CTRL + Left Click on the Tip you wish to view

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Microsoft Excel

Functions
CONCATENATE function

The Concatenate function is useful for combining the contents in two or more cells into one cell.

1. In the cell you want the combined information to appear, enter the addresses of the cells whose content you want to appear.
    *   Separate each cell address with a comma.
    *   If a space is needed between the text from the different cells, separate the cell addresses with a space in quotation marks.
        o " "
    *   You will need to input the cell addresses in the order you want them to appear.
        o Example: "=CONCATENATE(A3, " ", B3)" will cause the contents of A3 to appear before the contents of B3, with a space in between.

IF function

The IF function is useful for coding.

1. In the cell you want the text to appear, enter the following function:
    *   =IF(Cell number=X, "value if true", "value if not true")

IF ERROR

IF ERROR will replace the normal error function in a cell with a specified number or text.

1. At the beginning of the function, type "=IFERROR(value/function, value/"text if error")"
    *   Note: "text if error" must be in quotations

COUNT IF

The COUNTIF function counts the cells that have a specified value within a list.

1. In the cell, type "=COUNTIF(range of cells you want it to count, criteria of count)"

INDEX and MATCH functions together

The index function in excel work like a book index and will return the value from a group of cells. The match function returns the position of a value within a group of cells. When paired together, you can move data from a larger list of data to a smaller one with matching parts (ex. ID number).

1. Sort both the sheet you will pulling data from and the sheet you will be moving the data to in the same way (ex. alphabetically).
2. In a cell on the list you don't have the data for, type
    *   "=INDEX("
3. Go to the sheet you want to pull the data from and select the range of cells you want the data pulled from.

4. Absolute value the range placement in the formula bar.
   - "INDEX('sheet of name with data'!$A$1:$A$10,"
5. Add a comma to the function before switching sheets to lock this selection
   - ="INDEX('sheet name with data'!RANGE,"
6. Type "MATCH(," and select the (single) cell you want to match on the sheet that you are moving the data to, and end with a comma.
   - ="INDEX('sheet name with data'!RANGE, MATCH('sheet name without data'!CELLwithID,"
7. Move to the sheet that you are pulling the data from, and select the range of cells that could be matched to the single cell on the other sheet.
   - ="INDEX('sheet name with data'!RANGE, MATCH('sheet name without data'!CELLwithID,'sheet name with data'!RANGE"
8. Absolute value this range.
   - ="INDEX('sheet name with data'!RANGE, MATCH('sheet name without data'!B1,'sheet name with data'!$B$1:$B$10"
9. Add a comma and a "0" to include only exact matches, and close with two parenthesis.
   - ="INDEX('sheet name with data'!RANGE, MATCH('sheet name without data'!B1,'sheet name with data'!$B$1:$B$10,0))"
10. You can now pull this formula down on the sheet, and only the ID number that is being paired (non-absolute cell) will change.

EXAMPLE:

=INDEX('Fall Term 2010-2014 Cohorts'!$D$2:$D$2052, MATCH('BIO working'!A2,'Fall Term 2010-2014 Cohorts'!$A$2:$A$2052,0))

PROPER function

Proper function corrects capitalization in a text string in a cell; the first letter of each word in the cell will be capitalized. The Proper function can be used by typing one of the following options into a cell.

1. Type the function name. Within parentheses, insert the name of the cell holding the text you want to alter
   - "=PROPER(A3)"

2. Type the function name. Within parentheses and quotation marks, type the words you need in a cell. Typing the following will result in "Greg Swanson" appearing in the cell.
   - "=PROPER("greg swanson")"

Copying a function to an entire row

1. Type the function in the first cell of the row.
2. Scroll over the cell.
3. Double click the square at the bottom right hand side of the cell.

Calculate an age

1. To calculate an age or the number of years between two dates, use the following functions:
   =INT(YEARFRAC(DATE(2015,8,26),K12,1))

2. In the above example,
   - INT will round the age to an integer correctly
   - YEARFRAC(date1, date2, 1) -- date 1 is the first day of classes in my example; however, it can be a date in the worksheet itself – in that case, you should enter the cell location.
     - The 1 at the end simply tells it to use the actual dates which takes into account the leap years.

Change a cell reference to the value of the cell within a function

1. Double click the cell containing the function
2. Highlight the cell reference(s) you want to change
3. Press F9
4. Instead of the cell reference (ex. D9), the function will now show the number contained in D9.

Insert Same Data into Multiple Cells

1. CTRL + Click to select cells that will hold the same data
2. Type data in last cell
3. CTRL + Enter to enter into all cells selected

Jump to Border Cell of Data Set

1. CTRL + any arrow key to jump to last entry in that direction

Select All Data in Set

1. Click on any cell in the set
2. Hit CTRL + Shift + arrow key to select data in entire column or row
   - CTRL + Shift + * selects all data in the set

Watermark in Excel

Making a Watermark

1. To make a watermark you must first open a word document
2. Within the word document select WordArt from the Insert Tab in the Ribbon
3. Type whatever you desire the watermark to say into the WordArt box, and then format the word accordingly
4. Next hit Fn and the Print Screen (End) button to take a screenshot of the screen
5. Open any drawing program (I used paint) and paste the screenshot
6. Then save the image as a PNG file

Inserting the Watermark into Excel

1. Open up the Excel document that you wish to add the Watermark to
2. Click the Insert Tab and in the Text group click Header & Footer
3. This should switch you to Page Layout View, with your cursor in the center box of the header
4. Click the Design tab and then select Picture
5. A dialogue box will appear, and click Browse under the From File option

6. Locate the PNG file you made earlier and select it
7. Click out of the header and your watermark will be displayed
    - If you would like to change the position of the watermark relative to the page then hit enter before the ampersand (you may have to experiment with how many times to hit enter based on the image inserted, for the image I create hitting it twelve times centered the image)

Note: the creation of the watermark can be tricky. You might have to reformat it a couple times to make it appropriate for what you want. However, once you have one image it should work for all documents that you insert it into.