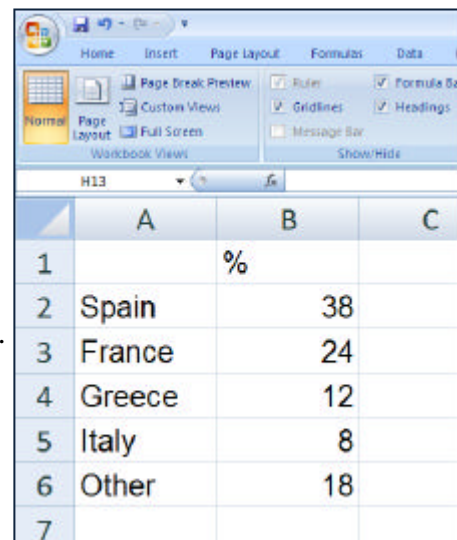# Draw pie charts in Excel

This activity shows how to draw pie charts in Excel 2007.

- Open a new **Excel** workbook.

- Enter some data – you can use your own data if you wish. This table gives the % of European holidays sold by a travel agent in different countries in Europe.

- **Save your spreadsheet.** Choose a name like Travel Agent Pie to help you remember what it is.

    Remember to save your spreadsheet regularly so that you do not lose any work.

- **Highlight the table.**

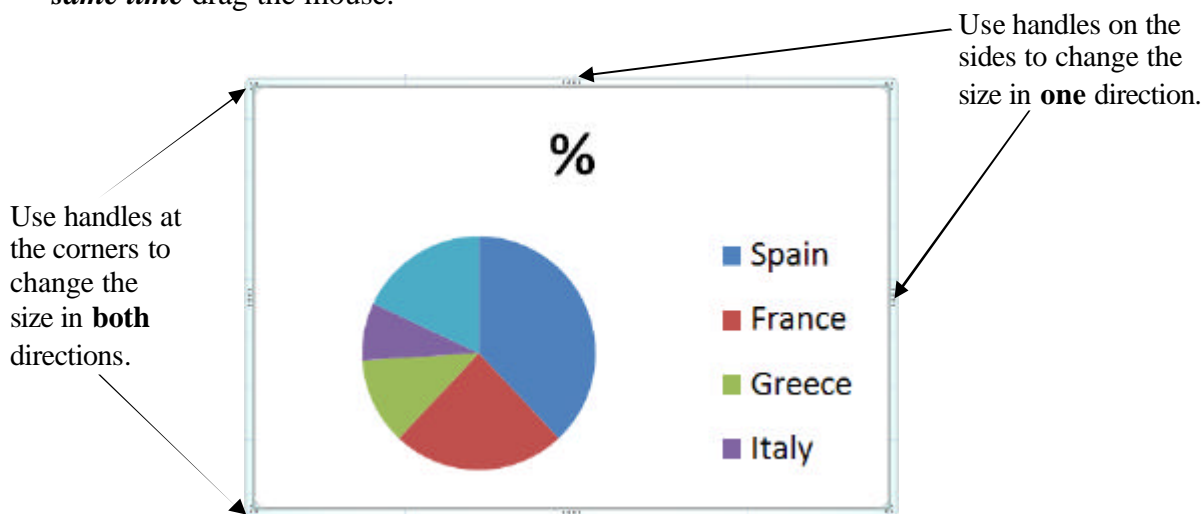- Left click on **Insert, the arrow below Pie,** then the **first 2-D Pie**
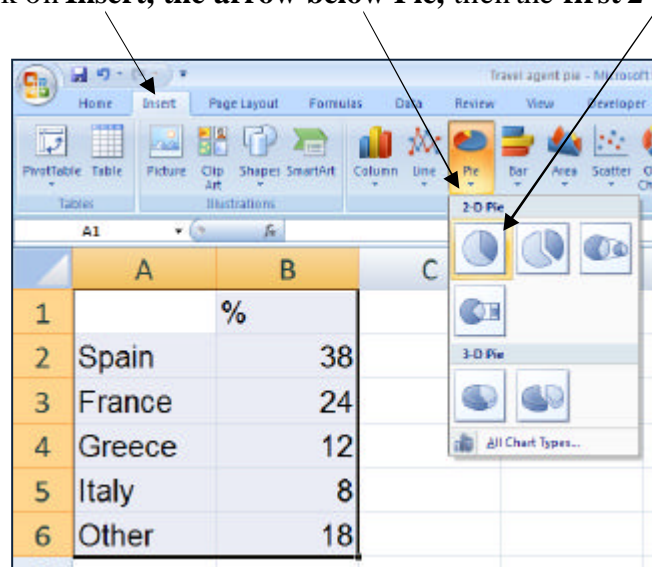
    A pie chart will appear.

- **To move the chart** left click on it and *at the same time* drag the mouse.

- **To change the size of the pie chart,** left click on one of the handles and *at the same time* drag the mouse.

Use handles on the sides to change the size in **one** direction.

Use handles at the corners to change the size in **both** directions.

There are many ways to change what your pie chart looks like.
Often a **right click** on something on the chart gives a menu. Try the following.

- **To improve the chart title**, **right click** on it - this gives the menu shown.

- **Left click** on **Edit Text** and change the title to '**Travel Agent's Holiday Sales in Europe**'.
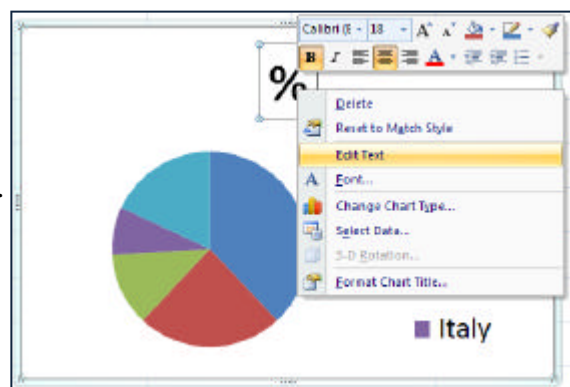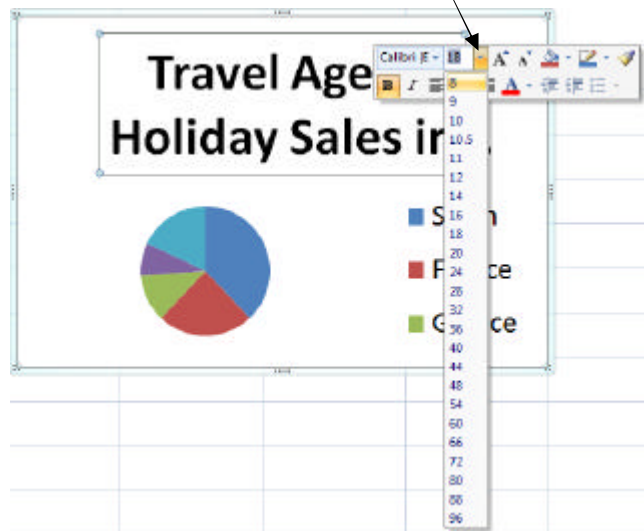
The size of this title will probably be too big.

- **To reduce the size of the title**, **right click** on it, then **left click** on the arrow next to the font size. Now left click on a smaller size.

- If you have time, **experiment** with other ways of changing the title.

  To undo anything you don't like left click on the **Undo** button.

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- **To change the size or style of the key** (legend), **right click** on it
  - this gives the menu shown below. Change the font size if you wish.

- **Left click** on **Format Legend**
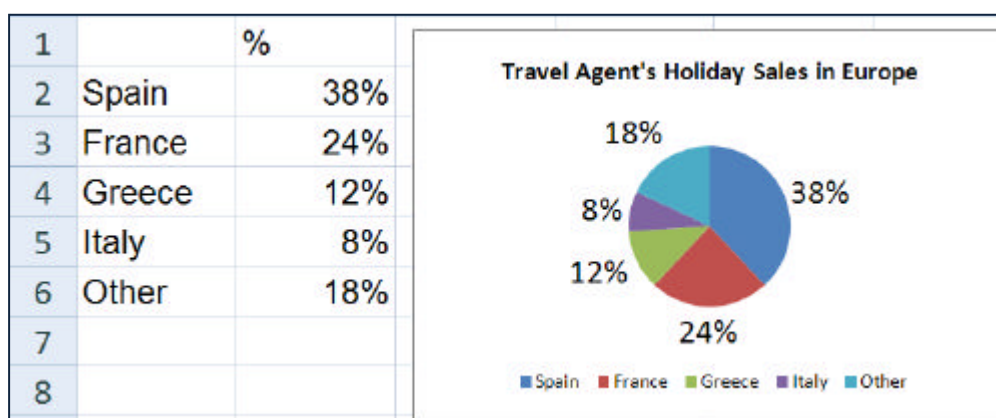 - this gives a menu that lets you
  put the key in a different place.

  Left click on **Bottom**, then **Close.**
  The key will move under the chart.
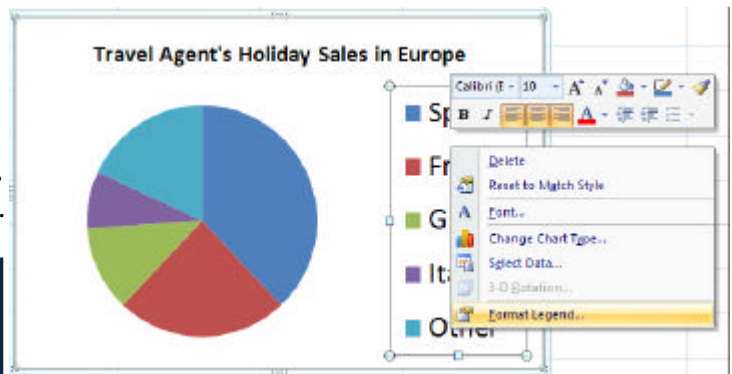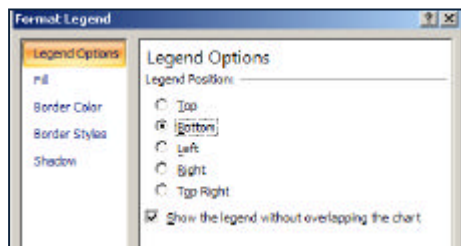
- **To show the percentages on the chart**, **right click on the pie**, then **left click** on **Add Data Labels**. The labels that appear will match those in the table.

1		%
2	Spain	38
3	France	24
4	Greece	12
5	Italy	8
6	Other	18
7		
8		
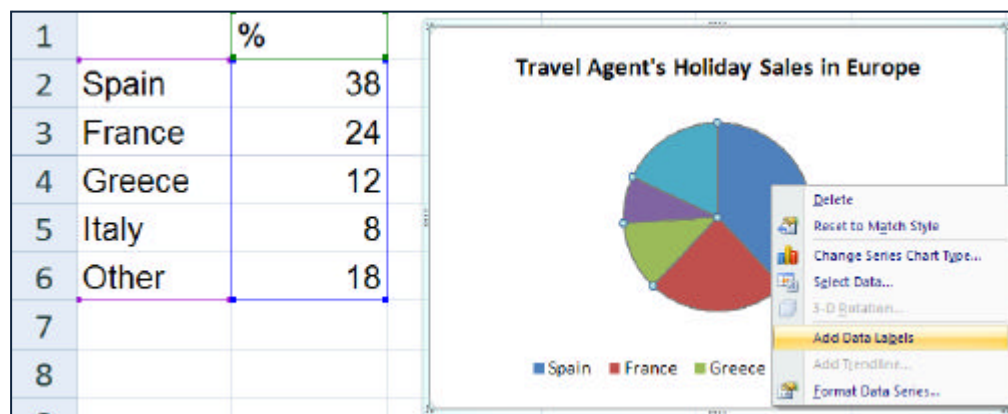
- **To add % signs**, add them to the numbers in the table (as shown below).

1		%
2	Spain	38%
3	France	24%
4	Greece	12%
5	Italy	8%
6	Other	18%
7		
8		

- **To change the size or style of the labels**, **right click** on one of them
  use the menu to change the font size or colour if you wish.

- **To change the size or position of the pie,**
  right click just outside of it – this gives a box
 around the pie (as shown).

  To increase the size of the pie,
  left click on one of the handles
  and at the same time drag the mouse.

  If the pie is big and the font size small,
  the labels may move onto the pie
  (as shown below).

- **To fix the position of the labels,**
  right click on one label, then
  left click on **Format Data Labels**

  The menu shown below will appear.
  Left click on the position you like best.
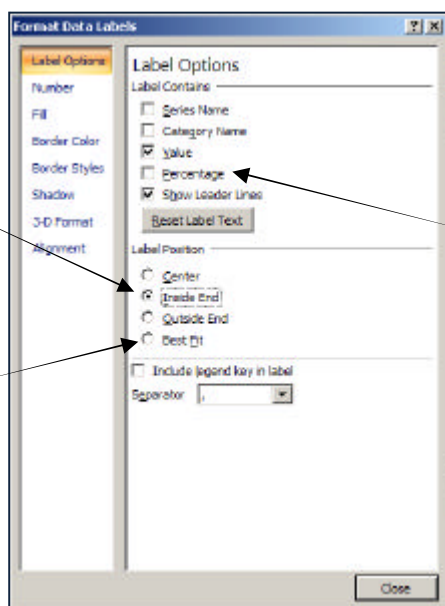
For example, this
option gives labels
inside the pie at the
ends of the sectors.

This option lets Excel
choose the best position.
The labels may move if
you change the size of
the pie or labels.

Note
The data used in this activity is
already in percentages.
When other values are used, a
left click here changes the
labels to percentages.

- If you have time, experiment with other changes. Usually a right click on any
  part of the chart gives you a menu of things you can try.

  Remember that to undo anything you don't like
 just left click on the **Undo** button.

Other ways of changing your pie chart

You can also use the buttons and menus at the top of the spreadsheet to change things.
Some menus give alternative ways to make the changes that you have already made.
Some buttons and menus allow you to do other things.

Try some of the following – in each case, left click on the chart before you start.
Left click on the **Undo** button to remove any effects you do not like.

- **To change the type of pie chart**, left click on **Change Chart Type**.
  Scroll down, then left click on the type of pie chart you want.

Change Chart Type

Scroll down here
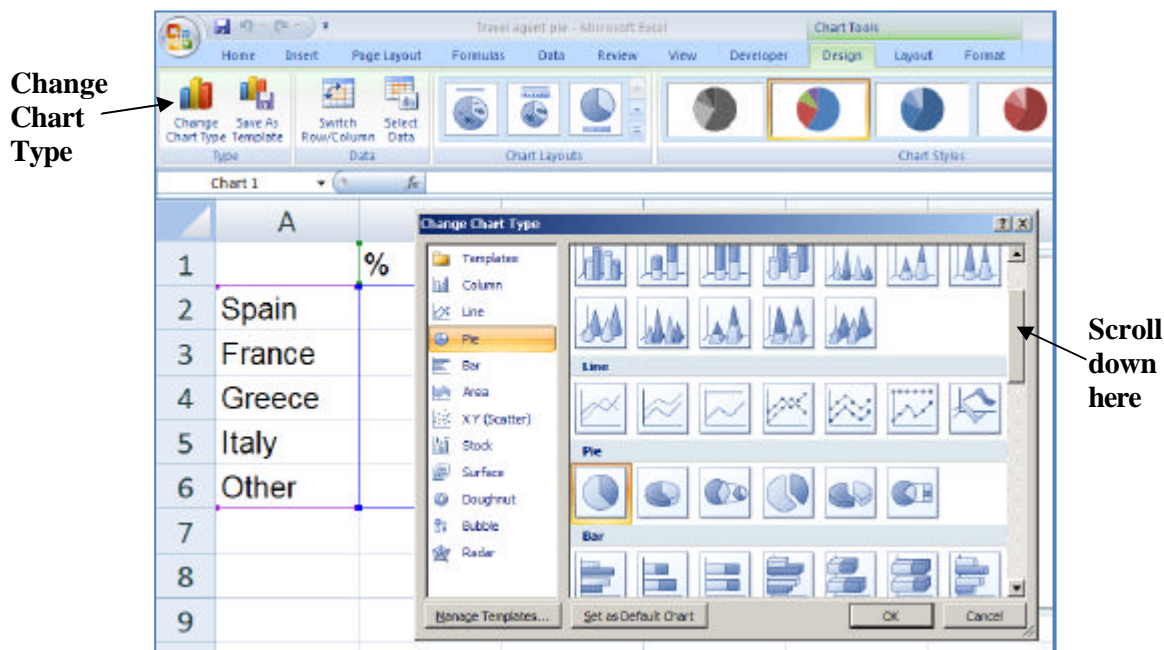
- **To change the layout of the chart**, left click on **Chart Tools Design**, then choose
 one of the other **Chart Layouts**.
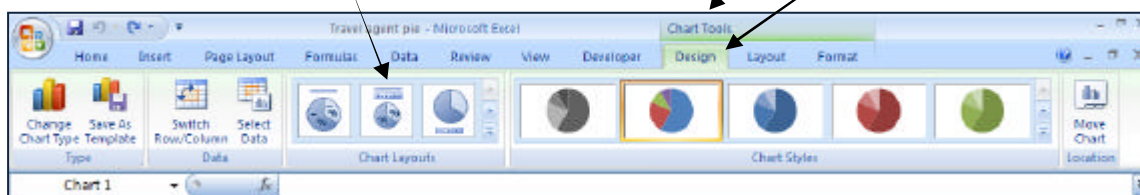
- **To change the colours on the pie chart**, you can use one of the Excel designs.
  To see the full range, left click on **Chart Tools Design**, then the arrow at the bottom
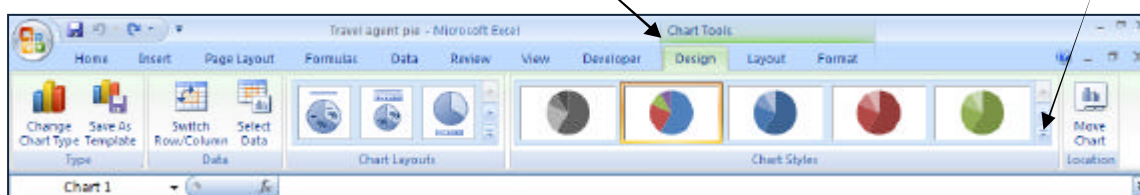
- **To change the colour of a sector of the pie chart**, left click the pie, then left click the sector that you want to change – select handles will appear around the sector. Left click **Chart Tools Format**, then the **arrow next to Shape Fill.** Left click one of the colours.
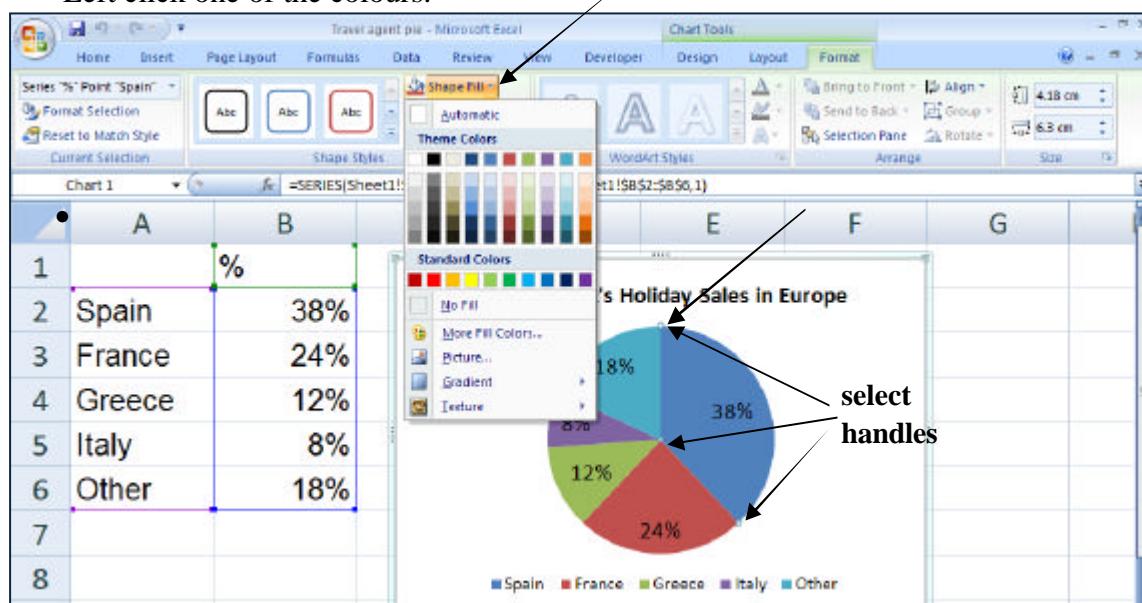
- **To change the colour or thickness of the line around a pie chart or one of its sectors**, left click the pie (then the sector if that is what you want to change). Left click **Chart Tools Format**, then the **arrow next to Shape Outline.** Left click a colour or weight.
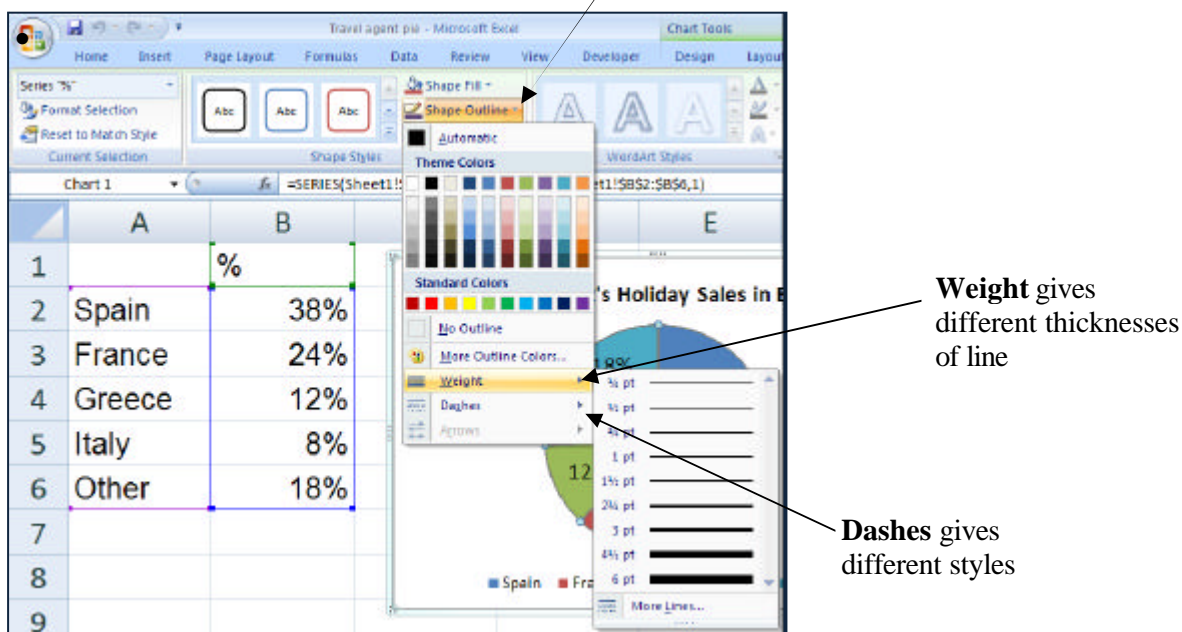
- **To change the colour of the background or the line around it**, left click an empty part of the chart. Left click **Chart Tools Format**, then the **arrow next to Shape Fill or Shape Outline** – these give the choices shown above.

- If you have time, use other data and experiment with buttons and menus to see the wide range of pie charts you can create with Excel.

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Teacher Notes

Units   Foundation Level, Making sense of data
             Intermediate Level, Handling and interpreting data
             Advanced Level, Using and applying statistics.

Skills used in this activity:
- drawing pie charts in Excel

Preparation
Students will need to have some basic knowledge of computer terminology and the use of computers (eg how to use the mouse and menus in Excel 2007).

Notes
Pages 1 – 4 show how to draw a pie chart and then how to make a variety of changes using right clicks. Other changes using the menus at the top of the spreadsheet are shown on pages 5 & 6. Using the Word version of this activity will allow you to change the wording or to reduce or increase the number of methods shown. For example, with less able students you may decide to concentrate on just some of the methods used on pages 1 – 4 and simplify some of the wording. Note that this activity is also available for use with Excel 2003. Another activity called 'Pie Charts' shows students how to draw pie charts by hand. This resource contains lots of other data that could also be used for extra practice in Excel.