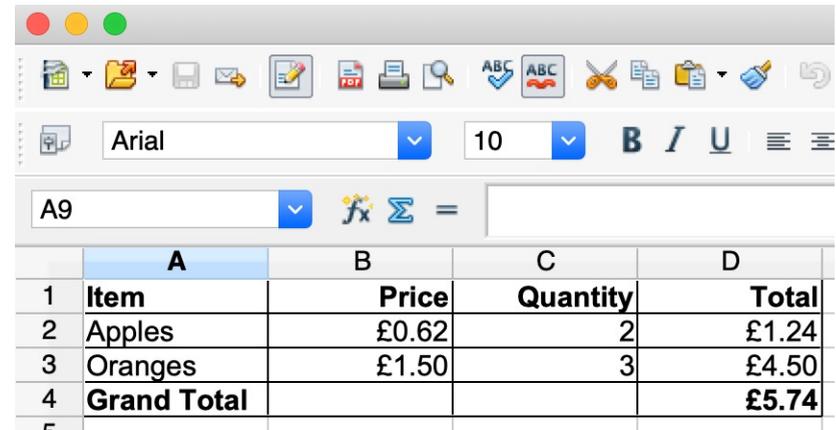# Spreadsheets

Mendlesham Computer Club

By Giles Godart-Brown

What is a spreadsheet?

- A spreadsheet is a grid of cells, each cell can contain text, numbers or formulas.

- They are used for 2 main purposes

  – Formulas

  – Tables of information

	A	B	C	D
1	Item	Price	Quantity	Total
2	Apples	£0.62	2	£1.24
3	Oranges	£1.50	3	£4.50
4	**Grand Total**			£5.74
5				

	A	B	C	D	E	F	G
1	**First_name**	**Last_name**	**Address_1**	**Address_2**	**Address_3**	**County**	**Postcode**
2	Kimberly	Johnson	16 North Park		Mansfield	Nottinghamsh	NG18 4PA
3	Sydney	Farrell	1 Callander Close		Fulwood	Lancashire	PR2 9LP
4	Henry	Hall	12 Brookside		Cleator	Cumbria	CA23 3DU

Spreadsheet tools

- PC and Mac
  - Microsoft Excel (Paid)
  - OpenOffice Sheets
  - Google Sheets
- Phone or Tablet
  - Google Sheets
  - AO Office, Excel (Paid) and Other apps

Cells

- Cells are referenced by a column letter followed by a row number, the cell at the top left is A1.

- They contain text, numbers or formulae (e.g. =A1 + B1)

- If you have a cell that you use in a number of formulas, e.g. a rate of exchange, you can name cells in the box just above the top left cell.

- You can specify a range of cells using a : e.g. A1:A5 contains A1, A2, A3, A4 and A5.

- Ranges can be selected by <left mouse> swipe over <release left mouse>

- A spreadsheet may have a number of sheets (pages) with values copied between them.
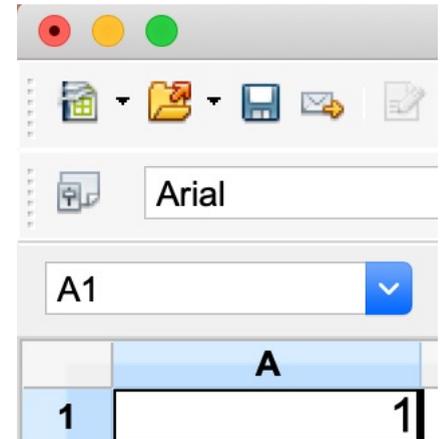
Cell formatting

- Text and numbers typed into a cell can be formatted in the same way as in the Open Office text editor.

- There are some additional options that are changed by selecting the cells, rows or columns you want to format and choosing <format><cells> from the top menu bar, this has tabs for number formatting, fonts. alignment, borders and background.

  - The number format has several options for money fields (e.g. include £ sign)

Create an address book

Mendlesham Computer Club

By Giles Godart-Brown

A simple address book spreadsheet

- Create a new spreadsheet in open office or Excel

- In the first row type some column headings e.g.

A1:AMJ1		First_name				
	A	**B**	**C**	**D**	**E**	**F**	**G**
1	**First_name**	**Last_name**	**Address_1**	**Address_2**	**Address_3**	**County**	**Postcode**

- Then add the names to subsequent rows

	A	**B**	**C**	**D**	**E**	**F**	**G**
1	**First_name**	**Last_name**	**Address_1**	**Address_2**	**Address_3**	**County**	**Postcode**
2	Kimberly	Johnson	16 North Park		Mansfield	Nottinghamsh	NG18 4PA
3	Sydney	Farrell	1 Callander Close		Fulwood	Lancashire	PR2 9LP
4	Henry	Hall	12 Brookside		Cleator	Cumbria	CA23 3DU

- Save it somewhere you can remember.

Sorting and filtering

Sorting

- Select the cells or rows you want to sort, by wiping over with the mouse.

- Select <data><sort> from the top bar

- Chose the column to sort on and type of sort.

Filtering

- If you want to quickly to see the rows that match a particular criterion, e.g. all the rows that contain "Roses", select the rows you are interested in as above, then select <Data><filter><standard filter> and then fill in the criteria.

Download Address book demo to try these

Formulas

By Giles Godart-Brown

Formulas

- Typing an = sign at the start of a cell tells the spreadsheet that this cell contains a formula.

- If you wanted the contents in C1 to be A1 added to B1, you would type =A1+B1 into cell C1, then if you change A1 or B1, the contents of C1 will automatically recalculate to reflect the change.

- Similarly, if A2 was the price per unit and B2 was the number of units, typing =A2*B2 into C2 would make C2 contain the total cost of these items.
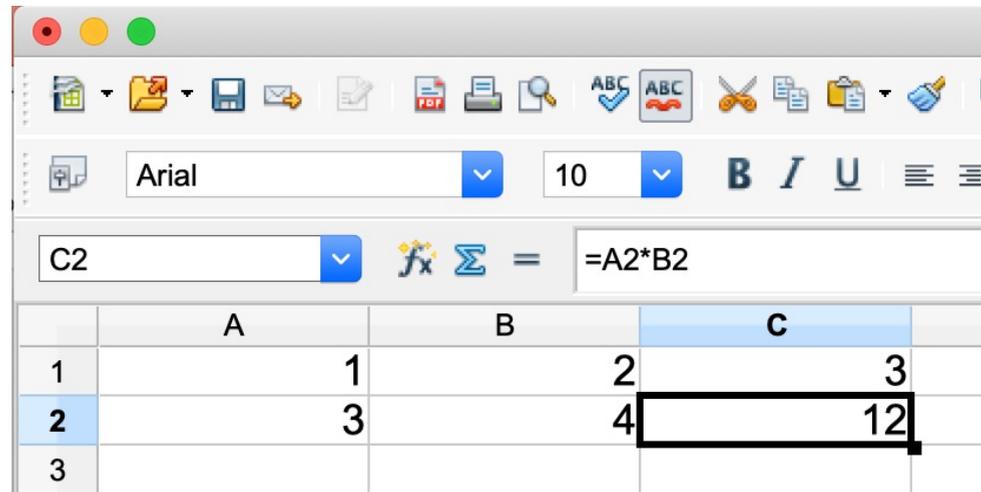
Common formulas

Formula	Result
=A1+B1	A1 is added to B1
=A1-B1	B1 is subtracted from A1
=A1*B1	A1 is multiplied by B1
=A1/B1	A1 is divided by B1

A simple shopping list

- Create a new spreadsheet in OpenOffice and type the column headings in the top row

	A	B	C	D
1	Item	Price	Quantity	Total

- Input an item, price and quantity on the second row

	A	B	C
1	Item	Price	Quantity
2	Apples	£0.62	2

- In cell D2 type =B2*C2 and it will calculate the total for you

D2   𝑓x Σ =   =B2*C2

	A	B	C	D
1	Item	Price	Quantity	Total
2	Apples	£0.62	2	£1.24

Create a shopping list

By Giles Godart-Brown

Functions

By Giles Godart-Brown

Commonly used functions

Formula	Result
=sum(A1:A5)	A1+A2+A3+A4+A5
=round(A1/B1;2)	A1 is divided by B1 and rounded to 2 decimal places
=average(A1:A5)	The average of the numbers A1 to A5
=max(A1:A5)	Minimum of the numbers A1 t A5
=min(A1:A5)	Maximum of the numbers A1 t A5

The full list of functions is at;
https://wiki.openoffice.org/wiki/Documentation/How_Tos/Calc:_Functions_listed_by_category

Example using functions

- Download and open the greenhouse temperatures demo
- Use the functions to find the max, min and average temperature

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Graphs

By Giles Godart-Brown

Create an OpenOffice spreadsheet graph

- Open the greenhouse temperatures
- Select the numbers you want to chart including the column titles
- Click on the chart icon
- Follow the wizard
  - Chose chart type e.g. line
  - Data range, this should already have the range you selected at the start
  - Data series – take defaults
  - Add the titles

Create an Excel spreadsheet graph

- Open the greenhouse temperatures
- Select the numbers you want to chart including the column titles
- Select Insert>Chart and chose the graph format you would like (pie, bar etc…)
- Once the graph has been created, click on the individual elements to make changes

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