= D2+(D2*C$12),, which when copied into E3 will read = D3+(D3*C$12) etc.

	A	B	C	D	E
				Item	VAT
1	Item	Number	Price	Total	Inclusive
2	Hammer	2	£5.50	£11.00	£13.20
3	Hoe	1	£7.50	£7.50	£9.00
4	Nails	250	£0.01	£2.50	£3.00
5	Screws	50	£0.15	£7.50	£9.00
6				£0.00	£0.00
7				£0.00	£0.00
8				£0.00	£0.00
9				£0.00	£0.00
10				£0.00	£0.00
11			Total	£28.50	
12		VAT Rate	20.00%		

C	D	E
Price	Item Total	VAT Inclusive
5.5	=B2*C2	=D2+(D2*C$12)
7.5	=B3*C3	=D3+(D3*C$12)
0.01	=B4*C4	=D4+(D4*C$12)
0.15	=B5*C5	=D5+(D5*C$12)
	=B6*C6	=D6+(D6*C$12)
	=B7*C7	=D7+(D7*C$12)
	=B8*C8	=D8+(D8*C$12)
	=B9*C9	=D9+(D9*C$12)
	=B10*C10	=D10+(D10*C$12)
Total	=SUM(D2:D10)	
0.2		

Formulae can be combined together to do quite complex operations. If for example we wish to put the VAT component of the data into D12, we could (its not the only way to do it) say that it is the sum of all the data in column E, (E2 to E10) minus the sum of all the data in column D (D2 to D10) or more precisely
=SUM(E2:E10)-(SUM(D2:D10).

NOTE THAT ONCE ENTERED, THE FORMULA CAN ONLY BE EDITED IN THE FORMULA BAR, NOT IN THE CELL.

SUM			X ✓ fx	=SUM(E2:E10)-SUM(D2:D10)	
A	B	C	D	E	F
			Item	VAT	
Item	Number	Price	Total	Inclusive	
Hammer	2	£5.50	£11.00	£13.20	
Hoe	1	£7.50	£7.50	£9.00	
Nails	250	£0.01	£2.50	£3.00	
Screws	50	£0.15	£7.50	£9.00	
			£0.00	£0.00	
			£0.00	£0.00	
			£0.00	£0.00	
			£0.00	£0.00	
			£0.00	£0.00	
		Total	£28.50		
		VAT Rate	20.00%	=SUM(E2:E10	

Finally, we can enter the formula for the Grand Total (VAT inclusive) in cell D13, ie. D11+D12

			£0.00	£0
	Total		£28.50	
VAT Rate	20.00%		£5.70	
Grand Total			=d11+d12	

Eventually, we will want to print out our spreadsheet. Our sheet has the potential of having hundreds of columns A to ZZ (26*26) and up to 65,000 rows, so we need to specify which parts of the sheet we want to print. In fact usually if you ask to print, Excel will only print from column A to the last column with data in it, and from row 1 down to the last one used. It is however a good idea to actually tell Excel which cells we want printed. This is done by clicking in one corner cell of the area to be printed, then hold down the SHIFT key and click in the diagonally opposite corner. This highlights the whole area. (In this case A1 to F13) Then click on 'Page Layout' at the top of the screen to bring up

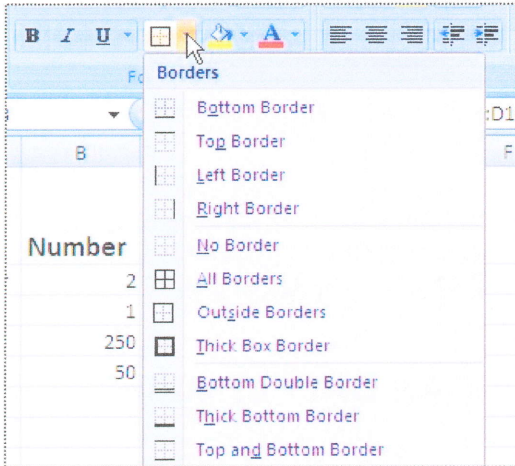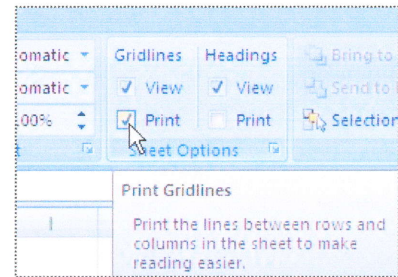|	A	B	C	D	E
				Item	VAT
1	Item	Number	Price	Total	Inclusive
2	Hammer	2	£5.50	£11.00	£13.20
3	Hoe	1	£7.50	£7.50	£9.00
4	Nails	250	£0.01	£2.50	£3.00
5	Screws	50	£0.15	£7.50	£9.00
6				£0.00	£0.00
7				£0.00	£0.00
8				£0.00	£0.00
9				£0.00	£0.00
10				£0.00	£0.00
11			Total	£28.50	
12		VAT Rate	20.00%	£5.70	
13			Grand Total	£5.70	
14					
15					

the 'Layout' ribbon, click on 'Print Area', then 'Set Print Area'. A dotted line appears around the area that has been selected. Clicking on print will then print out only that area.

One thing that should be noted is that it is important to check whether the lines of the cells will be shown. To do this, check that the 'Print' checkbox is ticked on the 'Page Layout' ribbon. If you do not want the gridlines, click the box off.

There may be times when you do not want gridlines, but do want boxes around specific cells. This is achieved by selecting the particular cell and clicking on the little arrow to the right of the 'Border' icon on the 'Home' ribbon. Here it is possible to have a choice of border styles, colours etc, and to choose which side or sides of the cell has borders.

Spreadsheets can be used to store large amounts of data as well as manipulate it mathematically. For example, a shop may keep a complete list of all the items that it sells and their buying-in prices, and from calculating profit margins, the selling prices can be set.

In the example above, we have the product name in column A, the pack size in B, the price that we, the retailer will sell at in C, the recommended selling price in D, the wholesale price (bulk ex VAT) in E and the VAT rate in F. The code in G is a purchasing

	A	B	C	D	E	F	G	H	I	J	K	L
1	Product	Pk Size	Our Price	RSP	Price	VAT	Code	Units	Price/unit	UPr+VAT	Unit profit	% Profit
2	Benson & Hedges King size	20	£3.12	£3.12	£25.46	20%	163-30	10	£2.55	£3.06	£0.06	2.08
3	Capstan Full Strength	20	£3.37	£3.37	£26.95	20%		10	£2.53	£3.03	£0.07	2.10
4	Embassy No1 King Size	20	£3.10	£3.10	£25.29	20%	163-51	10	£2.53	£3.03	£0.04	1.30
5	Embassy Filter	20	£3.07	£3.07	£25.25	20%	163-56	10	£2.27	£2.72	£0.03	0.99
6	Lambert & Butler Kingsize	20	£2.75	£2.75	£22.69	20%	164-11	10	£2.55	£3.06	£0.06	2.04
7	Marlboro Kingsize	20	£3.12	£3.12	£25.47	20%	164-06	10	£2.55	£3.06	£0.06	2.04
8	Marlboro Lights Kingsize	20	£3.12	£3.12	£25.47	20%	772-13	10	£2.12	£2.55	£0.02	0.87
9	Mayfair King Size	20	£2.57	£2.57	£21.23	20%	433-56	10	£2.37	£2.84	£0.05	1.63
10	John Player Superkings	20	£2.89	£2.89	£23.69	20%	060-45	10	£2.37	£2.84	£0.05	1.63
11	John Player Superkings Menthol	20	£2.89	£2.89	£23.69	20%	420-75	10	£2.37	£2.84	£0.05	1.63
12	John Player Superkings Lights	20	£2.89	£2.89	£23.69	20%	238-27	10	£2.37	£2.84	£0.05	1.63
13	John Player Superkings Ultra Lights	20	£2.89	£2.89	£23.69	20%	480-58	10	£2.39	£2.86	£0.03	0.97
14	John Player Special Black King Size	20	£2.89	£2.89	£23.85	20%	183-16	10	£2.70	£3.23	£0.07	2.00
15	Players medium navy cut	20	£3.30	£3.30	£26.95	20%	164-24	10	£2.40	£2.87	£0.02	0.55
16	Raffles 100	20	£2.89	£2.89	£23.95	20%	225-04	10	£2.55	£3.06	£0.06	2.04
17	Rothmans King Size	20	£3.12	£3.12	£25.47	20%	164-37	10	£2.55	£3.06	£0.06	2.08
18	Silk Cut Kingsize	20	£3.12	£3.12	£25.46	20%	164-40	10	£2.55	£3.06	£0.06	2.08
19	Silk Cut Kingsize Ultra Low	20	£3.12	£3.12	£25.46	20%	457-14	10	£2.18	£2.62	£0.03	1.28
20	Sovereign	20	£2.65	£2.65	£21.80	20%	631-12	10	£2.57	£3.08	£0.01	0.23
21	Rothmans Royals Kingsize	24	£3.09	£3.09	£25.69	20%	068-67	10	£2.57	£3.08	£0.01	0.23
22	Rothmans Royals Lights Kingsize	24	£3.09	£3.09	£25.69	20%	068-68	10	£1.27	£1.53	£0.03	2.08
23	Benson & Hedges King size	10	£1.56	£1.56	£25.46	20%	163-29	20	£1.26	£1.52	£0.03	2.10

code and is of no concern to us here. Column H contains the number of packs in an