Interquartile range and box plots

Study Development Quick Guide

## Method

1. Place all the values in order from smallest to largest.
2. Find the median. For of data points, find the value in position (for example, for 5 data points, find the 3rd data point. This is the median). If is even, we find the values in positions and and find the point between them by adding them together and dividing by 2 (for example, for 10 data points, add together the 5th and 6th values and divide that by 2).   
   The median is called (2nd quartile).
3. We are now left with two sets of numbers: those above the median, and those below. We find the median of each of these sets (make sure not to put in either set before finding the median).
4. The median of the numbers lower than is called (1st quartile) and the median of the numbers higher than is called (3rd quartile).
5. The interquartile range (IQR) is given by .

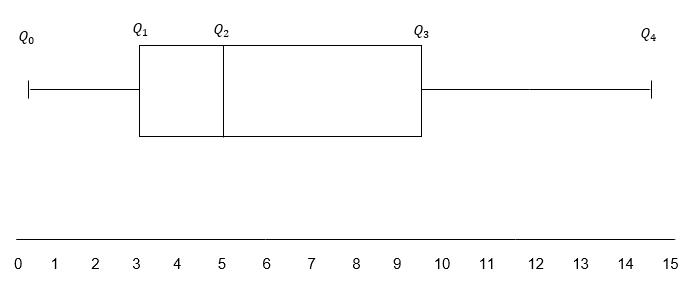
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## Drawing a box plot

We can use the values for and (the maximum value) to draw a box plot (also called a box and whisker plot). These are useful for quickly seeing if data is skewed.

A box plot is drawn as follows:



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