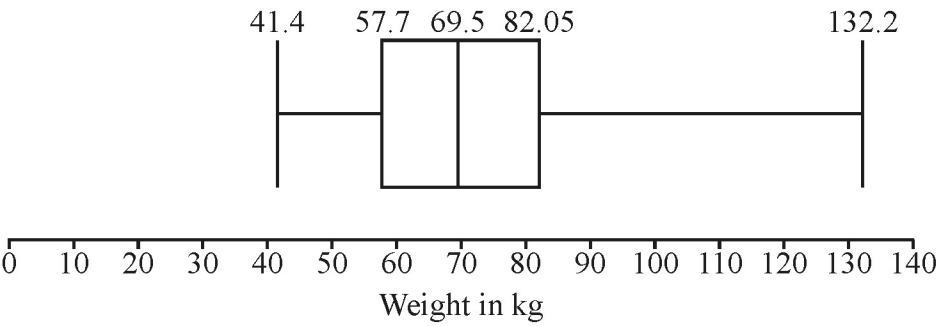


14 The pre-release material contains medical data for 103 women and 97 men.

The boxplot represents the weights in kg of 101 of the women from the pre-release material.



- (a) Use your knowledge of the pre-release material to give a reason why the weights of all 103 women were **not** included in the diagram. [1]
- (b) Determine the range of values in which any outliers lie. [3]
- (c) Use your knowledge of the pre-release material to explain whether these outliers should be removed from any further analysis of the data. [1]
- (d) The median weight of men in the sample was found to be 79.9 kg.

Explain what may be inferred by comparing the median weight of men with the median weight of women. [1]

Further analysis of the weights of both men and women is carried out. The table shows some of the results.

	mean	standard deviation
men	82.69 kg	19.98 kg
women	72.5 kg	19.95 kg

- (e) Use the information in the table to make **two** inferences about the distribution of the weights of men compared with the distribution of the weights of women. [2]