

Creating an Excel calculator

Here the steps to create an Excel spreadsheet that will automatically calculate data.

1. Open Excel. You will see an empty spreadsheet
2. Name the spreadsheet by double-clicking on the tab at the bottom (it is named "Sheet" to begin with)
3. Click on the cell numbered "1A" and put in the name of the spreadsheet (such as, "snow density calculator")
4. Select the cells to the right of "1A" to put in the names of the columns (such as, "mass", "volume", "density")
5. Click on the cells below "1A", to put in the names of the rows (such as, the names of each location along a 100-meter transect: "0 meters," "5 meters," etc.)
6. Now you are ready to place automatic calculations in the spreadsheet.
7. At the bottom of each column that will contain data, in the row below the final location, you will type a calculation code.
8. In some cases, one or more columns (such as the "density" column) will contain calculation codes in every cell in that column

To see an example of the placement of calculation codes, open the "Snow calculator" to see the Snow Calculations provided. Use "Save As" to make a copy of the spreadsheet (so you don't accidentally mess up the original document).

Click on various cells to see the codes embedded in them. (Warning, moving from cell to cell may actually change the codes in the cell. If this happens, hit the "Return" key to get out of the calculator. Then close the calculator but DO NOT save any changes).

Examples of calculation codes:

- Average or Mean of several numbers: =AVERAGE (C2:C22)
(C2 = the first cell in which data occurs; C22 = the last cell in which data occurs)
- Subtracting two numbers: =D22-E22
(D22 and E22 represent the two cells in which the numbers are located)
- Dividing two numbers: =(F2/C2)
(F2 and C2 represent two cells)
- Dividing the numbers in two cells, then multiplying the result: =(F2/C2)*100
- Adding two numbers, one of which is multiplied by the value in a particular cell=10+(2*H2)
(“10” would be replaced with the number you wish to add; “2” would be replaced with the multiplier)

To find other possible codes, use the "Formula Builder" in Excel.

- Select "AutoSum" in the Standard Toolbar
- From the drop-down list, select "More Functions"

If you want to repeat a calculation in multiple cells (such as, all the cells in one column),

- Select the cell that has the calculation code

- Hold the cursor over the lower right corner of the cell
- When a symbol that looks like “+” appears, drag the corner across the adjacent cells

After you have created all the calculations you want, use “Save As” to create the document in which you will place data. Keep a clean copy of the original document. It is very easy to accidentally delete the calculations in a cell.