## Spreadsheet crash course (Excel, etc.)

In hands-on type courses students appreciate a quick review of the use of a spreadsheet. Here we cover the most common one, Excel. If you are already familiar with the use of Excel, skip this section.

1. Open the program by clicking on the icon:


The program is organized in multiple cells, identified by the letter of the column and the number of the line, in the image the cell highlighted is C 4 .


2. To introduce a number into the cell, select it and enter the number. Enter 10 in cell B2 and 6 in C2. When entering content in a cell, it appears in the horizontal box above.

[^0]3. To perform an operation, click on the cell where you want the result to appear and introduce the symbol "=" followed by the operation. Multiply the two previous cells by typing "=B2*C2" into cell. Alternatively, you can write = and click on B2, type an operation and click on C 2 .

4. If you wanted to introduce the hours of the day in consecutive cells, it would be very tiring. To speed up the process, write 1 and 2 . Next select the two cells where you have entered the numbers. Placing the cursor on the lower right changes the form. Click here and drag. You will see that it produces progressive numbers.

5. Type whatever numbers in the 3 columns below the 10 and the 6 .

| 10 | 6 |
| ---: | ---: |
| 3 | 34 |
| 12 | 37 |
| 8 | 3 |

6. Place the cursor on the lower left corner of cell D2 and below in the same way as described in point 4. Notice that the formula in cell D2 has been extended to the lower cells updating in a way that cell D3 shows B3*C3, D4 shows B4*C4 and so on.

7. This, that at times is so convenient, is in fact a nuisance. If you want to multiply all the numbers of column C by B 2 then you do not want the formulae to be updated automatically. To avoid this, place $\$$ signs in front of the row, the column or both, according to what you want to block. In the proposed case the formula in cell D4 would be "=\$B\$2*C2". The result using $\$$ signs and that not using them is very different:


8. To find the total of a column, place the cursor in the lower cell, and press the symbol $\sum$. You can change the selection until you cover what you want to be included.
9. Excel has many functions. You will use some of them frequently such as the powers or logarithms. To find them, press next to the Sum button and choose from the dropdown menu.


With these 9 steps, you have what is strictly necessary for the following exercises. At the beginning it will be confusing, but after five minutes of practice you will be more at ease.


[^0]:    www.epanet.es

