

# Scatter Graphs

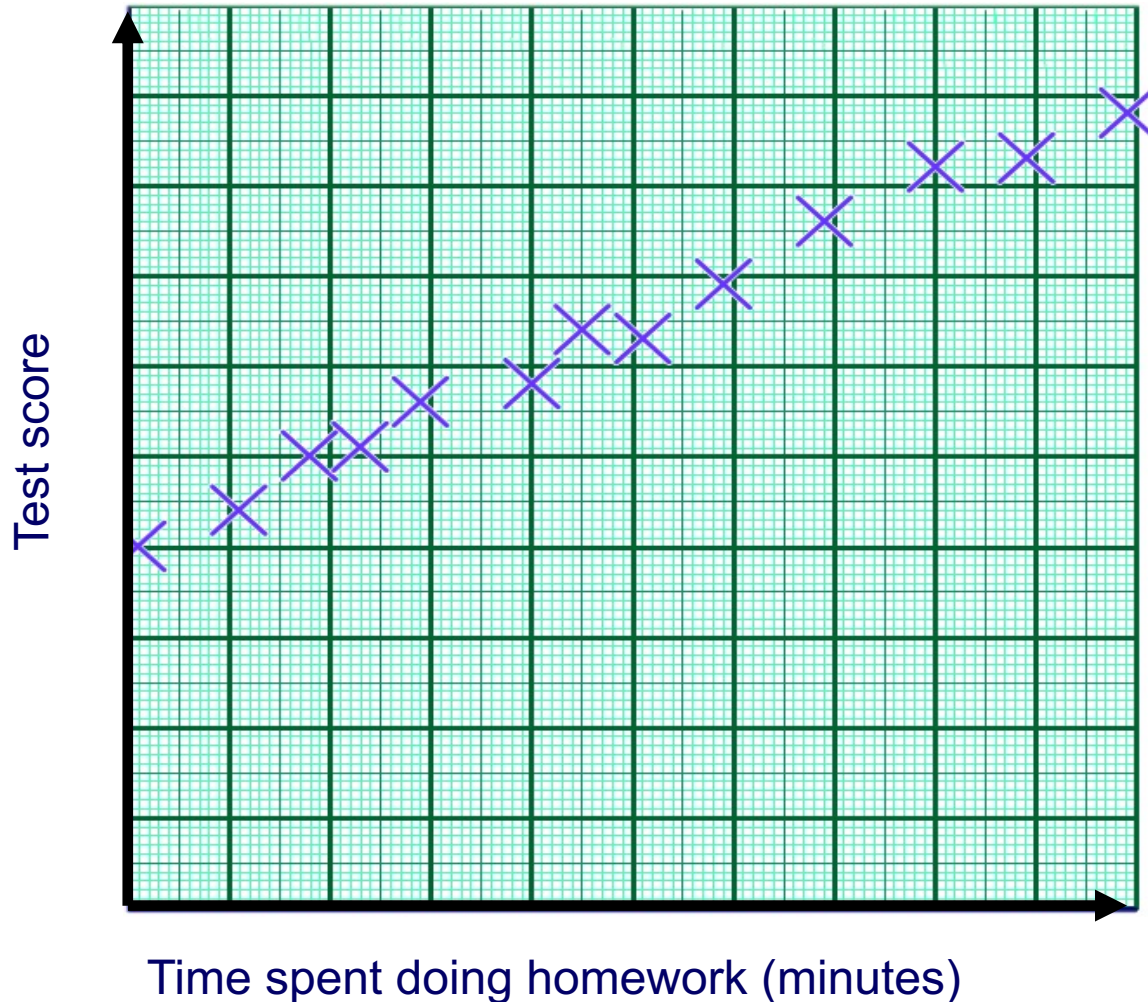
- Today we will be looking at Scatter Graphs
- Scatter Graphs are used to represent two linked pieces of data
- Once plotted, patterns can more easily be found and estimates can be made from it.

# Scatter graphs

The relationship between two sets of data in a Scatter Graph is called correlation.

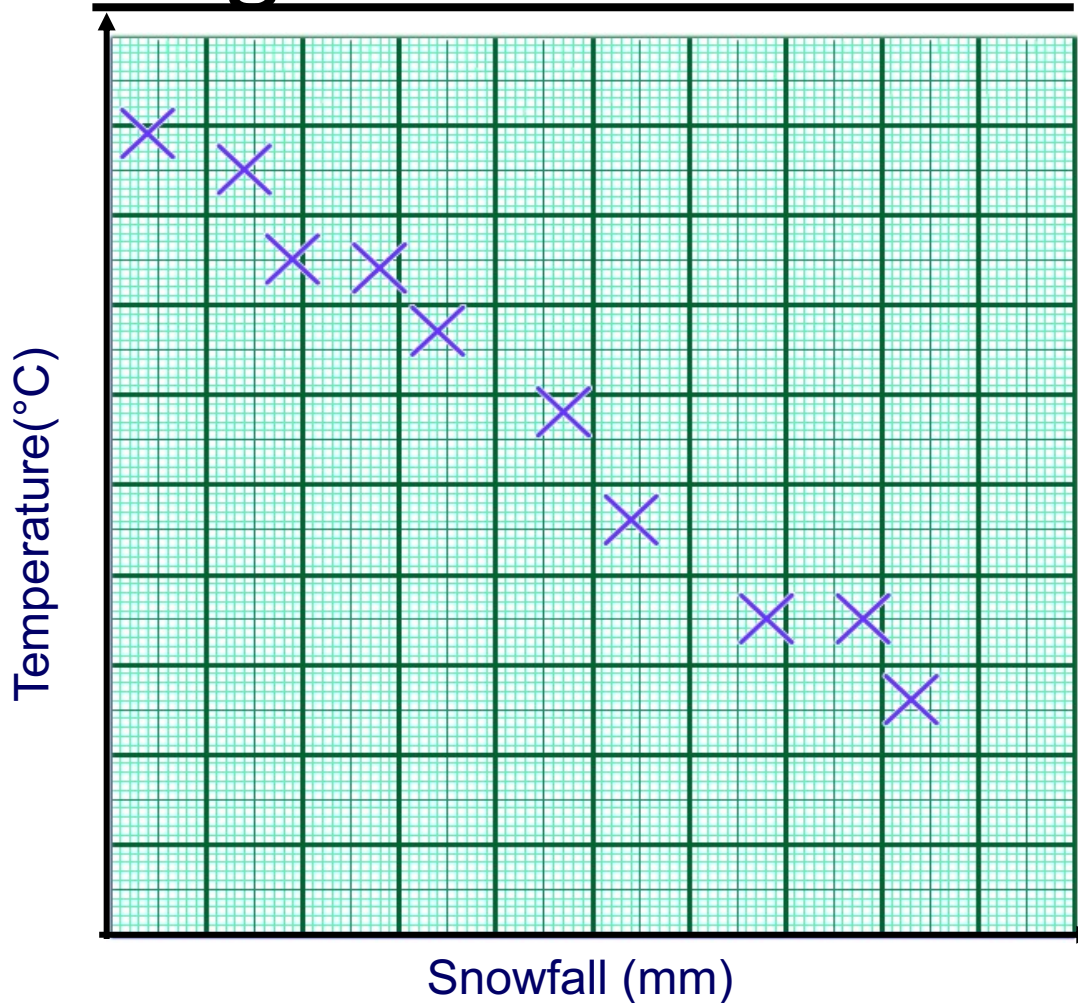
If two sets of data are so strongly connected that it is easy to make an estimate of one, knowing the other, we say there is strong correlation.

# Positive Correlation



**As one quantity increases so does the other.**

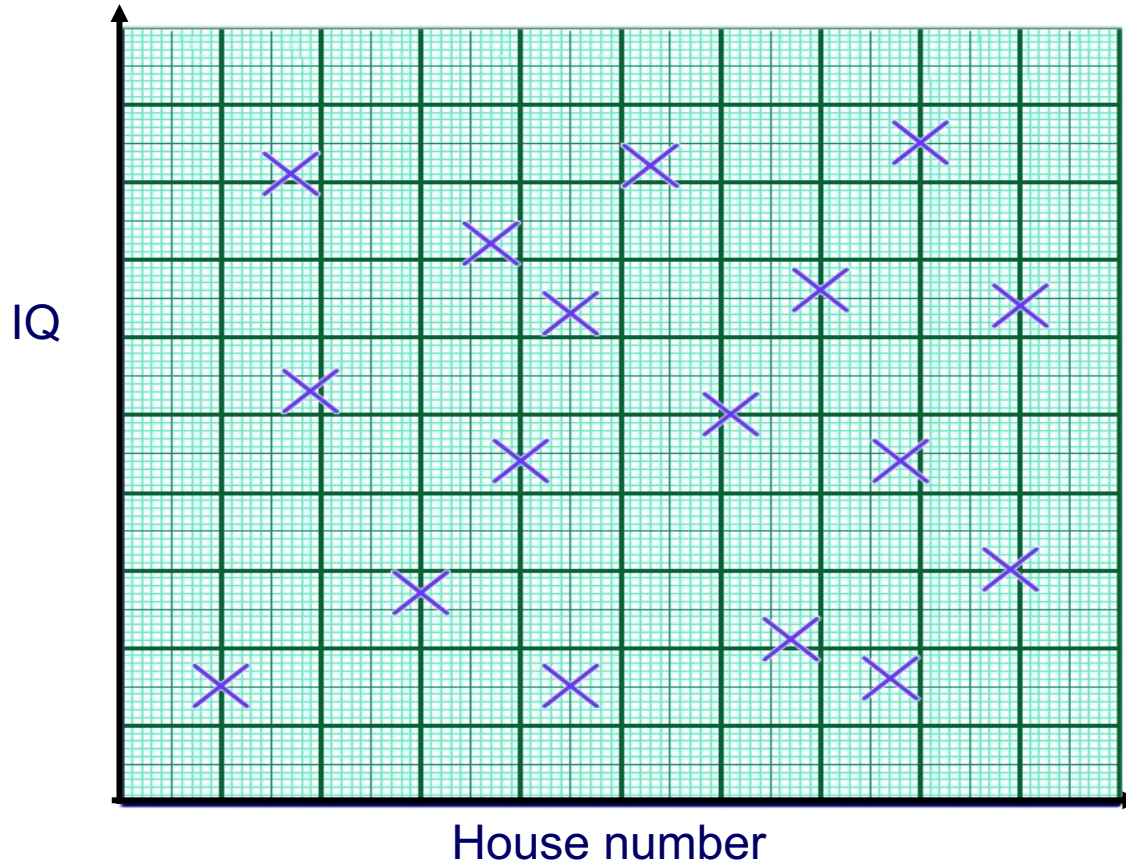
# Negative Correlation



**As one quantity increases the other decreases.**



# No Correlation



**Both quantities vary with no clear relationship.**

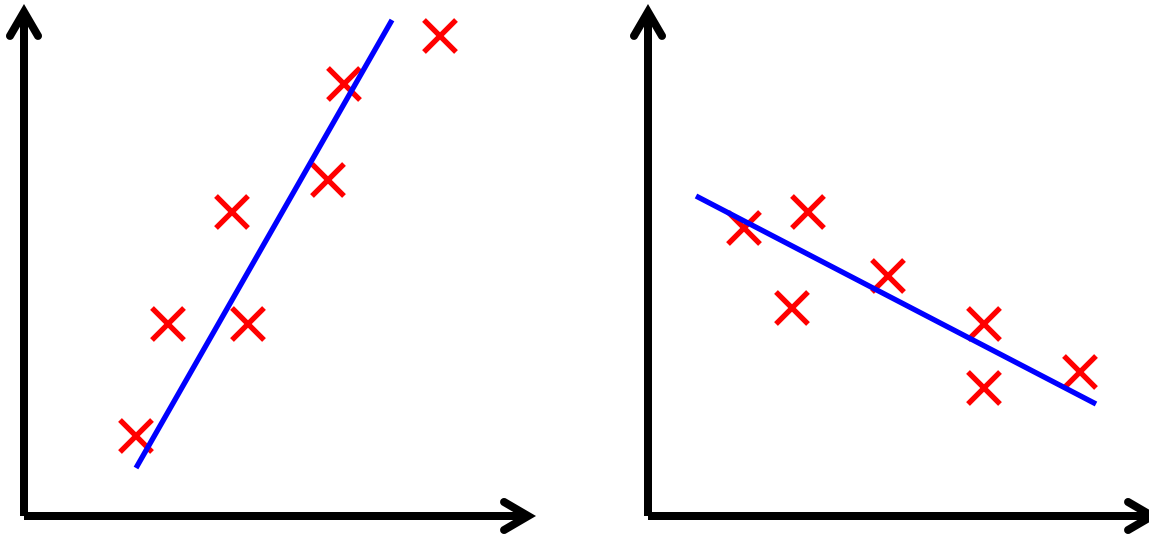
Line of Best

Fit

# Scatter Graphs

## You can draw a line of best fit on Data

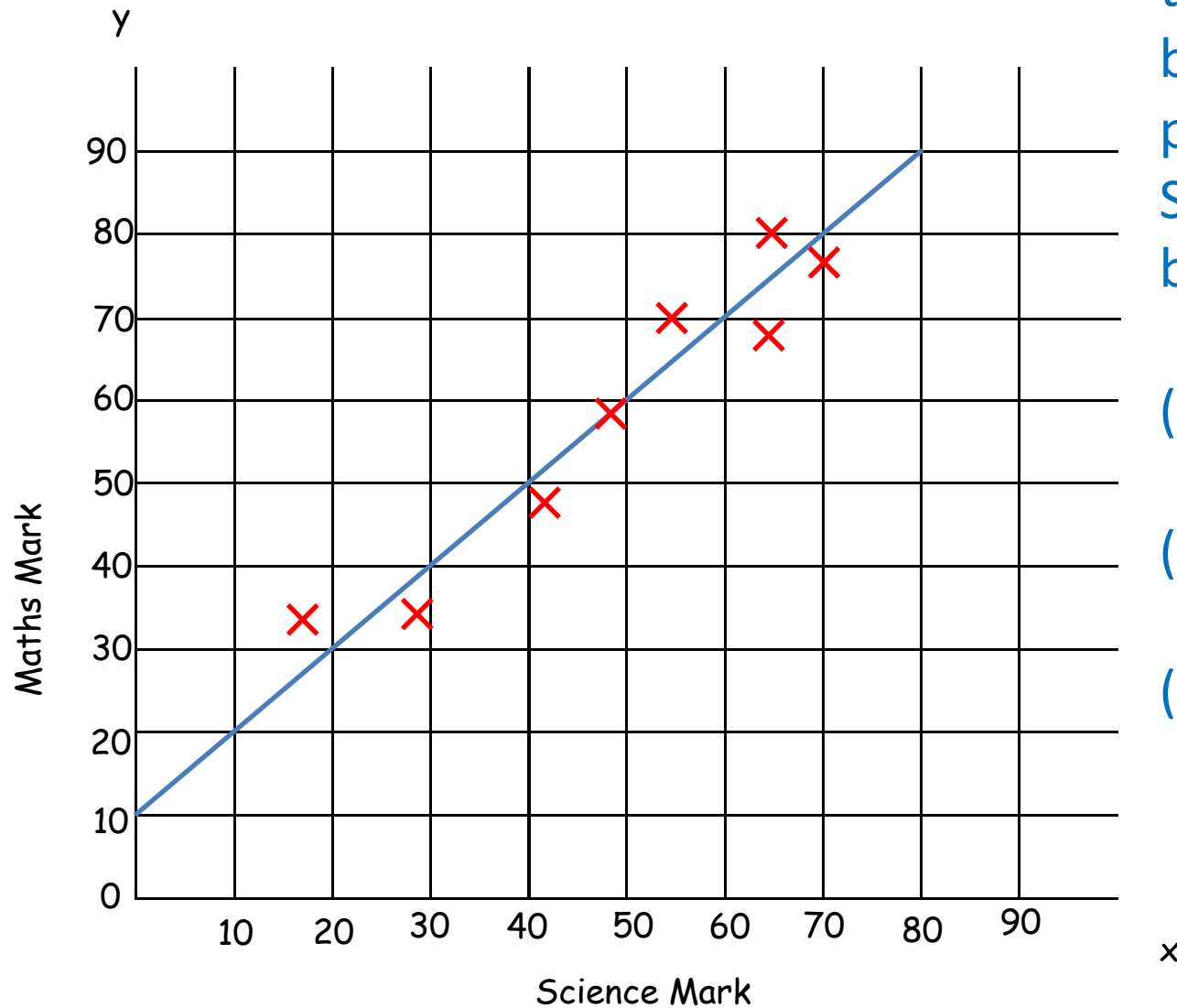
- A line of best fit roughly follows the pattern of the points
- It does NOT have to go through any points or start on the axes...
- It should have roughly as many points on one side of the line as the other.





## Finding the equation of the line of best fit.

The scatter graph shows the relationship between a group of pupils Maths and Science marks. A line of best fit has been drawn.



- Determine the type of correlation.
- Find the equation of the line of best fit.
- Use the line to estimate the Maths mark of a pupil who scored 60 in Science.