## Box and whisker plot

A plot and whisker plot displays some of the measures of the data such as the lowest data value, highest data value, median, lower quartile and upper quartile.

To draw a box and whisker plot

- draw a vertical line going from the highest mark to the lowest mark to represent the range
- draw short horizontal lines to mark the position of the median, lower quartile and upper quartile
- join the ends of the horizontal lines to form a box, the vertical sides of which represent the interquartile range.


The whiskers are the lines drawn above and below the box.
$25 \%$ of the data lies on the whisker between the upper quartile and the maximum value. $25 \%$ of the data lies on the whisker between the lower quartile and the minimum value. The length of the box represents the interquartile range.
$50 \%$ of the data lies within the interquartile range.

Example The results of a game played by 18 people were

$$
\begin{array}{lllllllllllllllll}
2 & 23 & 3 & 3 & 4 & 5 & 6 & 6 & 7 & 7 & 7 & 7 & 8 & 9 & 9 & 10 & 12
\end{array}
$$

Before a box and whisker plot is drawn the median and quartiles are found.


