Highline Excel 2016 Class 07 Excel 2016 MAXIFS, MINIFS & IFS Functions for Conditional Calculations

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MAXIES and MINIES Functions

- 1) MAXIFS and MINIFS functions (similar structure to SUMIFS and COUNTIFS):
 - MAXIFS and MINIFS are only available in Excel 2016 Office 365 or later. If you are working in the year 2016, you must have the version of Office 365 that allows the latest updates.
 - 1. Find Max or Min values with 1 or more conditions/criteria
 - 2. Does an AND Logical Test (uses AND Criteria) where all criteria must evaluate to TRUE.
 - 3. min_range or max_range argument will contain the range (cells, Defined Names, or Table References) with the numbers.
 - 4. criteria_range argument will contain the range (cells, Defined Names, or Table References) with all the criteria.
 - criteria argument contains the condition or criteria that tells the function what to add.
 - ii. Conditions and criteria can be:
 - 1. Text (like "West")
 - 2. Numbers: numbers, Dates, Times
 - 3. Logical values (TRUE or FALSE)
 - 4. Numbers (or Text) with comparative operators:
 - i. Example: >=1000 can be used as criteria
 - 1. You can type >=1000 in a cell and refer to it in formula with cell reference. or
 - 2. You can type 1000 in cell and join the comparative operator to the cell reference that points to the number like: ">="&F30, where:
 - i. Number is in cell F30 (for this example)
 - ii. Comparative operator must be in double quotes
 - iii. You can enter up to 126 range/criteria pairs.

	1	Α	В	C	D	E	F	G	Н	I	J	K
	1	Date	Product	Sales Rep	Customer	Sales		Excel 2016 for Offi	ce 365 or	ater:		
	2	10/8/2016	Aspen	Sioux	PCC	\$543.30			MINIFS			
	3	9/1/2017	Sunshine	Sheliadaw	Kilo Docket	\$398.00			MIN			
	4	12/4/2016	Aspen	Joe	PCC	\$378.05		Product/SalesRep	Sioux	Jo	Chuck	
	5	7/2/2016	Quad	Chuck	McClendon's	\$539.57		Bellen	273.03	239.5	295.78	H5: =MINIFS(\$E\$2:\$E\$397,\$B\$2:\$B\$397,\$G5,\$C\$2:\$C\$397,H\$4)
	6	11/9/2017	Aspen	Gigi	Kip's	\$378.05		Carlota	355.54	274.45	274.45	
	7	4/6/2017	Beaut	Chuck	Lyndon's	\$475.00		Quad	498.07	1599.05	262.14	
	8	1/23/2017	Carlota	Sioux	WFMI	\$924.40		Sunshine	416.96	265.34	246.38	
	9	3/16/2017	Beaut	Sioux	Juniper's	\$807.50		Aspen	234.03	252.04	37.9	
	10	12/4/2017	Bellen	Tyrone	DownUnder	\$263.45		Beaut	332.5	150	275	
	11	9/27/2016	Carlota	Sioux	Lindons	\$1,212.57						
	12	8/2/2016	Carlota	Tyrone	McClendon's	\$1,482.03		Excel 2016 for Offi	ce 365 or	ater:		
	13	3/15/2017	Carlota	Chuck	Lyndon's	\$274.45			MAXIFS			
	14	12/28/2016	Beaut	Sue	A's	\$451.25			MAX			
	15	10/1/2016	Aspen	Chin	Chippy's	\$684.10		Product/SalesRep	Sioux	Jo	Chuck	
	16	2/5/2016	Bellen	Sioux	A's	\$1,163.97		Bellen	1185.53	701.26	1293.3	H16: =MAXIFS(\$E\$2:\$E\$397,\$B\$2:\$B\$397,\$G16,\$C\$2:\$C\$397,H\$15)
	17	2/15/2016	Sunshine	Chin	Donna's	\$360.10		Carlota	1212.57	1616.76	1217.56	
	18	12/12/2016	Beaut	Sheliadaw	Chippy's	\$356.25		Quad	2123.33	2505.18	2132.07	
	19	2/7/2017	Bellen	Tyrone	WFMI	\$455.05		Sunshine	957.6	1083.09	961.39	
	20	6/22/2017			Chippy's	\$273.03		Aspen	1227.96	3.30.5	1227.96	
	21	3/28/2017		Sheliadaw		\$1,098.00		Beaut	1200	855	1485	
mple:	22	8/15/2017	Bellen	Gigi	A's	\$455.05						

IFS Functions

- 1) IFS only available in Excel 2016 Office 365 or later. If you are working in the year 2016, you must have the version of Office 365 that allows the latest updates.
- 2) Use IFS functions when you want to select from more than two items and put a particular item into a cell based on logical tests.
- 3) IFS allows you to list multiple logical tests and multiple results without nesting multiple IF functions
- 4) IFS argumnets:
 - Logical_test1, logical_test2 and so on
 - Value_if_true1, value_if_true2 and so on.
 - No value_if_false!!!!! (Must use "Last Argument TRUE Trick")
- 5) Example with nesting multiple IF functions:

10	Incor	ent		
11	for Month	31, 2016		
12	Revenue	\$	50,000	
13	Expenses	\$	45,000	
14	=IF(B12>B13,"	Profit",IF(B	13>B12,"Loss",	"Break Even"))
15		IF(logi	cal_test, [value_if_true], [value_if_true]	alue_if_false])

6) Example of IFS function:

12	Revenue	\$	50,000		
13	Expenses	\$	45,000	1	
14	Profit	\$	5,000		
15					
16	=IFS(B12>B13,"Pro	ofit",B	13>B12,"Loss"	', <mark>B13=B12</mark> ,	"Break Even
17	IFS(logical_test1, value_if_true	1, [logical_t	test2, value_if_true2], [loc	gical_test3, value_if	f_true3], [logical_test

Cumulative List of Keyboards Throughout Class:

- 1) Esc Key:
 - i. Closes Backstage View (like Print Preview).
 - ii. Closes most dialog boxes.
 - iii. If you are in Edit mode in a Cell, Esc will revert back to what you had in the cell before you put the Cell in Edit mode.
- 2) F2 Key = Puts formula in Edit Mode and shows the rainbow colored Range Finder.
- 3) SUM Function: Alt + =
- 4) **Ctrl + Shift + Arrow** = Highlight column (Current Region).
- 5) Ctrl + Backspace = Jumps back to Active Cell
- 6) Ctrl + Z = Undo.
- 7) Ctrl + Y = Undo the Undo.
- 8) **Ctrl + C** = Copy.
- 9) **Ctrl + X** = Cut.
- 10) Ctrl + V = Paste.
- 11) Ctrl + PageDown = expose next sheet to right.
- 12) Ctrl + PageUp = expose next sheet to left.
- 13) Ctrl + 1 = Format Cells dialog box, or in a chart it opens Format Chart Element Task Pane.
- 14) **Ctrl + Arrow**: jumps to the bottom of the "**Current Region**", which means it jumps to the last cell that has data, right before the first empty cell.
- 15) Ctrl + Home = Go to Cell A1.
- 16) **Ctrl + End** = Go to last cell used.
- 17) Alt keyboards are keys that you hit in succession. Alt keyboards are keyboards you can teach yourself by hitting the Alt key and looking at the screen tips.
 - i. Create PivotTable dialog box: Alt, N, V
 - ii. Page Setup dialog box: Alt, P, S, P
 - iii. Keyboard to open Sort dialog box: Alt, D, S
- 18) ENTER = When you are in Edit Mode in a Cell, it will put thing in cell and move selected cell DOWN.
- 19) CTRL + ENTER = When you are in Edit Mode in a Cell, it will put thing in cell and keep cell selected.
- 20) TAB = When you are in Edit Mode in a Cell, it will put thing in cell and move selected cell RIGHT.
- 21) SHIFT + ENTER = When you are in Edit Mode in a Cell, it will put thing in cell and move selected cell UP.
- 22) SHIFT + TAB = When you are in Edit Mode in a Cell, it will put thing in cell and move selected cell LEFT.
- 23) Ctrl + T = Create Excel Table (with dynamic ranges) from a Proper Data Set.
 - i. Keyboard to name Excel Table: Alt, J, T, A
 - ii. **Tab** = Enter Raw Data into an Excel Table.
- 24) Ctrl + Shift + ~ (`) = General Number Formatting Keyboard.
- 25) **Ctrl + ;** = Keyboard for hardcoding today's date.
- 26) **Ctrl + Shift + ;** = Keyboard for hardcoding current time.
- 27) Arrow Key = If you are making a formula, Arrow key will "hunt" for Cell Reference.
- 28) Ctrl + B = Bold the Font
- 29) Ctrl + * (on Number Pad) or Ctrl + Shift + 8 = Highlight Current Table.
- 30) Alt + Enter = Add Manual Line Break (Word Wrap)
- 31) Ctrl + P = Print dialog Backstage View and Print Preview
- 32) **F4 Key** = If you are in Edit mode while making a formula AND your cursor is touching a particular Cell Reference, F4 key will toggle through the different Cell References:
 - i. **A1** = Relative
 - ii. \$A\$1 = Absolute or "Locked"

- iii. **A\$1** = Mixed with Row Locked (Relative as you copy across the columns AND Locked as you copy down the rows)
- iv. **\$A1** = Mixed with Column Locked (Relative as you copy down the rows AND Locked as you across the columns)
- 33) Ctrl + Shift + 4 = Apply Currency Number Formatting
- 34) **Tab key** = When you are selecting a Function from the Function Drop-down list, you can select the function that is highlighted in blue by using the Tab key.
- 35) **F9 Key** = To evaluate just a single part of formula while you are in edit mode, highlight part of formula and hit the F9 key.
 - i. If you are creating an Array Constant in your formula: Hit F9.
 - ii. If you are evaluating the formula element just to see what that part of the formula looks like, REMEMBER: to Undo with Ctrl + Z.
- 36) Alt, E, A, A = Clear All (Content and Formatting)
- 37) Evaluate Formula One Step at a Time Keyboard: Alt, M, V
- 38) Keyboard to open Sort dialog box: Alt, D, S
- 39) Ctrl + Shift + L = Filter (or Alt, D, F, F) = Toggle key for Filter Drop-down Arrows
- 40) Ctrl + N = Open New File
- 41) **F12** = Save As (Change File Name, Location, File Type)
- 42) Import Excel Table into Power Query Editor: Alt, A, P, T
- 43) Ctrl + 1 (When Chart element in selected): Open Task Pane for Chart Element
- 44) **F4 Key** = If you are in Edit mode while making a formula AND your cursor is touching a particular Cell Reference, F4 key will toggle through the different Cell References:
 - i. **A1** = Relative
 - ii. \$A\$1 = Absolute or "Locked"
 - iii. **A\$1** = Mixed with Row Locked (Relative as you copy across the columns AND Locked as you copy down the rows)
 - iv. **\$A1** = Mixed with Column Locked (Relative as you copy down the rows AND Locked as you across the columns)
- 45) Keyboard to open Scenario Manager = Alt, T, E
- 46) Ctrl + Tab = Toggle between Excel Workbook File Windows
- 47) Ctrl + Shift + F3 = Create Names From Selection
- 48) Ctrl + F3 = open Name Manager
- 49) **F3** = Paste Name or List of Names
- 50) Alt + F4 = Close Active Window
- 51) Window Key + Up Arrow = Maximize Active Window
- 52) **Ctrl + Shift + Enter** = Keystroke to enter Array Formulas that: 1) have a function argument that requires it, or 2) whether or not you are entering the Resultant Array into multiple cells simultaneously.
- 53) **Ctrl + /** = Highlight current Array

New In This Video:

54) None