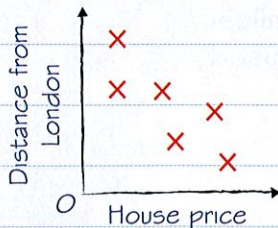


A*
A
B
C
D

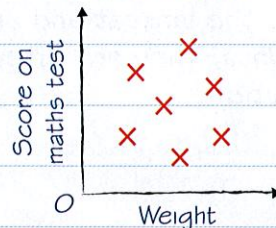
Scatter graphs

The points on a scatter graph aren't always scattered. If the points are almost on a straight line then the scatter graph shows CORRELATION. The better the straight line, the stronger the correlation.

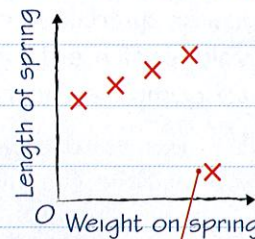
Negative correlation



No correlation



Positive correlation

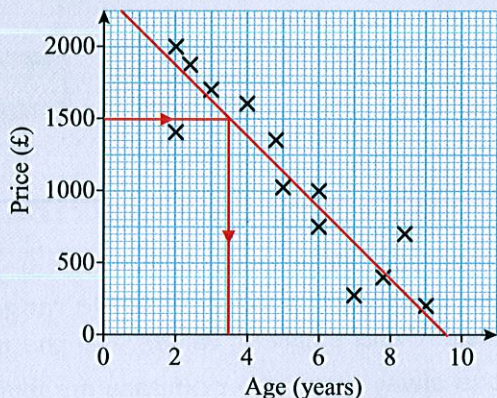


An isolated point on a scatter graph is an extreme point that lies outside the normal range of values.

Worked example

grade D

A garage sells motorcycles. The scatter graph gives information about the ages and prices of the motorcycles.



(a) What type of correlation does the scatter graph show?

Negative

(b) Draw a line of best fit on the scatter graph.

Mae buys a motorcycle from the garage for £1500

(c) Use your line of best fit to estimate the age of the motorcycle.

3.5 years

Line of best fit checklist

- Straight line that is as close as possible to all the points.
- Used to predict values.
- Does not need to go through (0, 0).
- Drawn with a ruler.
- Ignores isolated points.

Remember that the type of correlation tells you about the relationship between price and age. Negative correlation means that as the age increases the price decreases.

To predict the age of the motorcycle, read across from £1500 on the vertical axis then down to the horizontal axis. Draw the lines you use on your graph.

Now try this

edexcel

grade D

The scatter graph gives information about the area and the cost of some pictures.

All the pictures are rectangles.

The line of best fit has been drawn on the graph.

One of the pictures costs £1000. Its length is 48 cm.

Use the line of best fit to estimate the width of the picture. (3 marks)

