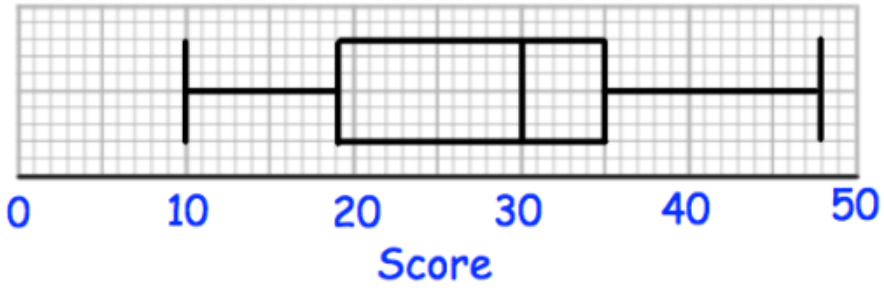
3.2) Box plots

Worked example

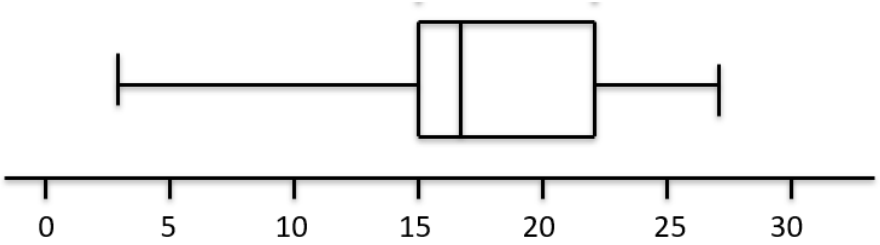
Using the box plot, write down:



a) The minimum
b) The lower quartile
c) The median
d) The upper quartile
e) The maximum
f) The range
g) The interquartile range

Your turn

Using the box plot, write down:



a) The minimum 3
b) The lower quartile 15
c) The median 17
d) The upper quartile 22
e) The maximum 27
f) The range 24
g) The interquartile range 7

Worked example

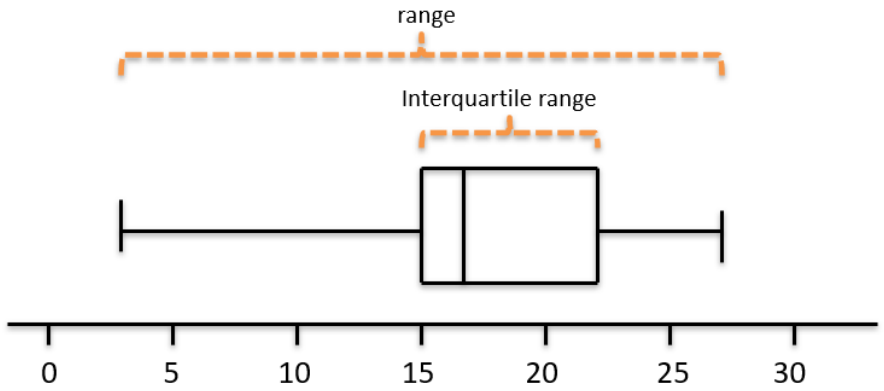
Sketch a box plot given the following data:

Minimum	Lower Quartile	Median	Upper Quartile	Maximum
2	11	18	20	29

Your turn

Sketch a box plot given the following data:

Minimum	Lower Quartile	Median	Upper Quartile	Maximum
3	15	17	22	27



Worked example

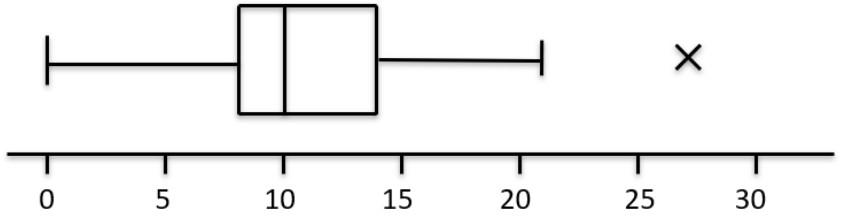
An outlier is an observation that falls either
1.5 ×interquartile range above the upper quartile
or
1.5 ×interquartile range below the lower quartile.
Sketch a box plot for this data, marking any outliers.

Smallest values	Largest values	Lower quartile	Median	Upper quartile
0, 4	22, 26	9	11	15

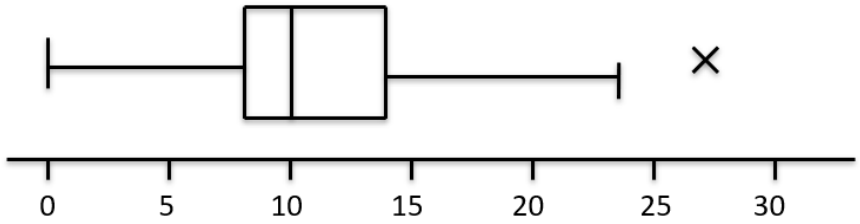
Your turn

An outlier is an observation that falls either
1.5 ×interquartile range above the upper quartile
or
1.5 ×interquartile range below the lower quartile.
Sketch a box plot for this data, marking the outlier boundaries

Smallest values	Largest values	Lower quartile	Median	Upper quartile
0, 3	21, 27	8	10	14

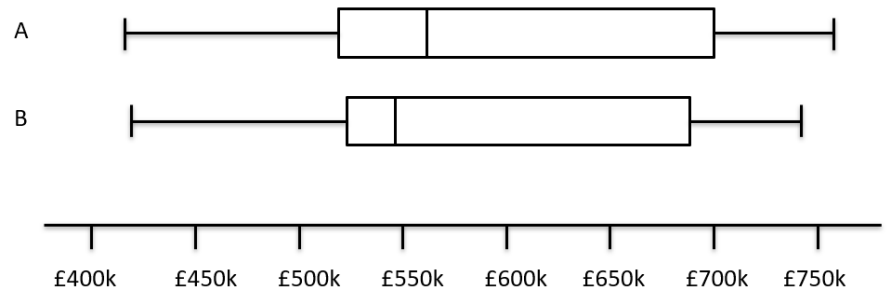


or



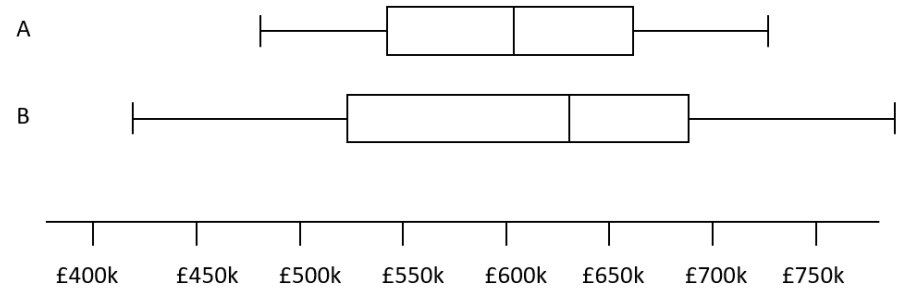
Worked example

Compare the house prices of locations A and B



Your turn

Compare the house prices of locations A and B



- The interquartile range of house prices in B is greater than A.
- The range of house prices in B is greater than A.
- The median house price in Kingston was greater than that in Croydon