

## A

## Spreadsheet basics

A spreadsheet program helps you manage personal and business finances. Spreadsheets, or worksheets, are mathematical tables which show figures in rows and columns.

A cell can hold three types of data: text, numbers and formulae.

Formulae are entries that have an equation which calculates the value to display; we can use them to calculate totals, percentages, discounts, etc.

Spreadsheets have many built-in functions, pre-written instructions that can be carried out by referring to the function by name. For example, `=SUM(D2:D7)` means add up all the values in the cell range D2 to D7.

The format menu lets you choose font, alignment, borders, etc.

Menu bar

Currency

A column is a vertical line of boxes, labelled with a letter.

A row is a horizontal line of boxes, labelled with a number.

A cell is the intersection of a column and a row. You enter data into the active cell.

Address of the active cell

This cell contains the result of the formula: `=SUM(D2:D7)`

	A	B	C	D	E
	Description of robots	Quantity	Unit price	Total	
1					
2	MERCURY COBRA M2.3 robot	3	30500	183000	
3	MERCURY ANACONDA M2.5 robot	2	32800	65600	
4	MERCURY COBRA M2.32 robot	2	40100	80200	
5	MERCURY HERCULES M1.120 robot	4	42400	169600	
6	MERCURY COBRA M2.225 robot	1	45700	45700	
7	MERCURY HERCULES M1.500 robot	2	49700	99400	
8					
9					
10					
11			Subtotal	643500	
12			Discount 8%	51480	
			TOTAL	592020	

## B

## Parts of a database

## Database basics

A database is essentially a computerized record-keeping system.

Each unit of information you create is called a record and each record is made up of a collection of fields. Typically, a single record consists of a set of field names like: Title, FirstName, Surname, JobTitle, TelNo and ID. You fill in a form with the relevant information for each field to add a new record to the database. There are different data types.

- Text – holds letters and numbers not used in calculations
- Number – can only hold numbers used in calculations and reports
- Memo – can store long texts
- Date/Time – a date or time or combination of both
- AutoNumber – assigns a number to each record
- OLE Object – (object linking and embedding) holds sounds and pictures
- Yes/No – for alternative values like true/false, yes/no, on/off, etc.
- Hyperlink – adds a link to a website

Once you have added data to a set of records, indexes must be created to help the database find specific records and sort (classify) records faster. An index performs the same function as in the back of a book or in a library. For example, if you regularly search your database by surname, the index should be defined on this field.

## Relational databases

Two database files can be related or joined as long as they hold a piece of data in common. A file of employee names, for example, could include a field called 'DEPARTMENT NUMBER' and another file, containing details of the department itself, could include the same field. This common field can then be used to link the two files together.

Extracting information from a database is known as performing a query. For example, if you want to know all customers that spend more than £9,000 per month, the program will search the name field and the money field simultaneously.

Record 4 Dept. Commission

Record 3 Dept. Commission

Record 2 Dept. Commission

Record 1 Dept. Commission

Address Name

Home phone:

Identification Occupation Salary

A database file stores information in fields grouped on records