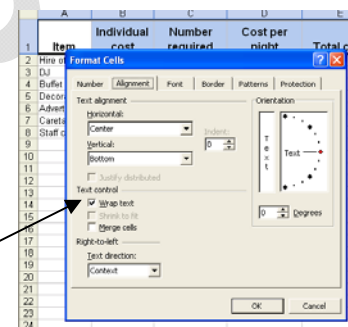


Excel 2003: Discos

1. Open Excel
2. Create Choose a new worksheet and save the file to your area calling it: Disco.xls
3. Enter the following data into your spreadsheet:

	A	B	C	D	E	F	G	H
1	Item	Individual cost	Number required	Cost per night	Total cost		Number of nights	3
2	Hire of hall	£50.00	1					
3	DJ	£45.00	1					
4	Buffet cost	£1.20	300					
5	Decorations	£30.00	1					
6	Advertising	£15.00	1					
7	Caretaker	£10.00	1					
8	Staff cost	£12.00	4					
9								
10								

4.
 - Make the headings bold.
 - Centre them.
 - Change the font to size 12 Arial
 - Make row 1 wider
 - Wrap the text so that it goes over two lines as shown above.

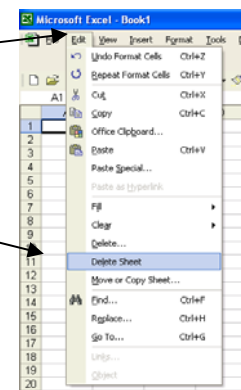


5. Rename your tab 'Disco costs'

6. Click on 'sheet 2' and delete it.

Click on 'sheet 3' and delete it.

You should now only have one worksheet left.



7. In cell D2, write a formula to work out the cost per night.

Replicate that formula in cells D3:D8

8. Format the cells in columns b, d & e as currency to 2 decimal places

	A	B	C	D	E
1	Item	Individual cost	Number required	Cost per night	Total cost
2	Hire of hall	£50.00	1	£50.00	
3	DJ	£45.00	1	£45.00	
4	Buffet cost	£1.20	300	£360.00	
5	Decorations	£30.00	1	£30.00	
6	Advertising	£15.00	1	£15.00	
7	Caretaker	£10.00	1	£10.00	
8	Staff cost	£12.00	4	£48.00	
9					
10					

9. Use the help function to find the topic 'absolute cell reference' close the help menu

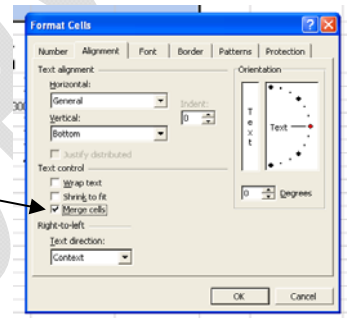
10. Save your spreadsheet as 'Discos 2'

11. Insert two blank rows above the headings

12. In cell A1, type the title 'Disco costing sheet'

13. Make the heading font size 16, bold and change the colour to Red.

14. Highlight cells A1:E1. Merge these cells and centre the heading



Your spreadsheet should now look like this:

	A	B	C	D	E	F	G	H
1	Disco costing sheet							
2								
3	Item	Individual cost	Number required	Cost per night	Total cost		Number of nights	3
4	Hire of hall	£50.00	1	£50.00				
5	DJ	£45.00	1	£45.00				
6	Buffet cost	£1.20	300	£360.00				
7	Decorations	£30.00	1	£30.00				
8	Advertising	£15.00	1	£15.00				
9	Caretaker	£10.00	1	£10.00				
10	Staff cost	£12.00	4	£48.00				
11								
12								

15. Insert a footer. Into the left hand side put your name. Into the centre section put your form and into the right hand section put the title 'Discos'.

16. Find a picture relating to a disco on the internet. Save this to your pictures folder. Insert this picture into your spreadsheet.

17. In cell E4, write a formula to calculate the total cost for the hire of the hall. Hint – cost per night * number of nights (H3).

Replicate this formula in cells E5:E10.

Did it work out the cost per night? The chances are that you got £0.00 for the other values. What went wrong?

Excel is usually very clever. When you drag a formula down, it knows that it needs to use that formula on the correct row.

Just to illustrate this point, check this out (you don't have to change anything):

Click in cell D4, look in the formula bar, you should see this formula: =B4*C4

Now click in cell D5 and you should see =B5*C5 – excel has changed the row number for you

Now click in cell D6 and you should see = B6*C6 – again, excel has changed the row number

Excel knew to change the cell numbers as you dragged the formula down to the next row.

Lets go back to the formula you wrote in cell E4.

You multiplied the cost per night by the number of nights. As you dragged the formula down, Excel changed the cell number for cost per night correctly. However, it also changed the cell for number of nights. If you look at your spreadsheet, there is nothing in the cells below number of nights. This is why you got £0.00 in your answers.

We have to find a way of stopping Excel trying to go to the cells below number of nights. We have to put on something called an 'absolute cell reference' which means that no matter how far you drag your formula down, it will stop trying to look at the cells below number of nights and will only ever look at that cell.

To do this is simple, all you need to do is put a \$ in front of the column letter and row number of the cell reference for cost per night. A \$ tells excel not to move out of that cell.

So your formula instead of being =D4*H3 should now be =D4*\$H\$3
Drag this new formula down and you should see that it works correctly.

18. In cell D11 write 'Total cost'. In cell E11 write a formula to calculate the costs in cells E4:E10. Your formula should use the words SUM.

19. In cell D12 write 'average cost', in cell D13 write 'highest cost', in cell D14 write lowest cost and in cell D15 write 'count'

Item	Individual cost	Number required	Cost per night	Total cost
Hire of hall	£50.00	1	£50.00	£150.00
DJ	£45.00	1	£45.00	£135.00
Budget cost	£1.20	300	£360.00	£1,080.00
Decorations	£30.00	1	£30.00	£90.00
Advertising	£15.00	1	£15.00	£45.00
Caretaker	£10.00	1	£10.00	£30.00
Staff cost	£12.00	4	£48.00	£144.00
			Total cost	£1,674.00
			Average cost	
			Highest cost	
			Lowest cost	

20. In cell E12 write a formula to work out the average of the costs in cells E4:E10.

=AVERAGE(E4:E10)

21. In cell E13, write a formula to find out the highest cost in cells E4:E10

=MAX(E4:E10)

22. In cell E14, write a formula to find out the lowest cost in cells E4:E10

=MIN(E4:E10)

23. In cell E15, write a formula to find out how many items are in cells E4:E10.

=COUNT(E4:E10)

24. In cell G1 enter today's date in the format 10/01/05

Using 'format cells' change the format of the date to a format such as 10th January 2005.

25. Delete column F from your spreadsheet.

Insert column F back into your spreadsheet.

26. Check that all of your column widths are set so that you can see all of the data correctly.

Change the cost of the hire of the hall from £50.00 to £75.00

Use the undo button to put the price back to £50.00

27. Fill cell A3 with a colour of your choice

Use the format painter to repeat this formatting to the other cells with titles in.

	A	B	C	D
1	Disco costing sheet			
2				
3	Item	Individual cost	Number required	Cost per night
4	Hire of hall	£50.00	1	£50.00
5	Hire of DJ	£45.00	1	£45.00

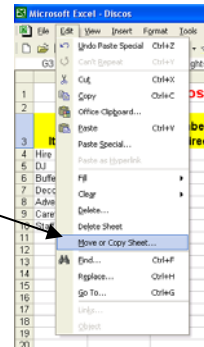
28. Insert a new worksheet.

Rename this worksheet as 'spare copy'.

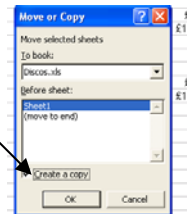
Copy your work from the Disco costs sheet, click into cell A1 on the new worksheet and paste.

29. Go back to your 'Disco costs' sheet. We are going to try another way of making a copy.

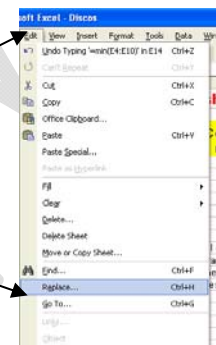
Click on the edit menu, select 'move or copy sheet'



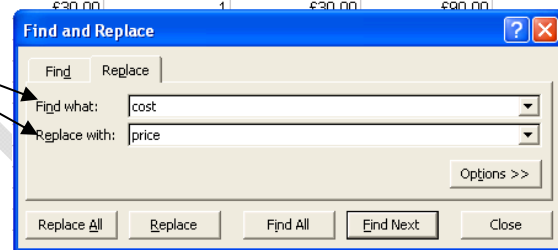
Then click 'make a copy' and OK



30. Use the replace tool and replace every 'cost' with 'price'



Set it up as shown here and click 'replace all'



31. Sort your spreadsheet by 'item' in ascending order.

To do this, it is important that you select all of the highlighted cells as shown.

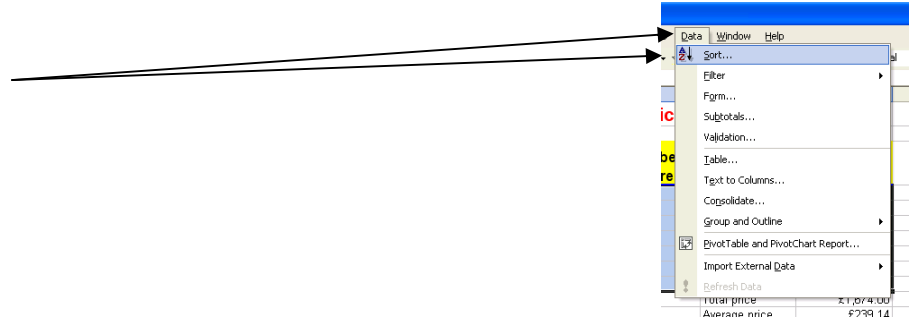
You do not need to include the titles.

You DO need to include all of the columns, not just 'items' otherwise all it will do when you sort, is sort just the one column, and the others will stay where they are, meaning that you have simply muddled your spreadsheet up.

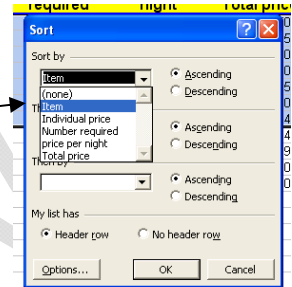
Do not include 'total price', 'average price' etc.

	A	B	C	D	E
1	Disco pricing sheet				
2					
3	Item	Individual price	Number required	price per night	Total price
4	Hire of hall	£50.00	1	£50.00	£150.00
5	DJ	£45.00	1	£45.00	£135.00
6	Buffet price	£1.20	300	£360.00	£1,080.00
7	Decorations	£30.00	1	£30.00	£90.00
8	Advertising	£15.00	1	£15.00	£45.00
9	Caretaker	£10.00	1	£10.00	£30.00
10	Staff price	£12.00	4	£48.00	£144.00
11				Total price	£1,674.00
12				Average price	£239.14
13				Highest price	£1,080.00
14				Lowest price	£30.00

Click on 'Data' and 'sort'



Now find the item that you want to sort by from the drop down list, and choose 'ascending' or 'descending' then click OK.



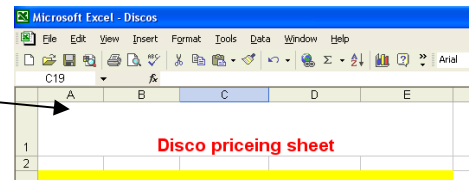
Your spreadsheet should be sorted correctly.

32. Sort your spreadsheet on the 'Total price' column in descending order so that the highest costs are at the top.

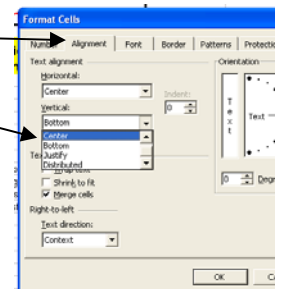
	Item	Individual price	Number required	price per night	Total price
4	Buffet price	£1.20	300	£360.00	£1,080.00
5	Hire of hall	£50.00	1	£50.00	£150.00
6	Staff price	£12.00	4	£48.00	£144.00
7	DJ	£45.00	1	£45.00	£135.00
8	Decorations	£30.00	1	£30.00	£90.00
9	Advertising	£15.00	1	£15.00	£45.00
10	Caretaker	£10.00	1	£10.00	£30.00
11				Total price	£1,674.00
12				Average price	£239.14
13				Highest price	£1,080.00
14				Lowest price	£30.00
15					

Your spreadsheet should look like this, check that you did it correctly

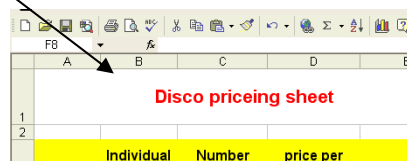
Make row A1 wider as shown here



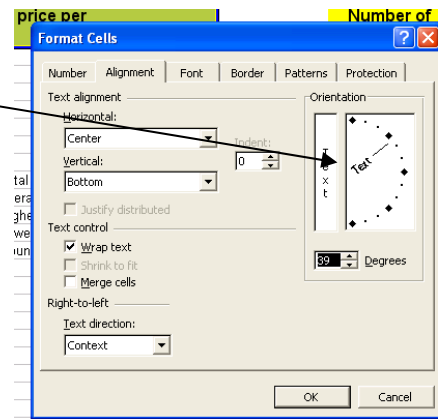
Align the heading vertically to be centred



So that it now looks like this:



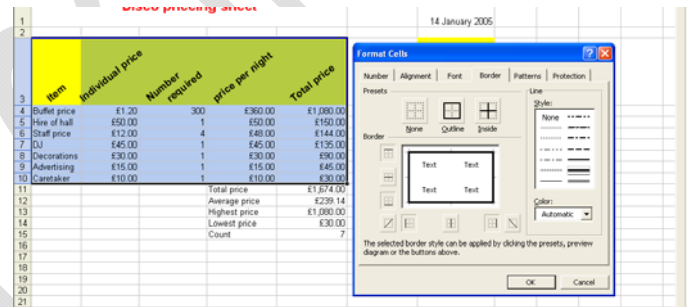
33. Highlight your titles and adjust the orientation as shown here



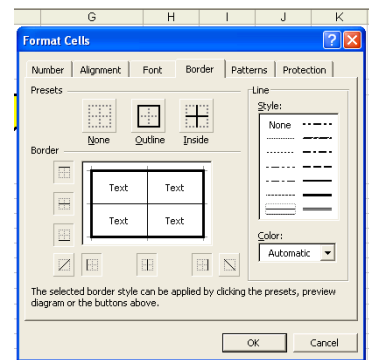
Adjust the row width so that they now look like this:

Item	Individual price	Number required	price per night	Total price
Buffet price	£1.20	300	£360.00	£1,080.00
Hire of hall	£50.00	1	£50.00	£150.00
Staff price	£12.00	4	£48.00	£144.00

34. Highlight cells A3:E10 and put a thick border around the outside of the table.



Now put a thinner border for the lines inside the table.



Your table should now look like this:

Item	Individual price	Number required	price per night	Total price
Buffet price	£1.20	300	£360.00	£1,080.00
Hire of hall	£50.00	1	£50.00	£150.00
Staff price	£12.00	4	£48.00	£144.00
DJ	£45.00	1	£45.00	£135.00
Decorations	£30.00	1	£30.00	£90.00
Advertising	£15.00	1	£15.00	£45.00
Caretaker	£10.00	1	£10.00	£30.00
Total price			£1,874.00	
Average price			£239.14	
Highest price			£1,080.00	
Lowest price			£30.00	
Count			7	

Format cells D11:E15 with a similar border

Total price			£1,874.00
Average price			£239.14
Highest price			£1,080.00
Lowest price			£30.00
Count			7

35. Starting in Cell A17 enter the following data

16			
17	Ticket sales		
18	Day 1	250	
19	Day 2	350	
20	Day 3	290	
21			

We have only ordered 300 buffet meals per night. We need a formula that will tell us easily if we have sold too many tickets.

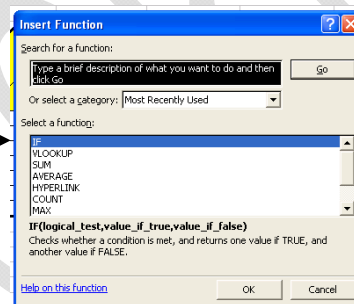
We are going to use a formula called an 'IF.. Then'.

This means that 'If' something is true, 'then' a value will be put into the spreadsheet, and 'IF' it is false, 'then' another value will be put in.

Click into cell C18, then click your fx button



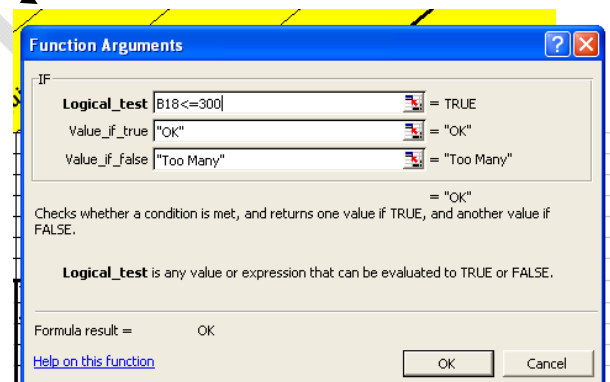
Click on 'IF' and 'OK'



You will get a screen that looks like this

It's not as complicated as it looks, lets go through it stage by stage.

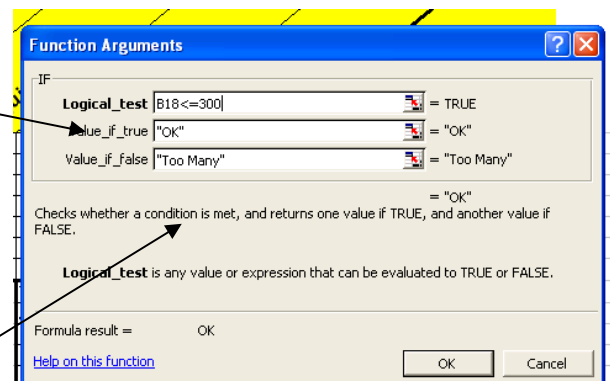
In the first cell (called logical test), click into the cell that you are interested in. In this case, it is the number of tickets sold in cell B18.



Then we have to tell it what we are interested in. Well in this case, we want to know if the ticket sales are less than or equal to 300.

So next to B18 we use the maths symbols <= to mean less than or equal to.

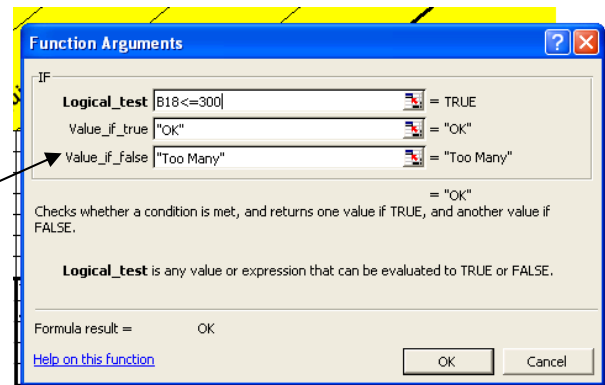
Then in the next section, we tell it what we want to show on the screen if ticket sales are less than or equal to 300. In this case, we want it to say 'OK'.



You don't need to put the speech marks in, excel will do that for you.

In the last section, we need to tell it what to display if ticket sales are over 300 (or if our original condition of $B18 \leq 300$ is wrong/false).

We want it to display 'too many'. Type this in, again, Excel will put in the speech marks for you.



Click OK

In Cell C18, you should see that 'OK' has appeared.

This is correct because ticket sales are less than 300.

14				Lowest price	
15				Count	
16					
17	Ticket sales				
18	Day 1	250	OK		
19	Day 2	360	Too Many		
20	Day 3	290	OK		
21					
22					

Drag the formula down.

Has Excel put in the correct words for you?

36. We want to add a chart so that we can see the data displayed in a different way.

Select the items and the total price (cells A4:A10 and cells E4:E10).

These columns are not next to each other, so it can be difficult to select both. The trick is to select the first column, then hold down the Control key and select the cells in column E.

Your selection should look like this, you do not need to select the titles.

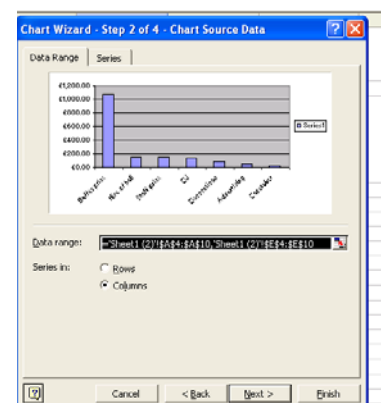
Item	Individual price	Number required	price per night	Total price
4 Buffet price	£1.20	300	£360.00	£1,080.00
5 Hire of hall	£50.00	1	£50.00	£150.00
6 Staff price	£12.00	4	£48.00	£144.00
7 DJ	£45.00	1	£45.00	£135.00
8 Decorations	£30.00	1	£30.00	£90.00
9 Advertising	£15.00	1	£15.00	£45.00
10 Caretaker	£10.00	1	£10.00	£30.00
		Total price		£1,674.00

Choose 'insert chart' or click on the insert chart symbol.

Choose column chart. Go with the default option.

Check your chart looks like this – the items should be displayed along the bottom.

Click 'next'



Add a title to your chart

Label the axis as shown.

There is a legend on this chart that we don't need.

Click on the 'legend' tab and unclick the tick 'show legend'.

The chart should now look like this, with no legend.

Click on 'next'.

On the last screen you get two choices, you can put the chart into the current worksheet you are on, the default is this.

The other option puts the chart into a new sheet.

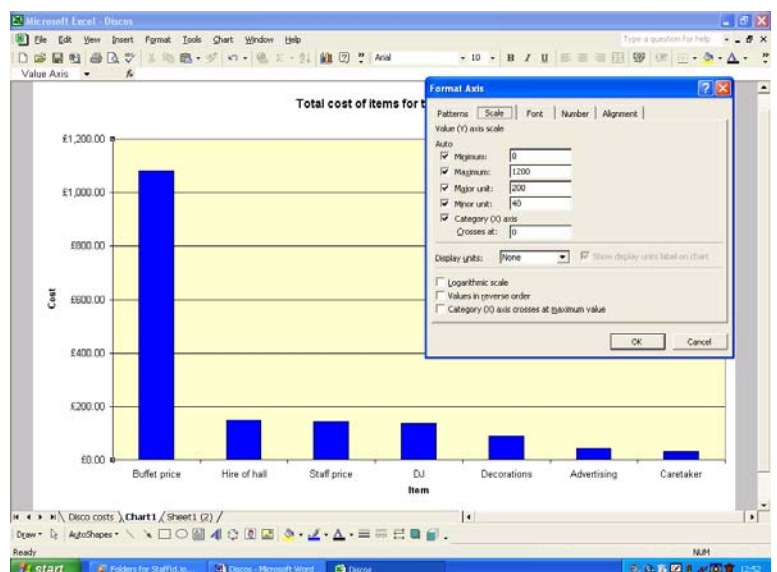
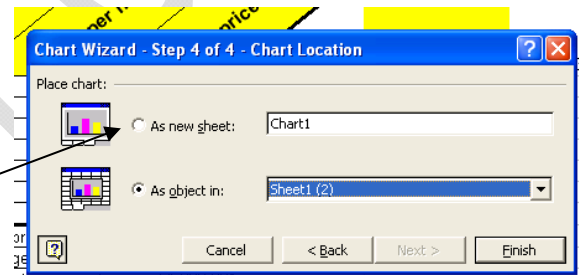
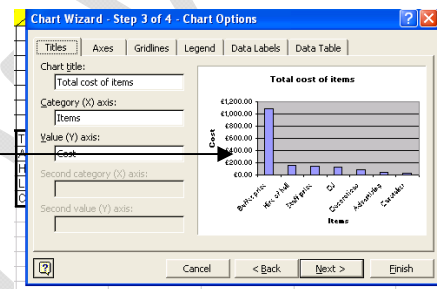
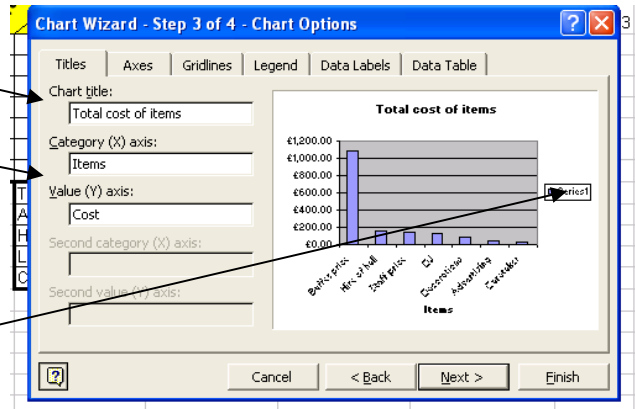
Select 'as new sheet' and click ok.

You should now have a chart in a new sheet.

Single click onto one of the bars on your new chart to select it.

Right click your mouse and choose 'format data series'.
Change the colour of the bar.

Single click onto the background of the chart.
Right click your mouse and choose 'format plot area'.
Change the colour of the background.



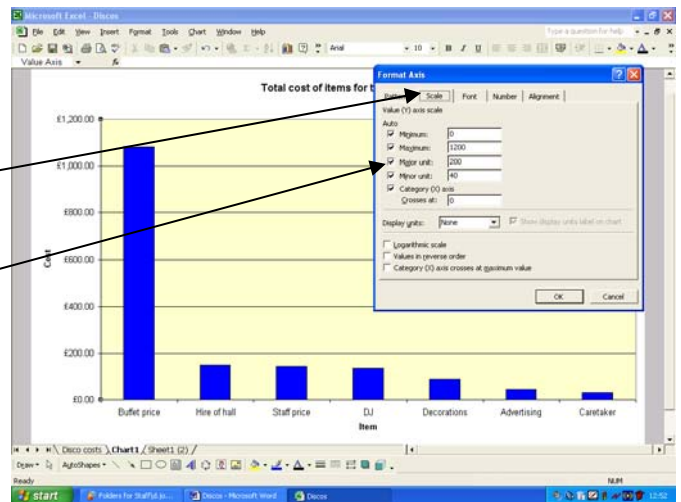
Click onto the chart title and change it to 'Total cost of items for the disco'

Click on the Y axis until it is highlighted.

Right click your mouse and select 'format axis'.

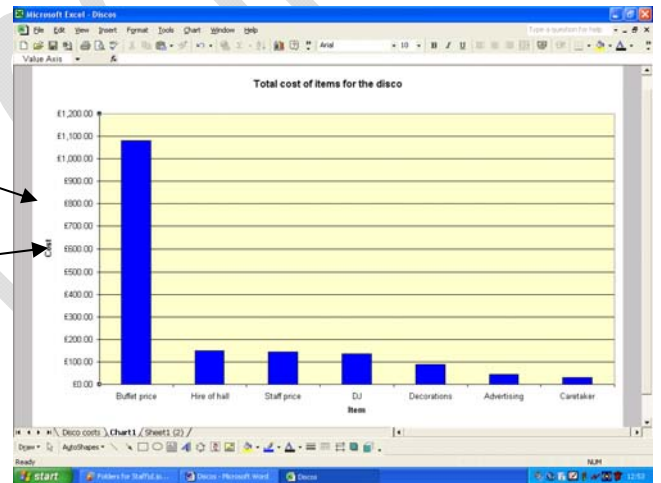
Choose the tab 'scale'

Change the 'major unit' to 100 and click ok.



Your chart should now look like this with the costs going up in £100 units

Click into the label called 'cost' and change it to say 'cost of items'



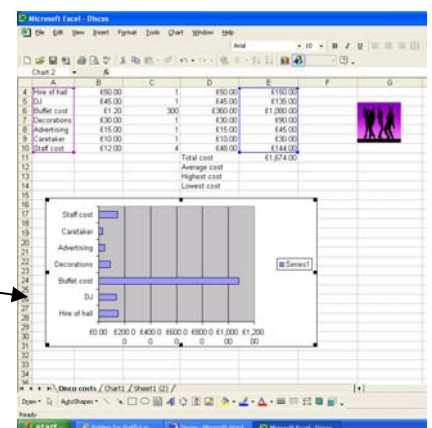
37. Now have a go at creating a new chart using the same two columns.

This time, choose a bar chart instead of a column chart.

Do NOT put in a title on your chart and do not label the axis.

Choose to put the chart as an object in the sheet, so that you get a smaller chart.

Move it below your spreadsheet tables. It should look something like this:



- Select the chart
- Right click on it
- Choose 'chart options'
- Go to the 'title tab'.
- Write a title for the chart and label the axis.
- Click OK and you should find that your chart is now labelled correctly.

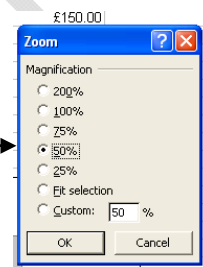
38. Now it is time to print your chart.

However, it is very important that you only print your work onto one page.

Unless you set your print area on your spreadsheet, the chances are that your work will print out over two or more pages and look untidy. By setting your print area before printing, you can get everything to print onto just one sheet of paper.

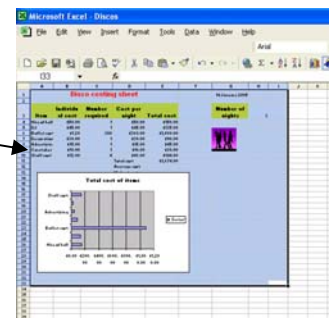
Your chart may be too large to see all at once on the screen. Click on the 'view' menu and choose 'zoom'.

Change the magnification to 50%.



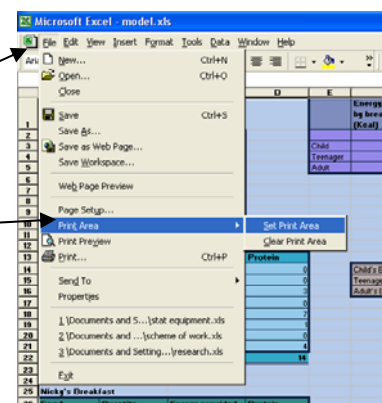
You should now be able to see the whole spreadsheet easily.

Highlight all of the work that you want to print.



When you have selected the work that you want to print, click on 'File'

Then click on 'Print area' then 'Set print area'

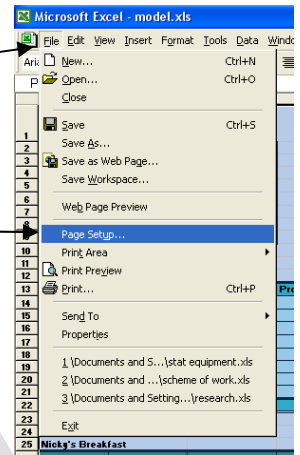


This tells your spreadsheet that everything you have highlighted should be printed.

Although you have told your spreadsheet what you want to print, you still haven't told it how many pages you want to print over.

To do this, click 'File'

Click 'Page set up'

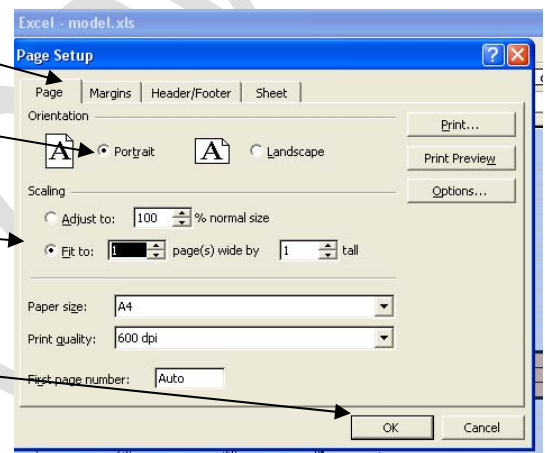


Make sure that you are on the 'Page' tab

Choose 'Portrait' or 'Landscape'

Click 'Fit to 1 page'

Click 'OK'



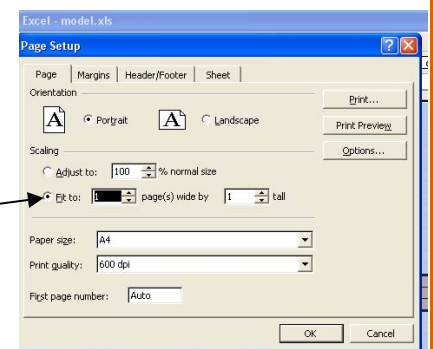
When you print, your work will now be on just one page.

Remember

If you make your spreadsheet larger by adding more work or change the column sizes, you will need to reset your print area by re-doing stages 1 and 2.

NOTE

If you are told to print your work 3 pages wide by 2 pages tall, change this section by selecting the appropriate number of



39.

- Show your formulas.
- Reset your print area.
- Print your formulas out.

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