How to use thr GROWTH function in Excel?

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To utilize the GROWTH function in Microsoft Excel, start by opening the program on your computer. Then, select a blank cell where you want the function to be applied. Type "=GROWTH(" into the cell and select the range of cells containing the known y-values for the function. Next, type a comma and select the range of cells containing the known x-values for the function. Then, input the value for the new x-value that you want to calculate the y-value for, followed by another comma. Choose either "TRUE" or "FALSE" to indicate whether or not you want the function to force the y-intercept to be 0. Finally, press "Enter" on your keyboard to calculate the new y-value. To apply the function to other cells, simply click and drag the bottom right corner of the cell with the function to copy it to the desired cells.

This article describes the formula syntax and usage of the **GROWTH** function in Microsoft Excel.

Description

Calculates predicted exponential growth by using existing data. GROWTH returns the y-values for a series of new x-values that you specify by using existing x-values and y-values. You can also use the GROWTH worksheet function to fit an exponential curve to existing x-values and y-values.

Syntax

GROWTH(known_y's, , ,)

The GROWTH function syntax has the following arguments:

Known_y's Required. The set of y-values you already know in the relationship y = b*m^x.

If the array known_y's is in a single column, then each column of known_x's is interpreted as a separate variable.
If the array known_y's is in a single row, then each row of known_x's is interpreted as a separate variable.
If any of the numbers in known_y's is 0 or negative, GROWTH returns the #NUM! error value.

Known_x's Optional. An optional set of x-values that you may already know in the relationship y = b*m^x.

The array known_x's can include one or more sets of variables. If only one variable is used, known_y's and known_x's can be ranges of any shape, as long as they have equal dimensions. If more than one variable is used, known_y's must be a vector (that is, a range with a height of one row or a width of one column).
If known_x's is omitted, it is assumed to be the array {1,2,3,...} that is the same size as known_y's.

New_x's Optional. Are new x-values for which you want GROWTH to return corresponding y-values.

New_x's must include a column (or row) for each independent variable, just as known_x's does. So, if known_y's is in a single column, known_x's and new_x's must have the same number of columns. If known_y's is in a single row, known_x's and new_x's must have the same number of rows.
If new_x's is omitted, it is assumed to be the same as known_x's.
If both known_x's and new_x's are omitted, they are assumed to be the array {1,2,3,...} that is the same size as known_y's.

Const Optional. A logical value specifying whether to force the constant b to equal 1.

If const is TRUE or omitted, b is calculated normally.
If const is FALSE, b is set equal to 1 and the m-values are adjusted so that y = m^x.

Remarks

Formulas that return arrays must be entered as array formulas after selecting the correct number of cells.
When entering an array constant for an argument such as known_x's, use commas to separate values in the same row and semicolons to separate rows.