Office 2016– **Excel Basics 01**
Video/Class Project #13
Excel Basics 1: Introduction to Excel 1: Excel Grid, Formatting, Formulas, Cell References, Page Setup

Topics Covered in Video:
1) Excel file = "Workbook", not "Document"
2) Columns (Represented by Letters)
3) Rows (Represented by Numbers)
4) Cells = Intersection of Column and Row = Name or Address like B5 or A1
5) Worksheet = Sheet = All the Cells
6) Sheet Tab = Name of worksheet
    i. Double-click Sheet Tab to highlight sheet name, then type sheet name, then hit Enter
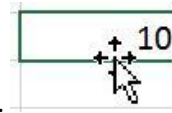   ii. You can add new sheets with Plus button to the right of the sheets:
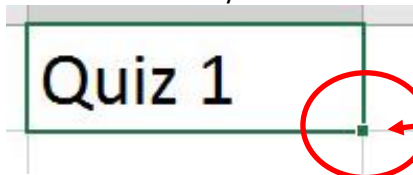7) Workbook = All the sheets = File = File Name

8) Selection Cursor is the "thick white cross with a slight black shadow" cursor.
9) Move Cursor

    i. White diagonal arrow with four-way pointing black arrow underneath.
    ii. Click and drag to move things (like cells) in Excel
10) Fill Handle = after you select a cell the little black square in the lower right corner.

11) Cross Hair or "Angry Rabbit" Cursor
    i. This black cross cursor that allows you to click on the Fill Handle and drag the cell to copy numbers, text or formulas.
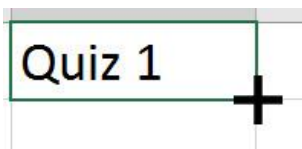
        1. If you have text and numbers, the numbers will increment, like: Quiz 01, Quiz 02…
        2. If you have words like Monday or January, it will increment those also
        3. If you have formulas, it will copy the formulas
        4. If you have a number, it will copy it
        5. If you want to increment numbers (like 1, 2, 3):
            i. Type 1 and 2 in two cells, highlight both cells, then use Angry Rabbit
            ii. Type number and instead of clicking and dragging Angry Rabbit with only Mouse, hold Ctrl and use Mouse
            iii. Type number and then highlight the cell with the number and an empty cell next to the number and then use Angry Rabbit to click and drag
    ii. Double Click Fill Handle with Angry Rabbit and the formula is automatically copied down (if there is stuff in column to left or right or below)

12) Entering data or formulas:
    i.   Tab puts data in cell and moves selected cell to right
    ii.   Ctrl + Enter puts data in cell and keeps cell selected
    iii.   Enter puts data in cell and moves selected cell down

13) Default Alignment In Excel:
    i.   Text aligned Left
    ii.   Numbers aligned Right
          1.   If you see Numbers aligned to the left: it indicates potential trouble.

14) Entering data into a large range of cells
    i.   Highlight Cell Range first, then use Enter: At bottom of column, cursor jumps to top of next column

15) Select whole table:
    i.   Click in one cell in table:
   1.   Ctrl + * (Number pad)
          2.   Ctrl + Shift + 8

16) Stylistic Formatting examples:
   i.   Borders
    ii.   Fill
    iii.   Font Color

17) Formulas
    i.   "Equal sign as the first character in a cell" start all formulas. Then you type an equal sign as the first character in a cell, you are telling Excel that you want a formula in the cell.
    ii.   "Cell" is a single cell in a Sheet like cell B2
    iii.   When we want a number of cells in a formula, we often use a "Range of Cells", like B2:G2. "Range of Cells" can also be referred to as a "Range".
    iv.   When we have a Cell or a Range is a formula, we say "Cell References" because we are referring to the cell sin our formula.
    v.   Cell References in formulas allow the numbers (or other cell content) to be use by a formula. Then if you change the number in the cell, the formula will update

vi. Built-in functions like SUM or AVERAGE can make calculations for us
   1. SUM functions keyboard is Alt + =
   2. We can type formulas into cells by typing an equal sign as first character in cell.
   3. When we type the first few letters of a function name, a drop-down list will let us select a function. Like in this picture:
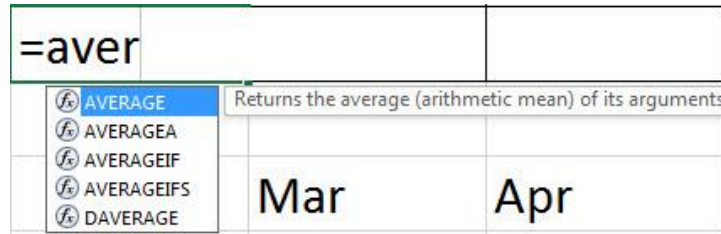
   4. When we select a function we can read the screen tip that tells us what the function does. Like in this picture:
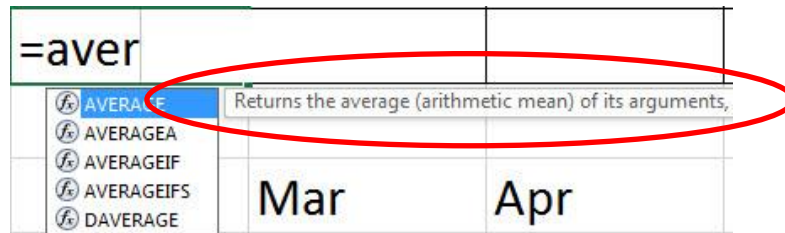
   5. When we see a function that we want from our drop-down list, we use the Tab key to insert the function, like in this picture:
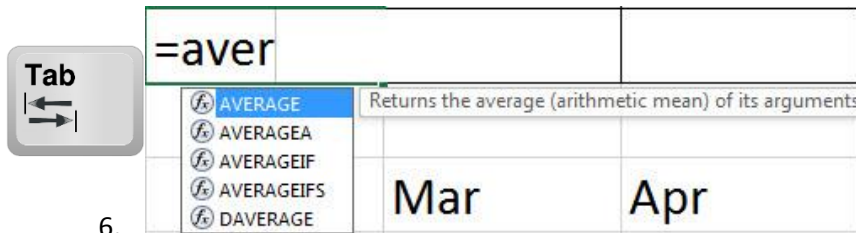
   6.

vii. You can insert Cells or Ranges of Cells into your formula using your Selection Cursor. Like in this picture:

viii. When you use your Selection Cursor to select cells and insert then into the formula, we call that range of cells "Dancing Ants" because the outer edge looks like Dancing Ants. As long as the Dancing Ants are still dancing, and you do not let go of the click on the Mouse, you can keep dragging and moving in any direction. When you let go of the click, the Range is inserted into the formula.

ix.   Formula Bar looks like this:

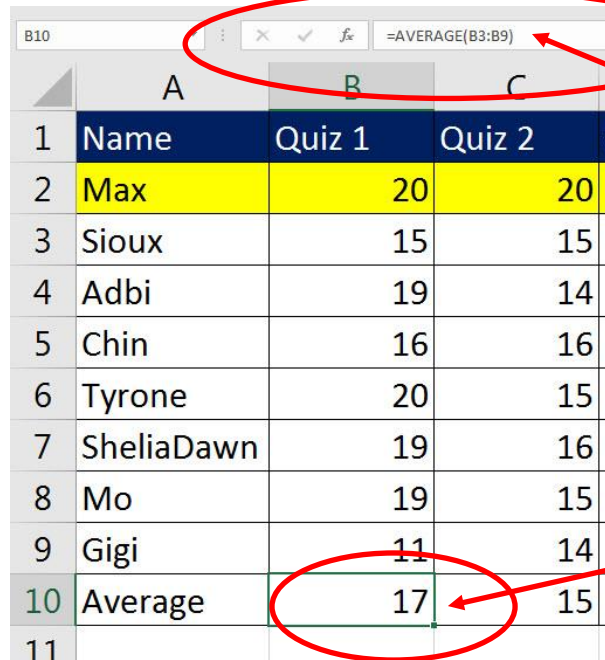| B10 | ▼ | ⋮ | ✕ | ✓ | *fx* | =AVERAGE(B3:B9) |

x.   Formula Inputs
        1.   The numbers in the cells are called formula inputs because if you change them, the formula result will change.

xi.   Cell Shows Formula Result and Formula Bar shows Formula
        1.   Like this:

B10	⋮	✕	✓	*fx*	=AVERAGE(B3:B9)

	A	B	C
1	Name	Quiz 1	Quiz 2
2	Max	20	20
3	Sioux	15	15
4	Adbi	19	14
5	Chin	16	16
6	Tyrone	20	15
7	SheliaDawn	19	16
8	Mo	19	15
9	Gigi	11	14
10	Average	17	15
11			

When Cell B10 is selected, the Formula Bar shows the actual Formula

Cell B10 shows formula result. The formula result for the average calculations is 17.

xii.   Put Formula In Edit Mode keyboard = F2

xiii.   If we make a mistake with our formula and we want to revert back to whatever was in the cell before we put the cell in Edit Mode, we use the Esc Key

xiv.   Math operator for division = /

xv.   Relative Cell Reference:
        1.   Cell references that will move throughout the copy action.
        2.   "Relative" means that from the formulas point of view, where is the formula going to look? For example, the Relative Cell Reference Range in this formula: =AVERAGE(B3:B9) will always look at the cells "7 cells above the cell that houses the formula".

xvi.   Absolute Cell References are Cell References that "Do Not Move" as you copy a formula.
        1.   Cell references that is always locked throughout the copy action.
        2.   "Absolute" means that as you copy the formula, the Cell Reference will is "locked" and will always look at the original cell as the formula is copied. For example, in this formula: =H3/H2, no matter where you copy the formula, the formula will always look at Cell H2.
        3.   When your cursor is touching a cell reference, if you hit the F4 key, the F4 key will put one dollar sign in from of the letter (column reference) and one dollar sign in front of the number (row reference).
        4.   The dollar signs lock the column and row references so that they cannot move during the copy action.

xvii.   Arrow Keys to put Cell References into Formulas can be faster than the Mouse if the cells are close to the formula.

xviii.   The Beauty of Excel: When formula inputs are changed, everything updates in the workbook!!

18) Number Formatting
    i.   Façade that sits on top of the numbers
    ii.   The number that is actually in the cell can be different than what you see in the cell
    iii.   Format Cells dialog box keyboard = Ctrl + 1
    iv.   Formulas do not see Number Formatting – they act on the underlying number.

19) Page Setup
    i.   Open Page Setup dialog box keyboard = Alt, P, S, P
    ii.   Page Setup dialog box
        1.   Page tab
            i.   Orientation
            ii.   Scaling
        2.   Margins tab
            i.   Horizontal
        3.   Header/Footer tab
            i.   Header 3 sections:
                1.   Preview
                2.   Built-in
                3.   Custom Header
            ii.   Footer 3 sections:
                1.   Preview
                2.   Built-in
                3.   Footer Header
        4.   Sheet tab
            i.   Set Print Area

20) Move Sheet:
    i.   Right-click, Move/Copy
    ii.   Mouse Click on the Sheet Tab and drag

21) Copy Sheet:
    i.   Right-click, Move/Copy
    ii.   Use Ctrl and Mouse Click on the Sheet Tab, then drag, to copy sheet
        1.   The + symbol means sheet is being copied

22)   New Keyboard Shortcut:

    i.   Entering data or formulas:
1. Tab puts data in cell and moves selected cell to right
2. Ctrl + Enter puts data in cell and keeps cell selected
3. Enter puts data in cell and moves selected cell down

    ii.   Select whole table:
1. Click in one cell in table:
    i.   Ctrl + * (Number pad)
    ii.   Ctrl + Shift + 8

    iii.   SUM Function keyboard is" Alt + =

    iv.   Put Formula In Edit Mode keyboard = F2

    v.   If we make a mistake with our formula and we want to revert back to whatever was in the cell before we put the cell in Edit Mode, we use the Esc Key

    vi.   When we see a function that we want from our drop-down list, we use the Tab key to insert the function

    vii.   If formula in Edit Mode and Cursor is touching Cell Reference, then to put dollar signs in Cell Reference keyboard = F4

    viii.   Open Page Setup dialog box keyboard = Alt, P, S, P