

1. Enter a **formula** by clicking in cell E4, then type "**=B4+C4+D4**" and hit enter. ALL formulas must start with the equal sign.

2. The formula recalculates automatically by changing the number in cell D4 from 440 to 430.

3. Create a formula that multiplies the 8 cents per minute by the number of minutes used. Click on cell B20 and type "**=B4*G2**". The $ in front of the G and the 2 is called **absolute referencing** which tells Excel to 'Freeze' that cell reference when the formula is copied.

4. A video on Relative/Absolute referencing:
   https://www.youtube.com/watch?feature=player_embedded&v=U6KdFSNaDVE

Using AutoFill:

1. Highlight the group of cells E4 through E16, then click the **Fill** tool on the ribbon, then click the **Down** option.

2. By clicking on any of the cells from E5 through E16, you can see that the Auto Fill tool uses **Relative addressing** where the cell references 'move' or change with the copying (filling) of the formulas down the column.

3. As a shortcut, you can fill down a column by clicking on the bottom right hand corner (**Fill Handle**) of the original cell (E4), and click and hold the mouse button as you drag the selection down to cell E16.

Using AutoSum:

1. Highlight cell B16, then click the **AutoSum** function tool "**Σ**".

2. Enter the AutoSum function by typing it in. Click on cell C16, then type "=SUM(C4:C15)".

3. Copy and paste the formula in cell C16 to cell D16 using the Copy and Paste Tools on the Home Ribbon.

4. The Average function works similar to the AutoSum function using the ribbon.

More Copy and Paste:

1. Highlight cell B20 and click the **Copy** tool on the Home ribbon. Then highlight cells B20 through E32 and click the **Paste** (Clipboard) tool on the Home ribbon.

    When you complete the copy-paste it should look like this…

	John	Mary	Kate	Totals
20 Jan	$ 17.60	$ 12.00	$ 34.40	$ 64.00
21 Feb	$ 22.40	$ 14.00	$ 33.60	$ 70.00
22 Mar	$ 20.00	$ 12.80	$ 28.80	$ 61.60
23 Apr	$ 24.00	$ 11.60	$ 23.20	$ 58.80
24 May	$ 25.60	$ 6.40	$ 17.60	$ 49.60
25 Jun	$ 30.40	$ 4.40	$ 14.00	$ 48.80
26 Jul	$ 36.00	$ 2.00	$ 12.40	$ 50.40
27 Aug	$ 35.20	$ 3.20	$ 15.60	$ 54.00
28 Sep	$ 27.20	$ 13.20	$ 27.20	$ 67.60
29 Oct	$ 23.20	$ 11.60	$ 31.20	$ 66.00
30 Nov	$ 17.60	$ 12.80	$ 30.40	$ 60.80
31 Dec	$ 16.80	$ 6.40	$ 18.40	$ 41.60
32 Totals	$ 296.00	$ 110.40	$ 286.80	$ 693.20

Save Your Workbook:

1. Click on **Save** on the **Quick Access Toolbar**. Save just replaces the old version in the same location with the same name. **Save As** allows you to change the name or location of the file.

NOW RETURN TO SAKAI TO WATCH SESSION 4 OF THE EXCEL LESSON