



# Excel 101 – Basics

## What is a spreadsheet?

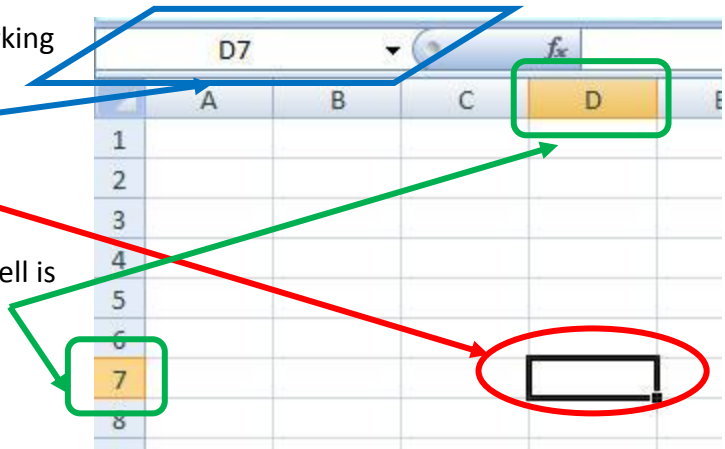
Excel is like an electronic version of a paper ledger. If you are familiar with Word, a spreadsheet is similar to working with tables—it has rows and columns, and the space where these two intersect are called “cells”. A key concept of Excel is understanding what a cell is and how they work.

## What are cells?

A cell reference is its location or “address” within a spreadsheet and is identified by what column it is located (which uses letters) and what row it is in (which uses numbers), such as A1 or E15.

You can tell which cell you’re currently working in using the following methods:

- 1) The “Name Box” displays the cell reference.
- 2) The cell is “highlighted” by a bold outline.
- 3) The column and row headings the cell is located in are highlighted.

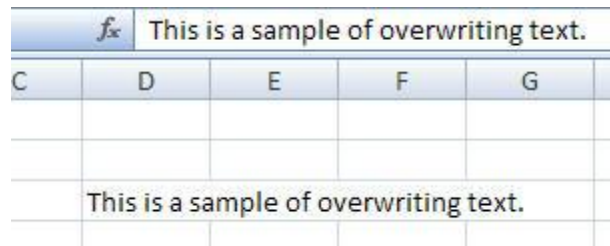


Cells can contain text or “labels”, numerical information (i.e. numbers), and equations or formulas. When entering information into a cell, Excel will try to automatically figure out what kind of data it is (text, numbers, or formulas). This can sometimes cause confusion when entering things like phone numbers or SSN’s. Formulas always start with the equals sign (=).

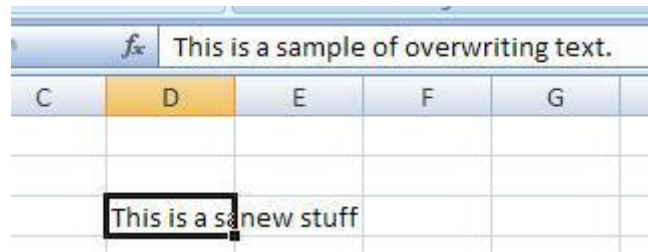
Something to note is that text data is always automatically formatted to be left-justified in a cell and numeric data is automatically right-justified. Therefore, you enter a number that should really be treated as text (like an ID) and it gets right-justified, you can immediately realize that Excel is treating it as numerical data (which means it can be used in calculations and could get formatted differently).

HINT: To “force” Excel to always identify something as text, use the apostrophe (') at the beginning when entering data into a cell.

Another confusing aspect of cells is that they do not change width according to how information is inside it. So sometimes there can be more data in a cell than you can see because the cell isn't wide enough to show everything. Additionally, if the cell or cells immediately to the right of the cell you're entering data into are empty, the data will automatically "write over" them. This data isn't entered into those cells, only shown over those cells.



The data is still located in the first cell and if anything is entered into the cells to the right, that information will be displayed instead.



These cells are located on pages or "sheets" and there can be multiple sheets within a single Excel file, so each file is called a "workbook".

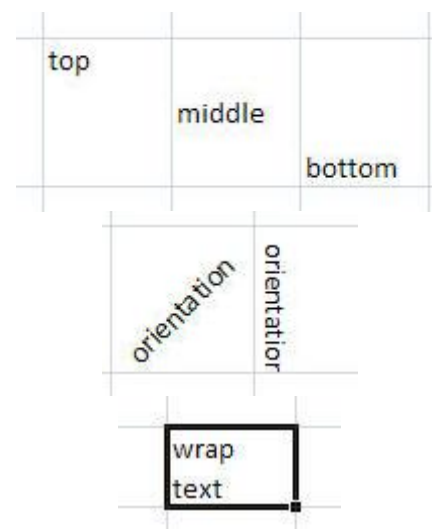
## Formatting in Excel

Most of the formatting tools in Excel 2007 will be found on the "Home" ribbon.



Unique formatting tools:

- Vertical alignment – since cells can be "taller" than the contents, it is possible to select whether the cell contents is aligned at the top, middle, or bottom of a cell.
- Orientation – it is also possible to angle text within a cell.
- Wrap Text – because of the column widths, sometimes it makes sense to wrap text within a cell instead.



- Merge & Center – this allows text to span across multiple columns.

B	C	D	E
merge & center across columns			

- Currency – changes numerical data by adding dollar (\$) signs (or other international currency symbols) and any appropriate number of decimal positions.
- Percentage – changes numerical data by adding percentage signs (%) and 2 decimal positions.
- Comma – changes numerical data by adding commas where appropriate.

## Working with Multiple Cells

It is possible to select and work with more than one cell at a time.

- Mouse dragging – You can hold down the mouse button and highlight multiple cells by moving your mouse pointer across the sheet.
- Shift-click – You can select one cell, then hold down the Shift key and click on another cell and everything in between will be selected.
- Ctrl-click – You can select a cell, then by holding down the Ctrl key, you can click on other cells and select them individually.

## Formulas – The Basics

To create a formula in Excel, you always start with the equals sign (=). The basic math operators are:

Addition → +

Subtraction → -

Multiplication → \*

Division → /

So to add the contents of 2 cells together, it would look like this: =B5+B6

Excel will usually calculate from left to right, for example: =B5+B6-C4+E8

B5 and B6 will be added together, then C4 will be subtracted from that total, then E8 will be added.

However, Excel will usually do multiplication and/or division before it does addition and/or subtraction, so for example: =B5+B6\*C4-E8

B6 and C4 will be multiplied first, then B5 will be added to that, then E8 will be subtracted.

One method for “enforcing” the order that you want the math to be calculated, is to use parenthesis, for example: =(B5+B6)\*(C4-E8)

This will cause B5 and B6 to be added together, then E8 subtracted from C4, and then the results of these two calculations will be multiplied against each other.

(Note: Excel refers to this as the “Order of Operation”.)

Whenever you’re adding several consecutive cells together, it is possible to use a “range” within your formula and the built-in function called “sum”. For example, instead of typing in: =B5+B6+B7+B8

You could use: =SUM(B5:B8)

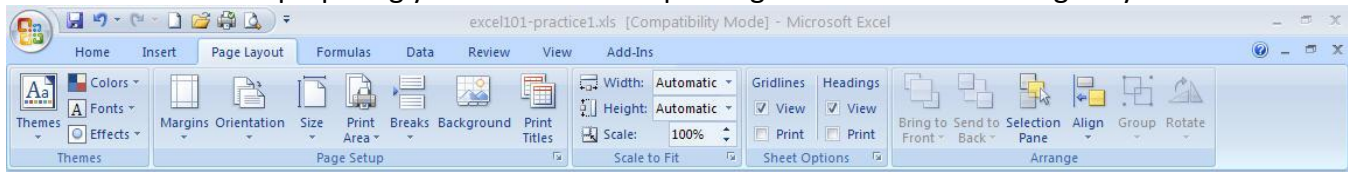
This function says to start with the cell B5 and add all the cells together until the last cell B8.

A really cool tool is the Autosum button. You can either select your range that you want add together and then click on this button, or you can click on the button first and it will try to “guess” what range of cells you want to add together.



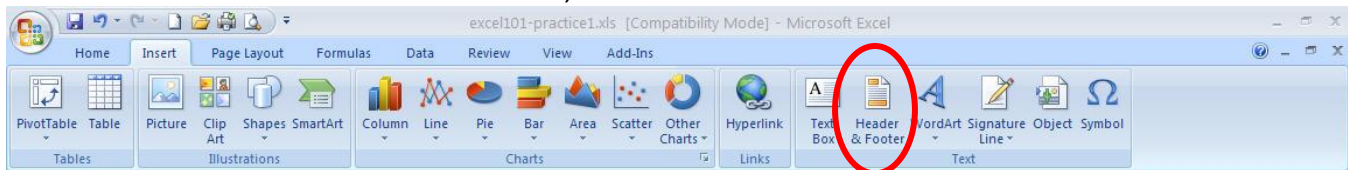
## Printing in Excel

Most of the tools for preparing your document for printing are located in the “Page Layout” ribbon.



These tools would include changing the margins and the page orientation. However, it is also possible to define a portion of your spreadsheet as a “print area” so that only that section is printed and the rest of the workbook is not printed. It is also possible to “scale” the document, so that you can set a percentage (larger or smaller) than the normal size of the document, to make the whole thing either larger or smaller without having to adjust the entire document. Excel 2007 has also added a new feature called the “Page Layout View” so that you can change your working perspective of the document to show the margins and page breaks as you’re working on the document (instead of having to go in and out of the Print Preview mode like previous versions of Excel).

To add headers or footers to the document, use the “Insert” ribbon.



More information about Excel can be found at:

[http://intranet.pcc.edu/cs/office\\_resources.htm](http://intranet.pcc.edu/cs/office_resources.htm)

<http://www.vertex42.com/Excel2007/excel-tutorial.htm>

<http://www.fgcu.edu/support/office2007/Excel/index.asp>