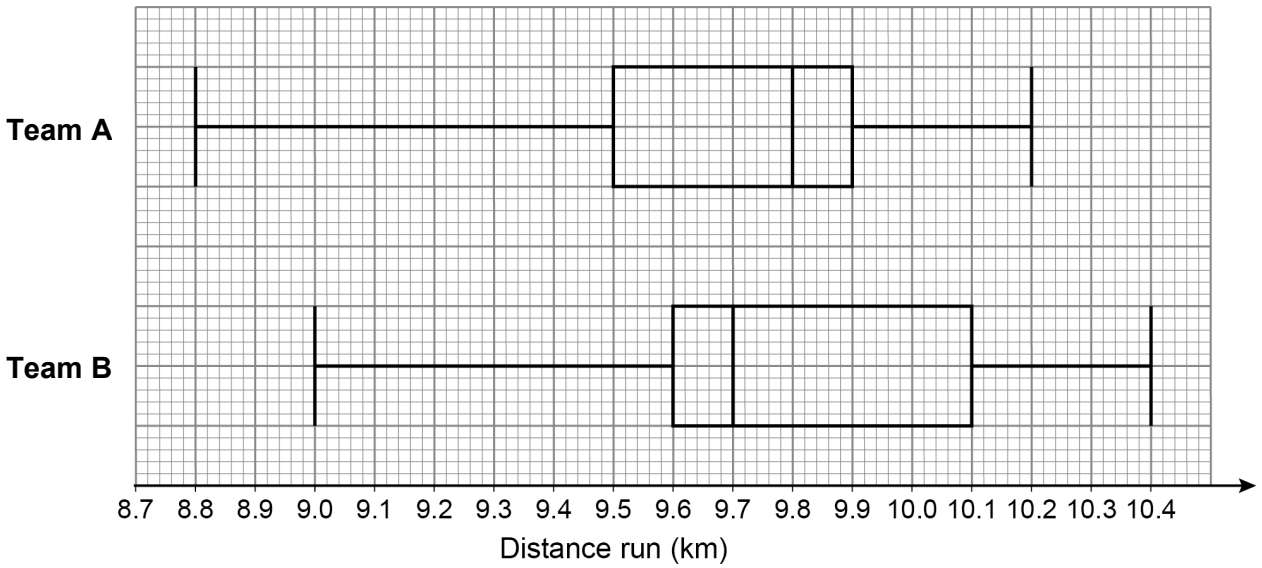
1 The box plots represent the distances run by the players in a football match.



1 (a) On average, which team's players ran further?

Tick a box.

☑ Team A ☐ Team B

Give a reason for your answer.

[1 mark]

The median is higher (1)

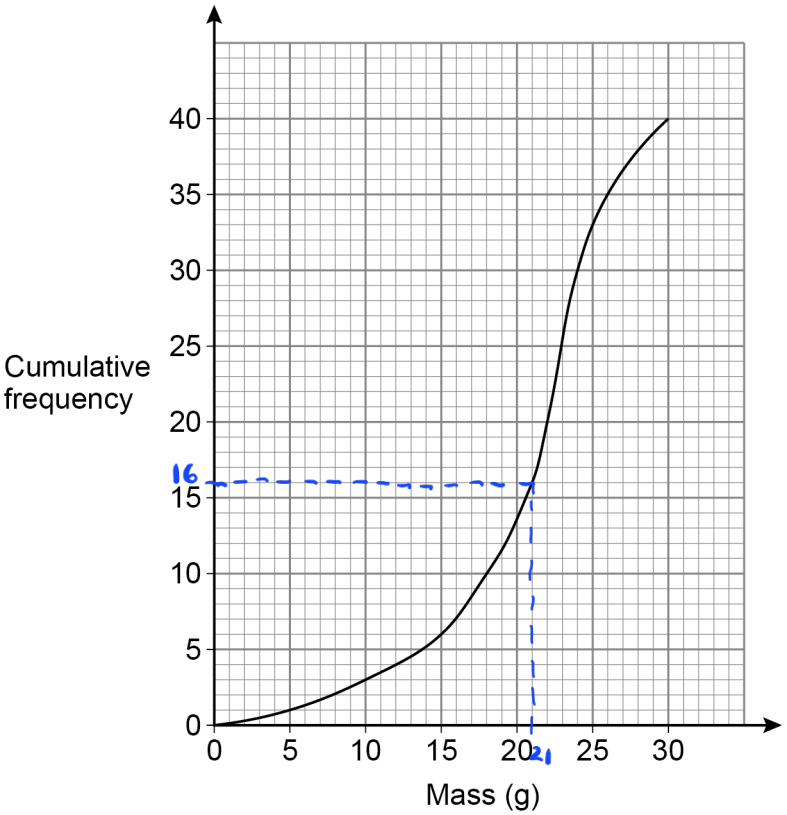
1 (b) The players in Team A ran more consistent distances.

How do the box plots show this?

[1 mark]

interquartile range is lower (1)

2 The cumulative frequency graph represents the masses of 40 necklaces.



2 (a) The lowest mass was 3 grams.

The highest mass was 28 grams.

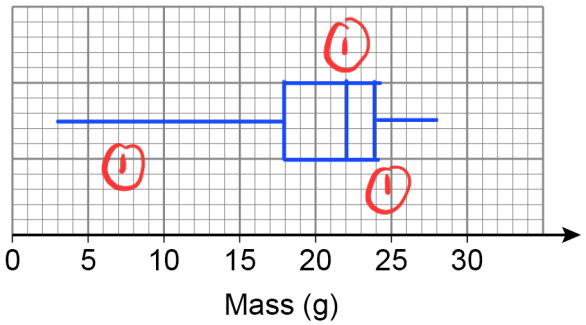
Draw a box plot to represent the data.

median = 22

LQ = 18

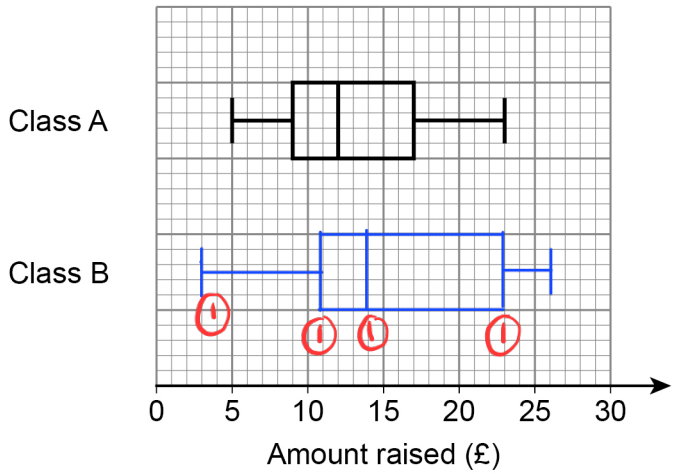
UQ = 24

[3 marks]



3 Students in two classes, A and B, raised money for charity.

The box plot for class A is shown on the grid.



For class B,

- the lowest amount was £3 and the highest amount was £26
- the lower quartile was £11
- the median was £2 greater than the class A median
- the interquartile range was $1\frac{1}{2}$ times greater than the class A interquartile range.

Draw the box plot for class B on the grid.

[4 marks]

Median $_B$ = 12 + 2 = 14

$IQR_B = 1.5 \times IQR_A$

$= 1.5 \times (17 - 9) = 12$

Upper quartile B = 11 + 12 = 23

4 (a) The table shows information about the runners who did **not** complete the marathon.

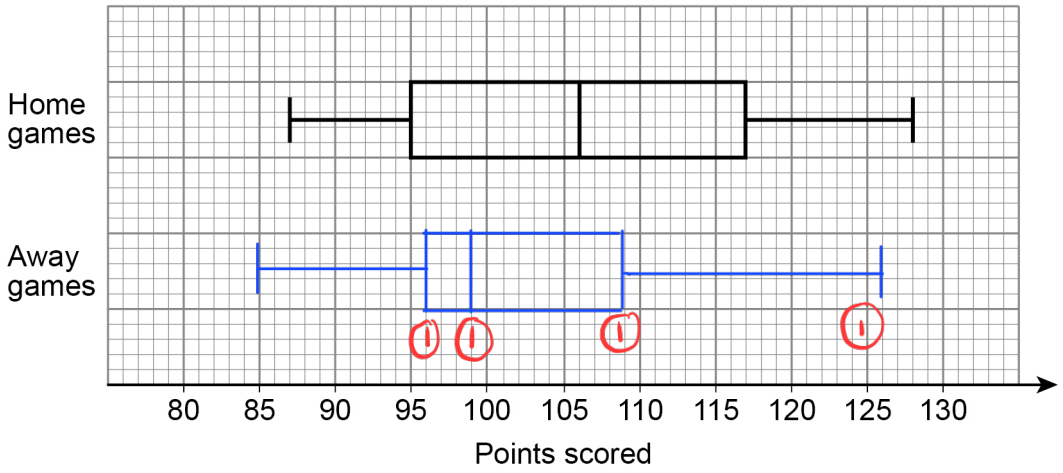
	Distance run (miles)
Least distance	5
Greatest distance	23
Lower quartile	11
Median	18
Interquartile range	9

Draw a box plot to represent the information.

[3 marks]

5 A basketball team plays 19 home games and 19 away games.

The box plot shows information about the points the team scored in **home** games.



Here are the points the team scored in the 19 **away** games.

LQ median

85 89 93 95 96 96 98 98 98 99

100 103 105 107 109 110 114 119 126

UQ

5 (a) On the grid, draw a box plot for the away games.

[4 marks]

Median : $\frac{19+1}{2}$ = 10th term = 99

LQ = 96

UQ = 109

5 (b) On average, did the team score more points in home games or away games?

Use **one** statistical measure to support your decision.

[1 mark]

Home as the median is higher. (1)

5 (c) Was the number of points scored more consistent in home games or away games?

Use **one** statistical measure to support your decision.

[1 mark]

Away as the interquartile range is lower. (1)

6 Here is some information about the lengths, in cm, of leaves.

- Shortest length = 2.4
- Longest length = 9
- Upper quartile = 7
- Median length = 6
- Interquartile range = 3

lower quartile = 7 - 3 = 4

Draw a box plot to show this information.

[3 marks]