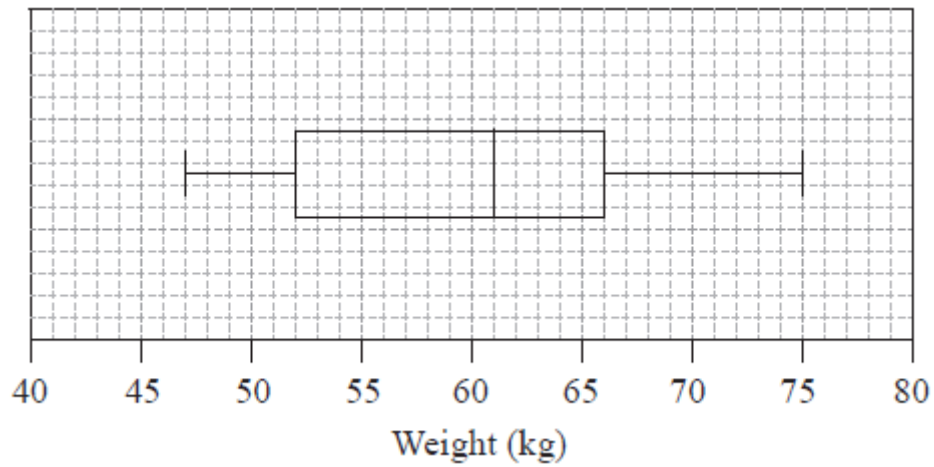**1.** The weights in kg, of 80 adult males, were collected and are summarized in the box and whisker plot shown below.

Weight (kg)

(a) Write down the median weight of the males.

(1)

(b) Calculate the interquartile range.

(2)

(c) Estimate the number of males who weigh between 61 kg and 66 kg.

(1)

(d) Estimate the mean weight of the lightest 40 males.

(2)
(Total 6 marks)

2. 31 pupils in a class were asked to estimate the number of sweets in a jar.
The following stem and leaf diagram gives their estimates.

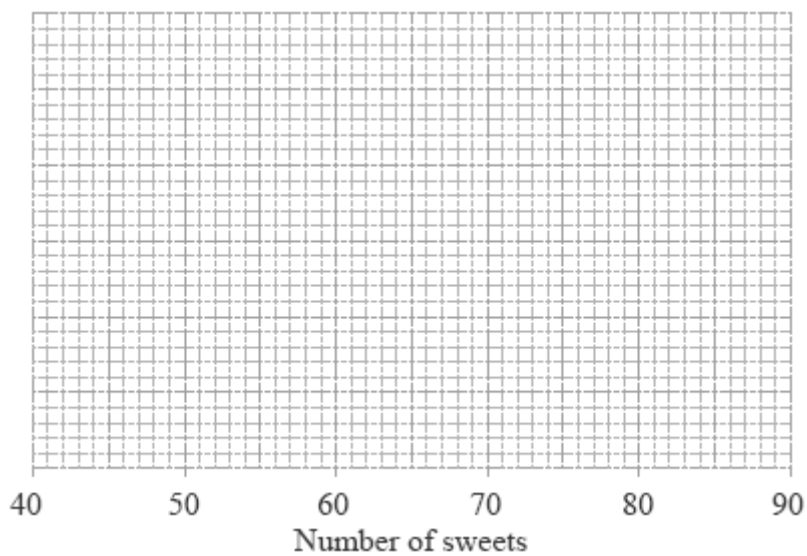| Stem	Leaf
4	2, 4, 7, 8, 9
5	1, 1, 2, 3, 8, 9
6	0, 2, 2, 4, 6, 6, 7, 8, 8
7	0, 0, 1, 3, 4, 5, 5, 7
8	1, 2, 2

Key: 4 | 7 represents 47 sweets

(a) For the pupils' estimates, write down

(i) the median;
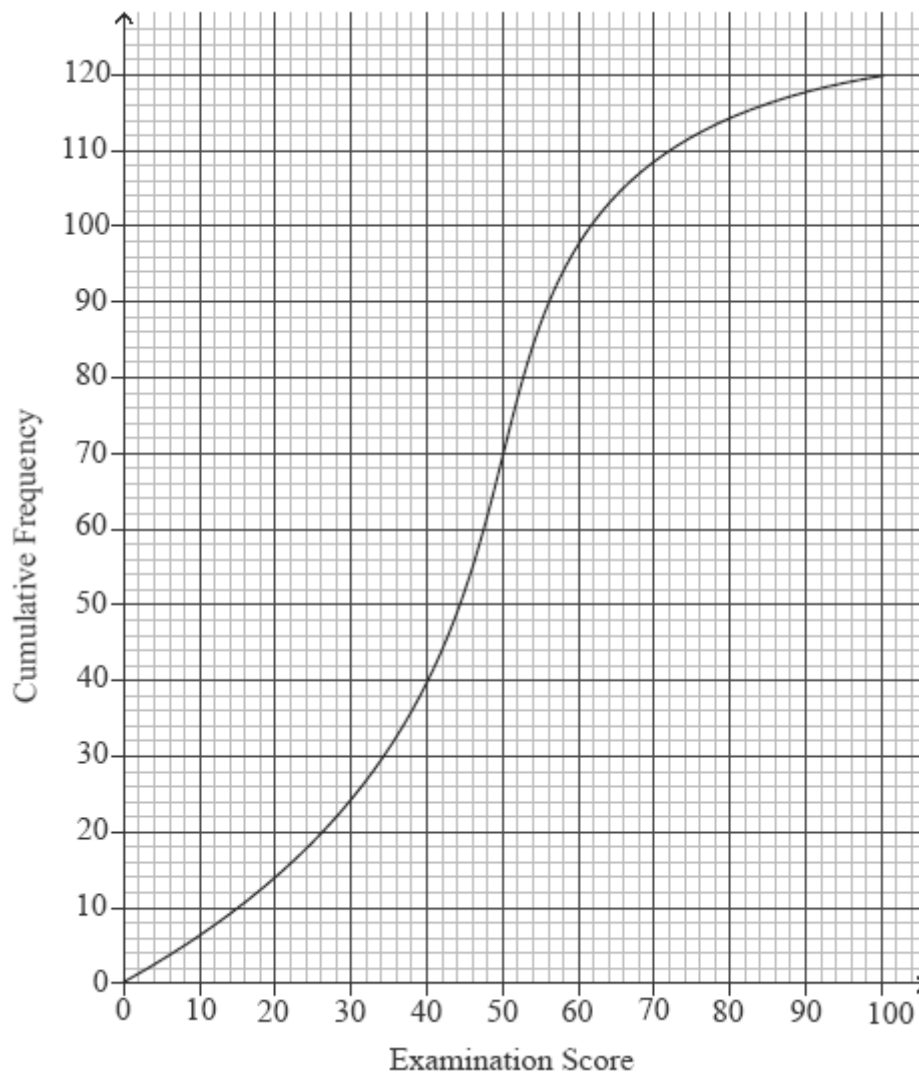
(ii) the lower quartile;

(iii) the upper quartile.

(3)

(b) Draw a box and whisker plot of the pupils' estimates using the grid below.

Number of sweets

(3)
(Total 6 marks)

3. 120 Mathematics students in a school sat an examination. Their scores (given as a percentage) were summarized on a cumulative frequency diagram. This diagram is given below.

(a) Complete the grouped frequency table for the students.

Examination Score x (%)	$0 \le x \le 20$	$20 < x \le 40$	$40 < x \le 60$	$60 < x \le 80$	$80 < x \le 100$
Frequency	14	26			

(3)

(b) Write down the mid-interval value of the $40 < x \le 60$ interval.
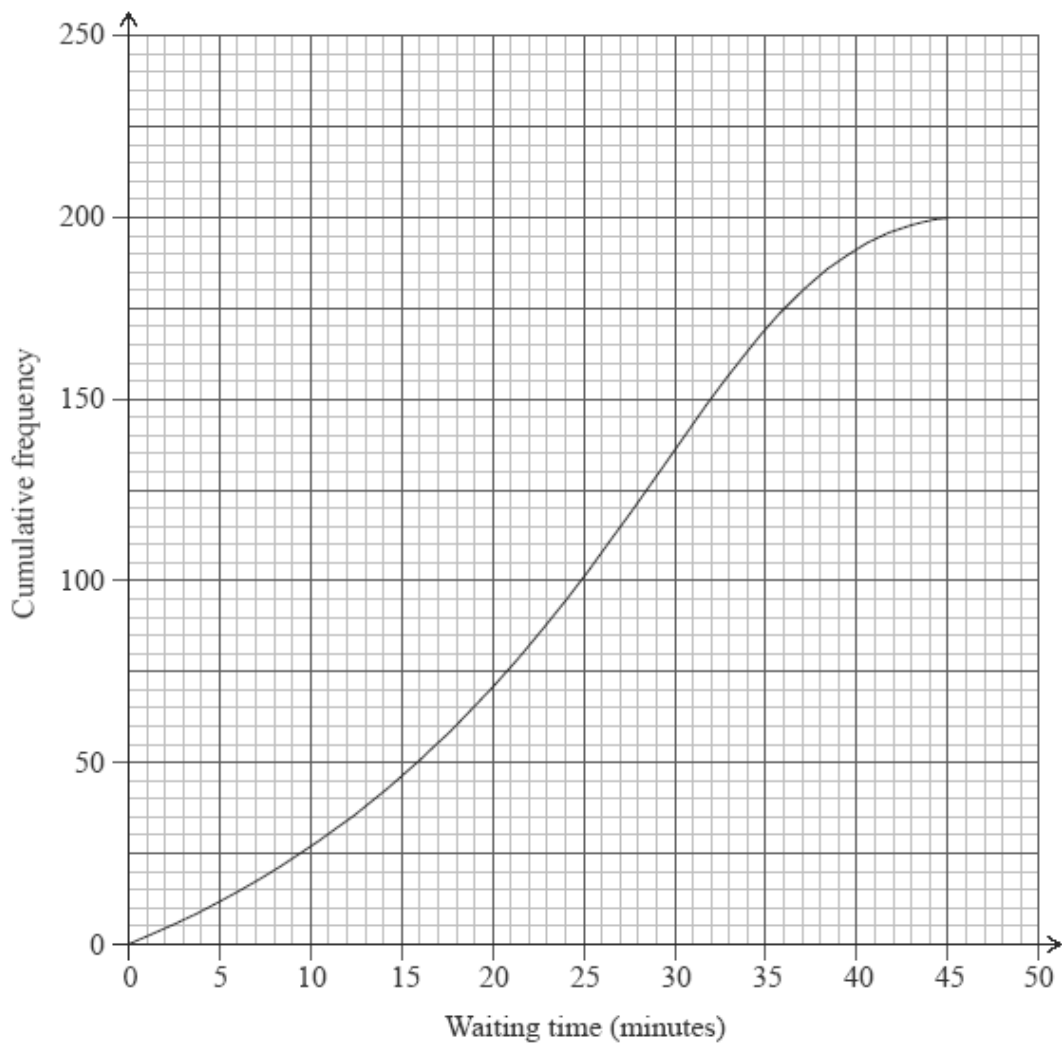
(1)

(c) Calculate an estimate of the mean examination score of the students.

(2)

(Total 6 marks)

4. The cumulative frequency graph shows the amount of time in minutes, 200 students spend waiting for their train on a particular morning.
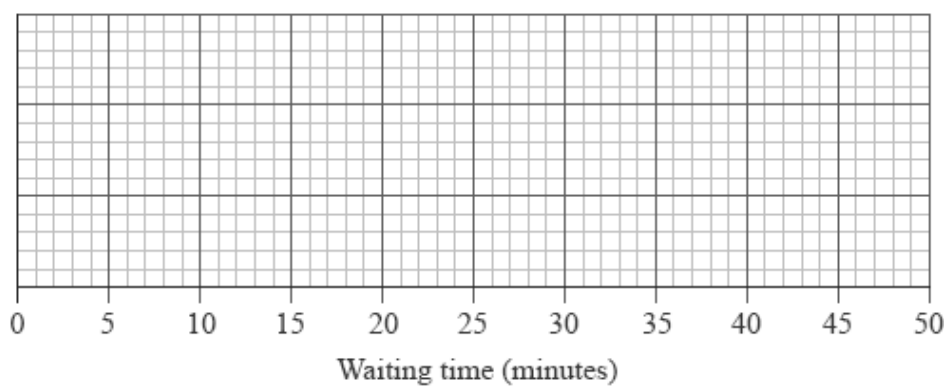

(a) Write down the median waiting time.

(1)

(b) Find the interquartile range for the waiting time.

(2)

The minimum waiting time is zero and the maximum waiting time is 45 minutes.

(c) Draw a box and whisker plot on the grid below to represent this information.

(3)
(Total 6 marks)