

## 4.4 Linear correlation of bivariate data

# Checklist

## What you should know

By the end of this subtopic you should be able to:

- recognise when a scatter plot shows data that has a linear trend
- identify whether a scatter plot indicates a correlation that is positive or negative and whether it is strong, moderate or weak
- find the mean point and sketch an estimate of the line of best fit by hand
- find the Pearson product-moment correlation coefficient,  $r$ , and the equation of the least-squares regression line with your GDC
- interpret the slope of the least-squares regression line in terms of the data
- use the least-squares regression line to interpolate the value of the dependent variable from a known value of the independent variable
- understand for which values extrapolation might be reliable and the danger of extrapolation in general.

