

Dashboards Formulas

Spreadsheet Class

(Open this PDF in Chrome to copy and paste formulas)

- =A1** Cell reference
- = 'Sheet 2' !A1** Cell reference on another sheet/tab (Notice apostrophes, since tab name has a space)
- =INDIRECT("A"&A1)** Returns a cell reference specified by a string
- =A1+2** Addition **=A1-2** Subtraction **=A1*2** Multiplication **=A1/2** Division
- =IF(A1=1,"Yes","No")** If cell A1 equals 1, display the word "Yes", if not display the word "No"
- =if(A1<>"",B1-C1,"")** Only performs the function if cell is not blank
- =IF(A1=1,"Yes",IF(B1=1,"Yes","No"))** Nested IF statement: If A1 = 1 display "Yes". If A1 is not equal to 1... and if B1 = 1 display "Yes". If A1 is not equal to 1 and B1 is not equal to 1, display "No"
- =SORT(A1:B,1,true)** Sort columns A and B, by column A (1st column), in ascending order
- =SORT(A1:B,1,true,2,true)** Sort by the 1st column, then by the 2nd
- =FILTER(A1:A, B1:B=C1)** Filter columns A and B, where column B equals the specified criteria
- =FILTER(A1:C, B1:B="This", C1:C="And This")** Filter with multiple conditions, where BOTH criteria must be true
- =FILTER(A1:C, (B1:B="This")+(C1:C="Or That"))** Filter with multiple conditions, where EITHER criteria can be true
- =FILTER(A:B, COUNTIF(C:C,A:A))** Filter based on a list. Filter A and B where A equals anything found in the list C
- =FILTER(A1:1, A2:2=10)** Filter horizontally (Filter row 1 where row 2 equals 10)
- =IFERROR(A1,"Error")** If cell / formula has an error, display the text "Error", if not, display the value in cell A1
- =ARRAYFORMULA(A1:A)** Reference to a column
- =ARRAYFORMULA(A1:A*B1:B)** Multiplies columns A and B
- =ARRAYFORMULA(A1:A&" "&B1:B)** Combines columns horizontally (Combine First + Last Name)
- =ARRAYFORMULA(IF(A1:A>1,"Yes","No"))** Using arrayformula to extend a function down the column
- =UNIQUE(A1:A)** Removes duplicates
- =UNIQUE({A1:A12;B1:B12})** Combines columns vertically and removes duplicates
- =COUNTUNIQUE(A1:A)** Counts the unique values in a range
- =COUNTIF(A1:A,B1)** Counts the number of values in column A, that are equal to value that is in cell B1

=COUNTIF(A1:A,">100") Counts how many values are greater than 100 in column A

=COUNTIF(A1:A,"ExactText") Counts how many cells match the exact text specified

=COUNTIF(A1:A,"*PartialText*") Counts how many cells contain the text that is specified

=COUNTIF(A1:A,"<>") Counts non-empty cells

=COUNTIF(A1:A,">"&B1) Counts values in column A that are greater than the value that is in cell B1

=COUNTIFS(A2:A,">"&B8,A2:A,"<"&C8) Counts rows where BOTH criteria are true (Where values in column A are greater than cell B8 and less than cell C8)

=TRANSPOSE(A1:B) Switches rows to columns, or vice versa

=SUM(A1:A) Sums the specified range

=SUMIF(A1:A,"Criteria",B1:B) Sums column B if the criteria is true in column A

=SUMIFS(\$E:\$E, \$B:\$B, \$A5, \$A:\$A, G\$3) Sum column E, if BOTH criteria are true (A5 found in column B and G3 found in column A)

=AVERAGE(A1:A) Averages the specified range

=AVERAGEIF(A1:A,"Criteria",B1:B) Averages column B if the specified criteria is true in column A

=AVERAGEIFS(B1:B, A1:A, "Criteria", C1:C, "Criteria 2") Averages column B if BOTH criteria are true ("Criteria" found in column A and "Criteria 2" found in column C)

=SPLIT(A1,"Criteria") Splits the contents of cells A1, by/at the specified criteria, into individual cells

=INDEX(SPLIT(A1, " "),1) Extracts Nth word

=INDEX(A:B,MATCH(\$C1,A:A,0)) Returns column A and B, where C1 is found in column A

=TRIM(A1) Removes leading and trailing spaces

=SUBSTITUTE(B3, " ", "") Removes all spaces

=LOWER(A1) Lowercase **=UPPER(A1)** Uppercase **=PROPER(A1)** Capitalize Words

=LEFT(C3,2) Extracts 2 characters from left of string **=RIGHT(C3,2)** Extracts 2 characters from right of string

=MIN(A:A) Finds the minimum of column A **=MAX(A:A)** Finds the maximum of column A

=ROUND(A1,2) Rounds number in cell A1 to 2 decimal places

=IMPORTRANGE("PasteGoogleSpreadSheetID/URL","Tab!A1:D") Imports data from another sheet/file

=QUERY(IMPORTRANGE("PasteGoogleSpreadSheetID/URL","Tab!A1:D"),"select Col1,Col3") Displays selected columns from a specified imported range

=QUERY(Sheet1!A2:C500,"Select * where C contains 'Yes'", 0) Filters range where column contains a specified criteria

=QUERY(C2:C, "select C where C contains "&L1&" or C contains "&L1&" ") Filters where column contains a criteria OR another criteria

=QUERY(C2:C, "select C where C contains "&L1&" and C contains "&L1&" ") Filters where column contains a criteria AND another criteria

=QUERY(\$X:\$Y, "select X, sum(Y) where Y is not null group by X", 0) Sums column, for each value in another column

=QUERY(\$X:\$Y, "select X, count(Y) where Y is not null group by X", 0) Counts non-blank cells, for each value

=SPARKLINE(D3, {"charttype", "bar", "max", E3, "color1", "grey"}) Creates a bar chart within the cell, using cell D3 as the data, and cell E3 as the maximum

=VALUE(REGEXREPLACE(A1, "[^:digit:]", "")) Extracts numbers from a string

=REGEXREPLACE(A1, "[^:alpha:]", "") Extracts text from a string

=REGEXREPLACE(A1, "[[:punct:]]", "") Removes punctuation from a string

=AND(A1=1, B1=1) Returns TRUE if BOTH criteria are true, and returns FALSE if not

=OR(A1=1, B1=1) Returns TRUE if EITHER criteria are true, and returns FALSE if not

Conditional formatting formulas

=COUNTIF(A:A, A1) > 1 Highlights duplicates when entered in conditional formatting "Custom Formula Is"

=F5:F >= F\$1 Format column F where criteria (Cell F1) is true

= \$A1 = "Yes" Highlights entire row when criteria is true (Conditional formatting "Custom Formula Is")

Seconds to Duration =A1/(86400)	Minutes to duration =A1/1440	Hours to duration =A1/24
Duration to Seconds =A1*86400	Duration to Minutes =A1*1440	Duration to Hours =A1*24

<h3>Mathematical Operators</h3> <p>Plus sign + ~ Addition</p> <p>Minus sign - ~ Subtraction</p> <p>Asterisk * ~ Multiplication</p> <p>Forward Slash / ~ Division</p> <p>Carrot ^ ~ Exponent</p>	<h3>Comparison / Other operators</h3> <p>= (Equals) & (And) / (Concat)</p> <p>> (Greater than) <> (Not equal to)</p> <p>< (Less than)</p> <p>>= (Greater than or equal to)</p> <p><= (Less than or equal to)</p>																
<h3>Keyboard Shortcuts</h3> <table> <tr> <td>Ctrl + D Fill down</td> <td>Ctrl + C Copy</td> </tr> <tr> <td>Ctrl + R Fill right</td> <td>Ctrl + V Paste</td> </tr> <tr> <td>Ctrl + Z Undo</td> <td>Ctrl + A Select all</td> </tr> <tr> <td>Ctrl + Y Redo</td> <td>Ctrl + F Find</td> </tr> </table>	Ctrl + D Fill down	Ctrl + C Copy	Ctrl + R Fill right	Ctrl + V Paste	Ctrl + Z Undo	Ctrl + A Select all	Ctrl + Y Redo	Ctrl + F Find	<h3>Keyboard Shortcuts</h3> <table> <tr> <td>Ctrl + Shift + V</td> <td>Paste values only</td> </tr> <tr> <td>Arrow Keys</td> <td>Move from cell to cell</td> </tr> <tr> <td>Shift + Arrow Keys</td> <td>Select multiple adjacent cells</td> </tr> <tr> <td>Ctrl + Arrow Keys</td> <td>Move to end of data / sheet</td> </tr> </table>	Ctrl + Shift + V	Paste values only	Arrow Keys	Move from cell to cell	Shift + Arrow Keys	Select multiple adjacent cells	Ctrl + Arrow Keys	Move to end of data / sheet
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