Formulas

Formula Anatomy

Let's use the following formula as an example : =SUM(B407:$B$450)

- « = » simply announces that the content of a cell is a formula. Excel will display the results of that formula.
- The text following « = » (here we picked « SUM ») is the formula we're inserting in the cell.
- The parenthesis contain all the arguments of the formula. **Arguments are separated by a comma ",".** Here, we only have one element.
- With « B407 :$B$450 » Excel knows that our formula must add data from cells B407 to B450.
  - B407 is a relative address of cell B407. If we copy-paste this formula elsewhere in the worksheet, Excel will add or subtract the number of traveled rows or lines.
  - Excel understands that « : » means « from/to ». We're adding cells **from** B407 **to** $B$450.
  - $B$450 is an absolute address. We use the « $ » symbol before a column **and/or** before a line to tell Excel that even if the formula is copy-pasted elsewhere, it must always refer to the same location(s).

Let's use the following formula as a second example : *=LEFT(B406,LEN(Exercise!A2:Exercise!A12))*

- Notice the comma « , ». The « LEFT » formula, which extracts a certain number of characters from a string of text contains two arguments. The first argument is the string from which we want to extract characters or as in this example the **address of a cell containing the string**. The second argument is the number of characters to extract from the string.
  - The first argument is B406
  - The second argument is *LEN(Exercise!A2:Exercise!A12)*
- *LEN(Exercise!A2:Exercise!A12)* is the second argument of the LEFT formula which must correspond to a number of characters to extract from a string of text. **The argument of a formula can be another formula.** Instead of directly giving the number of characters to extract, or the address of a cell containing the number of characters to extract, we ask Excel to use a formula that will have a number as a result.
  - *Exercise!A2:Exercise!A12* simply refers to range A2 to A12 of the Exercise worksheet. You can use nameofworksheet! to refer to cells in another worksheet.

Langue des formules

Si vous cherchez des formules sur internet, vous allez vous apercevoir que le nom des formules en français diffère du nom des formules en anglais. Vous devez utiliser les formules de la langue qui correspond à votre version d'Excel.

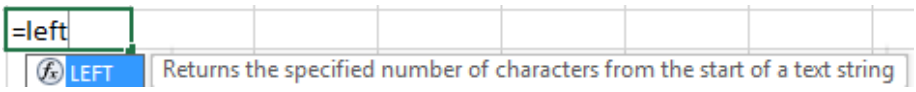
Sauvegarder un lien à une liste d'équivalences, comme la liste suivante : http://www.cyann.net/2010/08/29/traduction-formules-excel-francais-anglais-french-english/	Télécharger un fichier Excel contenant les équivalence comme le fichier suivant : http://wwwhome.ewi.utwente.nl/~trieschn/excel/function_lookup.xls

Inserting a formula in a worksheet

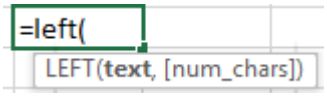
Start by selecting the cell that will contain the formula

Option 1 – Insert = in the cell.

Excel will explain the function of the formula as you start inputting it manually.



Excel then reminds you of the function of the different arguments of a formula. Optional choices are in brackets.



Whenever possible, Excel lets you manually select one or more cells to fill an argument. You can usually give the address of a cell containing the desired element instead of directly entering it. To manually enter text, you must use quotation marks "like these".

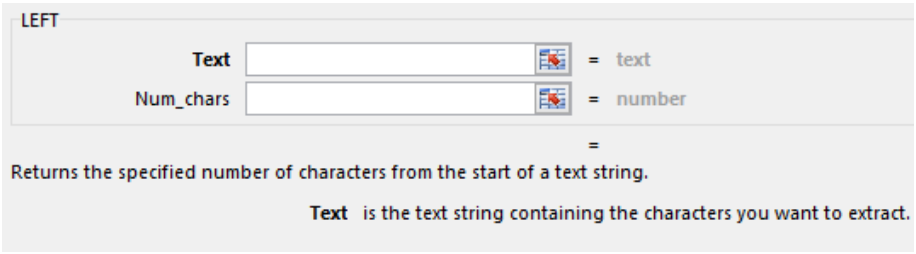
Option 2 – Insert '= in a cell

Use the apostrophe toview a formula without activating it. You won't get Excel's contextual help to build the formula, but you won't get an error message if you incorrectly enter it.

When finished constructing the formula, you can remove the apostrophe to activate it.

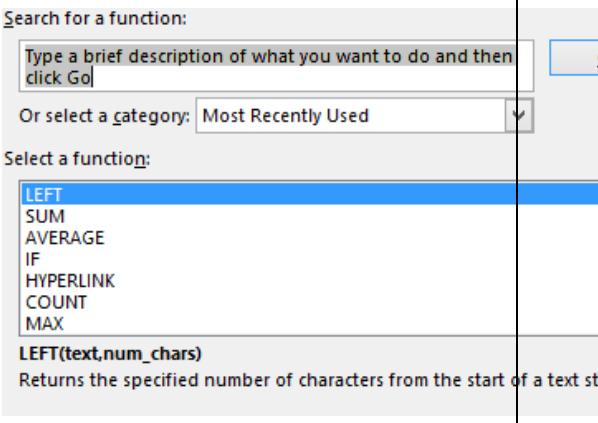
Option 3 – Formulas Ribbon – Insert Function from the function library

Select a formula to enter in a cell. Excel will display a wizard to help you enter the arguments of the formula.



You can manually enter arguments, or click on the arrow to select an appropriate cell.

If you don't know what formula might fit your needs, you can search on the web, look in Excel's help files, or do a keyword search in the formula library.



If needed, you can use copy-paste to easily apply a formula to other cells. Be careful about absolute and relative addresses (see anatomy of a formula)!