

Excel Expert

Session 3 – Advanced Formulas

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IfError –

The IFERROR function in Excel is designed to trap and manage errors in formulas and calculations. More specifically, IFERROR checks a formula, and if it evaluates to an error, returns another value you specify; otherwise, returns the result of the formula.

Use the IfError Function to make sure if there is an division by zero – it doesn't show an error.

```
=IFERROR((((@Retail)-[@Cost])/[@Cost]),"Pure Profit")
```

SUMIFS

SUMIFS is a function to sum cells that meet multiple criteria. SUMIFS can be used to sum values when adjacent cells meet criteria based on dates, numbers, and text. SUMIFS supports logical operators (>,<,<=>=) and wildcards (*,?) for partial matching.

```
=SUMIFS (sum_range, range1, criteria1, [range2], [criteria2], ...)
```

AVERAGEIFS

AVERAGEIFS is a function to sum cells that meet multiple criteria. AVERAGEIFS can be used to sum values when adjacent cells meet criteria based on dates, numbers, and text. AVERAGEIFS supports logical operators (>,<,<=>=) and wildcards (*,?) for partial matching.

```
= AVERAGEIFS (sum_range, range1, criteria1, [range2], [criteria2], ...)
```

COUNTIFS

COUNTIFS is a function to sum cells that meet multiple criteria. COUNTIFS can be used to sum values when adjacent cells meet criteria based on dates, numbers, and text. COUNTIFS supports logical operators (>,<,<=>=) and wildcards (*,?) for partial matching.

```
= COUNTIFS (sum_range, range1, criteria1, [range2], [criteria2], ...)
```

VLOOKUP

VLOOKUP is an Excel function to lookup and retrieve data from a specific column in table. VLOOKUP supports approximate and exact matching, and wildcards (* ?) for partial matches. The "V" stands for "vertical". Lookup values must appear in the first column of the table, with lookup columns to the right.

=VLOOKUP (value, table, col_index, [range_lookup])

AND

The Excel AND function is a logical function used to require more than one condition at the same time. AND returns either TRUE or FALSE. To test if a number in A1 is greater than zero and less than 10, use =AND(A1>0,A1<10). The AND function can be used as the logical test inside the IF function to avoid extra nested IFs, and can be combined with the OR function.

=AND (logical1, [logical2], ...)

OR

The OR function is a logical function to test multiple conditions at the same time. OR returns either TRUE or FALSE. For example, to test A1 for either "x" or "y", use =OR(A1="x",A1="y"). The OR function can be used as the logical test inside the IF function to avoid extra nested IFs, and can be combined with the AND function.

=OR (logical1, [logical2], ...)

Goal Seek

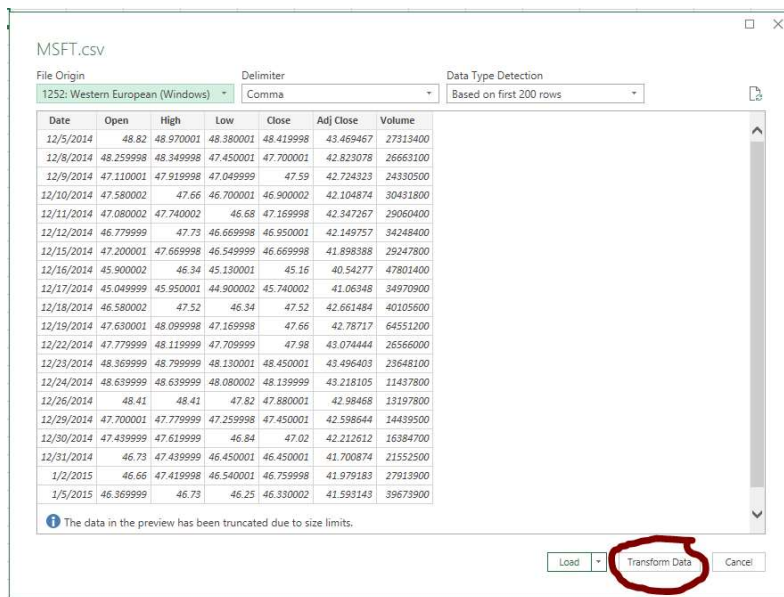
Technically, Goal Seek is a process of calculating a value by performing what-if analysis on a given set of values. For our purposes, Excel's Goal Seek feature lets you adjust a value used in a formula to achieve a specific goal. Or, put another way, Goal Seek determines input values needed to achieve a specific goal. Use Goal Seek when you don't have an exact value to use.

Importing Data

Go to finance.yahoo.com and download 5 years' worth of stock information from Microsoft (MSFT). When downloaded, you can double-click on the file and it automatically gets loaded into Excel.

Great.

But, we can use open it via the Data tab-> in the Get & Transform group, click New Query, point to the type of data you want to import, and then in the submenu, click the data source type. This now allows us to make transformations on the data before bringing it into our spreadsheet.



MSFT - Power Query Editor

File Home Transform Add Column View

Close & Load Refresh Preview Advanced Editor Choose Columns Remove Columns Keep Rows Remove Rows Sort Split Column Group By Data Type: Date Use First Row as Headers Replace Values Merge Queries Append Queries Combine Files Manage Parameters Data source settings New Source Recent Sources

	Date	1.2 Open	1.2 High	1.2 Low	1.2 Close	1.2 Adj Close	i2_3 Volume
1	12/5/2014	48.82	48.970001	48.380001	48.419998	43.469467	27313400
2	12/8/2014	48.259998	48.349998	47.450001	47.700001	42.823078	26663100
3	12/9/2014	47.110001	47.919998	47.049999	47.59	42.724323	24330500
4	12/10/2014	47.580002	47.66	46.700001	46.900002	42.104874	30431800
5	12/11/2014	47.080002	47.740002	46.68	47.169998	42.347267	29060400
6	12/12/2014	46.779999	47.73	46.669998	46.950001	42.149757	34248400
7	12/15/2014	47.200001	47.669998	46.549999	46.669998	41.898388	29247800
8	12/16/2014	45.900002	46.34	45.130001	45.16	40.54277	47801400
9	12/17/2014	45.049999	45.950001	44.900002	45.740002	41.06348	34970900
10	12/18/2014	46.580002	47.52	46.34	47.52	42.661484	40105600
11	12/19/2014	47.630001	48.099998	47.169998	47.66	42.78717	64551200
12	12/22/2014	47.779999	48.119999	47.709999	47.98	43.074444	26566000

You can also split columns by using the column splitter. So, you can split the date by the /.

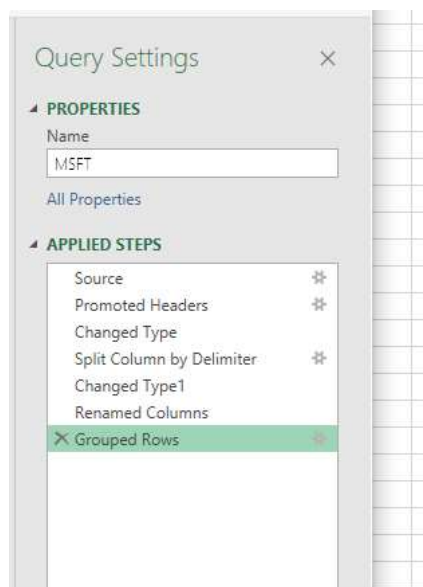
MSFT - Power Query Editor

	1 ² Date.1	1 ² Date.2	1 ² Date.3	1.2 Open	1.2 High	1.2 Low
1	12		5	2014	48.82	48.970001
2	12		8	2014	48.259998	48.349998
3	12		9	2014	47.110001	47.919998
4	12		10	2014	47.580002	47.66
5	12		11	2014	47.080002	47.740002
6	12		12	2014	46.779999	47.73
7	12		15	2014	47.200001	47.669998

You can also rename the columns before importing them.

	1 ² Month	1 ² Day	1 ² Year	1.2 Open
1		12	5	2014
2		12	8	2014
3		12	9	2014
4		12	10	2014

If you did something you don't want to do – you can remove it from the Applied Steps



Notes from previous classes:

Mac F8 key is for Excel Macros:

You can use this: Shift-CMD-i

Underscore in formatting near the @

Format Code	Description
General	General number format
#	Digit placeholder that represents optional digits and does not display extra zeros.
0	Digit placeholder that displays insignificant zeros.
?	Digit placeholder that leaves a space for insignificant zeros but doesn't display them.
@	Text placeholder
. (period)	Decimal point
, (comma)	Thousands separator. A comma that follows a digit placeholder scales the number by a thousand.
\	Displays the character that follows it.
" "	Display any text enclosed in double quotes.
%	Multiplies the numbers entered in a cell by 100 and displays the
/	Represents decimal numbers as fractions.
E	Scientific notation format
_ (underscore)	Skips the width of the next character. It's commonly used in combination with parentheses to add left and right indents, _(and _) respectively.

* (asterisk)	Repeats the character that follows it until the width of the cell is filled. It's often used in combination with the space character to change alignment.
[]	Create conditional formats.

Only start of functions displayed:

My guess – lower version. Works on: Build 12130.20390 and 12130.20272