

THE ULTIMATE HANDBOOK TO BECOME AN EXCEL NINJA

By

CA. RISHABH PUGALIA

=SUMIFS()

Name	Gender	Age	Spend
Price, Susan	F	25	\$ 10,000
Swann, Trina	F	57	\$ 12,000
Hobbs, Patsy	M	21	\$ 8,000
McCook, Sherri E.	M	22	\$ 20,000

=INDEX()

=MATCH()

Go To Special

Select:

- ☐ Comments
- ☐ Constants
- ☒ Formulas
 - ☒ Numbers
 - ☒ Text
 - ☒ Logicals
 - ☒ Errors
- ☐ Blanks
- ☐ Current region
- ☐ Current array
- ☐ Objects
- ☐ Row differences
- ☐ Column differences
- ☐ Precedents
- ☐ Dependents
 - ☐ Direct only
 - ☐ All levels
- ☐ Last cell
- ☒ Visible cells only
- ☐ Conditional formats
- ☐ Data validation
 - ☐ All
 - ☐ Same

ALT: [key]

OK Cancel

Note from the Author:

Hi there!

In the last 12 years, I have been an auditor, an interest rate futures trader, a debt capital markets analyst and an Excel & PowerPoint Trainer. I loved all the roles. However, the current one stands first among equals.

After having interacted with almost 10,000 professionals across the country as a Trainer, I gathered a solid sense of how they could significantly increase their productivity 3x – 10x with little effort. And the best outcome of the learning is that the improvement becomes permanent. I am fortunate that my workshops' attendees loved my way of explaining concepts and more importantly the way my case studies could relate to their work.

While some struggle with applying basic VLookups (one dimensional), I would help them learn 2-D, 3-D, reverse lookups. And that is what my latest online program is all about – expanding the possibilities and make it attainable through bite-sized manageable learning steps.

To make the online learning more effective, I have prepared a picture based eBook for everyone's reference. The content has been mapped to the video lectures for convenient reference and revision. My friends complain that I talk in bullet points (in other words express more in less words). Well, this book does exactly does that – less words, more pictures and illustrations. I do not want my programs' attendees to add another thick fat Excel handbook on their shelves for aesthetic display of their interest in Excel. I want this Ultimate HandBook on their desktops and in their hands (print version).

I hope you love this book as much I loved making it.

Regards,

CA Rishabh Pugalia,
Co-Founder, Yoda Learning Solutions

June 2015

Edition: Version 1.0

Advanced Excel Ninja – by CA Rishabh Pugalia

#0101 – 0109: Super Essential Keyboard Shortcuts.....	7
#0201: Used in Financial Modeling and Tax Computation.....	9
#0202: Used in pricing discovery processes.....	9
#0203 – 0204: For rounding numbers.....	9
#0205: For Counting.....	10
#0206 – 0207: For Weighted Average & Compounding/Discounting.....	10
#0301 – 0302: Formatting Tricks incl. Special Custom Formats [Shortcut: Ctrl 1].....	11
#0303 – #0304: Using CELL STYLES for automating formatting for MIS Reporting & Financial Models.....	12
#0305 – #0307: Cell drag–n–drop Auto Fill Options	13
#0308: Paste Special – Transpose vs. TRANSPOSE().....	14
#0401 – 0402: Absolute & Relative referencing using \$ (Locking the cell/range)	14
#0501 – 0506: Go To – Special (Ctrl + G or F5).....	15
#0601: Vertical Sort - 1-level & 2-level.....	16
#0602: Custom Sorting	17
#0603: Sort Trick - add alternate blank rows in-between existing rows.....	18
#0604: Horizontal Sorting (Left to Right).....	19
#0605 – 0606: Filter - Choosing the dataset correctly	20
#0607: Filter analysis w. shortcuts	21
#0608 - 0609: Using =SUBTOTAL() for calculations w. Filtered list.	21
#0610: Filter - Applying 2 or more Filters simultaneously on the same sheet.....	22
#0611: Filter - Color Filter & Text Filter.....	23
#0612 - 0614: Advanced Filter.....	24
#0701 - 0702: Every valid date (i.e. date that can be understood by Excel) is a number.....	25
#0703: Extracting date information through formulas - DAY(), MONTH(), YEAR(), DATE()	26
#0704: Extracting date information	27
#0705: Date Formulas - WEEKDAY(), WORKDAY(), NETWORKDAYS().....	27
#0706: WORKDAY.INTL() for deadline/due date calculations w. custom weekends/holidays.....	28
#0706: NETWORKDAYS.INTL() for no. of business days calculations w. custom weekends/holidays	28
#0708: Date Formulas - TODAY() and NOW() w. Shortcut	29
#0709: Date Formulas - EOMONTH() for Financial Modeling, Budgets, Due Dates.....	29

#0710 Date Formulas - EDATE() for Financial Modeling, Budgets, Due Dates	29
#0801 – 0802: Data Validation - Drop Down List & Range naming	30
#0803: Data Validation - Numbers w. Error Alert and Input Message	32
#0804: Data Validation - Dates w. Error Alert and Circle Invalid Data	33
#0805: Data Validation – Whole number, Text Length, Date (MM/DD/YYYY)	34
#0806: Data Validation - Custom w. formula logic	34
#0901-0902: Grouping/UnGrouping Columns and Rows	35
#0903: Grouping Trick: Changing placement of Grouping Button	35
#0904: Cell Gridlines: Turning On/Off	36
#0905: Hide/Unhide Rows and Columns	36
#0906: Freeze Panes (incl. both row & column simultaneously)	37
#1001 – 1003: Pivot Tables – Pre requisites, How to Create	38
#1004: Pivot Tables – Exploring Pivot Table grid (Fields)	40
#1005: Pivot Tables – Value Field Settings for Sum, Average	41
#1006-1007: Pivot Tables – Value Field Settings for % calculations	42
#1008 – 1009: Pivot Tables – Grouping Dates & Numbers (automatic)	43
#1010: Pivot Tables – Grouping Text (manual)	44
#1011: Pivot Table - Refresh vs. Refresh All, Change Data Source	45
#1012: Pivot Table - Auto Refresh	45
#1013: Pivot Table - Pivot Chart Shortcut (F11) and Sparklines	46
#1014: Pivot Table - Drill Down option	46
#1015: Pivot Table - Report Filter - Generating 100s of reports in few seconds	47
#1016: Pivot Table - Slicer vs. Report Filter	48
#1017-1019: Pivot Table – Practice Exercises	48
Overview of Lookup formulas	49
#1101: VLOOKUP() for Starters	50
#1102 VLOOKUP w. TRUE vs. FALSE & applications of TRUE	51
#1104: HLOOKUP() vs. VLOOKUP()	51
#1105 – 1106: MATCH() – Basics & match_type: -1 vs. 0 vs. 1	52
#1107 – 1111: 2-D Lookup (Vertical + Horizontal) - VLOOKUP w. MATCH	53
#1112: 2-D Lookup (Horizontal + Vertical) - HLOOKUP w. MATCH	54
#1113 – 1114: INDIRECT() – Basics along with Range Naming – Applications [“RE-DIRECTION”]	55
#1115 – 1116: 3-D Lookup - VLOOKUP() w. MATCH() w. INDIRECT()	56
#1117 – 1119: 3 Reverse Lookup - INDEX() w. MATCH()	57

#1120 – 1121: SUMIFS(): Conditional Summation	58
#1122: SUMIFS(): Conditional Summation (3 criteria) w. date range	58
#1123: SUMIFS(): Condition based Selective Cumulative Running Total	58
#1124: COUNTIFS() - Single/Multiple Criteria: Duplicate Count, Instance No.	59
#1201 – 1206: Text Formulas – UPPER(), PROPER() & LOWER(); TRIM(), VALUE(), T(), N(), REPT()	60
#1207: Joining data strings using CONCATENATE, &	61
#1208 – 1209: Find & Replace – Basics	62
#1208 – 1209: Find & Replace – Using Wildcard characters (* ?)	63
#1208 – 1209: Find & Replace – Using Wildcard characters (* ?)	64
#1210: Find & Replace – Neutralising Wildcard characters to remove them from data	64
#1211: Find & Replace – Word vs. Excel	65
#1212: Find & Replace – Cell Format	66
#1213-1214: Text to Columns – Delimited vs. Fixed Width	67
#1214: Text to Columns – Tricks.....	68
#1215 – 1216: Text to Columns – Cleaning up numbers w. trailing minus sign; replacing Dr/Cr w. +/-.....	69
#1217 – 1218: Text to Columns – Correcting invalid Dates	70
#1219-1221: LEFT(), RIGHT(), MID()	71
#1219-1221: SEARCH() vs. FIND()	71
#1301: Logical formulas - generally used with IF().....	72
#1302-1304: Logical formulas – AND(), OR(), IF()	72
#1401-1403: Conditional Formatting	74
#1403: Conditional Formatting: Data Bars, Color Scales, Icon Sets	75
#1404: Conditional Formatting: Blanks, Errors, Values, Duplicates	75
#1405-1407: Conditional Formatting: Formula based	76
#1501: Activating Developer tab in v. 2007	78
#1501: Activating Developer tab in v. 2010-13	78
#1501-1502: Using Form Control Buttons from Developer Tab (Spin Bar, Scroll Bar) + Limitations	79
#1504: PMT.....	80
#1504: What IF Analysis – Goal Seek.....	81
#1505-1506: What IF Analysis – Data Tables (Sensitivity Analysis).....	82
#1507-1508: Data Tables (Sensitivity Analysis) - 2 Inputs & multiple Output	86
#1601-1604A: Category wise SubTotal with Groupings	88
#1605-1606: Consolidate - 2 & 3 Dimensions	89
#1701-1702: Cell level Security	91

#1703: Sheet level Security [Protect Workbook Structure]	92
#1703: Sheet level Security [Sheet Properties – “Very Hidden”].....	93
#1704: File level Security.....	94
#1801: Page Set Up	95
#1801, 1802, 1804: Print Tricks	95
#1805 - 1806: Print Tricks for Financial Analysts - Check underlying formulas	97
#1807: Print Entire Workbook.....	99
#1901: Comments - Shortcuts, Inserting Picture in Comment Box).....	100
#1902: Split Windows, Viewing multiple Windows - Simultaneously working with different workbooks, worksheets & scattered cell ranges simultaneously	101
#1903: Hyperlinking (Ctrl + K).....	102

#0101 – 0109: Super Essential Keyboard Shortcuts

Starters		
1	Alt	Press and release the ALT key to display the <i>Key Tips</i> next to each Ribbon command
2	Ctrl C ; Ctrl X ; Ctrl V	Copy ; Cut; Paste
3	Ctrl D	Copies the cell contents down
4	Ctrl R	Copies the cell contents to the right
5	Ctrl Enter	To fill all the selected cells with text/nos./formula
Workbook Navigation		
6	Ctrl PgDn	Moves to the next sheet
7	Ctrl PgUp	Moves to the previous sheet
Sheet Navigation & Cell(s) Selection		
8	Ctrl A	Selects the entire worksheet/data array depending on active cell selected
9	Ctrl Arrow key	Moves to the edge of a data block; if the cell is blank, moves to the first nonblank cell
10	Shift Arrow key	Expands the selection in the direction indicated (one cell at a time)
11	Ctrl Shift Arrow key	Select from the active cell to the end of a row/column
12	Ctrl Shift End key	Selects from the active cell to the last used cell
13	Ctrl BackSpace	Navigate to the beginning of selected data (keeping the selection intact)
14	Shift Spacebar	Selects the entire row(s) in the selected range
15	Ctrl Spacebar	Selects the entire column(s) in the selected range
Row/Column - Add or Delete		
16	Alt I C	Insert Column
17	Alt I R	Insert Row
18	Ctrl Shift +	Displays the Insert dialog box to insert new cells/rows/columns
19	Ctrl -	Displays the Delete dialog box to delete the selected cells/rows/columns
Formula Ninja		
20	F4	Repeats the last command or action, if possible
21	F4	Also, used for Cell referencing (\$); discussed later
22	F2	Begins editing the active cell

23	Ctrl `	Displays the formula in each cell instead of the resulting value [Hint: ` is back tick key above the TAB key]
24	Ctrl [and F5+Enter	Navigate to precedent cells and return back [*conditions apply]
25	ALT =	Auto sum
26	Ctrl A after formula open	Opens up "Function Arguments" box E.g. After writing =SUM(, press Ctrl A
27	Shift F3	Call out "Insert Function (fx)"/"Function Arguments" dialog box
28	Tab and Shift Tab	Moves down / up amongst a series of tabs/boxes
Format		
29	Ctrl 1	Activates "Format cells"
30	Ctrl ;	Inserts today's date
31	Ctrl Shift 3	Changes the date format to "22-May-2015"
32	Alt H K	Applies the Number format with two decimal places, thousands separator, and minus sign (-) for negative values
Misc		
33	Ctrl F2	Print Preview
34	Ctrl F1	Displays or hides the ribbon
35	Alt ;	Selects visible cell from the selection
Paste Special		
36	Alt, E, S, V ENTER	Paste Special - Value
37	Ctrl Alt V V Enter	
38	QAT	

#0201: Used in Financial Modeling and Tax Computation

<div>=MAX(</div> <div>MAX(number1, [number2], ...)</div>	<ul style="list-style-type: none"> Used in Tax Computations & Financial Models to prevent choosing of negative numbers for subsequent calculations. E.g. =MAX(0,A1) chooses 0 or value in cell A1, whichever is higher E.g. Penalty for late deposit = higher of 2% of dues or Rs.100
<div>=MIN(</div> <div>MIN(number1, [number2], ...)</div>	<ul style="list-style-type: none"> Used in logics such as “lower of the two numbers” in the area of Tax Computations, specific areas of Financial Engineering =MIN(A1:A5) is same as =SMALL(A1:A5,1)

#0202: Used in pricing discovery processes

<div>=LARGE(</div> <div>LARGE(array, k)</div>	<ul style="list-style-type: none"> Auction such as highest bid value, second highest bid value and so on. E.g. H2 will be =LARGE(A1:A5,2)
<div>=SMALL(</div> <div>SMALL(array, k)</div>	<ul style="list-style-type: none"> Vendor evaluation such as lowest bid value L1, second lowest bid value L2 and so on. E.g. L2 will be =SMALL(A1:A5,2)

#0203 – 0204: For rounding numbers

<div>=ROUND(</div> <div>ROUND(number, num_digits)</div>	<ul style="list-style-type: none"> "num_digits" signifies “number of decimal digits”. E.g. For the starting number 52.233 – “2” implies <u>52.23</u>, “1” implies <u>52.20</u>, and 0 implies 52.00 =ROUND(A1/50, 0) * 50 [implies nearest 50] – same technique also applicable with ROUNDDOWN & ROUNDUP E.g. Cell A1 = 5344.2 =ROUND(A1/10,0)*10 = 5340.0
<div>=ROUNDDOWN(</div> <div>ROUNDDOWN(number, num_digits)</div>	<ul style="list-style-type: none"> E.g. Cell A1 = 5349.2 =ROUNDDOWN(A1/10,0)*10 = 5340.0
<div>=ROUNDUP(</div> <div>ROUNDUP(number, num_digits)</div>	<ul style="list-style-type: none"> E.g. Cell A1 = 5342.2 =ROUNDUP(A1/10,0)*10 = 5350.0
<ul style="list-style-type: none"> MROUND() do not work with +/- nos. simultaneously AND it does not accommodate the logic of round up and round down. 	

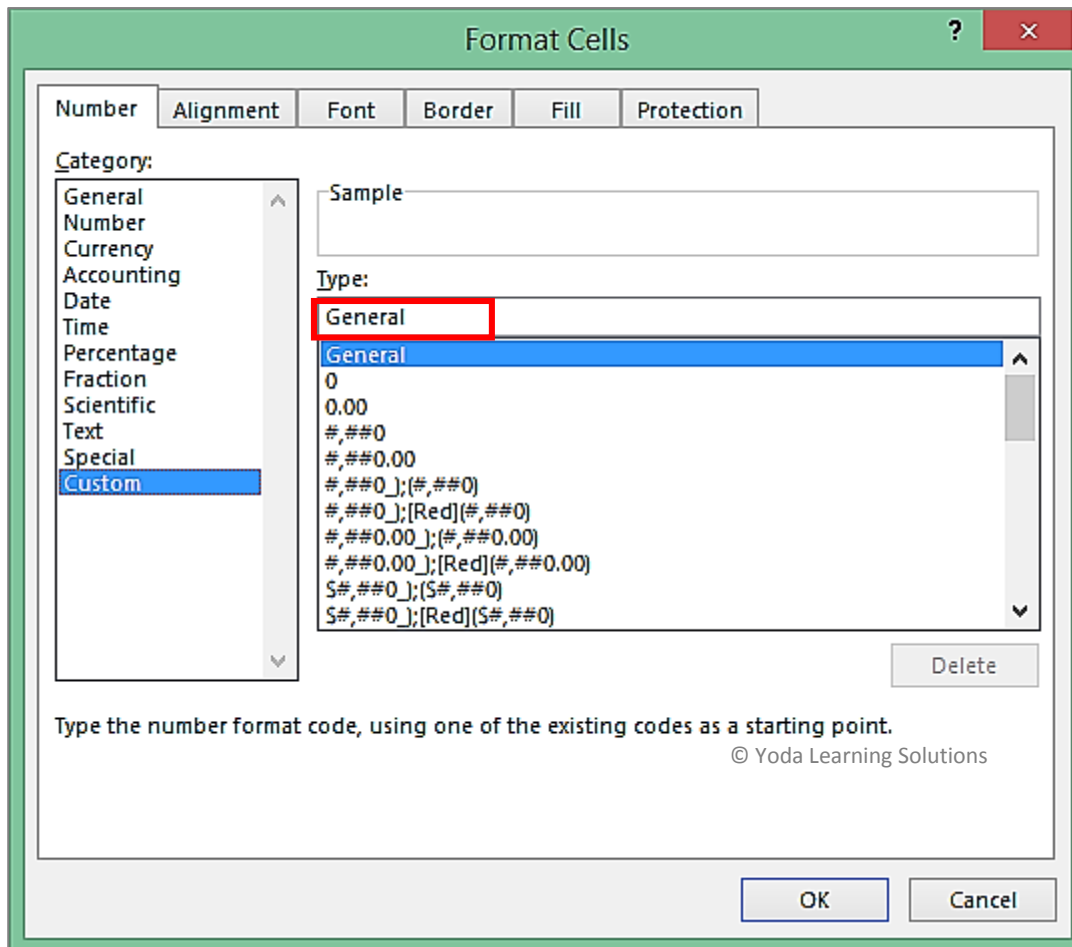
#0205: For Counting

<div>=COUNT(</div> <div>COUNT(value1, [value2], ...)</div>	<ul style="list-style-type: none"> Counts the number of cells which have numeric value
<div>=COUNTA(</div> <div>COUNTA(value1, [value2], ...)</div>	<ul style="list-style-type: none"> Counts the number of cells which IS NOT a blank (i.e. numbers, alphabets, alphanumeric, space)
<div>=COUNTBLANK(</div> <div>COUNTBLANK(range)</div>	<ul style="list-style-type: none"> Counts the number of cells which IS a blank
<ul style="list-style-type: none"> COUNTIF() and COUNTIFS() will be discussed later in the book. COUNTIFS() is a logic based cell counting mechanism 	

#0206 – 0207: For Weighted Average & Compounding/Discounting

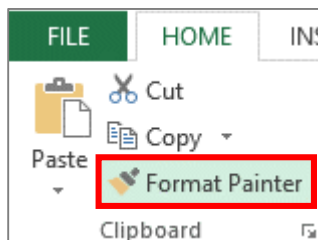
<div>=SUMPRODUCT(</div> <div>SUMPRODUCT(array1, [array2], [array3], ...)</div>	<ul style="list-style-type: none"> Multiplies corresponding cells in two or more ranges and returns the sum of those products. E.g. =SUMPRODUCT(A1:A2,B1:B2) = (A1*B1) + (A2*B2) The array arguments must have the same dimensions. E.g. =SUMPRODUCT(A1:A2,B1:B3) is invalid Used with =SUM() for computing weighted average Was used to create condition-based sum logic before SUMIFS() was introduced
<div>=POWER(</div> <div>POWER(number, power)</div>	<ul style="list-style-type: none"> Used in Financial Modeling – discounting cash flows, compounding Caret sign (^) is a perfect substitute. E.g. 25 =POWER(5,2) and is same as =5^2

#0301 – 0302: Formatting Tricks incl. Special Custom Formats [Shortcut: Ctrl 1]

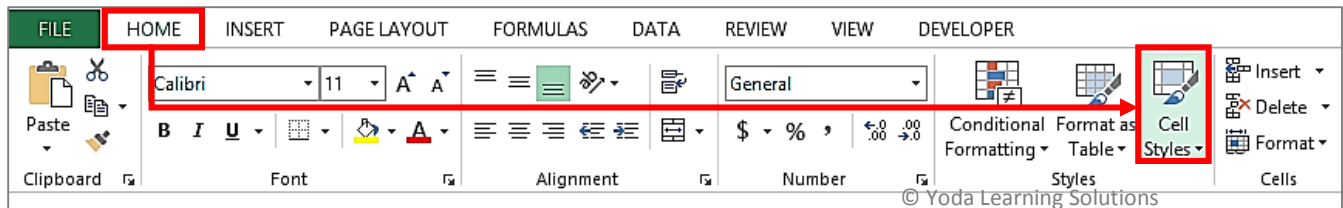


CUSTOM FORMAT	EFFECT
@*.	"Cell width adjusted" trailing full stops
"Rs."	Prefix/Suffix
000000	Self-adjusting Prefix Zeroes (up to 6)

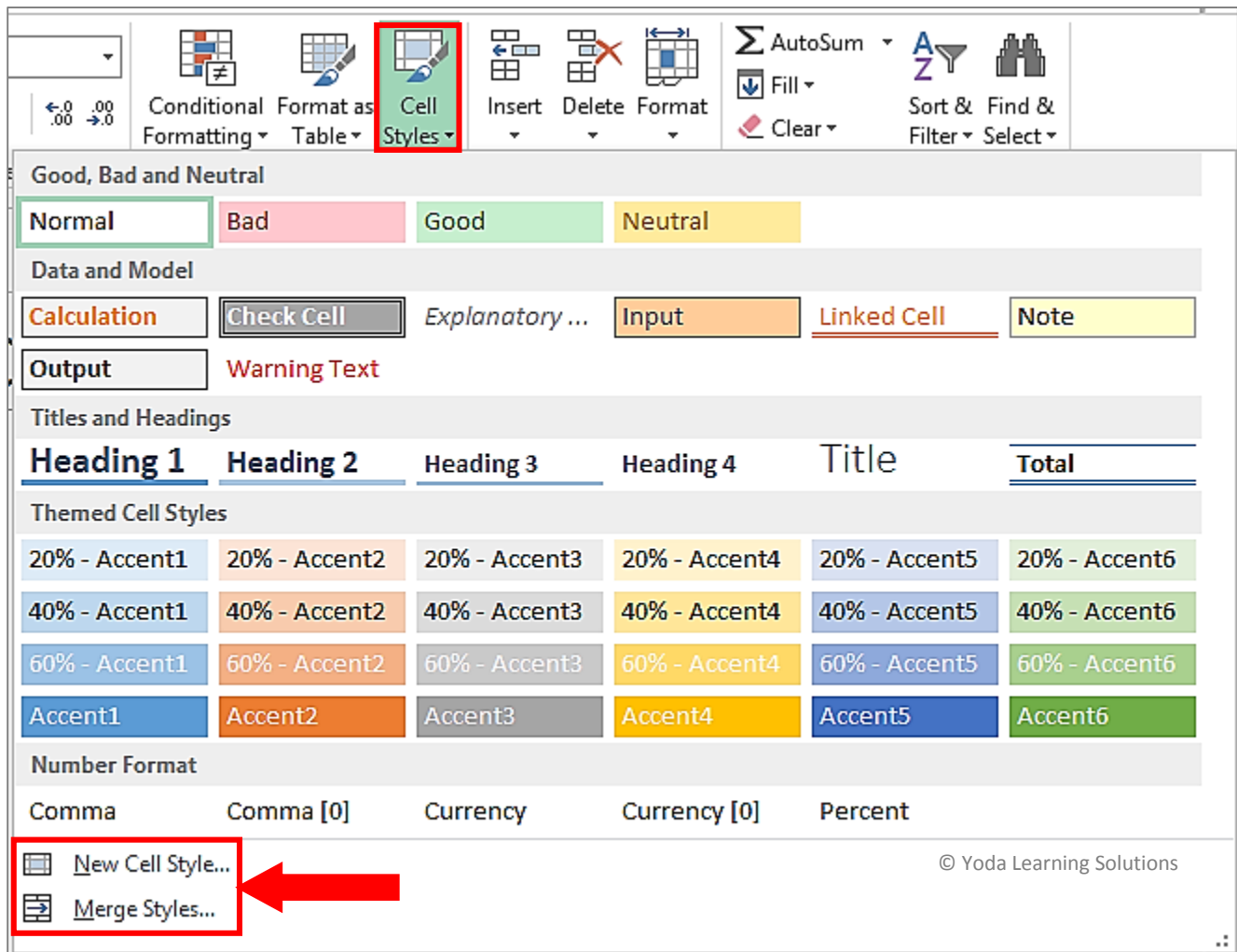
- "Double-click" Format Painter to use it uninterruptedly. Press <Esc> to return escape out of Format Painter mode.



#0303 – #0304: Using CELL STYLES for automating formatting for MIS Reporting & Financial Models

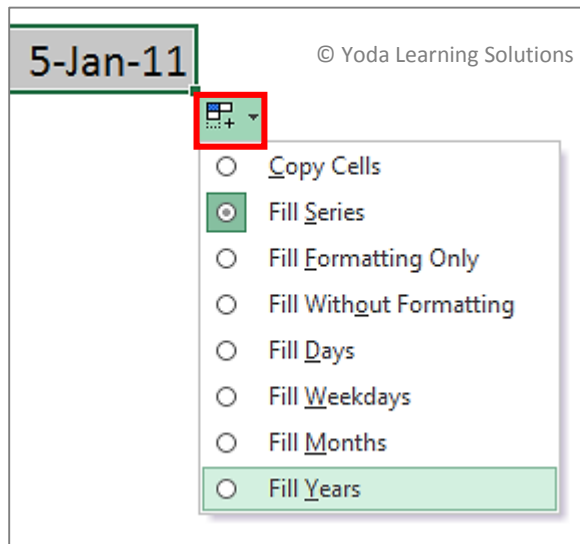


“**New Cell Style**” lets you create customized cell format which you can apply and re-apply on any worksheet of the workbook. Additionally, if you change the “definition” of any existing cell style, the changes are universal. Thus, **modifying a cell style affects all cells in a workbook that use that cell style**. This can save a lot of time.

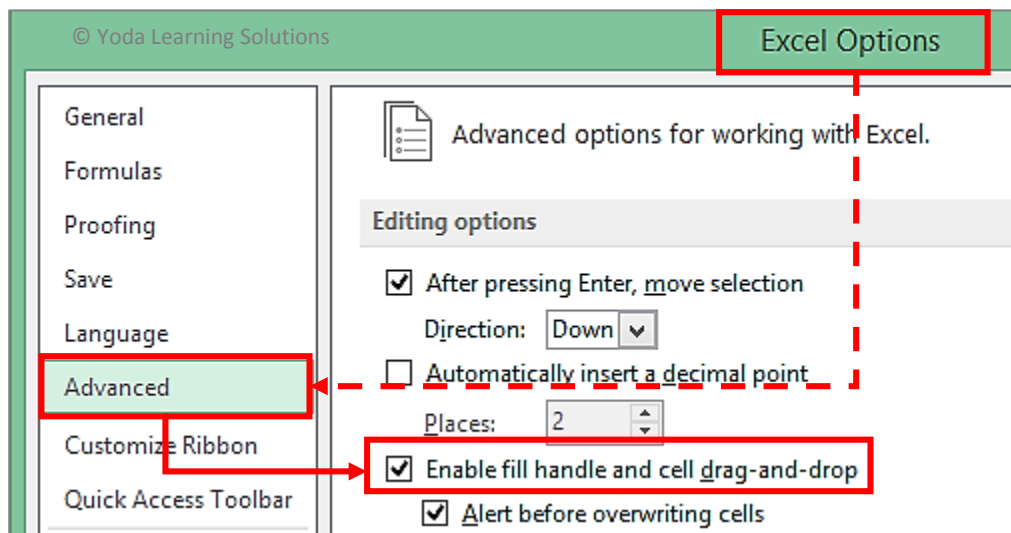


- Right click a cell style to modify or delete it.
- A cell style is stored in the workbook where you create it.
- Open a new workbook and click on “**Merge Styles**” (beneath New Cell Style) to import a cell style (keep the old workbook with the original cell style open).

#0305 – #0307: Cell drag-n-drop Auto Fill Options



- Also, refer =EOMONTH() for formula based Fill Months (1), Fill Quarters (3) and Fill Years (12)
- If the fill-handle doesn't appear or the mouse cursor isn't allowing you to draw the contents of a cell, please check if the "**Enable fill handle and cell drag-and-drop**" setting is turned ON.


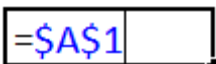
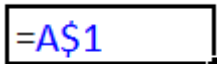
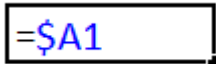


#0308: Paste Special – Transpose vs. TRANSPOSE()

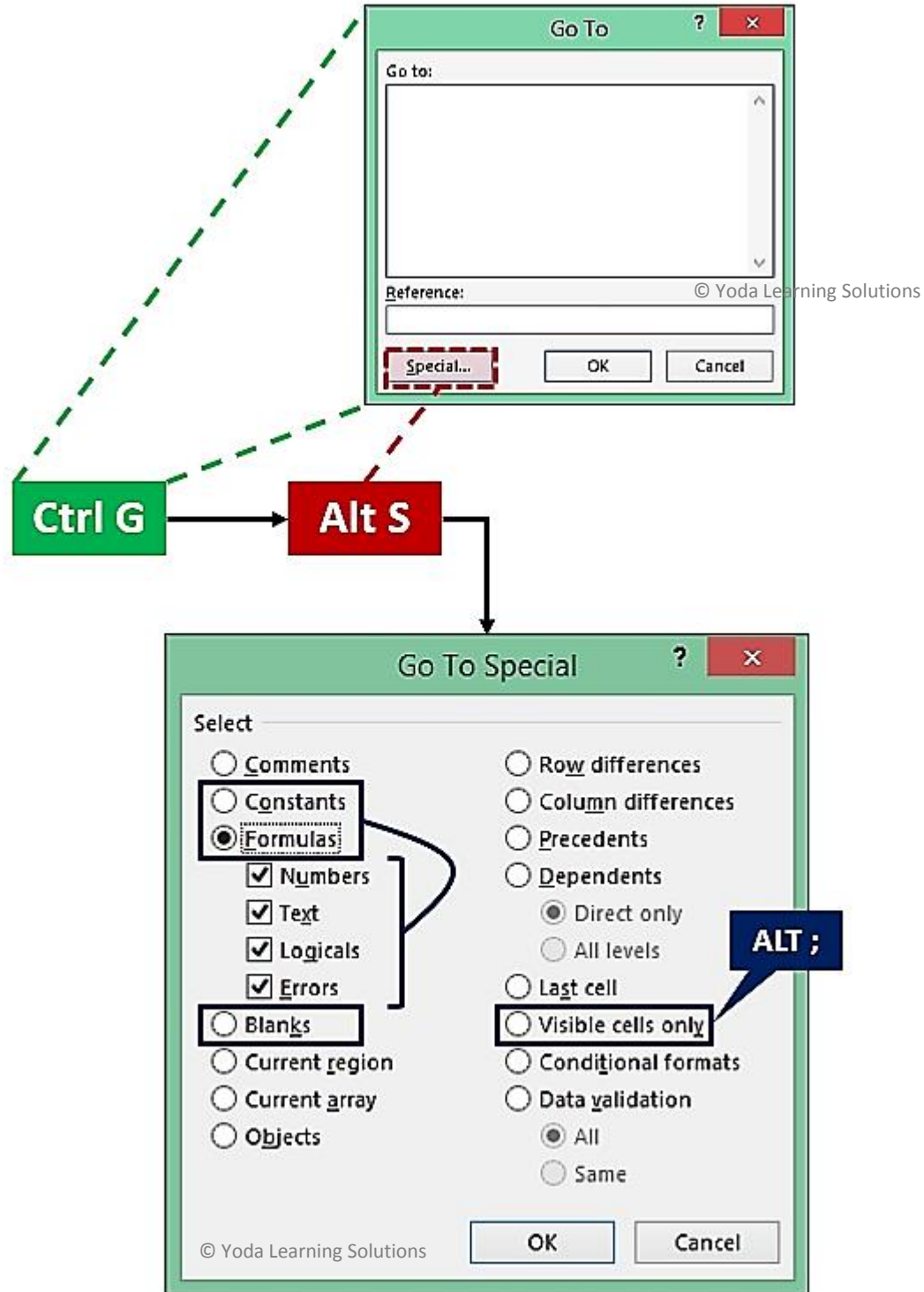
- **Paste Special – Transpose** switches/re-arranges the data in a table from rows and columns to columns and rows, respectively. However, it doesn't create "links" to the original cells. Thus, any change in the original table will not affect the "transposed" table.
- Writing a **=TRANSPOSE()** formula with **Ctrl + Shift + Enter** will create links too
 - Copy the data set to be "transposed"
 - Paste Special – Transpose
 - <Delete> cell values but keep the cell selection intact (this is to avoid counting the original cells and carefully select a fresh range in line with that)
 - Directly type **=TRANSPOSE(** and then, choose the original range of data, say A1:B5
 - Close the parentheses ")" and press Ctrl + Shift + Enter together to enter the formula as an "array" formula

#0401 – 0402: Absolute & Relative referencing using \$ (Locking the cell/range)

- After selecting a cell or a range of cells, keep pressing the function key <F4> to toggle between the four combinations of cell referencing (as indicated):

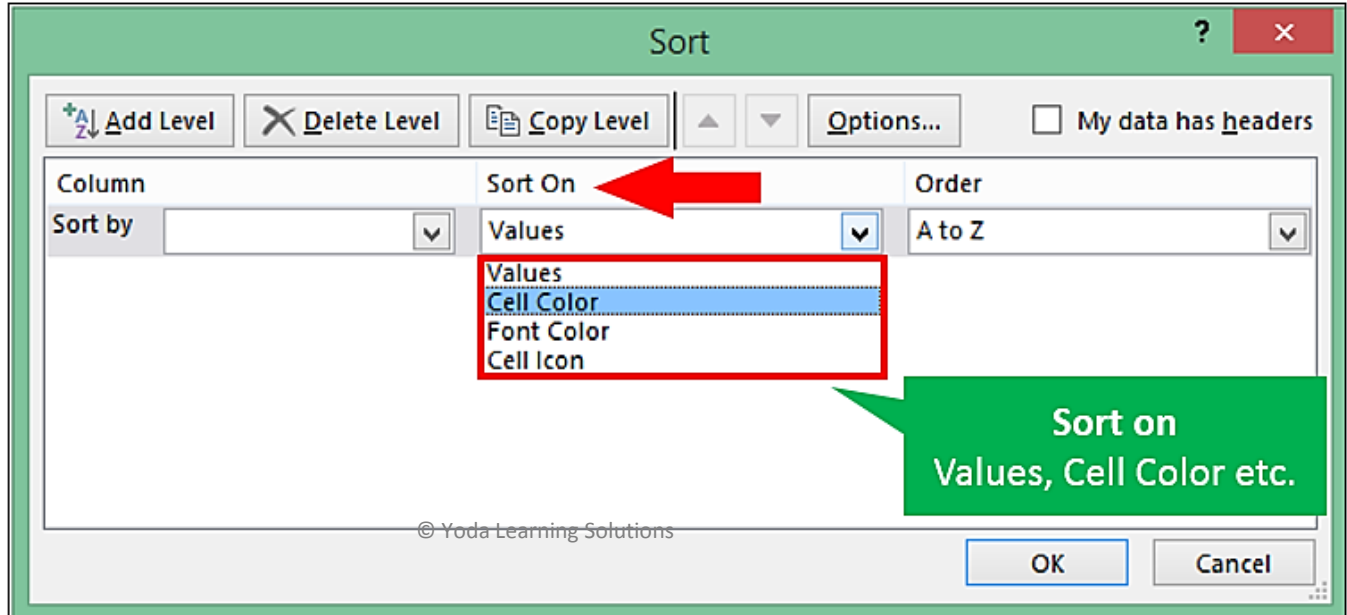
			
–	Row Fixed & Col Fixed	Row Fixed	Col Fixed
A1 becomes B1 if copied sideways (right)	\$A\$1 remains \$A\$1 if copied sideways	A\$1 becomes B\$1 if copied sideways (right)	\$A1 remains \$A1 if copied sideways
A1 becomes A2 if copied downwards	\$A\$1 remains \$A\$1 if copied downwards	A\$1 remains A\$1 if copied downwards	\$A1 becomes \$A2 if copied downwards

#0501 – 0506: Go To – Special (Ctrl + G or F5)



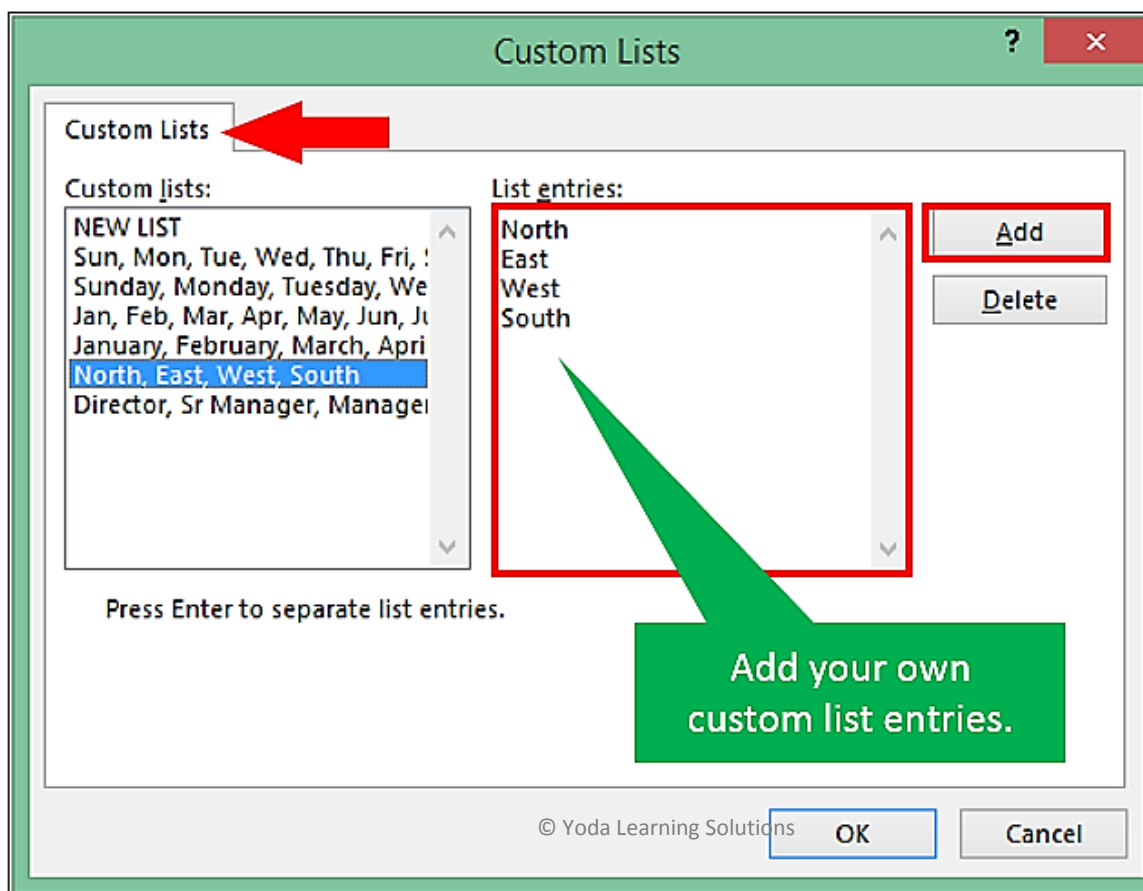
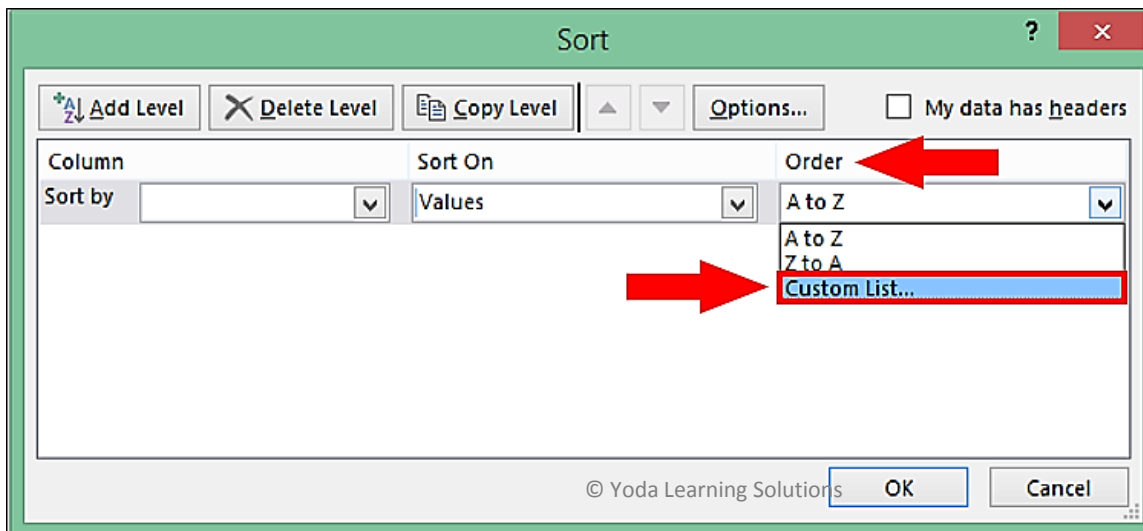
- Often used with **Ctrl+Enter**: With multiple cells selected (can be non-contiguous), this shortcut will enter the same data / formula logic in all cells in the selection at once.

#0601: Vertical Sort - 1-level & 2-level



#0602: Custom Sorting

- **"Order" > "Custom"**: allows to prepare own custom sequence in which the data can be sorted. E.g. Partner, Director, Sr Manager, Manager, Analyst OR North, East, West, South

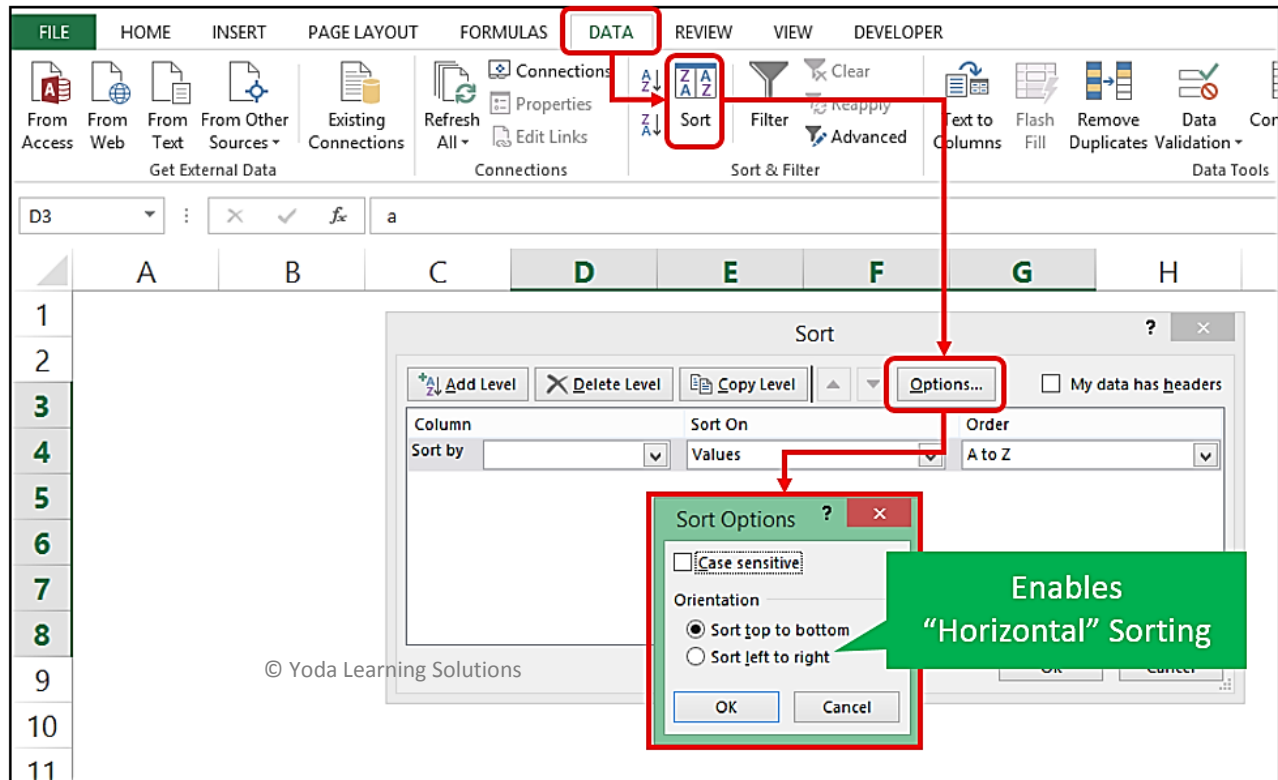


#0603: Sort Trick - add alternate blank rows in-between existing rows

	A	B	C	D	E	F	G	H	
1	Zone	Amt. \$	DUMMY SN			Zone	Amt. \$	DUMMY SN	
2	North	1,612	1			North	1,612	1	
3	North	285	2					1	
4	North	611	3			North	285	2	
5	East	501	4					2	
6	East	241	5			North	611	3	
7	West	586	6					3	
8	West	1,213	7			East	501	4	
9	West	374	8					4	
10	South	9,321	9			East	241	5	
11	South	324	10					5	
12	South	2,775	11			West	586	6	
13	South	1,954	12					6	
14			1			West	1,213	7	
15			2					7	
16			3			West	374	8	
17			4					8	
18			5			South	9,321	9	
19			6					9	
20			7			South	324	10	
21			8					10	
22			9			South	2,775	11	
23			10					11	
24			11			South	1,954	12	
25			12					12	

© Yoda Learning Solutions


#0604: Horizontal Sorting (Left to Right)




- **“Options” > “Horizontal Sort > Left to Right”:** is used to re-arrange the columns – all at once, without using “Cut” & “Insert Cut Cells” for each instance
- Using **synthetic “DUMMY Serial No.”** column helps (1) create blank rows in-between and, (2) remember the original sequence of row items

#0605 – 0606: Filter - Choosing the dataset correctly

- Choosing just the header row/cells before applying Filter will lead the “Filter” to ignore the data rows after the blank row.



Client Name	Country	City	Location	Amt. \$
Titan Industries Ltd.	India	Kolkata	Park Plaza	128,700
The Mysore Paper Mills Ltd	India	Kolkata	Shantiniketan	52,600
Mail SeaNav Pvt. Ltd.	India	Gurgaon	Shantiniketan	82,900
A.J. Finance Pvt Ltd	India	Gurgaon	Apeejay House	76,200
Bokahola Tea Co Pvt Ltd	India	Gurgaon	Siddha Point	148,100
Apeejay Business Centre	India	Gurgaon	Apeejay House	146,500
Universal Shipping & trading Co.	India	Gurgaon	Stephens House	195,800
Sancheti group	India	Kolkata	Shantiniketan	140,900
Dension Hydraulics India Ltd.	India	Mumbai	Shantiniketan	127,100
Network Ltd.	India	Gurgaon	Shantiniketan	99,000



Client Name	Country	City	Location	Amt. \$
Titan Industries Ltd.	India	Kolkata	Park Plaza	128,700
The Mysore Paper Mills Ltd	India	Kolkata	Shantiniketan	52,600
Mail SeaNav Pvt. Ltd.	India	Gurgaon	Shantiniketan	82,900
A.J. Finance Pvt Ltd	India	Gurgaon	Apeejay House	76,200
Bokahola Tea Co Pvt Ltd	India	Gurgaon	Siddha Point	148,100
Apeejay Business Centre	India	Gurgaon	Apeejay House	146,500
Universal Shipping & trading Co.	India	Gurgaon	Stephens House	195,800
Sancheti group	India	Kolkata	Shantiniketan	140,900
Dension Hydraulics India Ltd.	India	Mumbai	Shantiniketan	127,100
Network Ltd.	India	Gurgaon	Shantiniketan	99,000

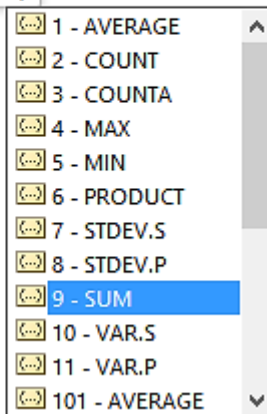
#0607: Filter analysis w. shortcuts

1.	Alt, A, T	Apply/Deactivate Filter on selected data set
2.	Alt + down-arrow	To open up the Filter drop-down options from the header row
3.	Spacebar	To check ON/OFF square checkbox
4.	Home	To quickly reach to the beginning of the options in list of square checkboxes Used to "Select All", which is placed at the beginning of the list.
5.	End	To quickly reach to the end of the options in list of square checkboxes. Used to navigate to the "(Blank)" or "#N/A" option, which are placed at the bottom of the list.
6.	Alt =	E.g. To generate a =SUBTOTAL(9,\$C\$2:\$C\$200) formula for AutoSum

#0608 - 0609: Using =SUBTOTAL() for calculations w. Filtered list.

=SUBTOTAL(

SUBTOTAL(function_num, ref1, ...)



© Yoda Learning Solutions

- In filtered lists, SUBTOTAL() always ignores values in hidden rows, regardless of *function_num*. E.g. 1 for AVERAGE, 9 for SUM, 109 for SUM again
- In tables with Filter applied, SUBTOTAL() with 109 i.e. SUM will ignore values in the manually hidden rows whereas SUBTOTAL() with 9 will not
- Shortcut for SUBTOTAL() formula for autosum in filtered lists is **ALT =**

#0610: Filter - Applying 2 or more Filters simultaneously on the same sheet

- Creating two (or more) distinct Filtered list on the same sheet is not possible through “Data” tab > “Filter”. Instead, use “Insert” tab > “Table” (or Ctrl + T)

Table (Ctrl+T)
Create a table to organize and analyze related data.
Tables make it easy to sort, filter, and format data within a sheet.

Client Name	Location	Amt. \$
Titan Industries		128,700
The Mysore Paper Mills Ltd	Shantiniketan	52,600
Mail SeaNav Pvt. Ltd.	Shantiniketan	82,900
A.J. Finance Pvt Ltd	Apeejay House	76,200
Bokahola Tea Co Pvt Ltd	Siddha Point	148,100

Client Name	Location	Amt. \$
Apeejay Business Centre	Apeejay House	146,500
Universal Shipping & trading Co.	Stephens House	195,800
Sancheti group	Shantiniketan	140,900
Dension Hydraulics India Ltd.	Shantiniketan	127,100
Network Ltd.	Shantiniketan	99,000

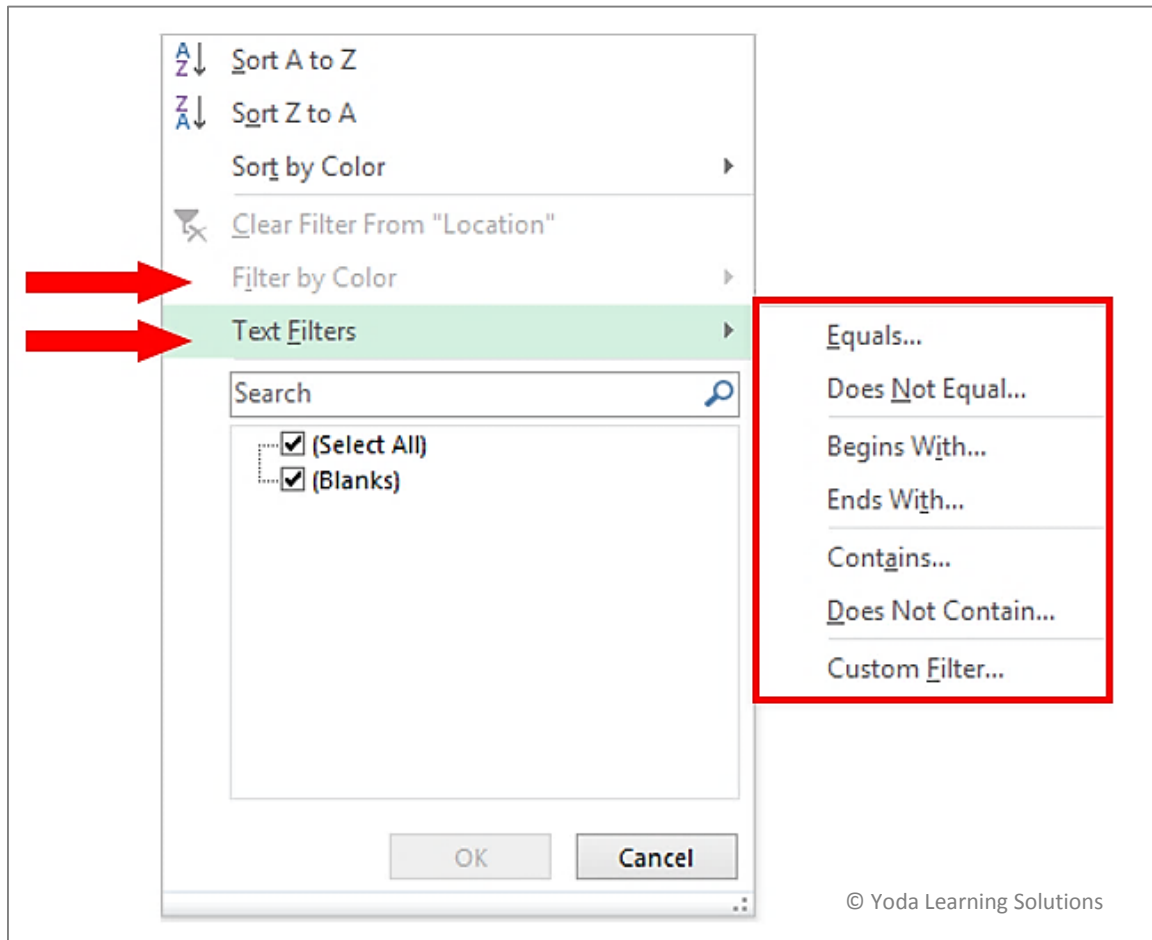
© Yoda Learning Solutions

Client Name	Location	Amt.
Titan Industries Ltd.	Park Plaza	128,700
The Mysore Paper Mills Ltd	Shantiniketan	52,600
Mail SeaNav Pvt. Ltd.	Shantiniketan	82,900
A.J. Finance Pvt Ltd	Apeejay House	76,200
Bokahola Tea Co Pvt Ltd	Siddha Point	148,100

Client Name	Location	Amt.
Apeejay Business Centre	Apeejay House	146,500
Universal Shipping & trading Co.	Stephens House	195,800
Sancheti group	Shantiniketan	140,900
Dension Hydraulics India Ltd.	Shantiniketan	127,100
Network Ltd.	Shantiniketan	99,000

© Yoda Learning Solutions

#0611: Filter - Color Filter & Text Filter



#0612 - 0614: Advanced Filter

- “Advanced Filter” can simultaneously pick up differential criteria unlike “Filter”. E.g. List of clients from “Park Plaza” with amount “>70,000” AND from “Shantiniketan” with amount “>50,000” has to be extracted in one go.

The screenshot shows the Excel interface with the 'DATA' tab selected. The 'Advanced Filter' dialog box is open, displaying the following settings:

- Action:** ☒ Filter the list, in-place; ☐ Copy to another location
- List range:** B2:D13
- Criteria range:** B14:D15
- Copy to:** B16:D17
- ☐ Unique records only

A red arrow points to the 'Advanced' button in the 'Sort & Filter' group on the ribbon. Another red arrow points to the 'Copy to' field in the dialog box, with a red box labeled "Destination" and the text "Select start cell".

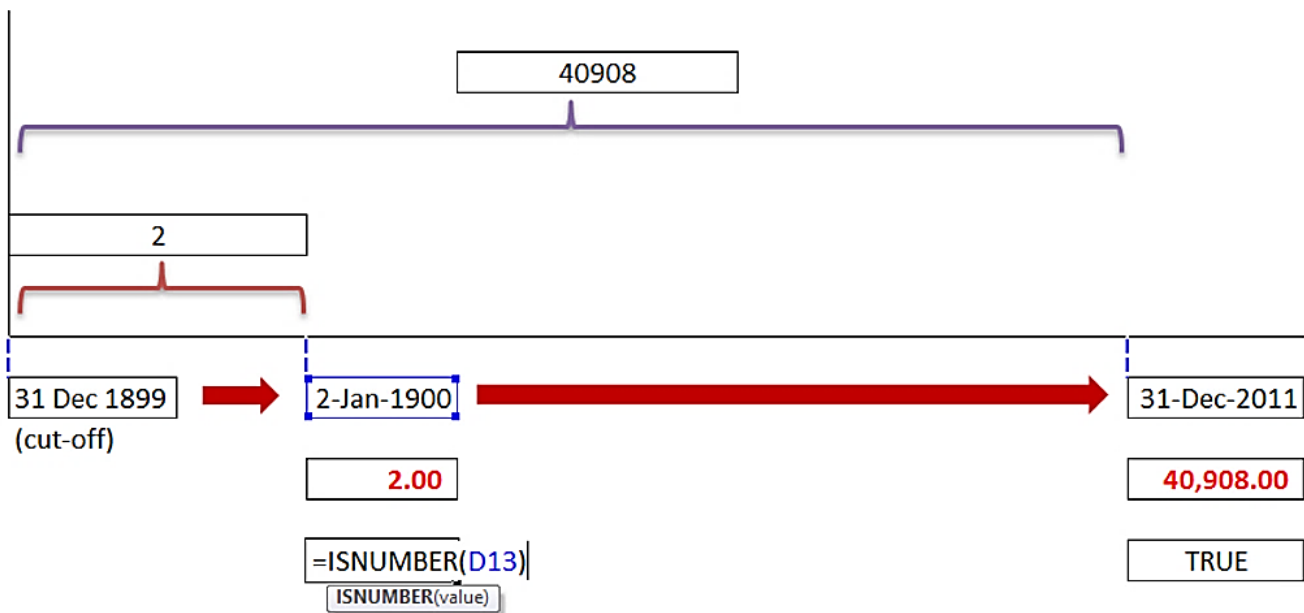
Criteria	Records selected...
P	Start with the character- P
Park	Start with the word- Park
= "P"	Only contain the character- P
'=P	Only contain the character- P
= "Park"	Only contain the text- Park
'=Park	Only contain the text- Park
= "S?N"	Contain text that begins with S, has one character, and then the letter N (may be more than 3 characters long)
'=S?N	Contain text that begins with S, has one character, and then the letter N (may be more than 3 characters long)
= "S*N"	Contain text that begins with S, has one or more other characters, and then the letter N
'=S*N	Contain text that begins with S, has one or more other characters, and then the letter N
=	Contain a blank
<>	Contain a non-blank entry
<>A*	Contain any text except text that begins with A
<>*A	Contain any text except text that ends with A
'=???	Contain exactly 3 characters
<>????	Does not contain exactly 4 characters

NOTE: Text filters are not Case Sensitive

#0701 - 0702: Every valid date (i.e. date that can be understood by Excel) is a number

- 2-Jan-1900 is 2 days away from 31-Dec-1899 and hence, read by Excel as 2.0
- Use **=ISNUMBER()** to detect validity of Dates entered i.e. whether the displayed date is a number
- Use **"Format Cells"** or **Ctrl + 1** to change the **"skin"** or the display value of the date
 - Use *"Comma Style"* or *"General"* to display the number
 - **Ctrl + Shift + 3** will convert a correct date's display value to dd-mmm-yy format or 22-Jul-2015.
- Microsoft OS: **Control Panel > Region & Language > Settings** – to change the format of the date input accepted by Excel

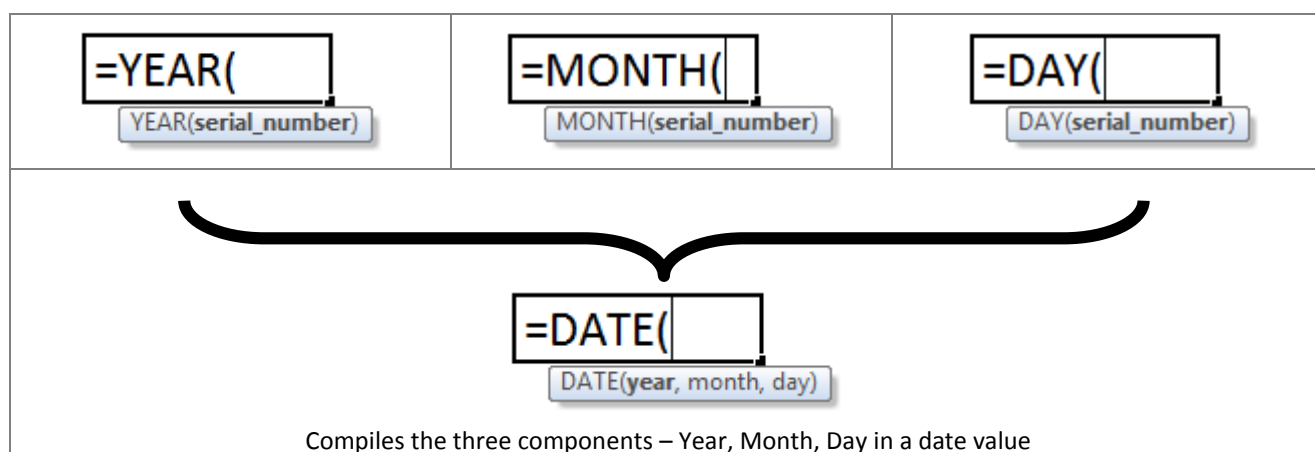
Every valid Date is a Number - being the number of days as counted from 31-Dec-1899 [system defined cut-off date]



© Yoda Learning Solutions

#0703: Extracting date information through formulas - DAY(), MONTH(), YEAR(), DATE()

	A	B	C	D	E	F	© Yoda Learning Solutions
1							
2			=DAY()	=MONTH()	=YEAR()		=DATE()
3	3-Jun-11		3	6	2011		3-Jun-11
4							
5			=DAY(A3)	=MONTH(A3)	=YEAR(A3)		=DATE(E3,D3,C3)



#0704: Extracting date information

- Converts the date into Custom format. E.g. "mmmm-yyyy" will display June-2011
- Important: Resultant answer value is not a date value but a text value. Used for display purposes and not for subsequent formula computations.

	A	B	C	D	E
1					© Yoda Learning Solutions
2			=TEXT()		
3	3-Jun-11		Friday	=TEXT(A3,"dddd")	
4	3-Jun-11		Fri	=TEXT(A3,"ddd")	
5	3-Jun-11		03	=TEXT(A3,"dd")	
6					
7			=TEXT()		
8	3-Jun-11		June	=TEXT(A8,"mmmm")	
9	3-Jun-11		Jun	=TEXT(A9,"mmm")	
10	3-Jun-11		06	=TEXT(A10,"mm")	
11					
12					
13			=TEXT()		
14	3-Jun-11		2011	=TEXT(A14,"yyyy")	
15	3-Jun-11		2011	=TEXT(A15,"yyy")	
16	3-Jun-11		11	=TEXT(A16,"yy")	

#0705: Date Formulas - WEEKDAY(), WORKDAY(), NETWORKDAYS()

<div>=WEEKDAY(WEEKDAY(serial_number, [return_type])</div>	<ul style="list-style-type: none"> Returns a value from 1 to 7, representing day of the week E.g. 1=Sunday, 2=Monday, 7= Saturday Used with IF() to write day based logical formula. E.g. <u>=IF(WEEKDAY(A1)=1,"Holiday","Office Day")</u> Scheduled public holidays can also be excluded
<div>=WORKDAY(WORKDAY(start_date, days, [holidays])</div>	<ul style="list-style-type: none"> Returns the date before or after a specified number of weekdays (weekends excluded). It excludes start date in computing final answer. E.g. If Cell A1 is 30-Dec-2011, then <u>=WORKDAY(A7,5)-1</u> will return 5-Jan-2012. 1-Jan-2012 is a Sunday and hence, excluded. Scheduled public holidays can also be excluded Used to calculate deadline/due date calculations
<div>=NETWORKDAYS(NETWORKDAYS(start_date, end_date, [holidays])</div>	<ul style="list-style-type: none"> Returns the number of weekdays (weekends excluded) between two dates. It includes start date in computing final answer. Scheduled public holidays can also be excluded Used to calculate no. of business days between two dates
<ul style="list-style-type: none"> WORKDAY.INTL() and NETWORKDAY.INTL() have been introduced from v. 2010 onwards. They incorporate the logic that multiple country may have different weekends. Refer Lecture #0706-#0707. 	

#0706: WORKDAY.INTL() for deadline/due date calculations w. custom weekends/holidays

=WORKDAY.INTL(

WORKDAY.INTL(start_date, days, [weekend], [holidays])

Saturday and Sunday are weekend days

-  1 - Saturday, Sunday
-  2 - Sunday, Monday
-  3 - Monday, Tuesday
-  4 - Tuesday, Wednesday
-  5 - Wednesday, Thursday
-  6 - Thursday, Friday
-  7 - Friday, Saturday
-  11 - Sunday only
-  12 - Monday only
-  13 - Tuesday only
-  14 - Wednesday only
-  15 - Thursday only
-  16 - Friday only
-  17 - Saturday only

- Returns the date before or after a specified number of weekdays (weekends excluded). It **excludes start date** in computing final answer
- Scheduled public holidays can also be excluded
- Used to calculate deadline/due date calculations and in Project Management

How is it different from =WORKDAY()

- Allows the user to specify which days are counted as weekends.
- E.g. 7 = Fri/Sat are weekends as followed by Saudi Arabia

#0706: NETWORKDAYS.INTL() for no. of business days calculations w. custom weekends/holidays

=NETWORKDAYS.INTL(

NETWORKDAYS.INTL(start_date, end_date, [weekend], [holidays])

Saturday and Sunday are weekend days

-  1 - Saturday, Sunday
-  2 - Sunday, Monday
-  3 - Monday, Tuesday
-  4 - Tuesday, Wednesday
-  5 - Wednesday, Thursday
-  6 - Thursday, Friday
-  7 - Friday, Saturday
-  11 - Sunday only
-  12 - Monday only
-  13 - Tuesday only
-  14 - Wednesday only
-  15 - Thursday only
-  16 - Friday only
-  17 - Saturday only

- Returns the number of weekdays (weekends excluded) between two dates.
- It **includes start date** in computing final answer
- Scheduled public holidays can also be excluded
- Used to calculate no. of business days between two dates and in Project Management

How is it different from =NETWORKDAYS()

- Allows the user to specify which days are counted as weekends
- E.g. 7 = Fri/Sat are weekends as followed by Saudi Arabia

#0708: Date Formulas - TODAY() and NOW() w. Shortcut

<div>=TODAY()</div> <div>TODAY()</div>	<ul style="list-style-type: none"> Returns the current date as per PC's system clock Updates every time the file is opened (dynamic) Ctrl + ; and press Enter - for inserting current date (static)
<div>=NOW()</div> <div>NOW()</div>	<ul style="list-style-type: none"> Returns the current date and time as per PC's system clock Updates every time the file is opened (dynamic) Ctrl + Shift + ; and press Enter - for inserting current time (static)

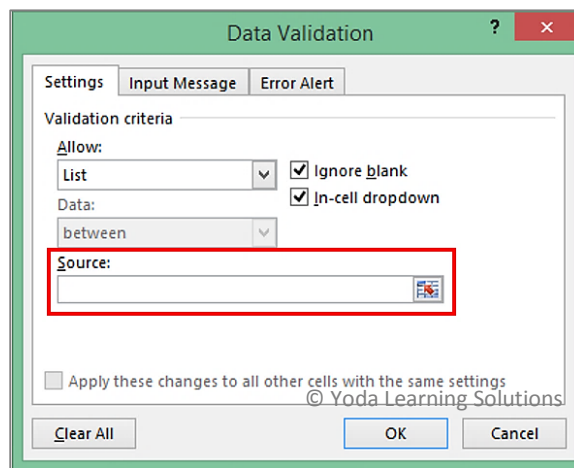
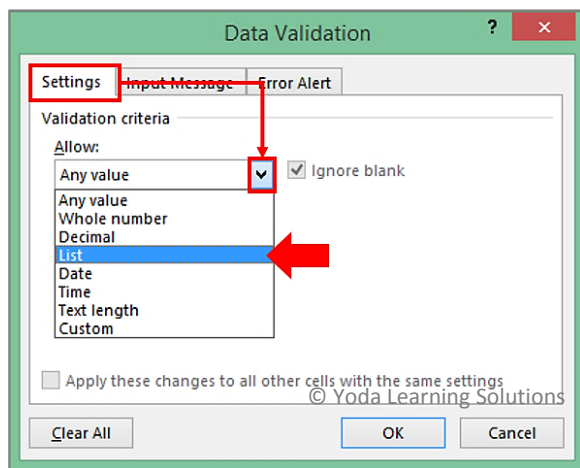
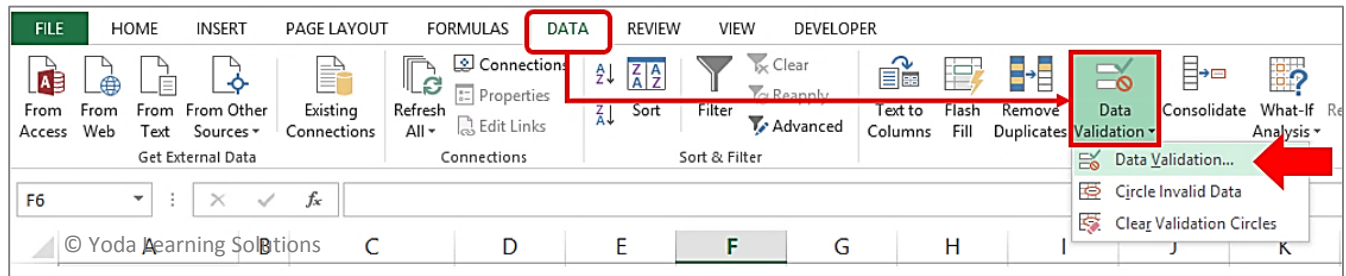
#0709: Date Formulas - EOMONTH() for Financial Modeling, Budgets, Due Dates

<div>=EOMONTH()</div> <div>EOMONTH(start_date, months)</div>	<ul style="list-style-type: none"> Returns the last day of the month before or after a specified number of months. Used for due dates computations such as 5th of next month, end of current month Used for creating timelines in Budget & Forecast models – MoM, QoQ, YoY
---	---

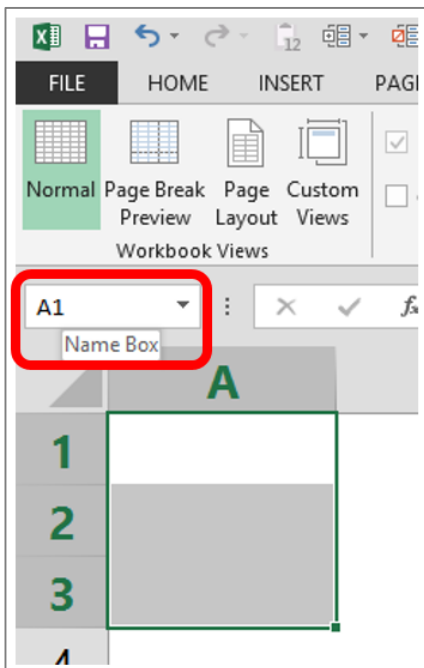
#0710 Date Formulas - EDATE() for Financial Modeling, Budgets, Due Dates

<div>=EDATE()</div> <div>EDATE(start_date, months)</div>	<ul style="list-style-type: none"> Returns the date that represents the indicated number of months before or after the start date. E.g. 60 days vs. 2 months Used for computing 3 months' notice period end date, retirement age, probation period, contract deadline, EMI installment due date
---	---

#0801 – 0802: Data Validation - Drop Down List & Range naming

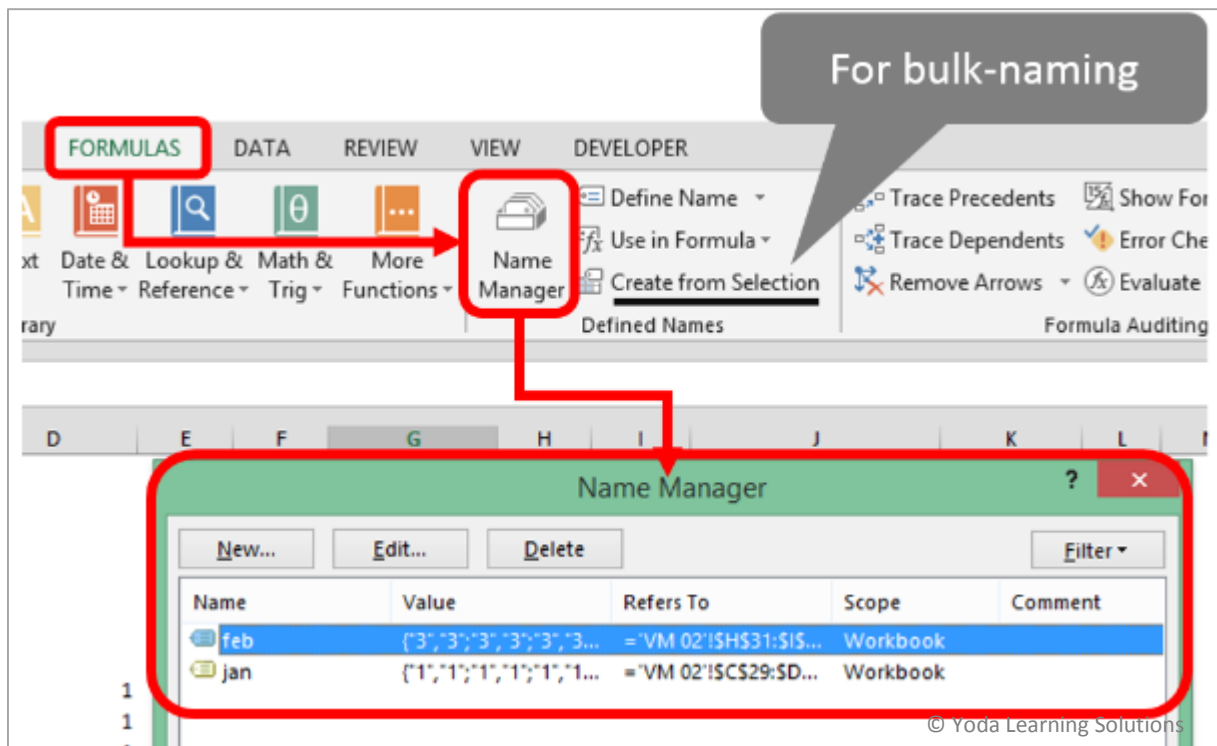


<p>Source:</p> <p>Accepted,Rejected</p>	<ul style="list-style-type: none"> ▪ Hard-coded values separated by comma
<p>Source:</p> <p>=SA\$1:SA\$5</p>	<ul style="list-style-type: none"> ▪ Cell range containing input values
<p>Source:</p> <p>=listname</p>	<ul style="list-style-type: none"> ▪ Named cell range from same/different worksheet. Refer cell/range Naming via-name Box. The prefix = (equal sign) is important here.
<p>Note: (1) =INDIRECT() w. named ranges and (2) =OFFSET() can also be used to create dynamic ranges.</p>	



- Name Box – Select cell(s), Write Name, press <Enter>
- NB: <F3> to activate Names List Box

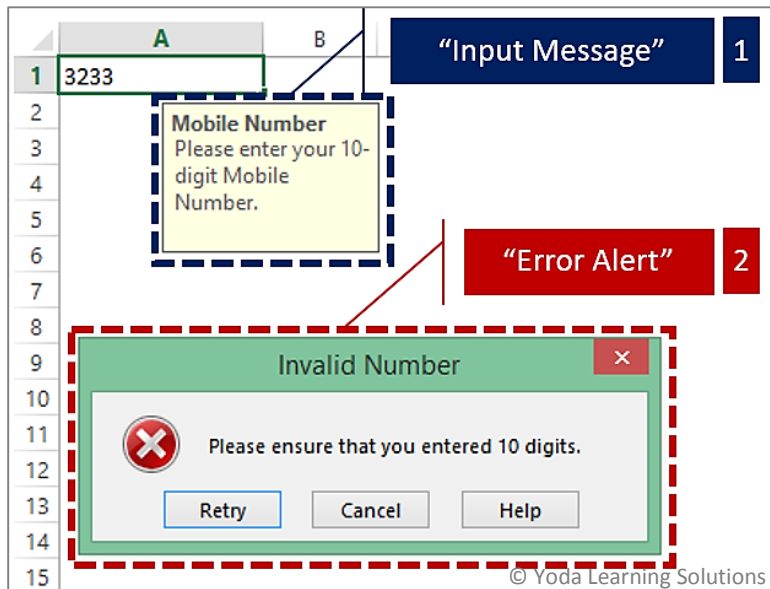
- **NAME MANAGER:** Cell(s) / Range Naming – Editing / Deleting “names” / “referred range”
- **CREATE FROM SELECTION:** for bulk naming



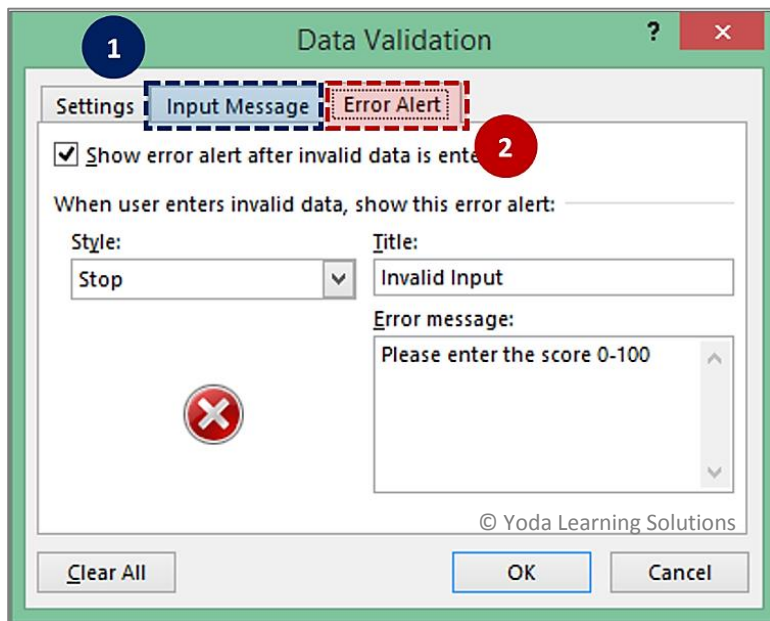
#0803: Data Validation - Numbers w. Error Alert and Input Message

1	Input Message	To display a message <u>when</u> a cell is selected
2	Error Alert	To display an alert <u>if invalid data</u> is entered in a cell

Sample Output



Procedure to activate “Input Message” & “Error Alert”



#0804: Data Validation - Dates w. Error Alert and Circle Invalid Data

A cell with pre-defined data validation logic will accept only those user inputs as validated by the rule. E.g. values as per drop-down list.

However, one can mistakenly **supersede** these rule by copying an invalid data from a different cell and use **Paste Special (Value)** on top of the cell with data validation. This procedure allows the cell with data validation to accept the invalid data. So in order to highlight the cells with invalid values, we use “**Circle Invalid Data**”

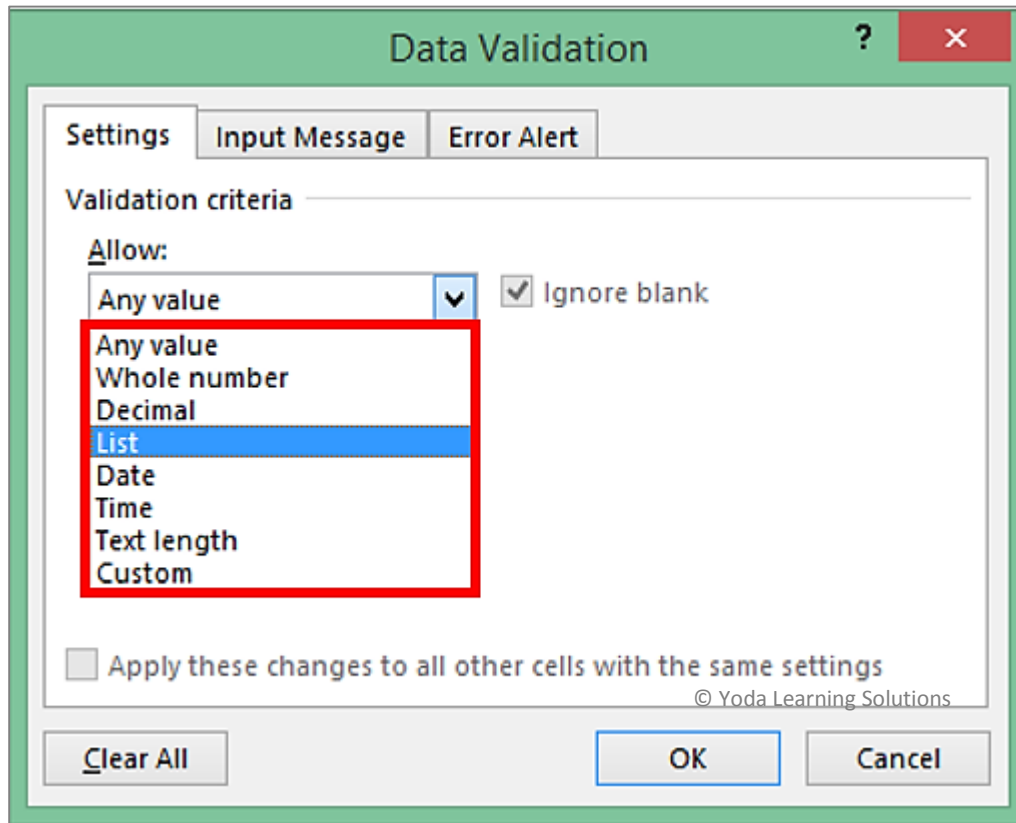
The screenshot shows the Microsoft Excel interface with the **DATA** tab selected. The **Data Validation** dropdown menu is open, showing options: **Data Validation...**, **Circle Invalid Data** (highlighted), and **Clear Validation Circles**. Below the ribbon, a table is displayed:

1	Score should be 0-100	
2	Score	
3	120	
4		76
5		87
6		

A red circle highlights the value **120** in cell B3. A blue arrow points to this circled value with the text: "Circled input data is 'invalid'".

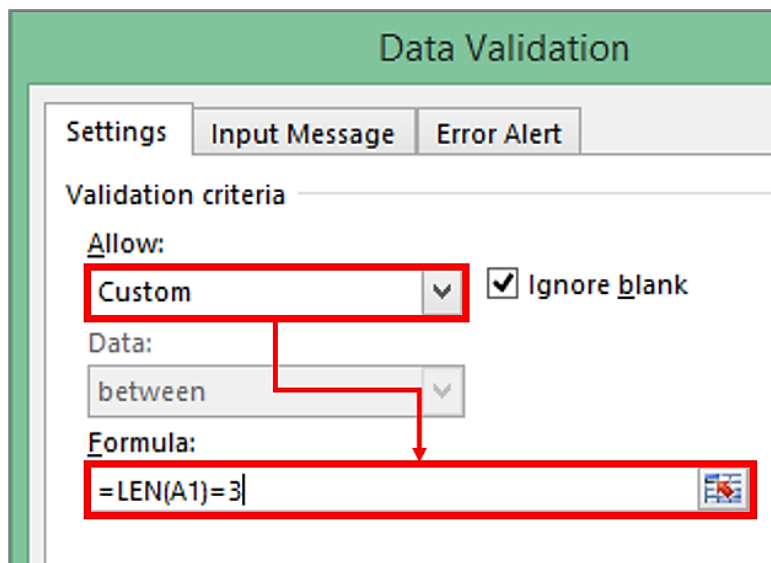
© Yoda Learning Solutions

#0805: Data Validation – Whole number, Text Length, Date (MM/DD/YYYY)

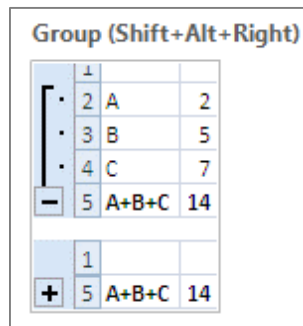
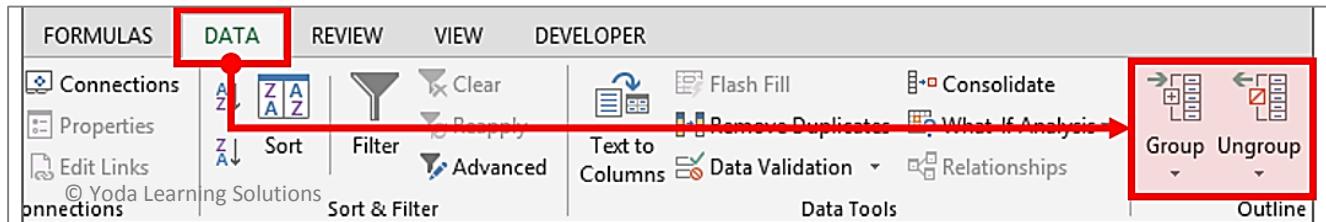


#0806: Data Validation - Custom w. formula logic

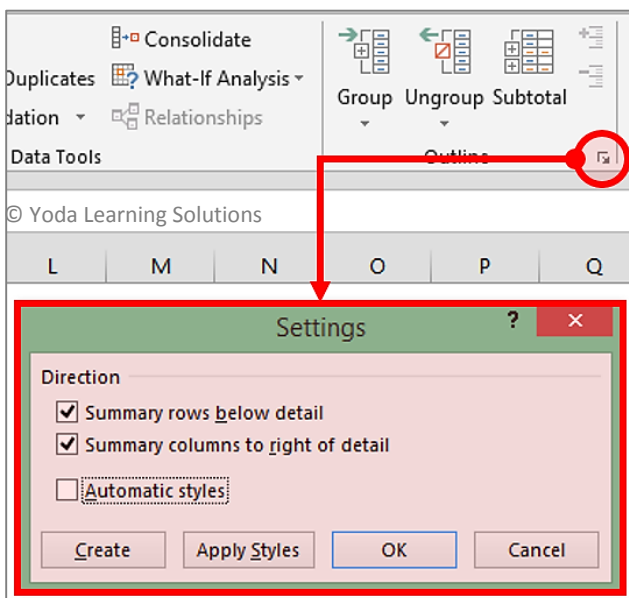
The CUSTOM logic should be famed to yield LOGICAL (True/False) result.



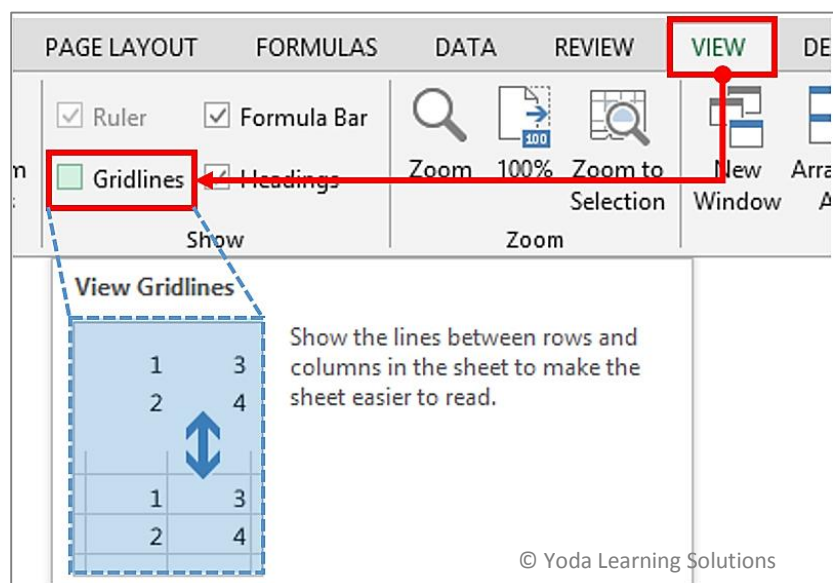
#0901-0902: Grouping/UnGrouping Columns and Rows



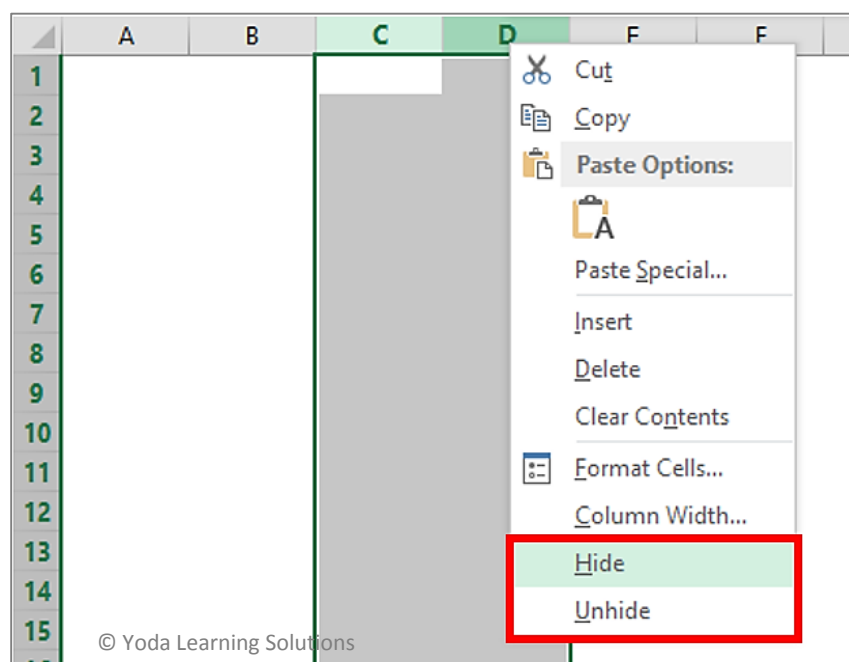
#0903: Grouping Trick: Changing placement of Grouping Button



#0904: Cell Gridlines: Turning On/Off



#0905: Hide/Unhide Rows and Columns



#0906: Freeze Panes (incl. both row & column simultaneously)

The screenshot illustrates the steps to freeze panes in Excel. The 'VIEW' tab is selected, and the 'Freeze Panes' button is highlighted. The worksheet shows a table with columns: Supplier Number, Supplier Name, ID, and Transaction Amt. \$. The cell B4 is selected, and the area B4:C4 is highlighted with a red dashed box. The 'Freeze Panes' dropdown menu is open, showing the following options:

- Freeze Panes**: Keep rows and columns visible while the rest of the worksheet scrolls (based on current selection).
- Freeze Top Row**: Keep the top row visible while scrolling through the rest of the worksheet.
- Freeze First Column**: Keep the first column visible while scrolling through the rest of the worksheet.

	Supplier Number	Supplier Name	ID	Transaction Amt. \$
4	612156	ABC	65667	1,259.00
5	612156	ABC	65667	3,200.00
6	612156	ABC	65667	1,369.00
7	612156	ABC	65667	4,535.00
8	612156	ABC	65667	10,363.00
9	612158	JDK	88767	1,711.00
10	612158	JDK	88767	1,568.00

© Yoda Learning Solutions

Choose the cell the row above which and the column before which needs to be “frozen”. In this case, Column A and Rows 1-3 will be frozen.

#1001 – 1003: Pivot Tables – Pre requisites, How to Create

Pre-requisites:

- Blank/Empty “header” cells not allowed
- “Merged” cells not allowed

	A	B	C	D	
1					
2	Region		Market		Business
3	North America	United States	Southeast	Trusted Catalog Store	Bikes
4	North America	United States	Southeast	Trusted Catalog Store	Bikes
5	North America	United States	Southeast	Trusted Catalog Store	Bikes
6	North America	United States	Southeast	Trusted Catalog Store	Clothing
7	North America	United States	Southeast	Trusted Catalog Store	Bikes
8	North America	United States	Southeast	Trusted Catalog Store	Bikes
9	North America	United States	Southeast	Trusted Catalog Store	Bikes
10	North America	United States	Southeast	Trusted Catalog Store	Bikes
11	North America	United States	Southeast	Trusted Catalog Store	Bikes
12	North America	United States	Southeast	Sports Sales and Rental	Bikes
13	North America	United States	Southeast	Sports Sales and Rental	Bikes
14	North America	United States	Southeast	Sports Sales and Rental	Requisite Part Supply

Annotations in the table image: Red skull icons above columns B and D. A blue callout box labeled "Merged Cells" points to the merged cells in row 2 (A2:B2). Another blue callout box labeled "Blank 'Header' cells" points to the blank cell D2.

Creating a Pivot Table

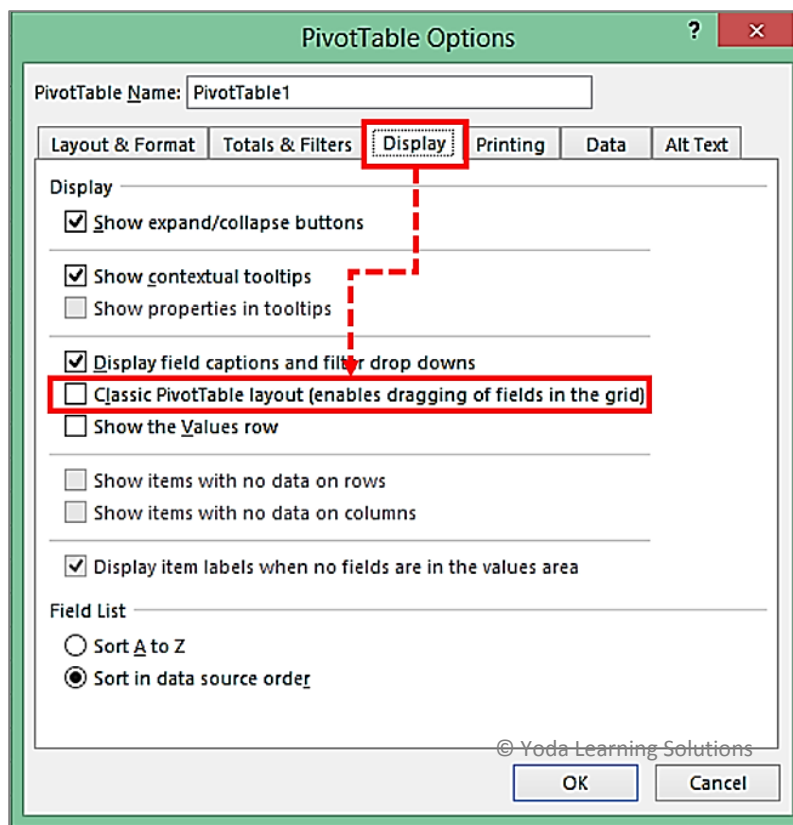
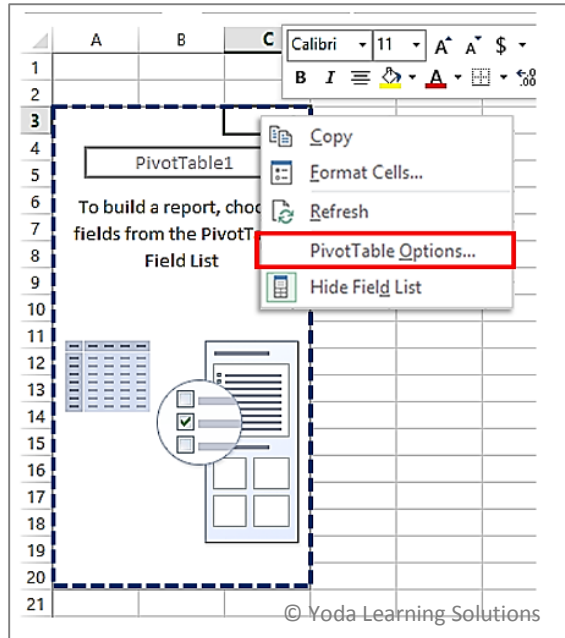
- Choose the data table. INSERT > PIVOT TABLE

The screenshot shows the Excel ribbon with the 'INSERT' tab selected. The 'PivotTable' button is highlighted with a red dashed box. Below the ribbon, the 'Create PivotTable' dialog box is open, showing the following options:

- Choose the data that you want to analyze:**
 - ☒ Select a table or range
 - Table/Range: Sales Data!\$A\$1:\$M\$60920
 - ☐ Use an external data source
 - Choose Connection...
 - Connection name:
- Choose where you want the PivotTable report to be placed:**
 - ☒ New Worksheet
 - ☐ Existing Worksheet
 - Location:
- Choose whether you want to analyze multiple tables:**
 - ☐ Add this data to the Data Model

The 'OK' and 'Cancel' buttons are at the bottom of the dialog box.

Changing an essential Setting:



#1004: Pivot Tables – Exploring Pivot Table grid (Fields)

The image shows a Microsoft Excel PivotTable grid and the PivotTable Fields task pane. The grid is located on Sheet1, starting at cell A1 and extending to H23. The PivotTable Fields task pane is on the right side of the screen.

PivotTable Grid Annotations:

- FILTERS:** A red box with a funnel icon and the word "FILTERS" is positioned above the "Drop Report Filter Fields Here" area.
- ROWS:** A red box with a list icon and the word "ROWS" is positioned to the left of the "Drop Row Fields Here" area.
- COLUMNS:** A red box with a list icon and the word "COLUMNS" is positioned to the right of the "Drop Column Fields Here" area.
- VALUES:** A red box with a sum icon (Σ) and the word "VALUES" is positioned below the "Drop Value Fields Here" area.

PivotTable Fields Task Pane:

- The task pane is titled "PivotTable Fields" and has a close button (X).
- It contains a list of fields to add to the report: Region, SubRegion, Market, Customer, Business Segment, Category, Model, Color, and SalesDate.
- Below the list, there is a section titled "Drag fields between areas below:" which contains four red boxes representing the PivotTable areas: FILTERS, COLUMNS, ROWS, and VALUES.
- At the bottom of the task pane, there is a checkbox for "Defer Layout Update" and an "UPDATE" button.

© Yoda Learning Solutions

#1005: Pivot Tables – Value Field Settings for Sum, Average

The screenshot shows an Excel PivotTable with the following data:

SalesDate	2002	2003	2004	Grand Total
Jan	713,230	1,318,597	1,670,606	3,702,433
Feb	1,682,318	2,166,151	2,580,937	6,429,407
Mar	1,673,760	1,784,221	2,870,072	6,328,054
Apr	872,560			
May	2,280,160			
Jun	1,102,020			
Jul	2,446,790			
Aug	3,615,920			
Sep	2,826,440			
Oct	1,872,400			
Nov	2,939,780			
Dec	2,303,430			
Grand Total	24,328,840			

The 'Value Field Settings' dialog box is open, showing the following configuration:

- Source Name:** Sales Amount
- Custom Name:** Sum of Sales Amount
- Summarize Values By:** Sum
- Show Values As:** (Not selected)
- Summarize value field by:** Choose the type of calculation that you want to use to summarize data from the selected field. The list includes: Sum, Count, Average, Max, Min, Product.
- Number Format:** (Not selected)
- Buttons:** OK, Cancel

#1006-1007: Pivot Tables – Value Field Settings for % calculations

The screenshot shows a PivotTable with the following data:

SalesDate	2002	2003	2004	Grand Total
Jan	713,230	1,318,597	1,670,608	3,702,433
Feb	1,682,318	2,166,151	2,093,937	6,429,407
Mar	1,673,760	1,784,231	2,000,073	6,328,064
Apr	872,568	1,829,387	2,168,448	4,870,403
May	2,280,165	2,921,701	3,380,604	8,582,470
Jun	1,102,021	1,932,251	1,536,545	4,570,817
Jul	2,446,798	2,788,963	2,381,202	7,616,962
Aug	3,615,926	4,314,542	1,540,073	9,470,541
Sep	2,826,440	3,980,290	1,136,989	7,943,719
Oct	1,872,402	2,469,944	874,178	5,216,523
Nov	2,939,785	3,327,910	2,268,711	8,536,406
Dec	2,303,436	3,683,548	1,760,483	7,747,467
Grand Total	24,328,849	32,517,515	24,168,808	81,015,212

The Value Field Settings dialog box is open, showing the following settings:

- Source Name: Sales Amount
- Custom Name: Sum of Sales Amount
- Summarize Values By: Show Values As
- Show values as: % of Grand Total
- Number Format: (blank)

Calculation	Meaning
1/4	% of Grand Total
1/2	% of Column Total
1/3	% of Row Total

#1008 – 1009: Pivot Tables – Grouping Dates & Numbers (automatic)

The screenshot shows an Excel spreadsheet with a list of dates from 1-Jan-02 to 19-Jan-02 in column A. A right-click context menu is open over the dates, with the 'Group...' option highlighted. The 'Grouping' dialog box is also open, showing the 'Auto' tab. The 'Starting at' date is 1/1/2002 and the 'Ending at' date is 1/1/2005. Under the 'By' section, 'Months' and 'Years' are selected. The 'Number of days' is set to 1. The 'OK' button is visible.

The screenshot shows an Excel spreadsheet with a PivotTable. The PivotTable has 'SalesDate' in the Rows area and 'Grand Total' in the Values area. The PivotTable Fields task pane is open on the right, showing the 'SalesDate' field in the ROWS area and the 'Years' field in the COLUMNS area. The 'SalesDate' field is circled in green, and the 'Years' field is circled in yellow. The PivotTable data shows months from Jan to Dec for the years 2002, 2003, and 2004.

	A	B	C	D	E	F	G	H	I	J	K	L
1	Drop Report Filter Fields Here											© Yoda Learning Solutions
2												
3	Count of Name	Age										
4	Salary p.a. (US\$)	19-28	29-38	39-48	49-58	Grand Total						
5	1-100000	65	65	32	4	166						
6	100001-200000	25	34	9	5	73						
7	200001-300000	18	15	15	2	50						
8	300001-400000	20	21	11		52						
9	400001-500000	11	9	5	1	26						
10	500001-600000	4	7	2	2	15						
11	600001-700000	7	4	3		14						
12	700001-800000	4	5	1		10						
13	800001-900000	4	3			7						
14	900001-1000000	1	1	2		4						
15	Grand Total	159	164	80	14	417						
16												

Grouping
?
X

Auto

☐ Starting at: 1

☒ Ending at: 990976

By: 100000

OK
Cancel

#1010: Pivot Tables – Grouping Text (manual)

A12

Copy
Format Cells...
Refresh
Sort
Filter
Subtotal "Division"
Expand/Collapse
Group...
Ungroup...
Move
Remove "Division"
Field Settings...
PivotTable Options...
Hide Field List

1	Drop Report F
2	
3	Count of Name
4	Division
5	AD
6	CDFD
7	ED
8	HFD
9	LGAD
10	PEMD
11	RAD
12	RDD

1	Drop Report Filter Fields Here
2	
3	Count of Name
4	Division2
5	Group1
6	AD
7	ED
8	HFD
9	LGAD
10	RDD
11	CDFD
12	PEMD
13	RAD
14	Grand Total

1		
2		
3	Count of Name	
4	Division2	Division
5	Group1	Total
6	CDFD	CDFD
7	PEMD	PEMD
8	RAD	RAD
9	Grand Total	417

#1011: Pivot Table - Refresh vs. Refresh All, Change Data Source

The screenshot shows the Microsoft Excel interface with a PivotTable. The PivotTable is titled "Sum of Sales Amount" and is located in cell A3. The PivotTable fields are "SalesDate" (Rows) and "Years" (Columns). The data is as follows:

	2002	2003	2004	Grand Total
Jan	713,230	1,318,597	1,670,606	3,702,433
Feb	1,682,318	2,166,151	2,580,937	6,429,407
Mar	1,673,760	1,784,231	2,870,073	6,328,064

The PivotTable Tools ribbon is visible, with the "ANALYZE" tab selected. The "Refresh" and "Refresh All" buttons are highlighted with red boxes. A tooltip for "Refresh All (Ctrl+Alt+F5)" is shown, stating: "Get the latest data by refreshing all sources in the workbook." A blue box labeled "Update Source" is also visible.

#1012: Pivot Table - Auto Refresh

The screenshot shows the "PivotTable Options" dialog box for "PivotTable1". The "Data" tab is selected. The "PivotTable Data" section contains the following options:

- ☒ Save source data with file
- ☒ Enable show details
- ☐ Refresh data when opening the file

The "Retain items deleted from the data source" section shows "Number of items to retain per field" set to "Automatic". The "What-If Analysis" section has "Enable cell editing in the values area" unchecked.

#1013: Pivot Table - Pivot Chart Shortcut (F11) and Sparklines

Excel ribbon: FILE, HOME, **INSERT**, PAGE LAYOUT, FORMULAS, DATA, REVIEW, VIEW, DEVELOPER

Excel ribbon groups: PivotTable, Recommended PivotTables, Tables, Pictures, Online Pictures, Illustrations, Shapes, SmartArt, Screenshot, Apps for Office, Apps, Recommended Charts, Charts, PivotChart

Sparklines group: Line, Column, Win/Loss, Sparklines

Create Sparklines dialog box:

- Choose the data that you want: Data Range: A4:D4
- Choose where you want the sparklines to be placed: Location Range: SE\$4
- Buttons: OK, Cancel

© Yoda Learning Solutions

#1014: Pivot Table - Drill Down option

Double-click on ANY value in the “Value Fields” area where all numbers are displayed to drill-down deeper in the details of the number clicked upon.

PivotTable:

Count of Name	Total
AD	41
CDFD	48
ED	17
HFD	112
LGAD	13
PEMD	32
RAD	148
RDD	6
Grand Total	417

Underlying Data Table:

DoJ	Name	Salary p.a. (US\$)	Division	Rating	Age
4/5/1997	AbduSalaam, Ismael	38261	HFD	3	31
1/6/1999	Young, Karen	294272	HFD	1	37
10/8/2003	Adams, Jennifer M	24566	HFD	1	23
6/6/1998	Yorkey, Alicia	507983	HFD	4	29
6/10/1996	Adams, Vanessa Y.	38038	HFD	1	39
10/13/1997	Wyckoff, Sandiskie G.	39337	HFD	3	30
6/3/2004	Wright, Patricia L.	205976	HFD	3	27
3/6/2004	Woods, Bonnie H.	384178	HFD	1	43
9/30/1999	Wilson, Vanessa	270844	HFD	3	38
7/31/2002	Williams, Andria A.	228421	HFD	1	25
9/15/2005	Williams, Alma	82503	HFD	3	28
11/13/2012	Welsh, Sandy	63936	HFD	2	19
11/28/1996	Weaver, Delores	50045	HFD	5	53

© Yoda Learning Solutions

#1015: Pivot Table - Report Filter - Generating 100s of reports in few seconds

PivotTable Options

- Options
- Show Report Filter Pages...
- Generate GetPivotData

	SubRegion	(All)				
	Sum of Sales Amount	Years				
	SalesDate	2002	2003	2004	Grand Total	
5	Jan	713,230	1,318,597	1,670,606	3,702,433	
6	Feb	1,682,318	2,166,151	2,580,937	6,429,407	
7	Mar	1,673,760	1,784,231	2,870,073	6,328,064	
8	Apr	872,568	1,829,387	2,168,448	4,870,403	
9	May	2,280,165	2,921,701	3,380,604	8,582,470	
10	Jun	1,102,021	1,932,251	1,536,545	4,570,817	
11	Jul	2,446,798	2,788,963	2,381,202	7,616,962	
12	Aug	3,615,926	4,314,542	1,540,073	9,470,541	
13	Sep	2,826,440	3,980,290	1,136,989	7,943,719	
14	Oct	1,872,402	2,469,944	874,178	5,216,523	
15	Nov	2,939,785	3,327,910	2,268,711	8,536,406	
16	Dec	2,303,436	3,683,548	1,760,483	7,747,467	
17	Grand Total	24,328,849	32,517,515	24,168,848	81,015,212	

PivotTable Fields

Choose fields to add to report:

- ☐ Region
- ☒ SubRegion
- ☐ Market
- ☐ Customer
- ☐ Business Segment
- ☐ Category
- ☐ Model
- ☐ Color
- ☒ SalesDate

Drag fields between areas below:

FILTERS

- SubRegion

COLUMNS

- Years

ROWS

- SalesDate

VALUES

- Sum of Sales A...

Navigation: Australia | Canada | France | Germany | United Kingdom | United States

#1016: Pivot Table - Slicer vs. Report Filter

Slicers are easy-to-use filtering components that contain a set of buttons that enable you to quickly filter (single / multiple) the data in a PivotTable report, without the need to open drop-down lists to find the items that you want to filter.

The screenshot shows the Excel ribbon with the 'ANALYZE' tab selected. The 'Insert Slicer' button is highlighted with a red box. A red arrow points from this button to a Slicer for 'Market' located on the right side of the worksheet. The Slicer contains a list of regions: Australia, Canada, Central, France, Germany, Northeast, Northwest, and Southeast. The PivotTable in the background shows sales data for May, with the 'Grand Total' for May highlighted in green.

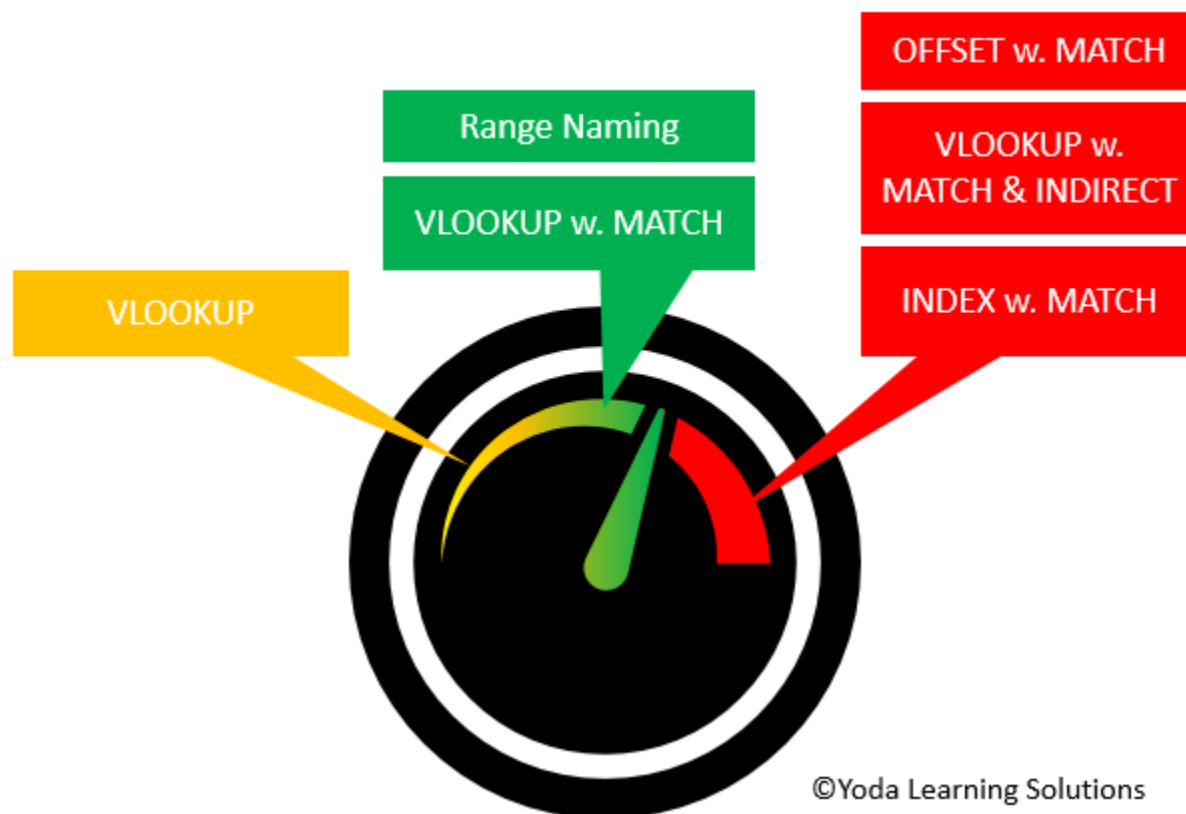
SubRegion	(All)				
Sum of Sales Amount	Years				
SalesDate	2002	2003	2004	Grand Total	
Jan	713,230	1,318,597	1,670,606	3,702,433	
Feb	1,682,318	2,166,151	2,580,937	6,429,407	
Mar	1,673,760	1,784,231	2,870,073	6,328,064	
Apr	872,568	1,829,387	2,168,448	4,870,403	
May	2,280,165	2,921,701	3,380,604	8,582,470	
Jun	1,102,021	1,932,251	1,536,545	4,570,817	
Jul	2,446,798	2,788,963	2,381,202	7,616,962	
Aug	3,615,926	4,314,542	1,540,073	9,470,541	
Sep	2,826,440	3,980,290	1,136,989	7,943,719	
Oct	1,872,402	2,469,944	874,178	5,216,523	
Nov	2,939,785	3,327,910	2,268,711	8,536,406	
Dec	2,303,436	3,683,548	1,760,483	7,747,467	
Grand Total	24,328,849	32,517,515	24,168,848	81,015,212	

NB - For generating a quick Chart based on Pivot Table report: Select entire Pivot Table report, then Press <F11> for generating default chart

#1017-1019: Pivot Table – Practice Exercises

Refer practice workbooks

Overview of Lookup formulas



=VLOOKUP(

VLOOKUP(lookup_value, table_array, col_index_num, [range_lookup])

Emp ID

9821181333

The column sequence no.
from which final answer
needs to be fetched.
MATCH() can be used.

[1]	[2]	[3]	[4]
Emp ID	Name	Gender	Age
9780960142	Price, Susan	F	25
9831012345	Swann, Trina	F	57
9821181333	Hobbs, Patsy	M	21
9830021207	McCook, Sherri E.	M	22

© Yoda Learning Solutions

- Apply <F4> on *table_array* to lock the position. E.g. \$C\$12:\$F\$16
- lookup_value* should exist in the **FIRST COLUMN** (or the left most column) of the *table_array*

FALSE (0): Exact match
Data need not be sorted

TRUE (1 or omitted):
1. SLABS / RANGE (1st column)
2. >= or at least or onwards
3. Ascending Order

©Yoda Learning Solutions

- "lookup_value" should be in the same format as the one stored in the first column of the selected "table_array"
 - Detection techniques: ISNUMBER(), ISTEXT(), LEN()
 - Correction techniques for **nos. stored as text** – VALUE(), Text-to-Columns (Step 3/3) - General
 - Right-Click > Format Cells is NA unless <F2 and Enter> on individual cells

#1102 VLOOKUP w. TRUE vs. FALSE & applications of TRUE

3 conditions (as applicable for Dates & Number):

- SLABS
- \geq
- Ascending Order

Better substitute for complex Nested IFs in significant number of cases. Examples:

[illegible]

#1104: HLOOKUP() vs. VLOOKUP()

=VLOOKUP(

VLOOKUP(lookup_value, table_array, col_index_num, [range_lookup])

=HLOOKUP(

HLOOKUP(lookup_value, table_array, row_index_num, [range_lookup])

#1105 – 1106: MATCH() – Basics & match_type: -1 vs. 0 vs. 1

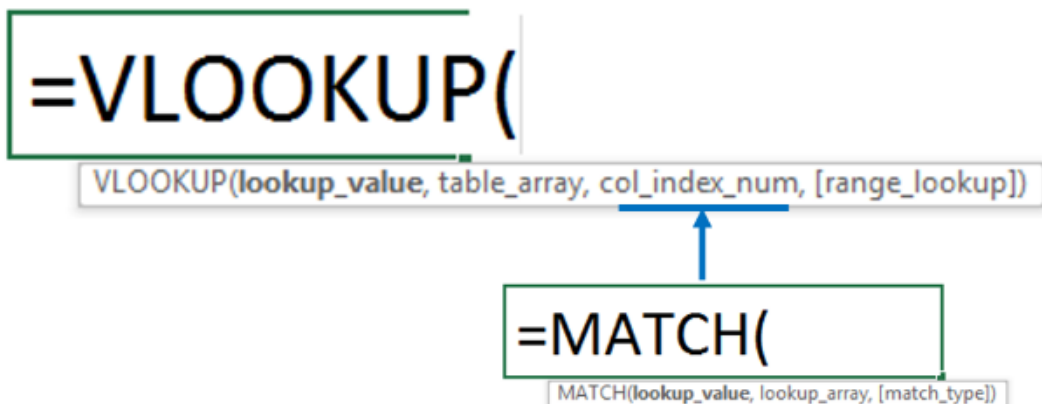
	A	B	C	D	E	F	G
1							
2							
3		Black	6				
4							
5		Company name					
6		Orange					
7		Red					
8		Blue					
9		Pink					
10		Black					
11							

© Yoda Learning Solutions

=MATCH(B3,\$B\$5:\$B\$10,0)
 MATCH(lookup_value, lookup_array, [match_type])

[MATCH helps count the **position number** (1st, 2nd, 3rd...) in a **one-dimensional data range**]

MATCH() with 1	MATCH() with -1
<ul style="list-style-type: none"> Slab with values in ascending order Greater than equal to (>=) 	<ul style="list-style-type: none"> Slab with values in descending order Less than equal to (<=)



VLOOKUP() captures the entire *table_array* and hence, referred as the **SENIOR**

Emp ID	Name	Gender	Age
9780960142	Price, Susan	F	25
9831012345	Swann, Trina	F	57
9821181333	Hobbs, Patsy	M	21
9830021207	McCook, Sherri E.	M	22

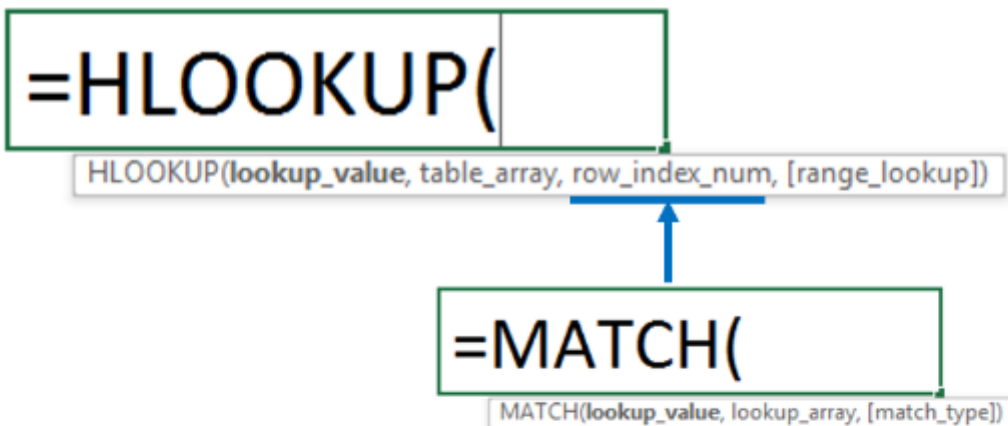
© Yoda Learning Solutions

MATCH() captures only the *header* or the *lookup_array* and hence, referred as the **JUNIOR**. It will count the *col_index_number* for VLOOKUP

VLookup + Match is used in dataset with 2-variables as placed in the given format. The two defines the answer which is placed inside the table.



#1112: 2-D Lookup (Horizontal + Vertical) - HLOOKUP w. MATCH



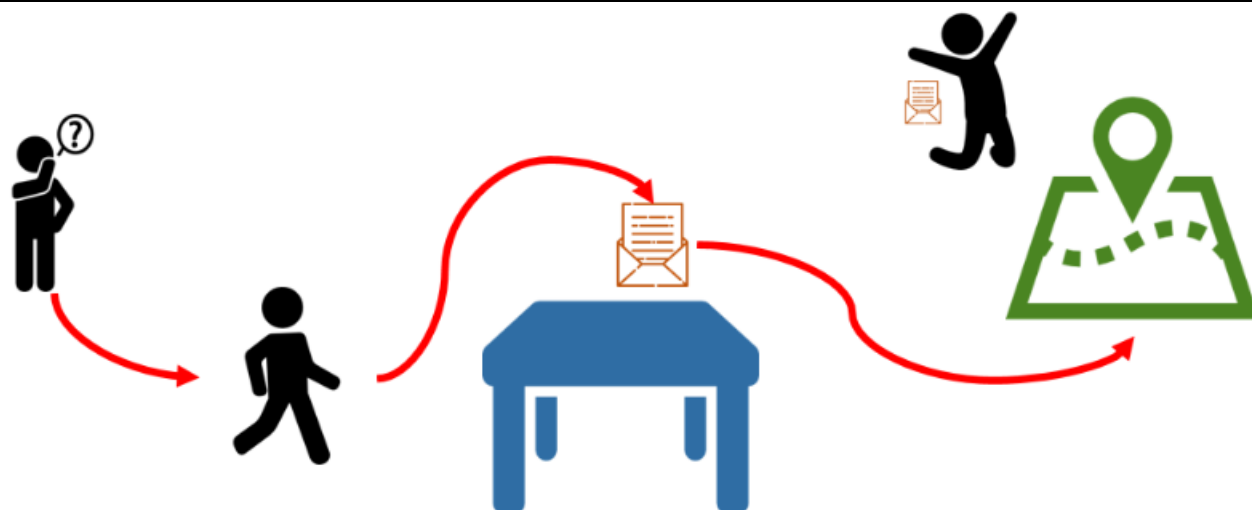
HLOOKUP()

Emp ID	9780960142	9831012345	9821181333	9830021207
Name	Price, Susan	Swann, Trina	Hobbs, Patsy	McCook, Sherri E.
Gender	F	F	M	M
Age	25	57	21	22

© Yoda Learning Solutions

MATCH()

#1113 – 1114: INDIRECT() – Basics along with Range Naming – Applications [“RE-DIRECTION”]



INDIRECT() w. cell reference				INDIRECT() w. named range			
	A	B	C		A	B	C
1				1			
2				2			
3		A5		3		color1	
4		=INDIRECT(B3)		4		=INDIRECT(B3)	
5	Blue			5	Blue		
6	Black			6	Black		
7				7			

Solution in cell B4 is Blue

Note:

- Use INDIRECT when you want to change the reference to a cell within a formula without changing the formula itself.
- Named Cell/Range can be used as an input for INDIRECT
- Often used to create 3D Lookup formulas along with VLookup + Match
- INDIRECT() is used for references within the SAME workbook. Cross-linking different workbook is best avoided as it works only when all relevant workbooks are open - Yields a #REF! error if not done so.

Example:

	A	B	C	
10				
11	JAN	FEB	MAR	
12	1	3	5	
13	2	4	6	
14				
15	FEB	=SUM(INDIRECT(A15))		
16				

#1115 – 1116: 3-D Lookup - VLOOKUP() w. MATCH() w. INDIRECT()

=VLOOKUP(F5,INDIRECT(D5),MATCH(C5,INDIRECT(E5),0),0)

© Yoda Learning Solutions

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Computation of Bonus																	
2																		
3																		
4	Name	Salary \$	Division	Region	Jr	Rating	BONUS											
5	AbduSalaam, Ismael	38,261	HFD	APAC	APACH	3	=VLOOKUP(F5,INDIRECT(D5),MATCH(C5,INDIRECT(E5),0),0)											
6	Abney, Jeffery	82,135	RAD	APAC	APACH	4	5.0%											
7	Adams, Jennifer M	24,566	HFD	ROW	ROWH	1	VLOOKUP(lookup_value, table_array, [row_index_num], [range_lookup])											
8	Adams, Sally	15,097	CDFD	ROW	ROWH	5	86.2%											
9	Adams, Vanessa Y.	38,038	HFD	APAC	APACH	2	45.0%											
10	Alexander, Amy H.	72,682	RAD	APAC	APACH	3	15.0%											
11	Allen, Rebecca	353,556	ED	APAC	APACH	5	5.0%											
12	Allen, Sharon	55,089	RAD	APAC	APACH	2	35.0%											
13	Allen, William Brent	265,746	CDFD	APAC	APACH	3	100.0%											
14	Alligood, Cynthia	98,527	RDD	APAC	APACH	4	17.0%											
15	Andrews, Darryl	20,337	CDFD	APAC	APACH	1	100.0%											
16	Applegate, Mary Alice	18,158	CDFD	APAC	APACH	5	60.0%											
17	Ashcraft, Lynn F.	67,602	RDD	APAC	APACH	3	22.0%											
18	Avina III, Ross J.	161,229	CDFD	ROW	ROWH	3	66.2%											
19	Baker, Jacalyn L.	58,614	HFD	APAC	APACH	5	25.0%											
20	Ball, Ruth Ann	50,056	HFD	APAC	APACH	1	45.0%											
21	Barber, Eva	121,317	RAD	APAC	APACH	3	15.0%											
22	Barden, Nicky E.	932,149	RAD	ROW	ROWH	2	38.5%											
23	Barrett, Stephen	28,455	HFD	APAC	APACH	2	35.0%											

Rating	HFD	RAD	CDFD	ED	RDD	AD	PEMD	LGAD
1	45.0%	35.0%	100.0%	25.0%	32.0%	22.0%	42.0%	50.0%
2	35.0%	35.0%	80.0%	20.0%	27.0%	17.0%	32.0%	46.0%
3	25.0%	15.0%	60.0%	15.0%	22.0%	12.0%	22.0%	36.0%
4	15.0%	5.0%	40.0%	10.0%	17.0%	7.0%	12.0%	26.0%
5	5.0%	0.0%	20.0%	5.0%	12.0%	2.0%	2.0%	16.0%

Rating	HFD	RAD	CDFD	ED	RDD	AD	PEMD	LGAD
1	45.5%	60.3%	110.0%	27.5%	35.2%	24.2%	40.2%	51.0%
2	38.5%	38.5%	88.0%	22.0%	29.7%	18.7%	35.2%	50.6%
3	27.5%	16.5%	66.0%	16.5%	24.2%	13.2%	24.2%	39.6%
4	16.5%	5.5%	44.0%	11.0%	18.7%	7.7%	13.2%	28.6%
5	5.5%	0.0%	22.0%	5.5%	13.2%	2.2%	2.2%	17.6%

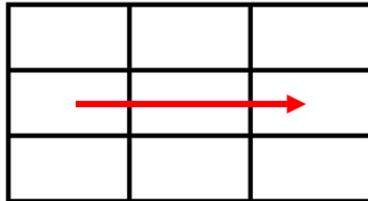
VLOOKUP()
MATCH()

Important Note: Using =INDIRECT() with Naming for 3-D Lookup. E.g. APAC (Sr.) and APACH (Jr.)

#1117 – 1119: 3 Reverse Lookup - INDEX() w. MATCH()

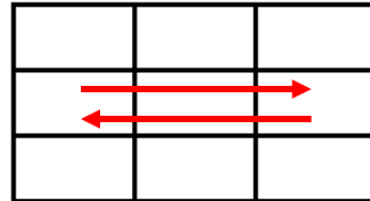
IMM vs VM: Both VM and IMM approaches are useful for pulling data from any 2x2 data matrix. However, IMM is useful for reverse Lookup. Unlike VM, IMM doesn't require the common link values to be in the left-most column of the database.

VLOOKUP

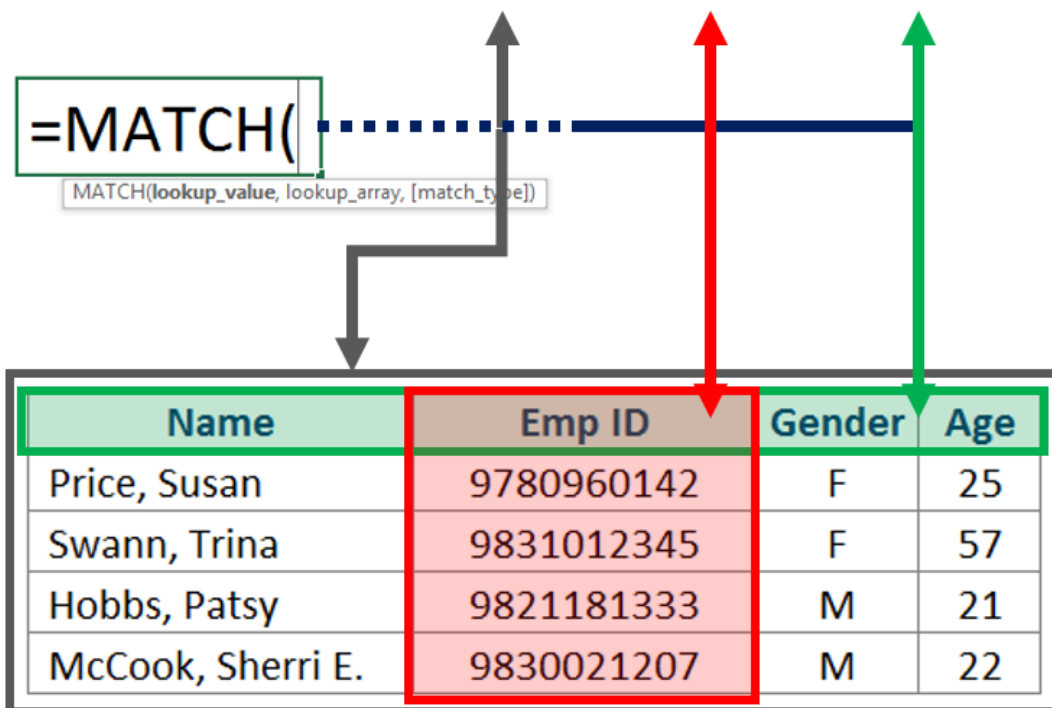


VS.

INDEX



=INDEX(array row_num col_num **)**

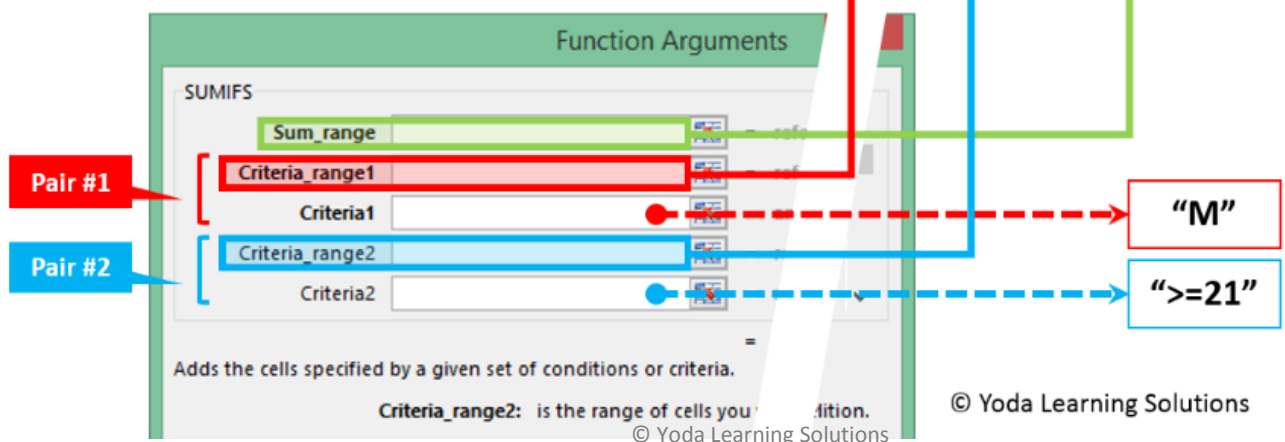


© Yoda Learning Solutions

#1120 – 1121: SUMIFS(): Conditional Summation

=SUMIFS()

Name	Gender	Age	Stipend
Price, Susan	F	25	\$ 10,000
Swann, Trina	F	57	\$ 12,000
Hobbs, Patsy	M	21	\$ 8,000
McCook, Sherri E.	M	22	\$ 20,000



- Solution: 28,000

Note:

- (1) Use <F4> to lock Criteria_range & Sum_range
- (2) Maintain SAME HEIGHT of RANGES
- (3) SUMIFS can accept multiple criteria (127 !) whereas SUMIF can accept only one

#1122: SUMIFS(): Conditional Summation (3 criteria) w. date range

- If cell A1 contains "21-May-2001", then the Criteria_1 can be "<=>=>&A1 indicating date 21-May-2001 onwards. The operators (> < = etc.) has to be enclosed in a pair of double-quotes and concatenated (&) with the cell reference containing valid date(s).

#1123: SUMIFS(): Condition based Selective Cumulative Running Total

=SUMIFS(\$C\$1:C1,\$B\$1:B1,A1)

SUMIFS(sum_range, criteria_range1, criteria1, [criteria_range2, criteria2], ...)

- Careful use of relative references (\$) can help yield **differential cumulative running total**

#1124: COUNTIFS() - Single/Multiple Criteria: Duplicate Count, Instance No.

=COUNTIFS()

Name	Gender	Age	Stipend	
Price, Susan	F	25	\$ 10,000	
Swann, Trina	F	57	\$ 12,000	
Hobbs, Patsy	M	21	\$ 8,000	✓
McCook, Sherri E.	M	22	\$ 20,000	✓

Function Arguments

COUNTIFS

Pair #1: Criteria_range1 (Gender column) → Criteria1: "M"

Pair #2: Criteria_range2 (Age column) → Criteria2: "≥21"

Counts the number of cells specified by a given set of conditions or condition.
Criteria_range2: is the range of cells you want to apply the condition.

© Yoda Learning Solutions

- Solution: 2
- Used for 2-way list-reconciliation, duplicate count E.g. =COUNTIFS(\$A\$1:\$A\$100,A1)
- Used for Instance No./Occurrence No. =COUNTIFS(\$A\$1:A1,A1)

#1201 – 1206: Text Formulas – UPPER(), PROPER() & LOWER(); TRIM(), VALUE(), T(), N(), REPT()

<div>=PROPER(</div> <div>PROPER(text)</div>	<ul style="list-style-type: none"> Capitalizes the first letter in each word of a text value E.g. Converts <u>“the man eats”</u> or <u>“THE MAN EATS”</u> TO <u>“The Man Eats”</u>
<div>=UPPER(</div> <div>UPPER(text)</div>	<ul style="list-style-type: none"> Converts text to uppercase E.g. Converts <u>“the man eats”</u> or <u>“The Man Eats”</u> TO <u>“THE MAN EATS”</u>
<div>=LOWER(</div> <div>LOWER(text)</div>	<ul style="list-style-type: none"> Converts text to lowercase E.g. Converts <u>“The Man Eats”</u> or <u>“THE MAN EATS”</u> TO <u>“the man eats”</u>
<div>=TRIM(</div> <div>TRIM(text)</div>	<ul style="list-style-type: none"> Removes excess spaces from text. Removes all leading & trailing spaces. However, multiple spaces inside the sentences are replaced with a single space. E.g. Converts <u>“ HSBC Inc. ”</u> TO <u>“HSBC Inc.”</u>
<div>=LEN(</div> <div>LEN(text)</div>	<ul style="list-style-type: none"> Returns the number of characters in a text string E.g. AK 47 =LEN(____) = 5
<div>=VALUE(</div> <div>VALUE(text)</div>	<ul style="list-style-type: none"> Converts “a number stored as text” to a number “a number stored as text” is recognized as 0 for computations
<div>=T(</div> <div>T(value)</div>	<ul style="list-style-type: none"> If value is or refers to text, T returns value. If value does not refer to text, T returns "" (empty text).
<div>=N(</div> <div>N(value)</div>	<ul style="list-style-type: none"> Converts a Value to a Number in Excel. For text, it yields zero. Used to leave in-cell comments. E.g. =SUM(B1:B2) + N("This is my comment – Hello World")
<div>=REPT(</div> <div>REPT(text, number_times)</div>	<ul style="list-style-type: none"> Repeats a string / character specified no. of times E.g. =REPT("X",3) will yield XXX

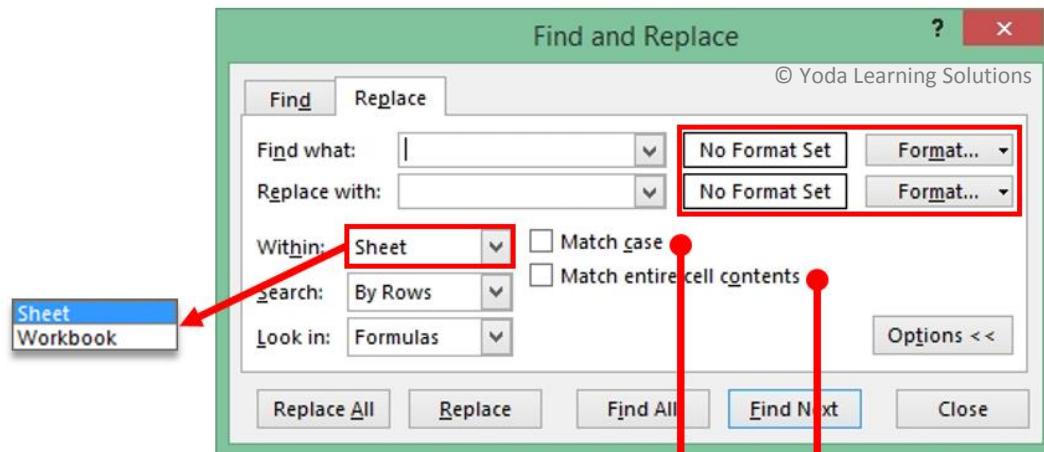
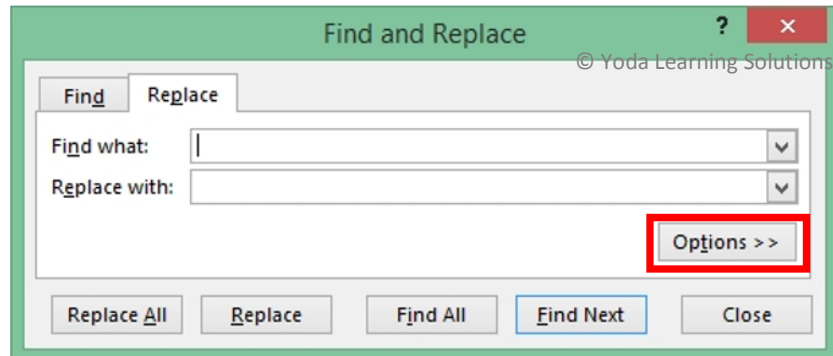
#1207: Joining data strings using CONCATENATE, &

	A	B	C	D	E
1					© Yoda Learning Solutions
2	AK7	2332	AK7-2332	=A2&"-"&B2	
3					
4	AK7	2332	AK7-2332	=CONCATENATE(A4,"-",B4)	

Note:

- Both of the above approaches yield the SAME output
- Any external text, number, symbol must be enclosed in a pair of double quotations. E.g. ""
- =TEXT() may be used if combining Dates. E.g. ="Today's date is " & TEXT(A2,"dd-mmm-yy")

Ctrl H



make the search
Case Sensitive

a search of "apple" will
pick up only "apple" and
not "apple pie"

#1208 – 1209: Find & Replace – Using Wildcard characters (* ?)

*

Asterisk (*) : Any number of characters

Email

Ismael Abdusalaam/IN/TRS/PwD@ASIAPAC-IN
Jeff Abney/IN/Adv/PwD@LATAM-IN
Jennifer Adams/IN/M&C/PwD@AMERICAS-IN
Cindy Alligood/IN/M&C/PwD@LATAM-IN
Darryl Andrews/IN/FAS/PwD@AMERICAS-IN
Maryalice Applegate/IN/TRS/PwD@EMEA-IN
Lynn Ashcraft/IN/M&C/PwD@AMERICAS-IN
Ross Avina/IN/M&C/PwD@AMERICAS-IN
Jacalyn Baker/IN/TRS/PwD@EMEA-IN

© Yoda Learning Solutions

Find and Replace

Find Replace

Find what: /*

Replace with:

Options >>

Replace All Replace Find All Find Next Close



Email

Ismael Abdusalaam
Jeff Abney
Jennifer Adams
Cindy Alligood
Darryl Andrews
Maryalice Applegate
Lynn Ashcraft
Ross Avina
Jacalyn Baker

#1208 – 1209: Find & Replace – Using Wildcard characters (* ?)

?

Question (?) : Any one character (single)

Email

Ismael Abdusalaam/IN/TRS/PwD@ASIAPAC-IN
 Jeff Abney/IN/Adv/PwD@LATAM-IN
 Jennifer Adams/IN/M&C/PwD@AMERICAS-IN
 Cindy Alligood/IN/M&C/PwD@LATAM-IN
 Darryl Andrews/IN/FAS/PwD@AMERICAS-IN
 Maryalice Applegate/IN/TRS/PwD@EMEA-IN
 Lynn Ashcraft/IN/M&C/PwD@AMERICAS-IN
 Ross Avina/IN/M&C/PwD@AMERICAS-IN
 Jacalyn Baker/IN/TRS/PwD@EMEA-IN

© Yoda Learning Solutions

Find and Replace

Find what: /???/
 Replace with: /XXX/

Replace All Replace Find All Find Next Close



Email

Ismael Abdusalaam/IN/XXX/PwD@ASIAPAC-IN
 Jeff Abney/IN/XXX/PwD@LATAM-IN
 Jennifer Adams/IN/XXX/PwD@AMERICAS-IN
 Cindy Alligood/IN/XXX/PwD@LATAM-IN
 Darryl Andrews/IN/XXX/PwD@AMERICAS-IN
 Maryalice Applegate/IN/XXX/PwD@EMEA-IN
 Lynn Ashcraft/IN/XXX/PwD@AMERICAS-IN
 Ross Avina/IN/XXX/PwD@AMERICAS-IN
 Jacalyn Baker/IN/XXX/PwD@EMEA-IN

#1210: Find & Replace – Neutralising Wildcard characters to remove them from data

Important: Wildcard characters can be neutralized by pre-fixing tilde sign (~) which is placed above the TAB key:

Ismael Abdusalaam
 Jeff Abney*****
 Jennife**r Adams
 Cindy Alligood
 Darryl *****Andrews
 Maryalice Applegate
 Lynn ****Ashcraft
 Ross Avina
 *****Jacalyn Baker

© Yoda Learning Solutions

Find and Replace

Find what: ~*
 Replace with:

Replace All Replace Find All Find Next Close

#1211: Find & Replace – Word vs. Excel



Find and Replace

Find what:

Replace with:

More >> Replace Replace All Find Next Cancel

Find and Replace

Find what:

Replace with:

<< Less Replace Replace All Find Next Cancel

Search Options

Search: All

☐ Match case ☐ Match prefix

☐ Find whole words only ☐ Match suffix

☐ Use wildcards ☐ Ignore punctuation characters

☐ Sounds like (English) ☐ Ignore white-space characters

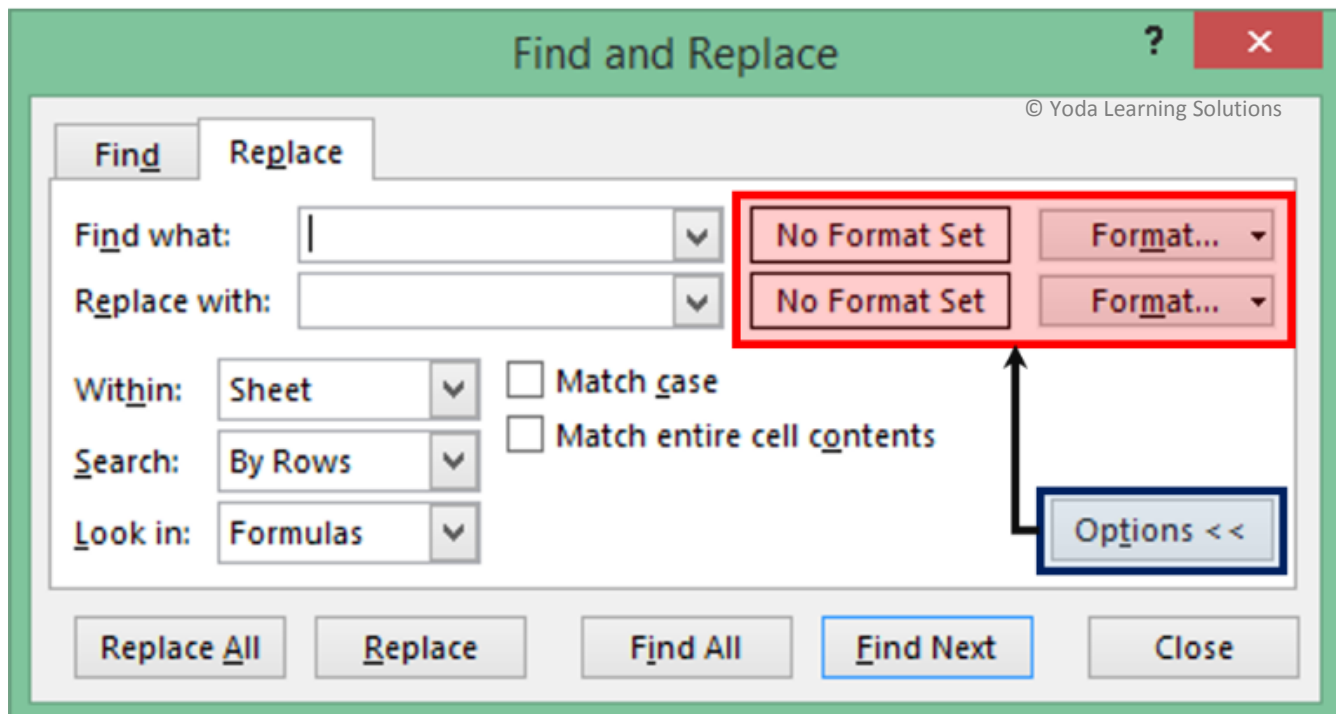
☐ Find all word forms (English)

Replace

Format Special No Formatting

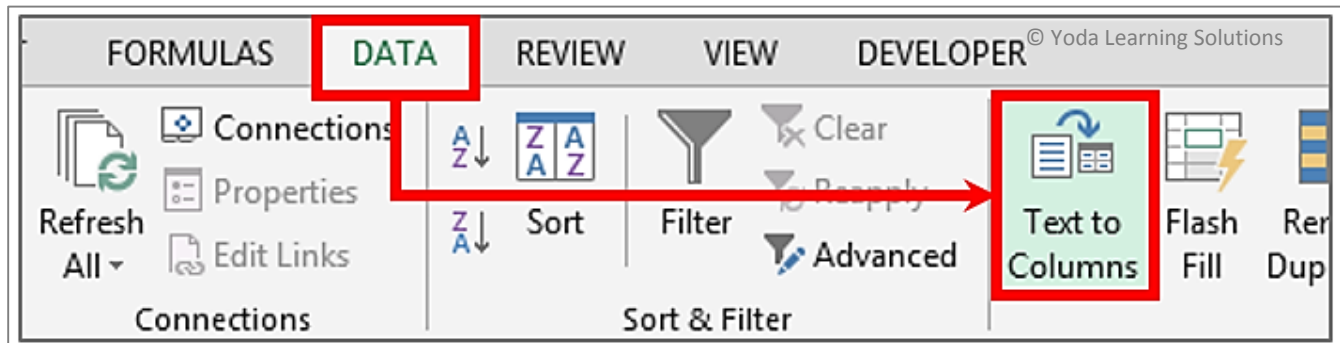
- Paragraph Mark
- Tab Character
- Any Character
- Any Digit
- Any Letter
- Caret Character
- Section Character
- Paragraph Character
- Column Break
- Em Dash
- En Dash
- Endnote Mark
- Field
- Footnote Mark
- Graphic
- Manual Line Break
- Manual Page Break
- Nonbreaking Hyphen
- Nonbreaking Space
- Optional Hyphen
- Section Break
- White Space

#1212: Find & Replace – Cell Format



- FIND WHAT: Specify the **source** format
- REPLACE WITH: Specify the **target** format

#1213-1214: Text to Columns – Delimited vs. Fixed Width



© Yoda Learning Solutions		A	B	[Delimited]
1	Separate Name from Surname			
2				
3	Surname, Name	Surname	Name	
4	AbduSalaam, Ismael			
5	Abney, Jeffery			
6	Adams, Jennifer M			
7	Adams, Sally			
8	Adams, Vanessa Y.			

	© Yoda Learning Solutions		A	B	C	[Fixed Width]	
1							
2	Transfer 1 column data into 4 columns						
3							
4	Fixed Assets (excerpts)			Account No.	Item No.	Item No. Check	Asset Desc.
5	25900 814392 00814392 MOULD REPRG CHARGES						
6	25900 816400 00816400 WIRE HOLDER 3 PIN						
7	25900 816401 00816401 WIRE HOLDER 5 PIN						
8	25900 816460 00816460 MOULD FOR WORD MARK						
9	25900 816410 00816410 MOULD FOR CONTROL K						

#1214: Text to Columns – Tricks

Trick 1: Ensuring a pre-defined format for exported data @ Step 3 of 3. Applications:

- Numbers stored as text to “General” format – refer VLookup discussion
- Dates cleaning
- Retaining prefix zeroes in cases of Credit Card & bank Account nos., ID Codes

Prefix zeroes must be retained

© Yoda Learning Solutions

Convert Text to Columns Wizard - Step 3 of 3

This screen lets you select each column and set the Data Format.

Column data format

☐ General

☒ Text

☐ Date: MDY

☐ Do not import column (skip)

Destination: =B55

Data preview

General	General	Text	General
25900	814392	00814392	MOULD REPRG CHARGES
25900	816400	00816400	WIRE HOLDER 3 PIN
25900	816401	00816401	WIRE HOLDER 5 PIN
25900	816460	00816460	MOULD FOR WORD MARK
25900	816410	00816410	MOULD FOR CONTROL K

Cancel < Back Next > Finish

- For keeping intact a number string with Zeroes at the beginning (prefix): In Step 3 of 3, select the relevant “Column” under “Data preview” section → Column will blacken out → Choose “Text” radio button to store the output column in text form

#1215 – 1216: Text to Columns – Cleaning up numbers w. trailing minus sign; replacing Dr/Cr w. +/-

The screenshot displays the 'Convert Text to Columns Wizard - Step 3 of 3' dialog box in Excel. The 'Column data format' section has 'General' selected. The 'Advanced Text Import Settings' dialog is open, showing 'Trailing minus for negative numbers' checked. The background shows a table with 'Dr/Cr' and 'Final Output' columns.

Dr/Cr	Final Output
3789Cr	-3789
3629Cr	-3629
5006Dr	5006
4161Cr	-4161

© Yoda Learning Solutions

- Text-to-Columns is also used to rectify Numbers with **trailing negative (-) signs**. E.g. From 212- to -212

#1217 – 1218: Text to Columns – Correcting invalid Dates

Convert Text to Columns Wizard - Step 3 of 3

This screen lets you select each column and set the Data Format.

Column data format

☐ General
☐ Text
☒ **Date:** MDY
☐ Do not convert

Destination: []

Data preview

MDY
 24.05.2007
 04.08.2007
 09.05.2008
 26.06.2008
 27.07.2008

© Yoda Learning Solutions

Invalid Date Input	Final Output
24.05.2007	24-May-07
04.08.2007	4-Aug-07
09.05.2008	9-May-08
26.06.2008	26-Jun-08
27.07.2008	27-Jul-08
24.11.2008	24-Nov-08
28.11.2008	28-Nov-08

- **For Correcting Dates** – Apply “Confession Box”. Choose the mistake or the current sequence of date components
- E.g. “DMY” – 29.10.2009 and “YMD” for 20091031

#1219-1221: LEFT(), RIGHT(), MID()

=LEFT(

LEFT(text, [num_chars])

=RIGHT(

RIGHT(text, [num_chars])

=MID(

MID(text, start_num, num_chars)

- Extract specified no. of characters from left, right or mid

	A	B	C
1	AJCPP1312N	AJ	=LEFT(A1,2)
2	AJCPP1312N	2N	=RIGHT(A2,2)
3	AJCPP1312N	P	=MID(A3,4,1)

=LEN



LEN

Returns the number of characters in a text string

- "characters" Includes space

#1219-1221: SEARCH() vs. FIND()

- Yield the starting position of the criteria

=SEARCH(

SEARCH(find_text, within_text, [start_num])

- Case Sensitive? – No
- Can use wild characters in search terms? - Yes

=FIND(

FIND(find_text, within_text, [start_num])

- Case Sensitive? – Yes
- Can use wild characters in search terms? - No

	A	B	C
1	user@yodalearning.com	6	=SEARCH("YO*",A1)
2	123456.....21		

#1301: Logical formulas - generally used with IF()

=ISBLANK



ISBLANK

Checks whether a reference is to an empty cell, and returns TRUE or FALSE

=ISNUMBER



ISNUMBER

Checks whether a value is a number, and returns TRUE or FALSE

[Used to check the validity of dates as technically every valid date in Excel is a “number”]

=ISTEXT



ISTEXT

Checks whether a value is text, and returns TRUE or FALSE

=ISERROR



ISERROR

Checks whether a value is an error (#N/A, #VALUE!, #REF!, #DIV/0!, #NUM!, #NAME?, or #NULL!), and returns TRUE or FALSE

=ISFORMULA



ISFORMULA

Checks whether a reference is to a cell containing a formula, and returns TRUE or FALSE

Others: ISNA(), ISREF(), ISERR()

#1302-1304: Logical formulas – AND(), OR(), IF()

=AND



AND

Checks whether all arguments are TRUE, and returns TRUE if all arguments are TRUE

=OR



OR

Checks whether any of the arguments are TRUE, and returns TRUE or FALSE. Returns FALSE only if all arguments are FALSE

=IF(

IF(logical_test, [value_if_true], [value_if_false])

Examples:

	A	B	C	D	E	G
8	Name	Salary p.a. (US\$)	Division	Rating	Rating 1-3 AND Division "CDFD" AND Salary < 50K	
9	AbduSalaam, Ismael	38,261	HFD	3	=AND(D9<4,C9="CDFD",B9<50000)	
426					AND(logical1, [logical2], [logical3], [logical4], ...)	

[FALSE because Division is not equal to "CDFD"]

	A	B	C	D	F	G
8	Name	Salary p.a. (US\$)	Division	Rating	Rating 1-3 AND Division "CDFD" AND Salary < 50K	
9	AbduSalaam, Ismael	38,261	HFD	3	=OR(D9<4,C9="CDFD",B9<50000)	
426					OR(logical1, [logical2], [logical3], [logical4], ...)	

[TRUE because at least one of three conditions is TRUE]

	A	B	C	D	F	G	H	I
8	Name	Salary p.a. (US\$)	Division	Rating	Rating 1-3 AND Division "CDFD" AND Salary < 50K			
9	AbduSalaam, Ismael	38,261	HFD	3	=IF(OR(D9<4,C9="CDFD",B9<50000),"Bonus","No Bonus")			

[Bonus]

=IFERROR(
IFERROR(value, value_if_error)

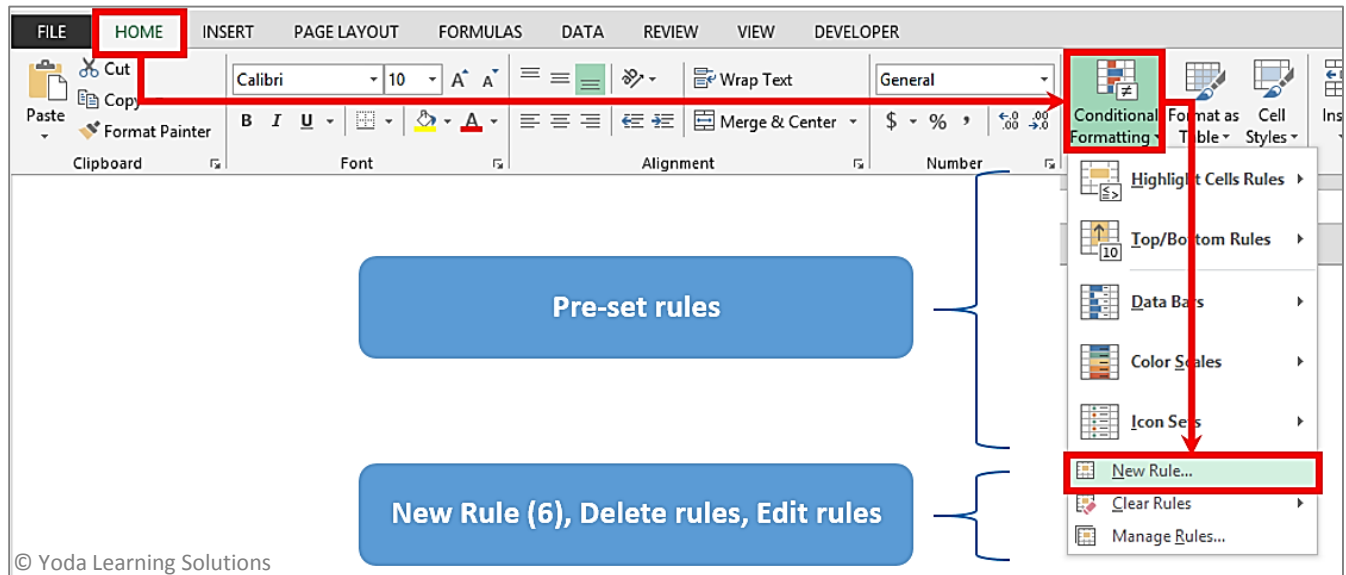
- =IFERROR(VLOOKUP() , "Data Not Available")
- =IFERROR(VLOOKUP() , IFERROR(VLOOKUP() , "Data Not Available"))
- =IFERROR(VLOOKUP() , VLOOKUP())

- Prior to v. 2007 i.e. before IFERROR() was introduced, users used
=IF(ISERROR(VLOOKUP()) , VLOOKUP() , "Data Not Available")
instead of
=IFERROR(VLOOKUP() , "Data Not Available")

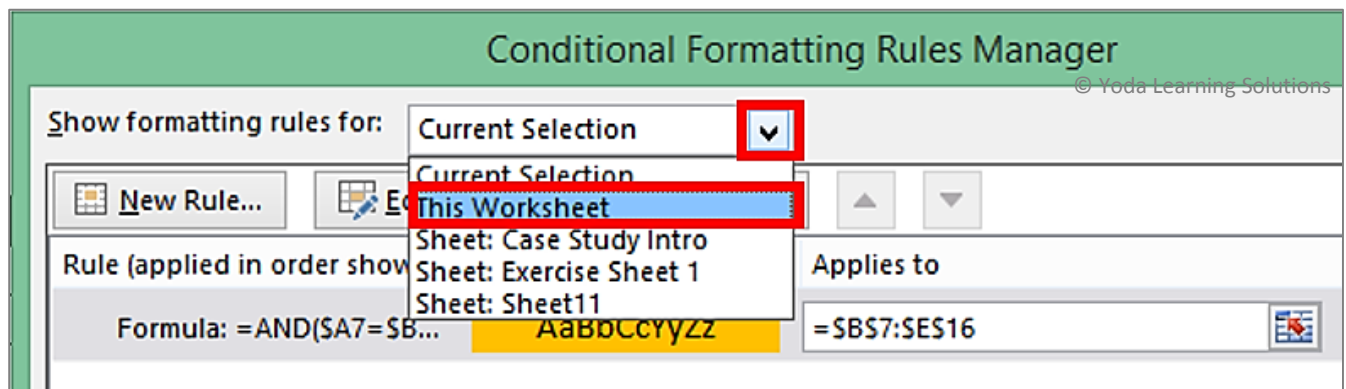
	A	B	C
1	2	2	=A1<>B1

- Not equal is referred by <>
- Answer = FALSE

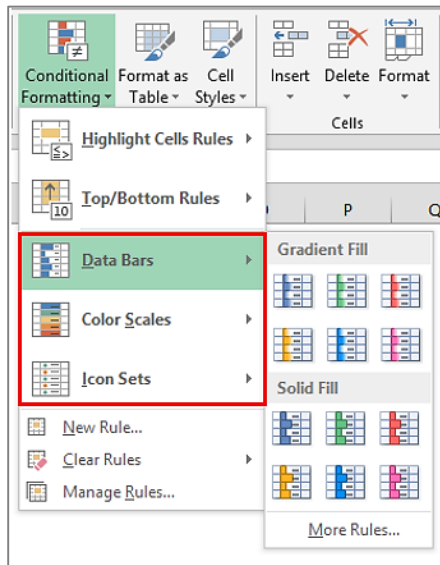
#1401-1403: Conditional Formatting



Manage Rules

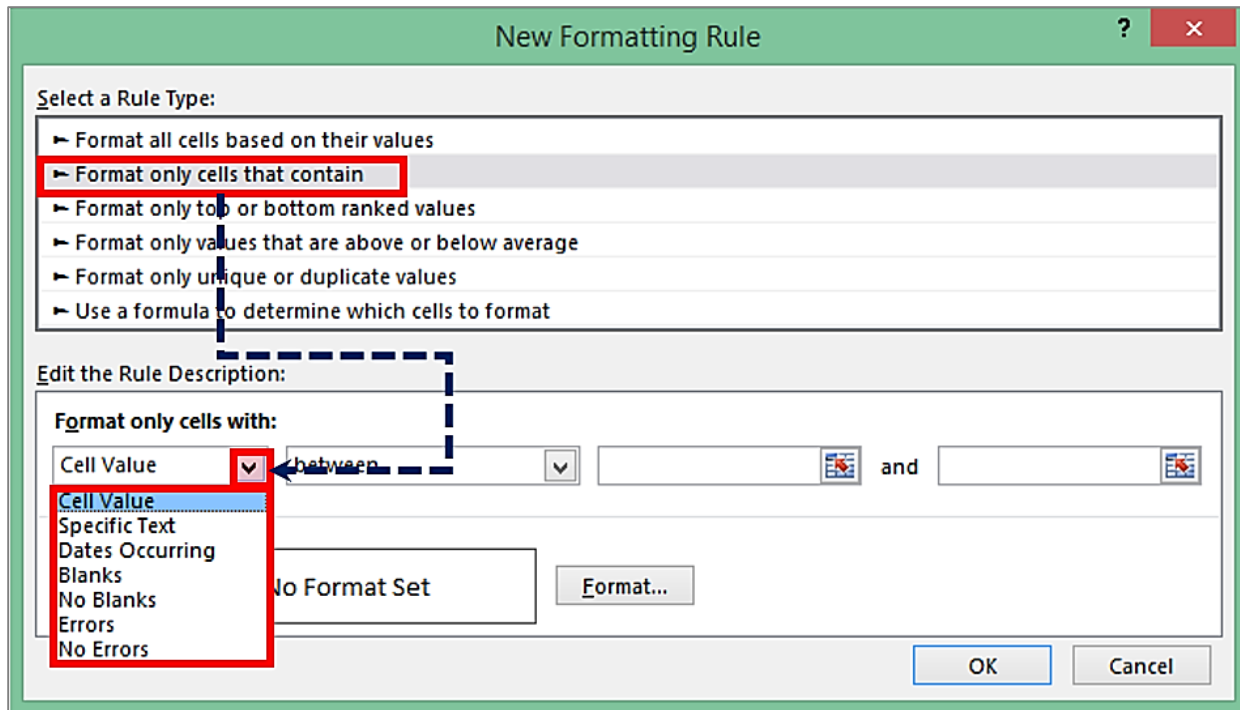


#1403: Conditional Formatting: Data Bars, Color Scales, Icon Sets



#1404: Conditional Formatting: Blanks, Errors, Values, Duplicates

Most commonly used "Rule":



#1405-1407: Conditional Formatting: Formula based

	A	B	C	D
1	MIS Report			
2				
3	Division Name	RAD		
4				
5				
6				
7	Name	Salary p.a. (US\$)	Division	Rating
8	AbduSalaam, Ismael	38,261	HFD	3
9	Abney, Jeffery	82,135	RAD	4
10	Adams, Jennifer M	24,566	HFD	1
11	Adams, Sally	15,097	CDFD	5
12	Adams, Vanessa Y.	38,038	HFD	1
13	Alexander, Amy H.	72,682	RAD	3
14	Allen, Rebecca	353,556	ED	5
15	Allen, Sharon	55,089	RAD	2
16	Allen, William Brent	265,746	CDFD	1
17	Alligood, Cynthia	98,527	RDD	4
18	Andrews, Darryl	20,337	CDFD	1
19	Applegate, Mary Alice	18,158	CDFD	3
20	Ashcraft, Lynn F.	67,602	RDD	3
21	Avina III, Ross J.	161,229	CDFD	3
22	Baker, Jacalyn L.	58,614	HFD	3
23	Ball, Ruth Ann	50,056	HFD	1
24	Barber, Eva	121,317	RAD	3
25	Barden, Nicky E.	932,149	RAD	2
26	Barrett, Stephen	28,455	HFD	2
27	Barry, Sheila C.	32,449	HFD	5

Edit Formatting Rule

Select a Rule Type:

- Format all cells based on their values
- Format only cells that contain
- Format only top or bottom ranked values
- Format only values that are above or below average
- Format only unique or duplicate values
- Use a formula to determine which cells to format ☒

Edit the Rule Description:

Format values where this formula is true:

=B3=B8

Preview: AaBbCcYyZz

OK Cancel

Important:

- Formula should yield TRUE or FALSE as an answer
- Relative references (\$). E.g. \$C8
- Formula in line with selection of data range. E.g. \$C8 because selection of data range starts from the 8th row

	A	B	C	D	E	F	G	M	N	© Yoda Learning Solutions
1	Branch Name	Branch 6								
2	Quarter	Q1 06								
3		243								
4										
5										
6	Branch Name	Q1 06	Q2 06	Q3 06	Q4 06					
7	Branch 1	(378)	179	601	992					
8	Branch 2	(331)	252	383	770					
9	Branch 3	46	363	343	(713)					
10	Branch 4	135	474	885	659					
11	Branch 5	193	779	165	944					
12	Branch 6	243	243	992	43					
13	Branch 7	398	85	534	951					
14	Branch 8	491	127	363	83					
15	Branch 9	605	594	288	363					
16	Branch 10	670	849	1,028	1,028					
17										
18										
19										
20										
21										

Edit Formatting Rule

Select a Rule Type:

- Format all cells based on their values
- Format only cells that contain
- Format only top or bottom ranked values
- Format only values that are above or below average
- Format only unique or duplicate values
- Use a formula to determine which cells to format

Edit the Rule Description:

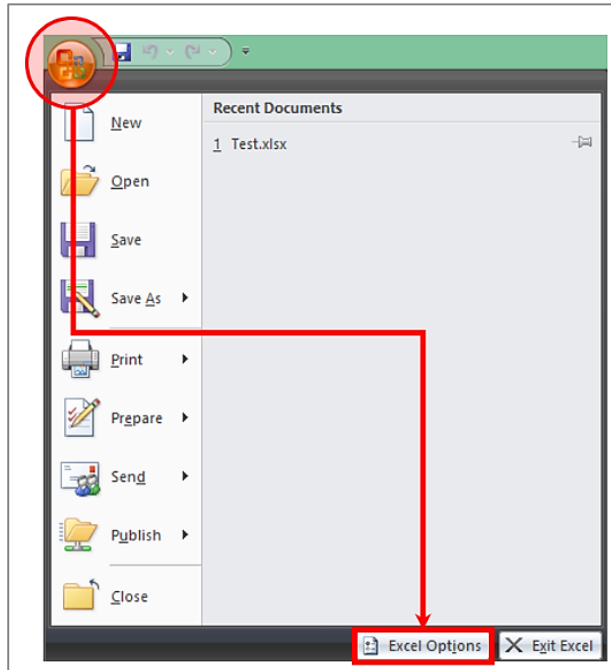
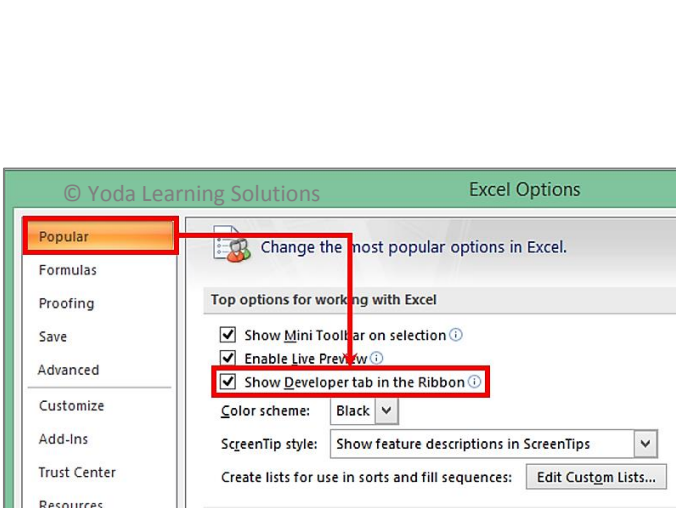
Format values where this formula is true:

=AND(SA7=SB\$1,BS6=SB\$2)

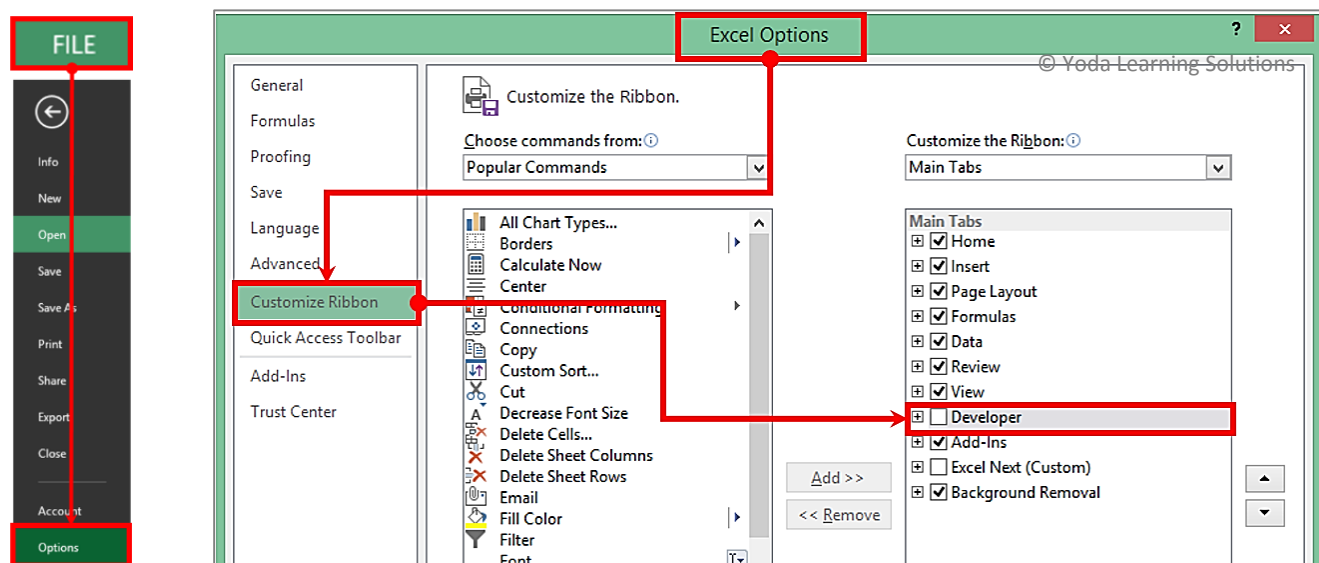
Preview: AaBbCcYyZz Format...

OK Cancel

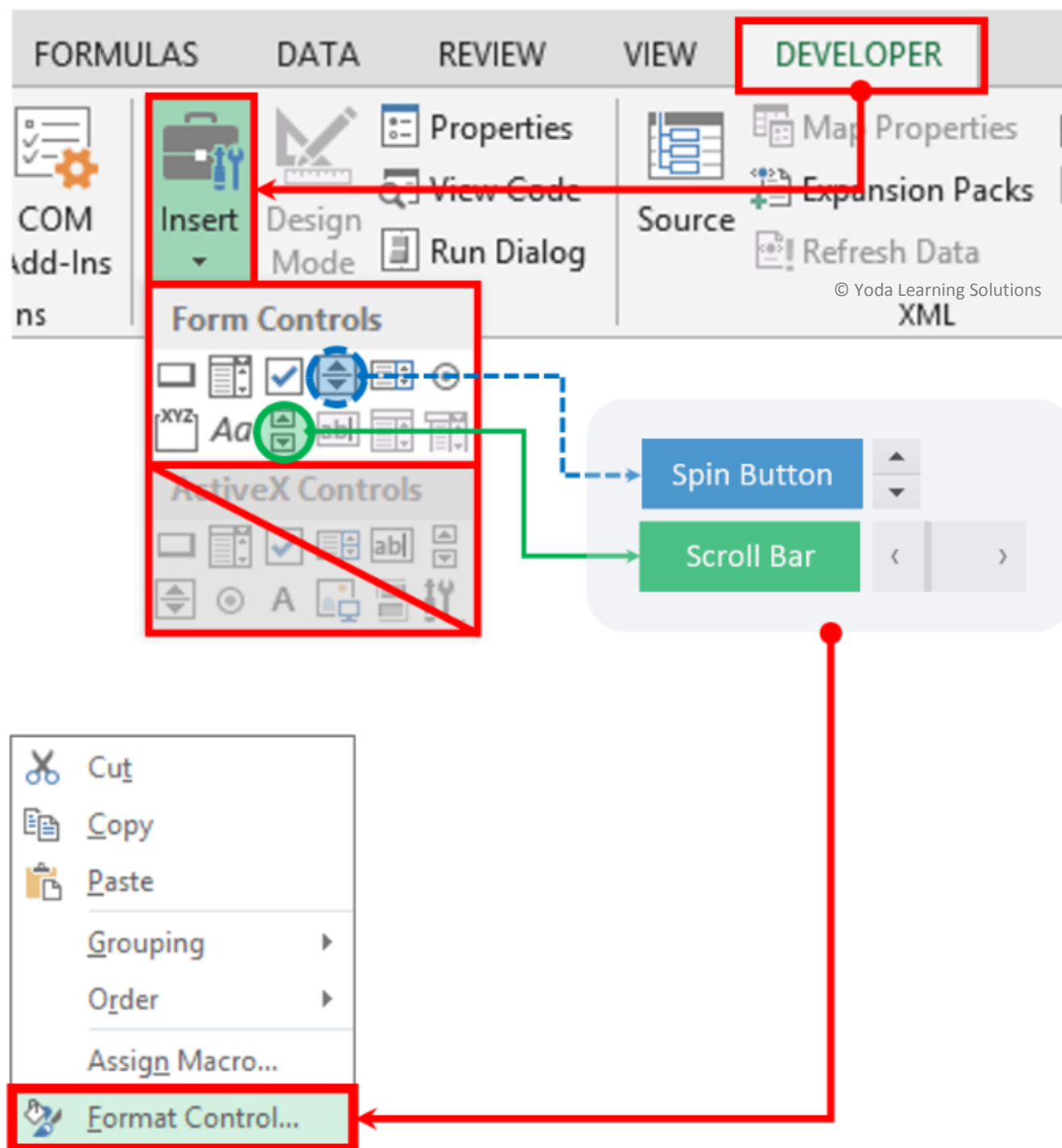
#1501: Activating Developer tab in v. 2007

OFFICE BUTTON > EXCEL OPTIONS	POPULAR > Show Developer tab in the Ribbon
	

#1501: Activating Developer tab in v. 2010-13



#1501-1502: Using Form Control Buttons from Developer Tab (Spin Bar, Scroll Bar) + Limitations



Format Control

Size	Protection	Properties	Alt Text	Control
Current value: <input type="text" value="0"/>				
Minimum value: <input type="text" value="10"/>				
Maximum value: <input type="text" value="100"/>				
Incremental change: <input type="text" value="1"/>				
Page change: <input type="text" value=""/>				
Cell link: <input type="text" value="\$A\$1"/>				
<input checked="" type="checkbox"/> 3-D shading				

© Yoda Learning Solutions

NB: The feature is used to change the input values (assumptions) at the click of a button. The referred “Form Control” buttons cannot accommodate decimal values, % values or a value outside 0-30,000 range.

#1504: PMT

=PMT()

Function Arguments

PMT

Rate	<input type="text" value="10%/12"/>		= 0.008333333
Nper	<input type="text" value="36"/>		= 36
Pv	<input type="text" value="750000"/>		= 750000
Fv	<input type="text" value=""/>		= number
Type	<input type="text" value="0"/>		= 0

= -24200.3904

Calculates the payment for a loan based on constant payments and a constant interest rate.

Type is a logical value: payment at the beginning of the period = 1; payment at the end of the period = 0 or omitted.

Formula result = -24200.3904

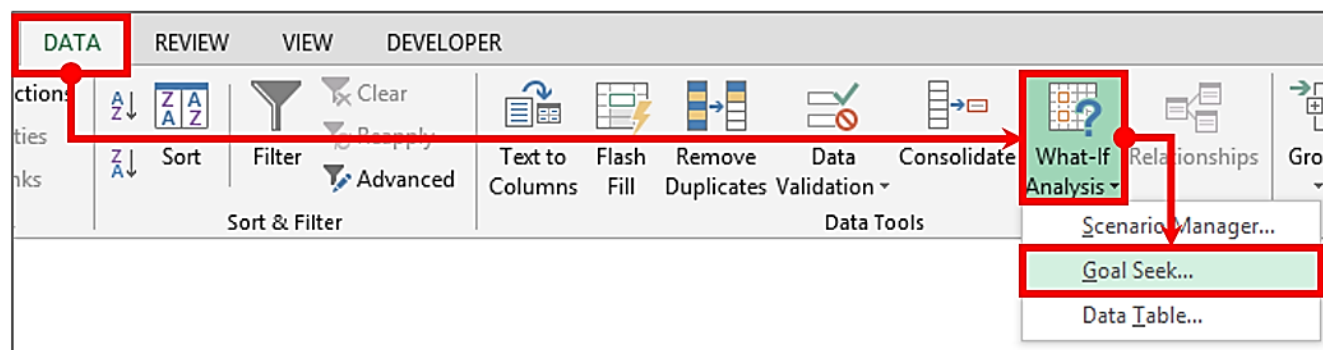
[Help on this function](#)

OK **Cancel**

EMI

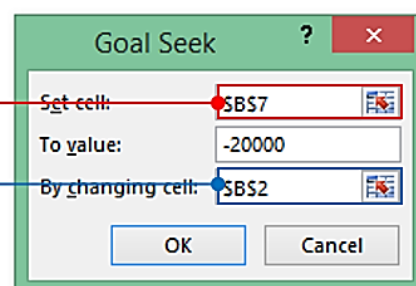
#1504: What IF Analysis – Goal Seek

Goal Seek helps back calculate input based on pre-defined target answer.



Here it's targeting an EMI of Rs. 20,000 and is trying to back calculate what can be the loan amount given the fixed duration and interest %.

	A	B	C	D
1				
2	Loan Amt. Rs.	500,000.0		
3	Interest % p.a.	13.0%		
4	Duration (Yrs.)	2.0		
5				
6				
7	EMI (Rs.) using PMT	(23,771)		
8		=PMT(B3/12,B4*12,B2)		



	A	B
1		
2	Loan Amt. Rs.	420,682.2
3	Interest % p.a.	13.0%
4	Duration (Yrs.)	2.0
5		
6		
7	EMI (Rs.) using PMT	(20,000)
8		=PMT(B3/12,B4*12,B2)

#1505-1506: What IF Analysis – Data Tables (Sensitivity Analysis)

Price & Quantity leads to revenue. Cost component includes Fixed & Variable component. Comparing Revenue vs. Cost yields Profit.

	A	B	© Yoda Learning Solutions
1		DATA TABLES	
2			
3		Sample Revenue-Cost Model	
4			
5		Price (Rs.)	15.00
6		Quantity sold	2,000
7		Revenue	30,000
8			
9		Variable Cost (Cost of Material, Labor)	15,000
10		Fixed Cost (Rent, Salary etc)	20,000
11		Total Cost	35,000
12			
13		Profit= Revenue less Total Cost	(5,000)
14			
15			
16		Assumption: Variable cost as a % of Revenue	50.0
17			

Step 1: Set the layout with up to 2 variables

	A	E	F	G	H	I	J
1							
2							
3			1500	2000	2500	3000	3500
4		10					
5		=E4+1					
6		12					
7		13					
8		14					
9		15					
10							
11							

Qty Sold

Price

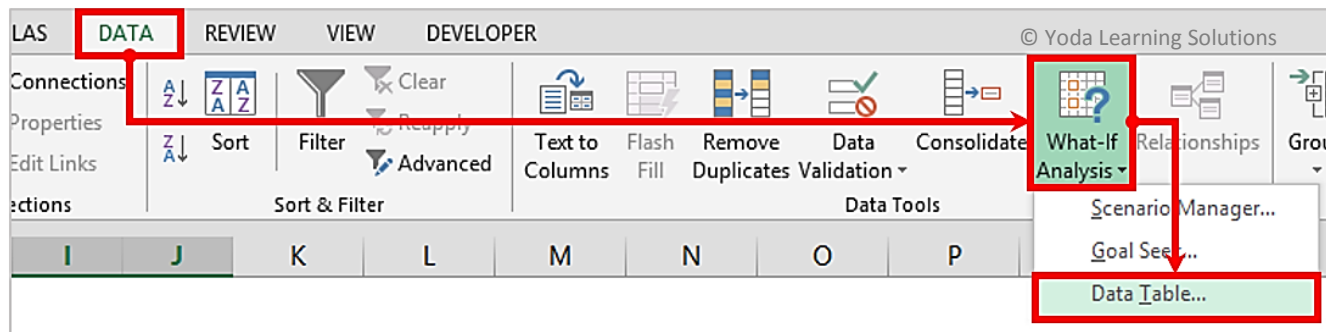
Step 2: At the intersection of the 2-variables (top-left of the table), point the cell to the cell containing formula for effect value. E.g. C13 refers to Profit

	A	B	C	D	E	F	G	H	I	J
1		DATA TABLES								© Yoda Learning Solutions
2										
3		Sample Revenue-Cost Model			=C13	1500	2000	2500	3000	3500
4					10					
5		Price (Rs.)	15.00		11					
6		Quantity sold	2,000		12					
7		Revenue	30,000		13					
8					14					
9		Variable Cost (Cost of Material, Labor)	15,000		15					
10		Fixed Cost (Rent, Salary etc)	20,000							
11		Total Cost	35,000							
12										
13		Profit= Revenue less Total Cost	(5,000)							
14										
15										
16		Assumption: Variable cost as a % of Revenue	50.0							
17										

Step 3: Choose the table area (not more not less)

	A	E	F	G	H	I	J
1							© Yoda Learning Solutions
2							
3		(5,000)	1500	2000	2500	3000	3500
4		10					
5		11					
6		12					
7		13					
8		14					
9		15					
10							

Step 4: Go to “Data Table”



Step 4: Row Input Cell & Column Input Cell (single cell reference each)

The screenshot shows an Excel spreadsheet with a 'Sample Revenue-Cost Model' and a 'Data Table' dialog box. The spreadsheet has columns A through J and rows 1 through 17. The 'Data Table' dialog box is open, showing the 'Row input cell' as '\$C\$6' and the 'Column input cell' as '\$C\$5'. The spreadsheet shows a table of revenue and costs, with a 'Data Table' section on the right.

	A	B	C	D	E	F	G	H	I	J
1		DATA TABLES								
2										
3		Sample Revenue-Cost Model								
4					(5,000)	1500	2000	2500	3000	3500
5		Price (Rs.)	15.00		10					
6		Quantity sold	2,000		11					
7		Revenue	30,000		12					
8					13					
9		Variable Cost (Cost of Material, Labor)	15,000		14					
10		Fixed Cost (Rent, Salary etc)	20,000		15					
11		Total Cost	35,000							
12										
13		Profit= Revenue less Total Cost	(5,000)							
14										
15										
16		Assumption: Variable cost as a % of Revenue	50.0							
17										

VC	<u>V</u> ertical data (Say Prices)	<u>C</u> olumn Input Cell (\$C\$5)
HR	<u>H</u> orizontal data (say Qty Sold)	<u>R</u> ow Input Cell (\$C\$6)

Result: Generated Output – 2-variable sensitivity analysis

	A	E	F	G	H	I	J
1							© Yoda Learning Solutions
2							
		(5,000)	1500	2000	2500	3000	3500
		10	-12500	-10000	-7500	-5000	-2500
		11	-11750	-9000	-6250	-3500	-750
		12	-11000	-8000	-5000	-2000	1000
		13	-10250	-7000	-3750	-500	2750
		14	-9500	-6000	-2500	1000	4500
		15	-8750	-5000	-1250	2500	6250
10							

NB: Conditional Formatting can be applied to apply green / red colors for positive / negative nos.

#1507-1508: Data Tables (Sensitivity Analysis) - 2 Inputs & multiple Output

Step 1: Drop-Down list

Drop-Down list of "Impact" or output variables

	A	E	F		I	J
1		Revenue				
2		Revenue				
3		(5,000)	1500	2000	2500	3000
4		10	-12500	-10000	-7500	-5000
5		11	-11750	-9000	-6250	-3500
6		12	-11000	-8000	-5000	-2000
7		13	-10250	-7000	-3750	-500
8		14	-9500	-6000	-2500	1000
9		15	-8750	-5000	-1250	2500
10						

© Yoda Learning Solutions

Step 2: Output cells "named" using Name Box – same names used as list values of drop-down

revenue : X ✓ fx =C5*C6 © Yoda Learning Solutions

Name Box

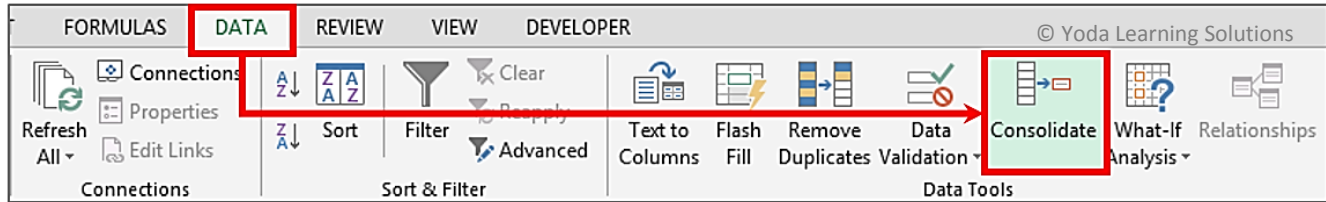
	A	B	C
1	DATA TABLES		
2			
3	Sample Revenue-Cost Model		
4			
5	Price (Rs.)		15.00
6	Quantity sold		2,000
7	Revenue		30,000 = revenue
8			
9	Variable Cost (Cost of Material, Labor)		15,000
10	Fixed Cost (Rent, Salary etc)		20,000
11	Total Cost		35,000
12			
13	Profit= Revenue less Total Cost		(5,000) = profit
14			

Step 3: Using INDIRECT() in the Data Table – pointing to the cell containing drop-down list

	A	E	F	G	H	I	J
1		Revenue					
2							
3		=INDIRECT(E1)	2000	2500	3000	3500	
4		INDIRECT(ref_text, [a1])	20000	25000	30000	35000	
5		11	16500	22000	27500	33000	38500
6		12	18000	24000	30000	36000	42000
7		13	19500	26000	32500	39000	45500
8		14	21000	28000	35000	42000	49000
9		15	22500	30000	37500	45000	52500
10							

NB: Form Control Buttons (Developer > Insert > Form Controls) can be applied to control input numbers

#1605-1606: Consolidate - 2 & 3 Dimensions



© Yoda Learning Solutions

The image displays three data tables and the Consolidate dialog box. The tables are:

	Jan	Feb	Mar	Apr	May	Jun
Jacob	750	-	100	1,500	450	1,000
Martha	1,200	1,200	1,450	400	1,000	1,200
Rama	-	1,300	1,050	450	200	1,050
Louis	750	1,400	1,000	1,350	600	650
Jack	200	200	1,000	450	850	50

	Jan	Feb	Mar	Apr	May	Jun
Jack	250	1,150	-	200	1,050	150
Jacob	1,450	1,450	1,450	1,150	550	150
Louis	1,300	200	1,350	100	1,200	550
Rama	600	500	1,100	1,400	200	1,000
Sherley	100	150	500	1,300	1,200	1,400
Sharon	-	600	900	800	500	900

	Jan	Feb	Mar	Apr	May	Jun
Jacob	-	150	550	1,150	850	100
Martha	1,250	600	150	500	150	750
Rama	1,000	1,000	250	1,400	200	500
Louis	600	350	750	150	-	450
Jack	50	-	1,300	1,150	600	850

The Consolidate dialog box is shown with the following settings:

- Function:** Sum (1)
- Reference:** 'Water Purifier RO'!\$A\$3:\$G\$9
- All references:**
 - 'Water Purifier Basic'!\$A\$4:\$G\$9
 - 'Water Purifier Latest'!\$A\$4:\$G\$9
 - 'Water Purifier RO'!\$A\$3:\$G\$9 (2)
- Use labels in:**
 - ☒ Top row (3)
 - ☒ Left column
 - ☒ Create links to source data

- Function to be used for Consolidation: SUM, MAX, MIN, AVERAGE etc.
- Source of data should be selected and "added"
- Required for "Labels" and "Links to Source data"

Result:

Grouped

Sheet Names implying Product Names can be extracted using "Text-to-Columns" (Delimited)

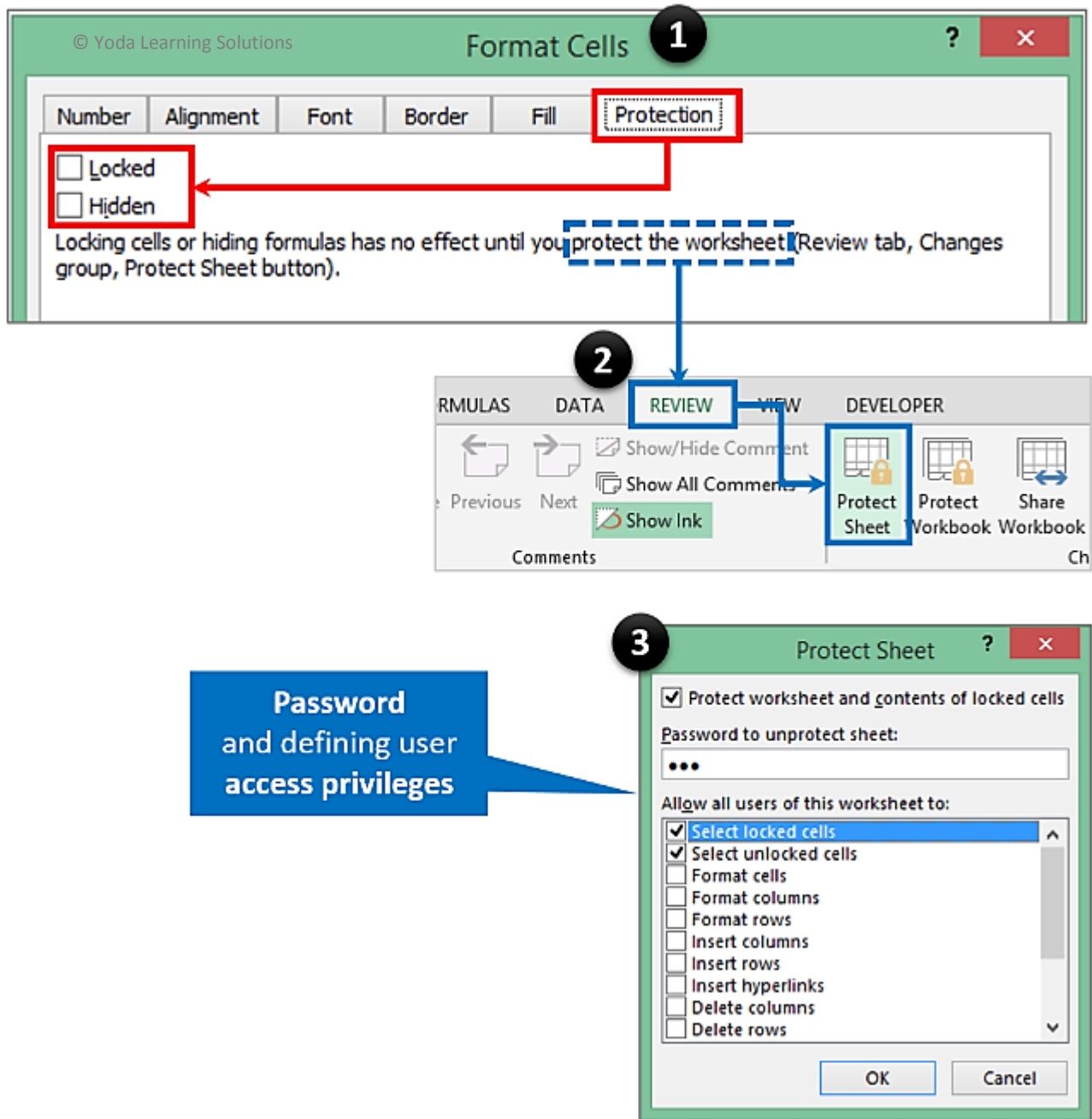
Linked Formula

Selective row coloring using ALT ; (Select VISIBLE CELLS)

© Yoda Learning Solutions

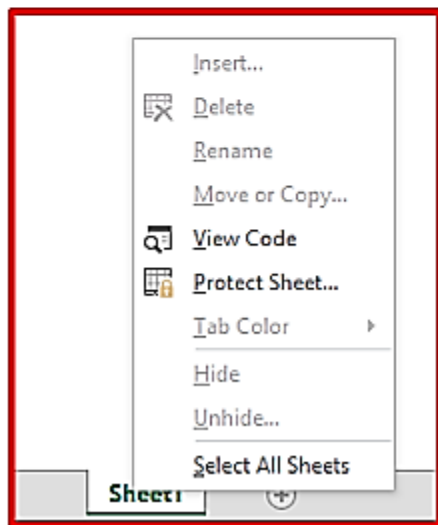
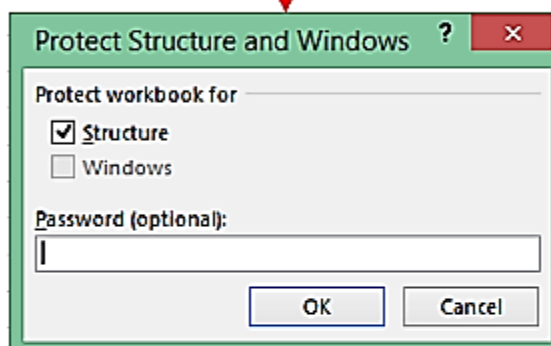
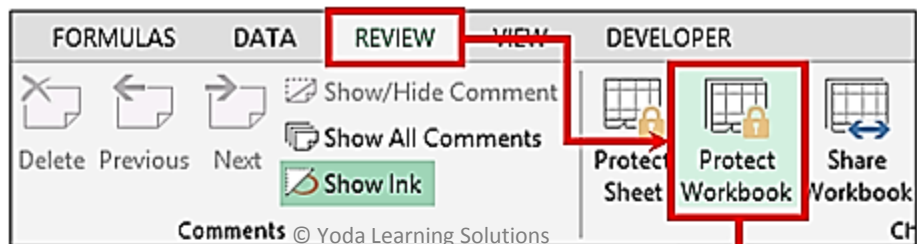
		Jan	Feb	Mar	Apr	May	Jun
3	Water Purifier Basic	=Water Purifier Basic!\$B\$5			1,500	450	1,000
4	Water Purifier Latest	-	150	550	1,150	850	100
5	Water Purifier RO	1,450	1,450	1,450	1,150	550	150
6	Jacob	2,200	1,600	2,100	3,800	1,850	1,250
7	Water Purifier Basic	1,200	1,200	1,450	400	1,000	1,200
8	Water Purifier Latest	1,250	600	150	500	150	750
9	Martha	2,450	1,800	1,600	900	1,150	1,950
10	Water Purifier Basic	-	1,300	1,050	450	200	1,050
11	Water Purifier Latest	1,000	1,000	250	1,400	200	500
12	Water Purifier RO	600	500	1,100	1,400	200	1,000
13	Rama	1,600	2,800	2,400	3,250	600	2,550
14	Water Purifier Basic	750	1,400	1,000	1,350	600	650
15	Water Purifier Latest	600	350	750	150	-	450
16	Water Purifier RO	1,300	200	1,350	100	1,200	550
17	Louis	2,650	1,950	3,100	1,600	1,800	1,650
18	Water Purifier Basic	200	200	1,000	450	850	50
19	Water Purifier Latest	50	-	1,300	1,150	600	850
20	Water Purifier RO	250	1,150	-	200	1,050	150
21	Jack	500	1,350	2,300	1,800	2,500	1,050
22	Water Purifier RO	100	150	500	1,300	1,200	1,400
23	Sherley	100	150	500	1,300	1,200	1,400
24	Water Purifier RO	-	600	900	800	500	900
25	Sharon	-	600	900	800	500	900

#1701-1702: Cell level Security

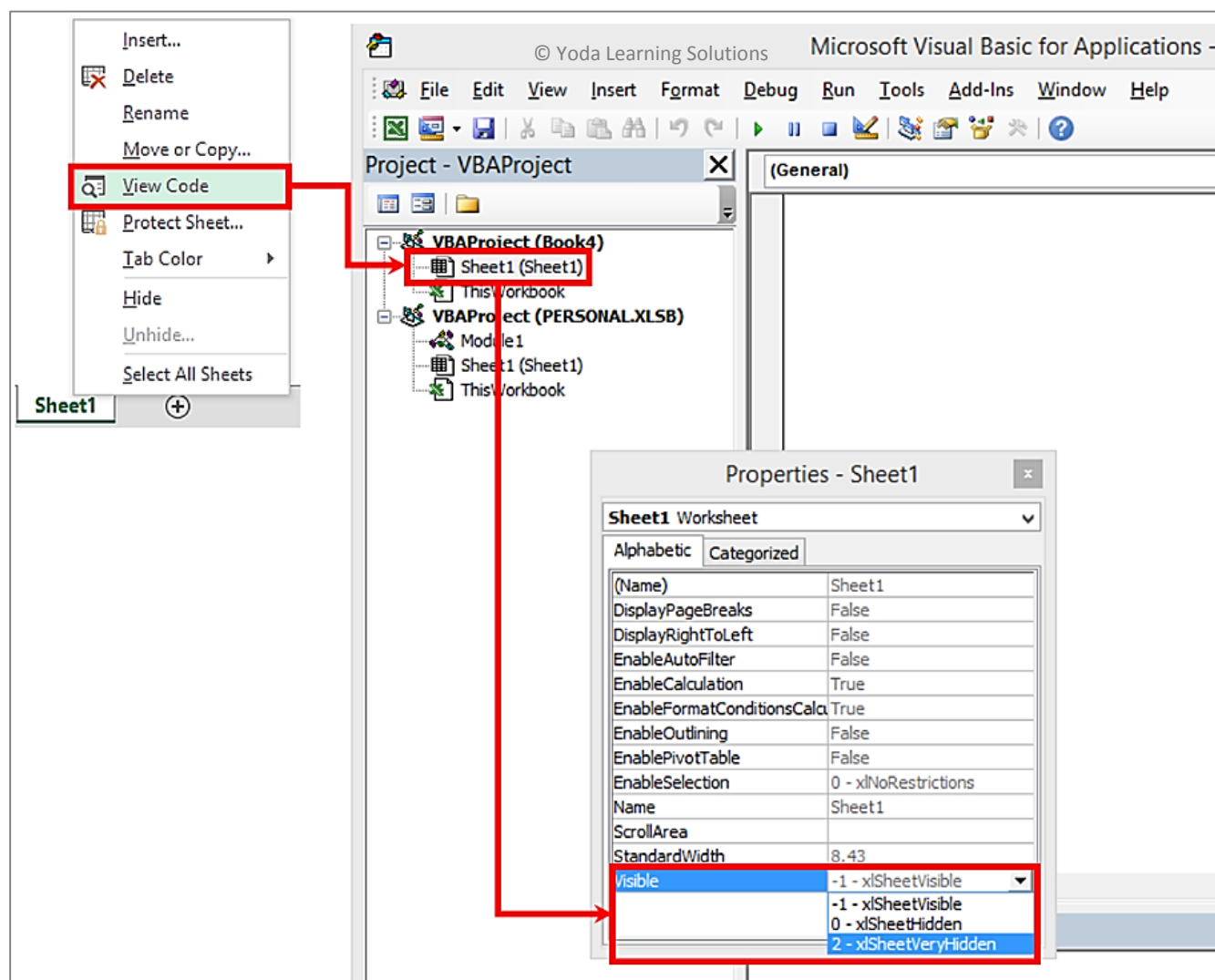


Note: By default, ALL cells are "Locked" (identified for protection). Ensure that ALL cells in the sheet are "Unlocked" and only chosen ones are "Locked". Else ALL cells will be locked and no changes can be made.

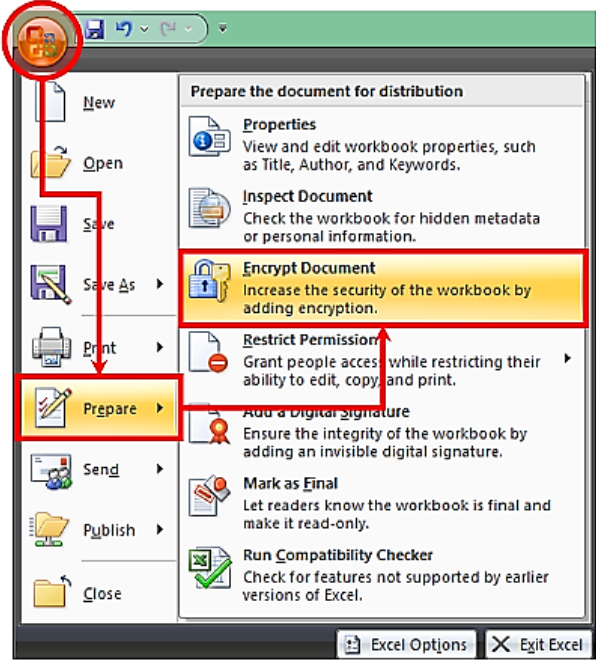
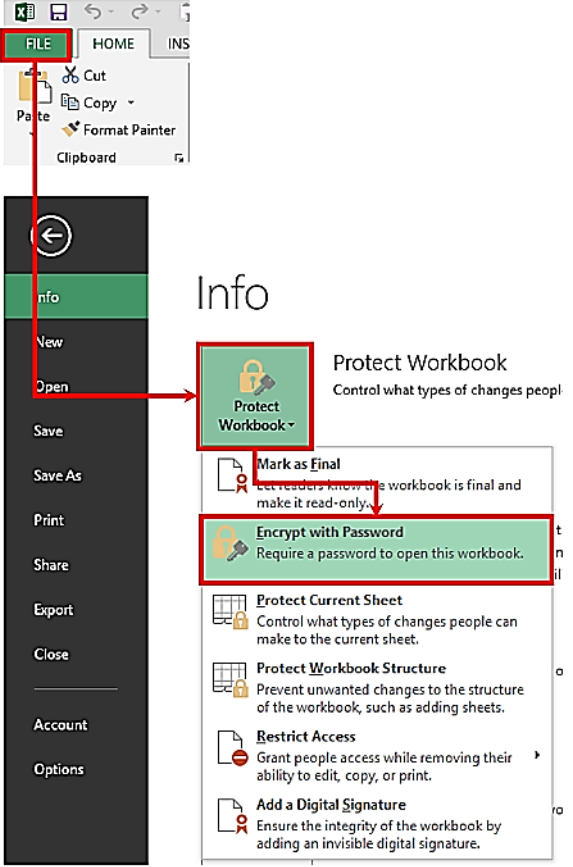
#1703: Sheet level Security [Protect Workbook Structure]



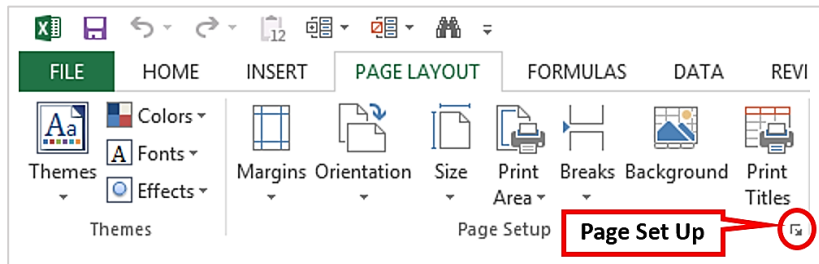
#1703: Sheet level Security [Sheet Properties – “Very Hidden”]



#1704: File level Security

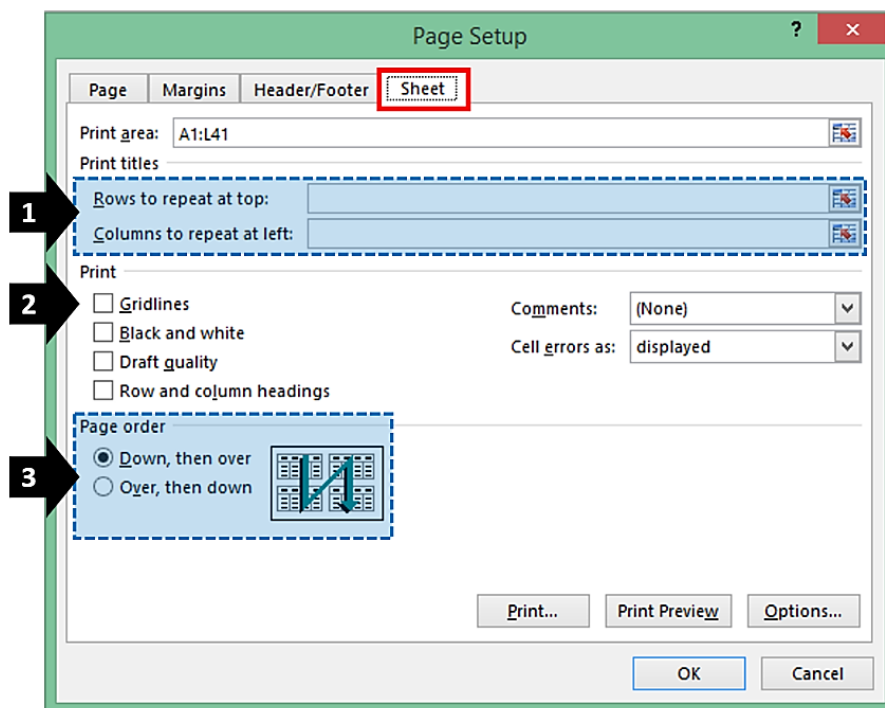
Excel v. 2007	Excel v. 2010/2013
 <p>The screenshot shows the Excel 2007 File menu. The 'Prepare' option is highlighted with a red box. A red arrow points from the 'Prepare' icon to the 'Prepare' menu item. Another red arrow points from the 'Prepare' menu item to the 'Encrypt Document' option, which is also highlighted with a red box. The 'Encrypt Document' option is described as: 'Increase the security of the workbook by adding encryption.'</p>	 <p>The screenshot shows the Excel 2010/2013 File menu. The 'FILE' tab is highlighted with a red box. A red arrow points from the 'FILE' tab to the 'Info' section. In the 'Info' section, the 'Protect Workbook' option is highlighted with a red box. A red arrow points from the 'Protect Workbook' option to the 'Encrypt with Password' option, which is also highlighted with a red box. The 'Encrypt with Password' option is described as: 'Require a password to open this workbook.'</p>

#1801: Page Set Up



SN	Shortcut Key / Path	Objective
1	ALT, P, S, P	Page Set Up
2	CTRL + F2	Print Preview

#1801, 1802, 1804: Print Tricks



1	Rows to repeat at top	For headers to appear on every page print out. E.g. ID, Name, Description, Amount
---	-----------------------	---

2	Gridlines	Switches on/off the dotted-cell border while printing
---	-----------	---

US\$ Bond issues from High Grade Companies in US (Mar-09) -

Issue Date	Issue Type	Issuer
03/02/2009	CORP	CONSUMERS ENERGY COMPANY
03/02/2009	CORP	FPL GROUP CAPITAL INC
03/02/2009	CORP	ANADARKO PETROLEUM CORP
03/02/2009	CORP	ANADARKO PETROLEUM CORP
03/02/2009	CORP	PITNEY BOWES INC
03/03/2009	CORP	MISSISSIPPI POWER CO

[vs.]

US\$ Bond issues from High Grade Companies in US (Mar-09) -

Issue Date	Issue Type	Issuer
03/02/2009	CORP	CONSUMERS ENERGY COMPANY
03/02/2009	CORP	FPL GROUP CAPITAL INC
03/02/2009	CORP	ANADARKO PETROLEUM CORP
03/02/2009	CORP	ANADARKO PETROLEUM CORP
03/02/2009	CORP	PITNEY BOWES INC
03/03/2009	CORP	MISSISSIPPI POWER CO

3	Page Order - Vertical vs. Horizontal	For worksheets with print area extending to multiple pages – both horizontally and vertically, users can decide the page order of print out.
---	--------------------------------------	--

US\$ Bond issues from High Grade Companies in US (Mar-09) - [Hypothetical Data]

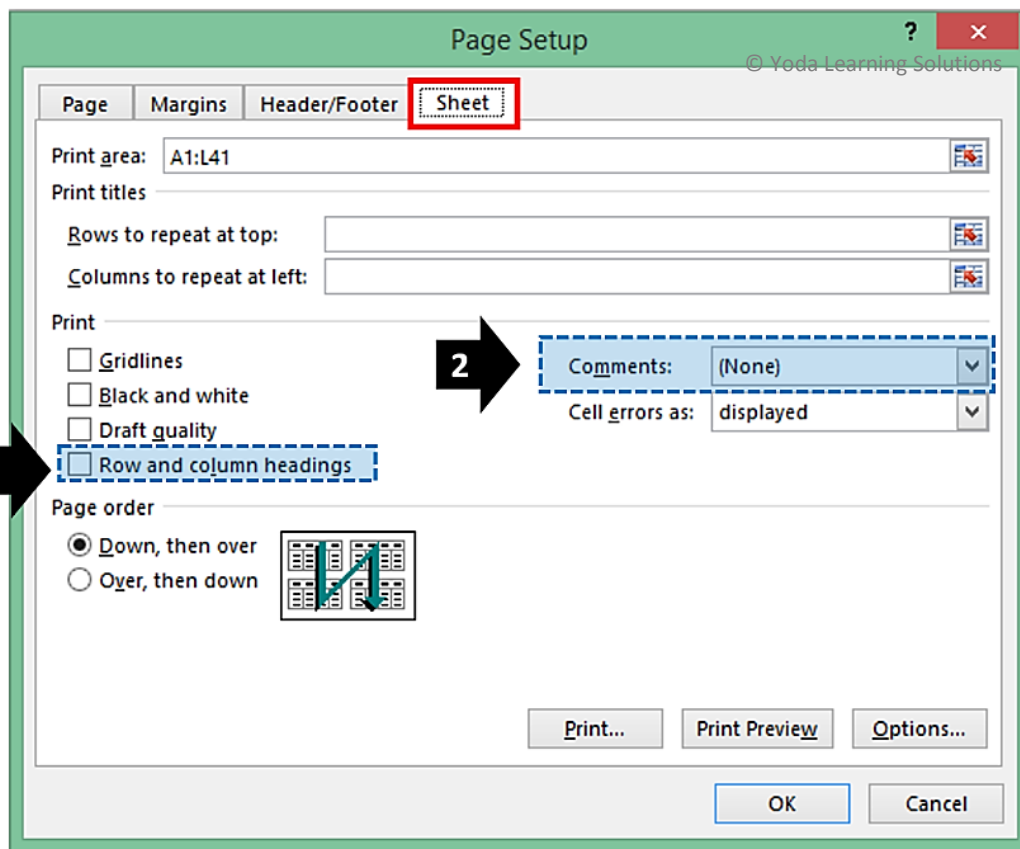
Issue Date	Issue Type	Issuer	Industry	Moody's	STP	Current	Principal Amt	Coupon	Maturity	Price	Yield
03/02/2009	CORP	CONSUMERS ENERGY COMPANY	UTILITY	Baa1	BBB+	USD	500	6.700%	03/02/2019	99.952	6.700%
03/02/2009	CORP	FPL GROUP CAPITAL INC	UTILITY	Aa1	BBB+	USD	500	6.600%	03/02/2019	99.957	6.600%
03/02/2009	CORP	ANADARKO PETROLEUM CORP	ENERGY	Baa1	BBB+	USD	500	7.625%	03/02/2014	99.700	7.697%
03/02/2009	CORP	ANADARKO PETROLEUM CORP	ENERGY	Baa1	BBB+	USD	500	6.700%	03/02/2019	99.958	6.700%
03/02/2009	CORP	PITNEY BOWES INC	DIVERSIFIED	Aa1	A+	USD	250	6.250%	03/02/2019	99.921	6.274%
03/02/2009	CORP	MISSISSIPPI POWER CO	UTILITY	Aa1	A+	USD	500	6.250%	03/02/2019	99.926	6.274%
03/02/2009	CORP	ELLULLY & CO	PHARMACEUTICAL	A1	AA	USD	1000	6.500%	03/02/2012	99.998	6.525%
03/02/2009	CORP	ELLULLY & CO	PHARMACEUTICAL	A1	AA	USD	400	5.800%	03/02/2017	99.999	6.025%
03/02/2009	CORP	APPALACHIAN POWER CO	UTILITY	Baa1	BBB+	USD	350	7.850%	03/02/2020	99.951	8.095%
03/02/2009	CORP	GEORGE WASHINGTON UNIVERSITY	UNIVERSITY	A1	A+	USD	200	6.000%	03/02/2019	99	6.000%
03/02/2009	CORP	MISSOURI FINANCIAL CORP	FINANCIAL	Baa1	BBB+	USD	400	9.750%	03/02/2016	99.795	10.000%
03/02/2009	CORP	BP CAPITAL MARKETS PLC	ENERGY	Aa1	Aa+	USD	1500	3.125%	03/02/2012	99.994	3.125%
03/02/2009	CORP	BP CAPITAL MARKETS PLC	ENERGY	Aa1	Aa+	USD	750	3.875%	03/02/2015	99.989	3.896%
03/02/2009	CORP	BP CAPITAL MARKETS PLC	ENERGY	Aa1	Aa+	USD	1000	4.750%	03/02/2019	99.732	4.794%
03/02/2009	CORP	PG&E Corp	UTILITY	Baa1	BBB+	USD	350	5.750%	04/02/2014	99.456	5.975%
03/02/2009	FINI	BANK OF AMERICA CORP	BANK	Aaa1	Aaa+	USD	4000	FFR	03/02/2019	99	
03/02/2009	FINI	BANK OF AMERICA CORP	BANK	Aaa1	Aaa+	USD	4000	FFR	03/02/2019	99	
03/02/2009	FINI	BANK OF AMERICA CORP	BANK	Aaa1	Aaa+	USD	2000	2.375%	06/22/2012	99.889	2.411%
03/02/2009	FINI	GENERAL ELEC CAP CORP	BANK	Aaa1	Aaa+	USD	1000	FFR	03/02/2019	99	
03/02/2009	FINI	GENERAL ELEC CAP CORP	BANK	Aaa1	Aaa+	USD	4000	1.000%	03/02/2019	99.963	1.000%
03/02/2009	FINI	GENERAL ELEC CAP CORP	BANK	Aaa1	Aaa+	USD	1500	2.250%	03/02/2012	99.916	2.294%
03/02/2009	FINI	GENERAL ELEC CAP CORP	BANK	Aaa1	Aaa+	USD	2500	FFR	03/02/2012	99	
03/02/2009	FINI	US BANCORP	BANK	Aaa1	Aaa+	USD	750	2.250%	03/02/2012	99.989	2.294%
03/02/2009	CORP	CVS CAREMARK CORP	RETAILER	Baa1	BBB+	USD	1000	6.600%	03/02/2019	99.985	6.688%
03/02/2009	CORP	SOUTHEASTERN BELL	UTILITY	A1	A+	USD	450	6.600%	03/02/2014	99.994	6.688%
03/02/2009	FINI	MORIBANK	BANK	Aaa1	Aaa+	USD	400	FFR	03/02/2012	99	
03/02/2009	FINI	MORIBANK	BANK	Aaa1	Aaa+	USD	400	FFR	03/02/2012	99.999	2.295%
03/02/2009	FINI	FLORIDA POWER & LIGHT	UTILITY	Aa1	Aa+	USD	500	5.500%	03/02/2019	99.927	5.565%
03/02/2009	FINI	UNION BANK NA	BANK	Aaa1	Aaa+	USD	500	FFR	03/02/2019	99	
03/02/2009	FINI	UNION BANK NA	BANK	Aaa1	Aaa+	USD	500	FFR	03/02/2012	99	
03/02/2009	CORP	EATON CORP	DIVERSIFIED	Aa1	A+	USD	250	5.500%	03/02/2014	99.985	5.565%
03/02/2009	CORP	EATON CORP	DIVERSIFIED	Aa1	A+	USD	300	6.500%	03/02/2019	99.944	7.025%
03/02/2009	CORP	WALT DISNEY COMPANY	MEDIA	Aa1	A+	USD	500	5.500%	03/02/2019	99.919	5.524%
03/02/2009	FINI	INDUSPROP INC	BANK	Aaa1	Aaa+	USD	2000	3.000%	03/02/2014	99.607	3.045%
03/02/2009	CORP	EVSCO CORPORATION	CONSUMER	Aa1	A+	USD	250	5.575%	03/02/2019	99.921	5.644%

[vs.]

US\$ Bond issues from High Grade Companies in US (Mar-09) - [Hypothetical Data]

Issue Date	Issue Type	Issuer	Industry	Moody's	STP	Current	Principal Amt	Coupon	Maturity	Price	Yield
03/02/2009	CORP	CONSUMERS ENERGY COMPANY	UTILITY	Baa1	BBB+	USD	500	6.700%	03/02/2019	99.952	6.700%
03/02/2009	CORP	FPL GROUP CAPITAL INC	UTILITY	Aa1	BBB+	USD	500	6.600%	03/02/2019	99.957	6.600%
03/02/2009	CORP	ANADARKO PETROLEUM CORP	ENERGY	Baa1	BBB+	USD	500	7.625%	03/02/2014	99.700	7.697%
03/02/2009	CORP	ANADARKO PETROLEUM CORP	ENERGY	Baa1	BBB+	USD	500	6.700%	03/02/2019	99.958	6.700%
03/02/2009	CORP	PITNEY BOWES INC	DIVERSIFIED	Aa1	A+	USD	250	6.250%	03/02/2019	99.921	6.274%
03/02/2009	CORP	MISSISSIPPI POWER CO	UTILITY	Aa1	A+	USD	500	6.250%	03/02/2019	99.926	6.274%
03/02/2009	CORP	ELLULLY & CO	PHARMACEUTICAL	A1	AA	USD	1000	6.500%	03/02/2012	99.998	6.525%
03/02/2009	CORP	ELLULLY & CO	PHARMACEUTICAL	A1	AA	USD	400	5.800%	03/02/2017	99.999	6.025%
03/02/2009	CORP	APPALACHIAN POWER CO	UTILITY	Baa1	BBB+	USD	350	7.850%	03/02/2020	99.951	8.095%
03/02/2009	CORP	GEORGE WASHINGTON UNIVERSITY	UNIVERSITY	A1	A+	USD	200	6.000%	03/02/2019	99	6.000%
03/02/2009	CORP	MISSOURI FINANCIAL CORP	FINANCIAL	Baa1	BBB+	USD	400	9.750%	03/02/2016	99.795	10.000%
03/02/2009	CORP	BP CAPITAL MARKETS PLC	ENERGY	Aa1	Aa+	USD	1500	3.125%	03/02/2012	99.994	3.125%
03/02/2009	CORP	BP CAPITAL MARKETS PLC	ENERGY	Aa1	Aa+	USD	750	3.875%	03/02/2015	99.989	3.896%
03/02/2009	CORP	BP CAPITAL MARKETS PLC	ENERGY	Aa1	Aa+	USD	1000	4.750%	03/02/2019	99.732	4.794%
03/02/2009	CORP	PG&E Corp	UTILITY	Baa1	BBB+	USD	350	5.750%	04/02/2014	99.456	5.975%
03/02/2009	FINI	BANK OF AMERICA CORP	BANK	Aaa1	Aaa+	USD	4000	FFR	03/02/2019	99	
03/02/2009	FINI	BANK OF AMERICA CORP	BANK	Aaa1	Aaa+	USD	4000	FFR	03/02/2019	99	
03/02/2009	FINI	BANK OF AMERICA CORP	BANK	Aaa1	Aaa+	USD	2000	2.375%	06/22/2012	99.889	2.411%
03/02/2009	FINI	GENERAL ELEC CAP CORP	BANK	Aaa1	Aaa+	USD	1000	FFR	03/02/2019	99	
03/02/2009	FINI	GENERAL ELEC CAP CORP	BANK	Aaa1	Aaa+	USD	4000	1.000%	03/02/2019	99.963	1.000%
03/02/2009	FINI	GENERAL ELEC CAP CORP	BANK	Aaa1	Aaa+	USD	1500	2.250%	03/02/2012	99.916	2.294%
03/02/2009	FINI	GENERAL ELEC CAP CORP	BANK	Aaa1	Aaa+	USD	2500	FFR	03/02/2012	99	
03/02/2009	FINI	US BANCORP	BANK	Aaa1	Aaa+	USD	750	2.250%	03/02/2012	99.989	2.294%
03/02/2009	CORP	CVS CAREMARK CORP	RETAILER	Baa1	BBB+	USD	1000	6.600%	03/02/2019	99.985	6.688%
03/02/2009	CORP	SOUTHEASTERN BELL	UTILITY	A1	A+	USD	450	6.600%	03/02/2014	99.994	6.688%
03/02/2009	FINI	MORIBANK	BANK	Aaa1	Aaa+	USD	400	FFR	03/02/2012	99	
03/02/2009	FINI	MORIBANK	BANK	Aaa1	Aaa+	USD	400	FFR	03/02/2012	99.999	2.295%
03/02/2009	FINI	FLORIDA POWER & LIGHT	UTILITY	Aa1	Aa+	USD	500	5.500%	03/02/2019	99.927	5.565%
03/02/2009	FINI	UNION BANK NA	BANK	Aaa1	Aaa+	USD	500	FFR	03/02/2019	99	
03/02/2009	FINI	UNION BANK NA	BANK	Aaa1	Aaa+	USD	500	FFR	03/02/2012	99	
03/02/2009	CORP	EATON CORP	DIVERSIFIED	Aa1	A+	USD	250	5.500%	03/02/2014	99.985	5.565%
03/02/2009	CORP	EATON CORP	DIVERSIFIED	Aa1	A+	USD	300	6.500%	03/02/2019	99.944	7.025%
03/02/2009	CORP	WALT DISNEY COMPANY	MEDIA	Aa1	A+	USD	500	5.500%	03/02/2019	99.919	5.524%
03/02/2009	FINI	INDUSPROP INC	BANK	Aaa1	Aaa+	USD	2000	3.000%	03/02/2014	99.607	3.045%
03/02/2009	CORP	EVSCO CORPORATION	CONSUMER	Aa1	A+	USD	250	5.575%	03/02/2019	99.921	5.644%

#1805 - 1806: Print Tricks for Financial Analysts - Check underlying formulas



1	Row and Column headings	<p>Displays the row headings (1, 2, 3 ...) and column headings (A, B, C ...) in the print out. To be used after activating the below mentioned shortcut key:</p> <ul style="list-style-type: none"> Ctrl ` (the special character key above the TAB key) - Displays all formulas of the worksheet
---	-------------------------	--

US\$ Bond issues from High Grade Companies in US (Mar-09) -

Issue Date	Issue Type	Issuer
03/02/2009	CORP	CONSUMERS ENERGY COMPANY
03/02/2009	CORP	FPL GROUP CAPITAL INC
03/02/2009	CORP	ANADARKO PETROLEUM CORP
03/02/2009	CORP	ANADARKO PETROLEUM CORP
03/02/2009	CORP	PITNEY BOWES INC
03/03/2009	CORP	MISSISSIPPI POWER CO
03/03/2009	CORP	ELI LILLY & CO
03/03/2009	CORP	ELI LILLY & CO
03/03/2009	CORP	ELI LILLY & CO

[vs.]

	A	B	C
1			
2	US\$ Bond issues from High Grade Companies in US (Mar-09) -		
3			
4			
5	Issue Date	Issue Type	Issuer
6	03/02/2009	CORP	CONSUMERS ENERGY COMPANY
7	03/02/2009	CORP	FPL GROUP CAPITAL INC
8	03/02/2009	CORP	ANADARKO PETROLEUM CORP
9	03/02/2009	CORP	ANADARKO PETROLEUM CORP
10	03/02/2009	CORP	PITNEY BOWES INC
11	03/03/2009	CORP	MISSISSIPPI POWER CO
12	03/03/2009	CORP	ELI LILLY & CO
13	03/03/2009	CORP	ELI LILLY & CO
14	03/03/2009	CORP	ELI LILLY & CO

Audit Trick: Press Ctrl ` to “Show all formulas” and then “Print” with “Row & Column headings”

	A	B	C	D
1				
2	CAB Pvt		Reported	Reported
3	Financi		39538	39903
4				
5				
6	<u>Assume</u>			
7	Sales growth		NA	0.05
8	Costs as % of Sales		=C12/C11	=D12/D11
9				
10	<u>Income</u>			
11	Sales (A)		1201	780
12	Costs (B)		802	511
13	Profit (C=A-B)		=C11-C12	=D11-D12
14				
15	Profit as % of Sales (C/A)		=C13/C11	=D13/D11
16				

2 Comments

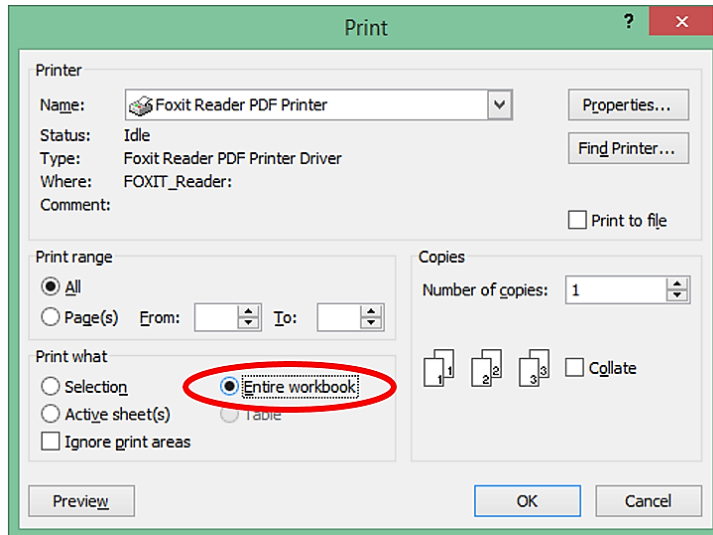
Entire worksheet’s comments can be displayed at the end of the worksheet along with cell reference. Useful to keep a track of all the in-cell comments that are scattered on the worksheet.

Cell: C8
Comment: Roy Jr.:
Refer email dtd 21-Apr-2009

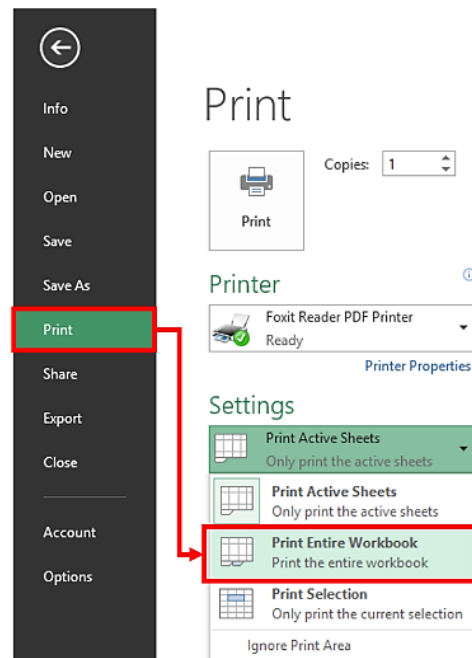
Cell: E11
Comment: Yoda Learning:
Annual Report Pg 21

#1807: Print Entire Workbook

Excel v. 2007



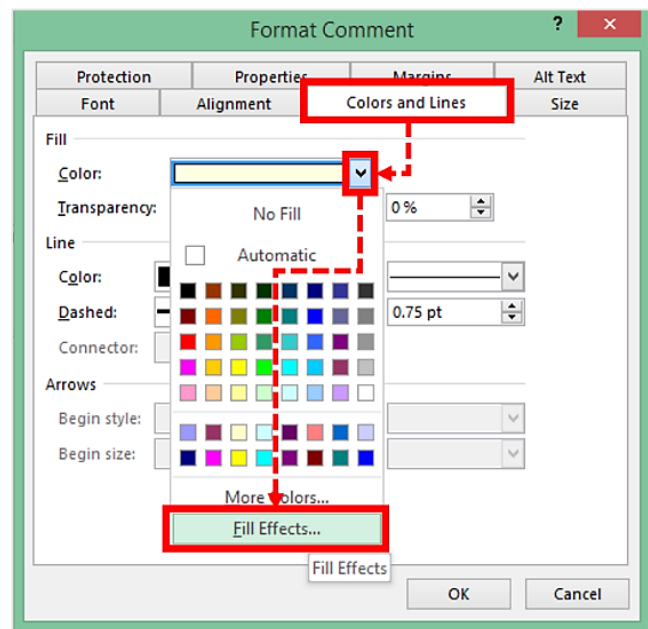
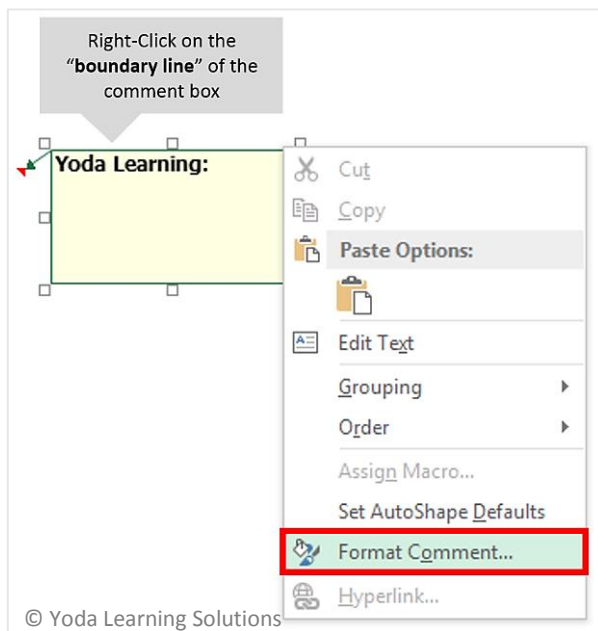
Excel v. 2010/2013



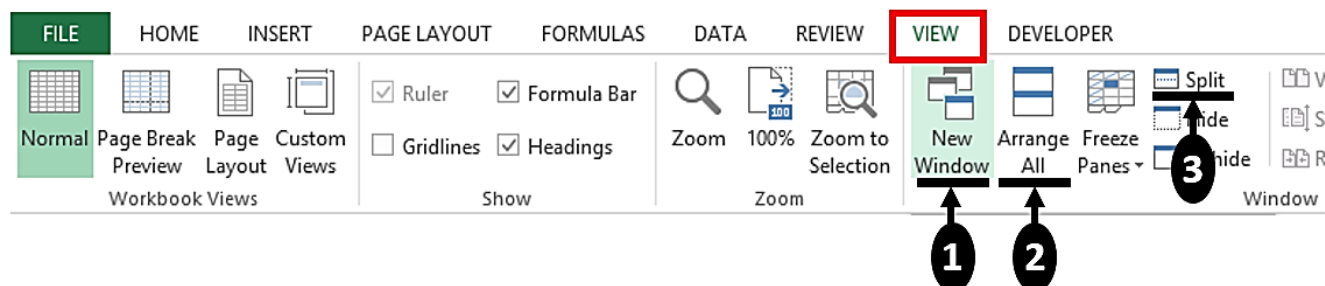
#1901: Comments - Shortcuts, Inserting Picture in Comment Box)

SN	Shortcut Key / Path	Objective
1	Shift + F2	Insert/Edit Comment
2	ALT, R, A	Show All Comment
3	Ctrl + Shift + O	Go To (Special) -> Comment
4	Ctrl + Alt + V -> Comment	Paste Special -> Comment

Inserting a Picture in the comment box:



#1902: Split Windows, Viewing multiple Windows - Simultaneously working with different workbooks, worksheets & scattered cell ranges simultaneously

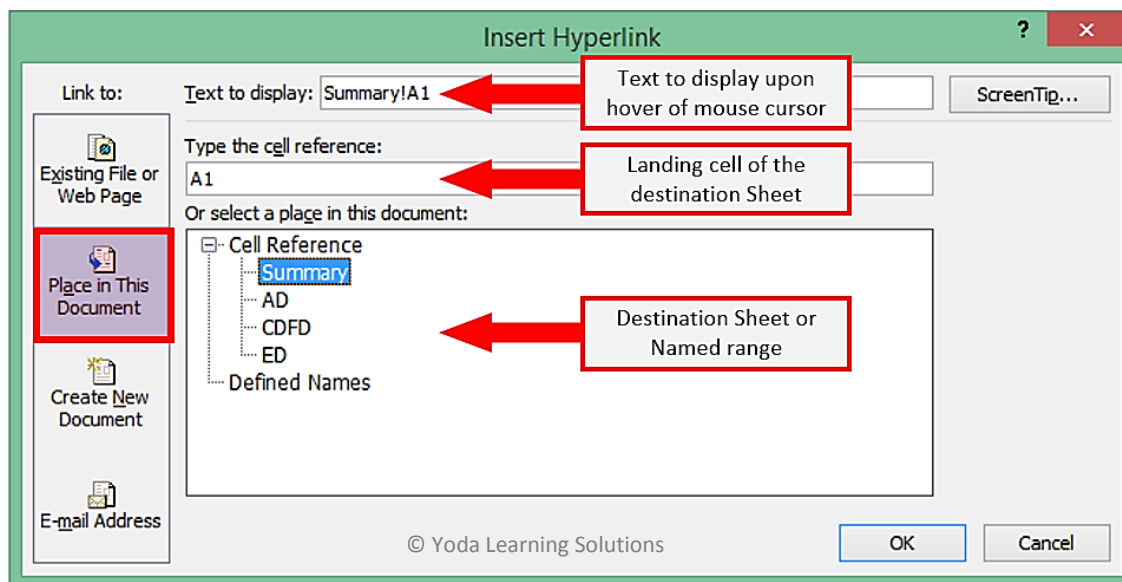


1	NEW WINDOW	Opens another instance (window) of the active workbook, thus, allowing you to <u>work on different worksheets of the same/different workbook simultaneously</u> . “ <i>Arrange All</i> ” feature will help arrange the open windows side-by-side (horizontal / vertical).
		This is how the names of the two instances of the workbook (Book1) will be displayed - Book1:1 and Book1:2

2	ARRANGE ALL	Helps stack / arrange open windows side-by-side
		Important: If multiple workbooks are open and you wish to stack “ <i>windows</i> ” of a specific workbook side-by-side, use the last checkbox – “ <i>Windows of active workbook</i> ”. If not chosen, the “ <i>Arrange Windows</i> ” feature will stack ALL the windows of all open workbook side-by-side thus, creating a temporary screen clutter.

3	SPLIT	<p>6. Divides/“Splits” the window into different panes that each scroll differently. It is ideal if you want to <u>work simultaneously on different areas of the SAME worksheet of the workbook</u>.</p> <p>7. Unlike “<i>New Window</i>”, it doesn’t allow you to work on different worksheets of the same workbook simultaneously.</p>
---	--------------	--

#1903: Hyperlinking (Ctrl + K)



Quick Tip: New function in v. 2013

=HYPERLINK(

HYPERLINK(link_location, [friendly_name])

- Example: = HYPERLINK("http://www.yodalearning.com", "Click here for Excel Tricks")
- For more details, refer Microsoft Excel help