



What is a spreadsheet?

A spreadsheet (or worksheet) is the computer equivalent of a table on a piece of paper. It consists of a grid made of columns and rows. Each "square" at the intersection of a column and a row is called a "cell". You can type information in the cells of the spreadsheet, as you would write information in the squares of your paper table.

→ Writing in the squares on the paper = Type data in the cells of the spreadsheet.

A big advantage of the spreadsheet over the paper is that it can make calculations automatically. Indeed, Excel, the program that control the spreadsheet has the ability to calculate cells values using mathematical formulas and the data in other cells.

Example: imagine that you write numbers in a column of your table. You want to add them in the last square of the list. You take your calculator, input the numbers and write the result of the sum. Not difficult, is it?

Ok, but if you change one of the numbers, what do you do? You have to make all your calculations again. What if you have 200 numbers to add?

In a spreadsheet, you can enter a formula that calculates the sum of the numbers for you. If you change or add numbers, the sum will automatically be updated!

Rows, Columns and Cells: The rows in a spreadsheet have numeric identifiers (1, 2, 3, etc) and the columns have alphabetic identifiers (A, B, C, etc). Therefore the name of a cell is composed of a letter and a number that point to their unique position in the grid (e.g. A1, C12...). Once you reach the end of the alphabet, you simply double the letter (AA1, AB1...ZZ1), then triple it if needed (AAA1, AAA2...)! The maximum column identifier is **XFD**, which gives you quite some space. Indeed, the total number of rows and columns on a worksheet can reach 1,048,576 rows by 16,384 columns for Excel 365. Earlier versions had less space, but it was sufficient for most users.

There are many other advantages of the spreadsheet over the paper table that you will discover in this tutorial. This is why Excel is one of the tools that is used by many professionals for a variety of activities:

- Sales managers use Excel to forecast their Sales revenues
- Scientists use Excel to analyze data and do simulation
- Teachers use Excel to calculate their student performance
- School administrators use Excel to manage school schedules
- Economists use Excel to understand statistics and create models
- Businesses use Excel to analyze financial reports
- Financial analysts use Excel to create budgets
- ...

As business students, you will be expected to know how to use this powerful tool when you start working. This is a tool that is used in so many different activities.

Spreadsheet vs. Worksheet vs. Workbook

Note that the terms spreadsheet and worksheet mean the same and are both commonly used. A **workbook** is a document (or file) containing several spreadsheets. Each worksheet can be accessed by clicking on a tab (a kind of index) at the bottom of the workbook.