## Spreadsheets

The spreadsheet package covered used in these notes is Microsoft Excel which usually comes as part of the Microsoft Office suite. The version used here is Excel 2007 but the principles involved apply to all versions.

A spreadsheet is a device used for the storage and manipulation of data, particularly numerical data.

When Excel opens up, the user is presented with a new 'workbook' as below.


The sheet is arranged as columns and rows, the columns headed alphabetically, $A, B, C$ etc and the rows numerically, 1,2,3 etc. At the intersection of each row and column is a rectangle into which information can be entered. These rectangles are called cells, and in the picture above the cell in the first row of the first column has a bold border indicating that that cell, called A1 is ready to have data entered into it. Note also that the column heading $A$ is in bold as is the row number 1. Also note that the 'Name Box' contains the Cell Reference A1


Cells can contain Text, numbers or formulae. The data is entered simply by moving to
 the active cell with the arrow keys on the keyboard or by pointing to the cell using the mouse and clicking the left hand mouse button. In this
example I have entered text into row 1 , then text in A 1 , a number into B 2 and am in the process of entering a number into C 2 . The border of C 2 is bold indicating that this is the active cell, the ' C ' column heading and ' 2 ' row heading shaded
(gold) and the 'C2' is displayed in the 'Name Box'. Note also that the data that is being entered into C2 (the active cell) also appears in the 'Formula Bar'

Each cell may be individually formatted by selecting it then using the usual methods to change font, colours, font height, bold, italics and justification, or a whole row or column can be formatted. In this example, row 1 is clearly a heading, so we will select the entire row and use a larger font, bold characters and centralise the text in each cell. Click on the row heading ( 1 in this case) to highlight the entire row, then click on the appropriate formatting tools.


When this is complete, clicking somewhere else on the sheet will switch off the highlighting and the new format can be observed.
The first thing that one notices is that the text in D1 is wider than the column width. There are several possible solutions to this problem - make the column wider or use a smaller font size or make the row taller.
To make the column wider, one could click on the dividing line between column heading $D$ and column heading E , then holding down the left hand mouse button, the column can be drawn out to the required width.

| H12 |  | - $f_{x}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 5 | A | B | c | D 4 |
| 1 | Item | Number | Price | Item Total |
| 2 | Hammer | 1 | 5.5 |  |

Alternatively, the column could be
selected (click on the column heading and the entire column becomes highlighted) and go to the 'Cells' section of the 'Home' ribbon


An alternative would have been to make the row height automatically adjust itself to accommodate the text, by selecting row 1, then again going to the 'Cells' section of the 'Home' ribbon at the top of the screen this time choosing 'Format>Auto Fit Row Height' (as in picture above).
The text could then be made to split onto 2 lines (text wrapping) by going to the 'Alignment' section of the 'Home' ribbon and choosing 'Wrap Text'.

