

## Advanced skills

### Nearest neighbour analysis

'Nearest neighbour' is a way of assessing how closely similar places are clustered together within an area. An example of this is banks, which are often very near to each other within the financial district of a town's Central Business District. Estate agents and solicitors also tend to cluster together in the same way. Post offices never do – because they would compete against each other too much.

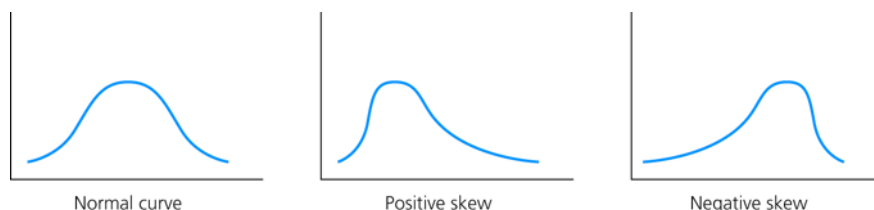
This is how to conduct a nearest neighbour analysis investigation for a particular type of land use.



You can repeat this calculation process with other groups of points in the same study area. Putting them in rank order of NNI size provides you with a valuable assessment tool, because their data was based on exact map measurements. You can describe how clustered each group is, then suggest explanations for them each clustering in that particular way.

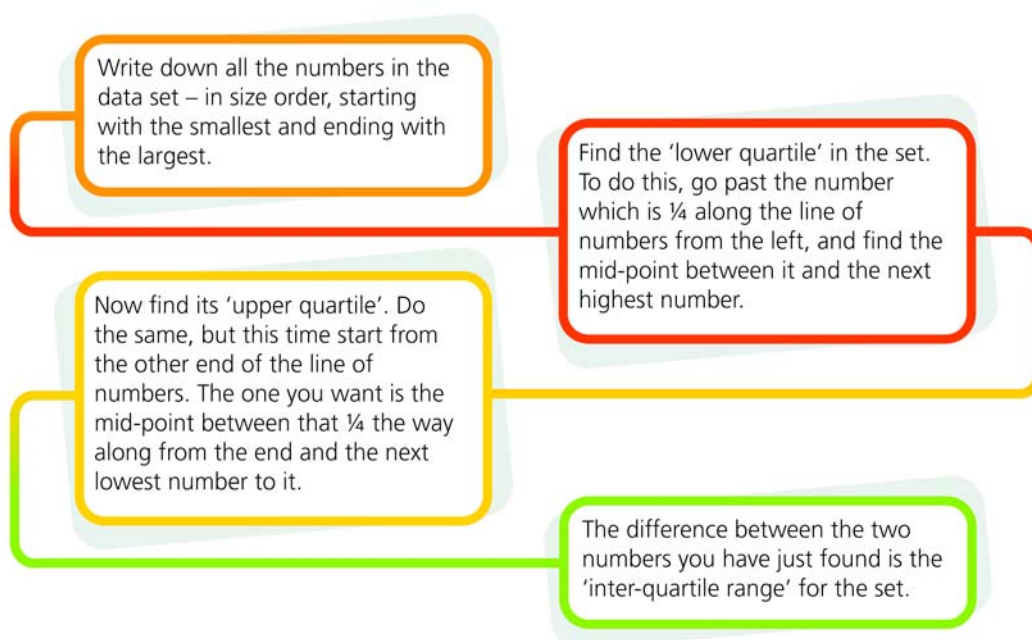
## Positive and negative skews

If something looks lopsided, it is often referred to as being 'askew'. This means that most of it is towards one side, instead of being right in the middle. The line graphs below show the two types of skew, **positive skew** and **negative skew**, as well as a 'normal' curve of distribution. Being able to identify skew on graphs helps you to write more meaningfully about them.



## The inter-quartile range

The inter-quartile range is a measure of how numbers are distributed around their median. This flow-diagram shows you how to find this range for your data set.



An inter-quartile range provides a more accurate way of assessing how numbers are arranged on both sides of the median. This is because it ignores those numbers on the far left and far right of the data set. Some of these could be so small, or large, compared to the other numbers that they distort the whole data set calculations based on them.