



What's the weather like?

Scatter diagrams and correlation help sheet

Scatter graphs and correlation using Excel:

Plotting points helps to show whether two items (like height and weight) are closely related or not.

If the points are all close to or on a line then there is good linear correlation.

This can be positive (as one item increases so does the other) or negative (as one item increases the other decreases).

If there is no linear correlation there is no line going close to or through the points.

Copy down data (numbers) for two aspects into two columns.

Plotting the points:

Highlight the two columns. [click and drag]

Click on chart wizard. [blue, yellow, red blocks]

Click on XY (Scatter).

The top one is the one you want so click on next.

Click on Next again.

Chart Title is: ?

Value x-axis (across) is: ?

Value y-axis (up) is: ?

Next, Finish – see how it looks.

Change the numbers on the axes – double click on one of the lines and alter the numbers in scale. See what effect the changes have. Try to find the best options for filling the space.

Maybe change the colours etc of the plot area – double click on it.

Change the size of the box so that it neatly fits alongside the data (numbers).

Click on the border, pull the blobs.

Fitting a trend line (line of best fit):

Click on the chart (Plot Area).

Chart (up the top).

Add trendline (linear is the one you want – to fit a straight line).

Options

Tick on Display equation on chart

(this is the rule for the line of best fit). OK.

See what this looks like. Maybe make the equation (rule) clearer.

Try to have the scatter graphs next to their data.