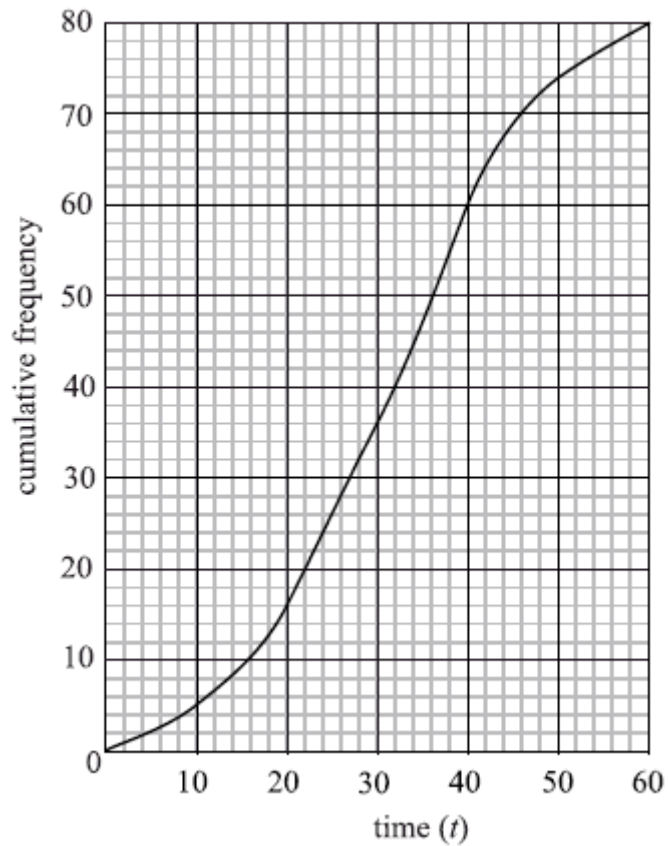**1.** The following is a cumulative frequency diagram for the time t, in minutes, taken by 80 students to complete a task.

(a) Write down the median.
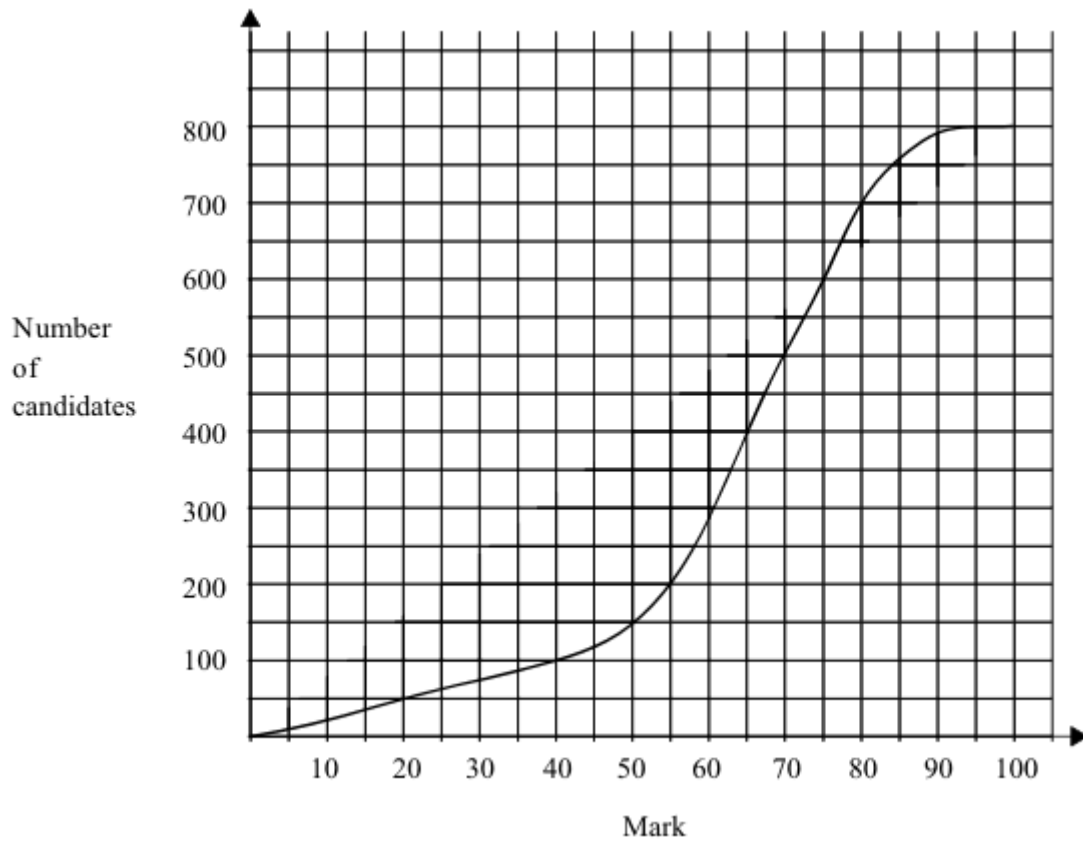
(1)

(b) Find the interquartile range.

(3)

(c) Complete the frequency table below.

Time (minutes)	Number of students
$0 \leq t < 10$	5
$10 \leq t < 20$	
$20 \leq t < 30$	20
$30 \leq t < 40$	24
$40 \leq t < 50$	
$50 \leq t < 60$	6

(2)
(Total 6 marks)

2. A test marked out of 100 is written by 800 students. The cumulative frequency graph for the marks is given below.

(a) Write down the number of students who scored 40 marks or less on the test.
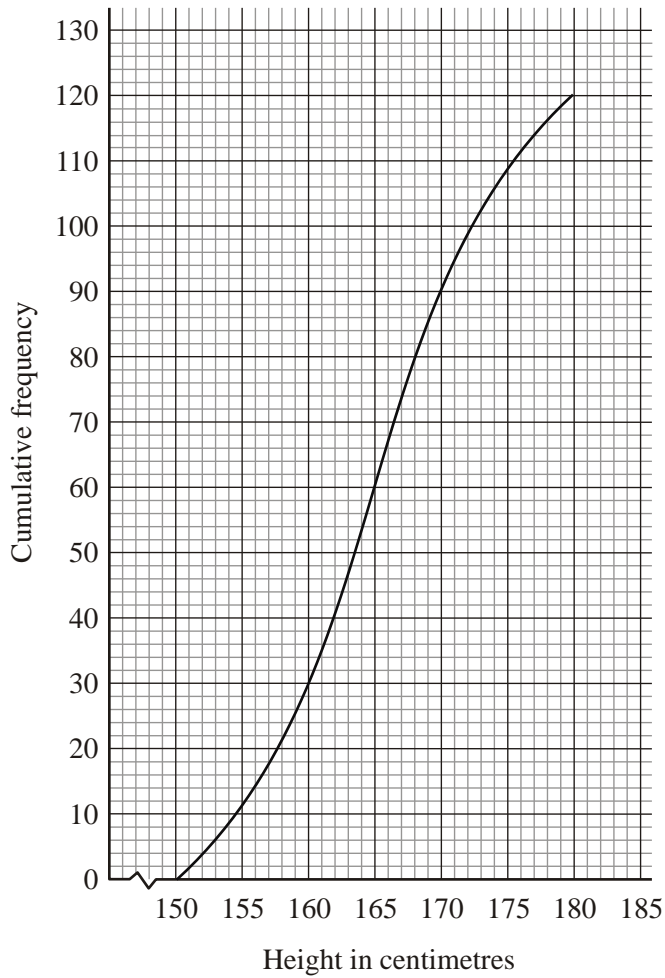
(2)

(b) The middle 50 % of test results lie between marks a and b, where $a < b$.
Find a and b.

(4)
(Total 6 marks)

3. The cumulative frequency graph below shows the heights of 120 girls in a school.

(a) Using the graph

   (i) write down the median;

   (ii) find the interquartile range.

(b) Given that 60% of the girls are taller than *a* cm, find the value of *a*.

(Total 6 marks)

4. The following is the cumulative frequency curve for the time, t minutes, spent by 150 people in a store on a particular day.
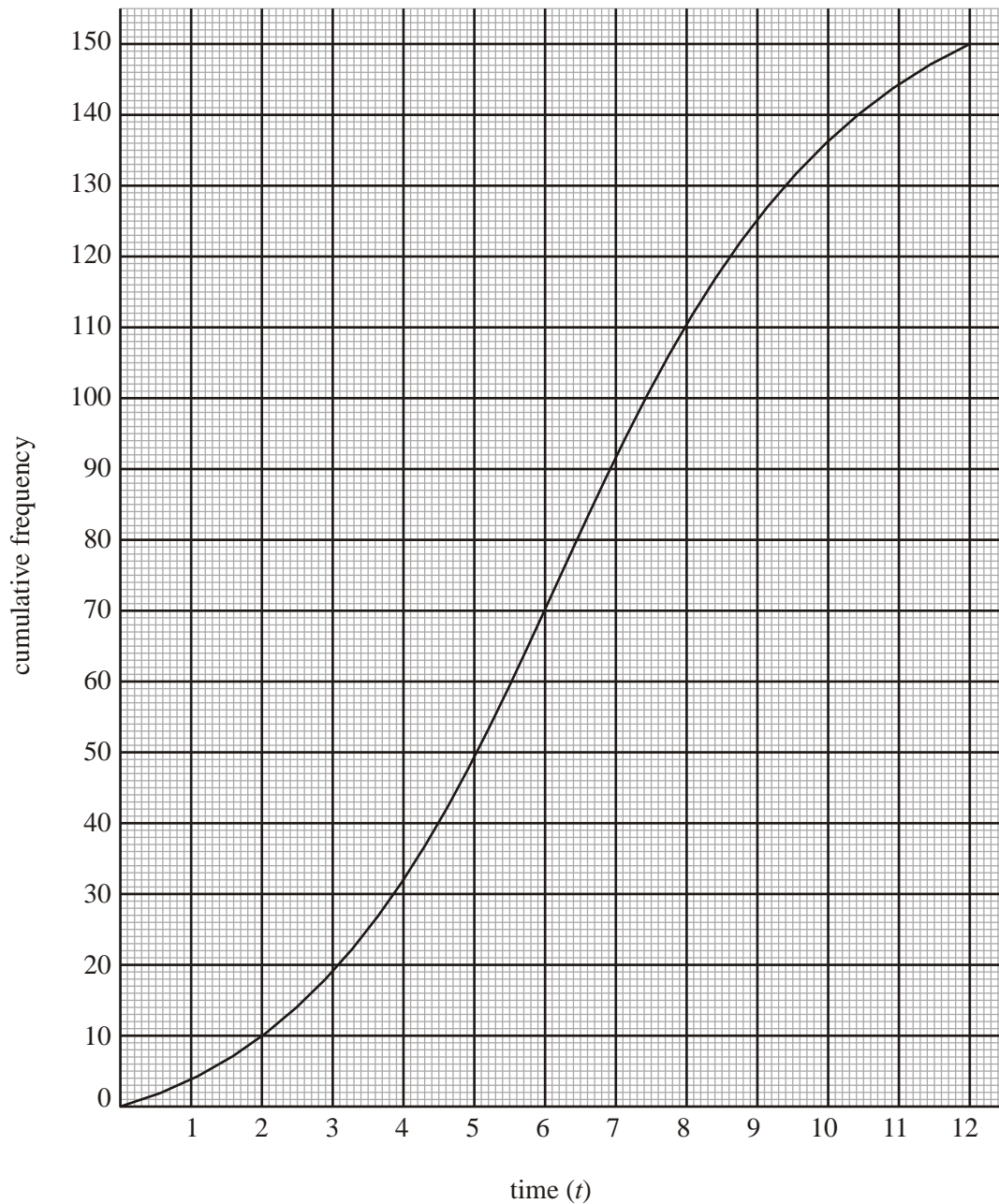
(a) (i) How many people spent less than 5 minutes in the store?

(ii) Find the number of people who spent between 5 and 7 minutes in the store.

(iii) Find the median time spent in the store.

(6)

(b)   Given that 40% of the people spent longer than k minutes, find the value of k.

(3)

(c)   (i)   **On your answer sheet**, copy and complete the following frequency table.

t (minutes)	$0 \leq t < 2$	$2 \leq t < 4$	$4 \leq t < 6$	$6 \leq t < 8$	$8 \leq t < 10$	$10 \leq t < 12$
Frequency	10	23				15

(ii)   Hence, calculate an estimate for the mean time spent in the store.

(5)
(Total 14 marks)