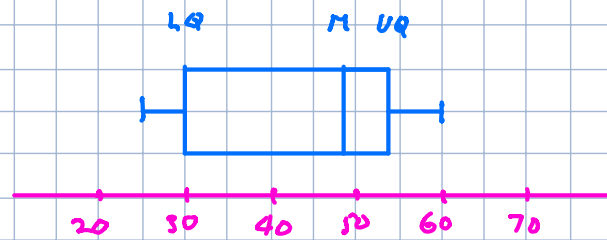


## Boxplots or Box Whisker Diagrams

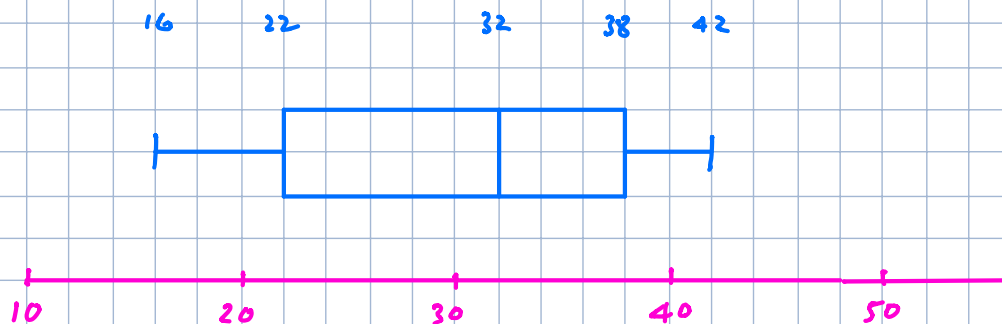
Ex1 Lowest Value = 25 Highest Value = 60

Median = 48 Lower Quartile = 30 Upper Quartile = 54

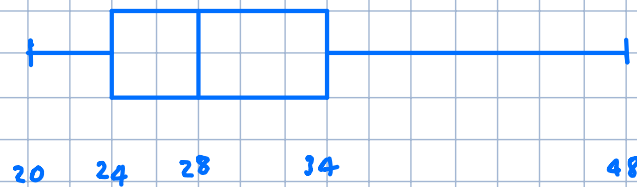


Usually boxplots are considered in pairs in order to compare two distributions

Girls



Boys

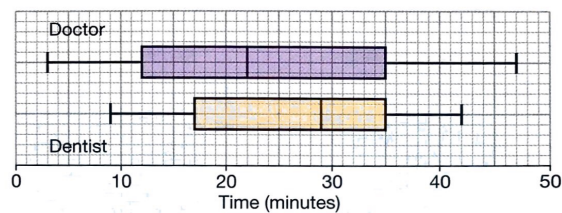


Compare these results

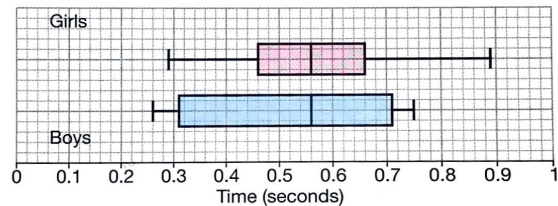
1. On average, the girls performed better than the boys. They had a median score of 32 whereas the boys had a median score of 28.
2. The girls results were more varied than the boys since the girls had an IQR of 16 whereas the boys had an IQR of 10

Write four comparisons between each pair of box plots.

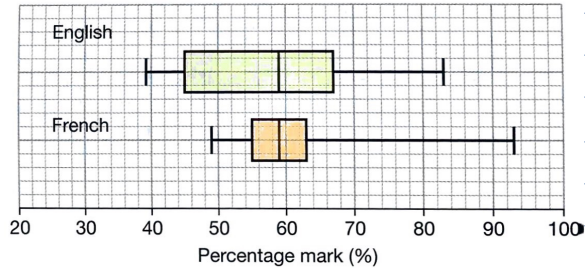
- 4 The box plots summarise the waiting times, to the nearest minute, of a group of patients at the doctor and the dentist.



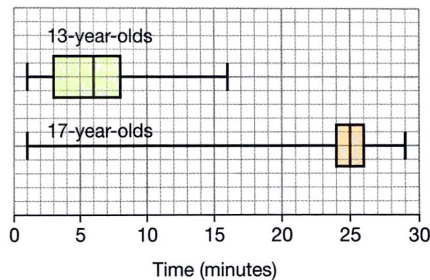
- 5 The box plots summarise the reaction times, of a group of boys and girls.



- 6 The box plots summarise the French and English test results of a group of students.



- 7 The box plots summarise the average length of a phone call, to the nearest minute, made by two groups of girls aged 13 and 17.



On average patients waited longer at the dentist than at the doctors.  
Median wait of 29 min at dentist but only 22 min at doctors.

Waiting times were more varied at doctors than at dentists. IQR 23 min at doctors but only 18 min at dentists.