1.

A

The left table shows information about the heights of 40 bushes.
Complete the cumulative frequency table (right).

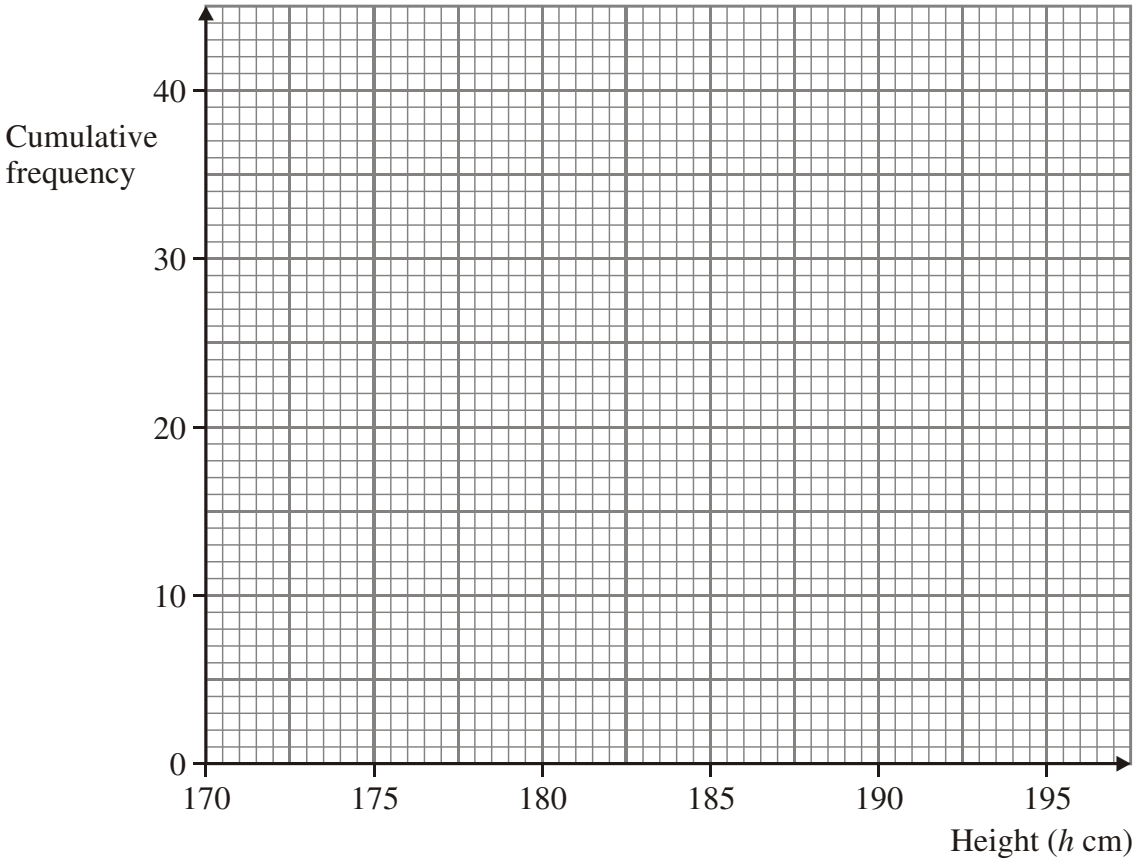
Height (h cm)	Frequency
$170 \leq h < 175$	5
$175 \leq h < 180$	18
$180 \leq h < 185$	12
$185 \leq h < 190$	4
$190 \leq h < 195$	1

Height (h cm)	Cumulative Frequency
$170 \leq h < 175$	
$170 \leq h < 180$	
$170 \leq h < 185$	
$170 \leq h < 190$	
$170 \leq h < 195$	

(1)

B

On the grid, draw a cumulative frequency graph for your table.



C

Use the graph to find an estimate for the median height of the bushes.

..... cm

(1)

(Total 4 marks)

2.

A

The (left) table gives information about the ages of 160 employees of an IT company

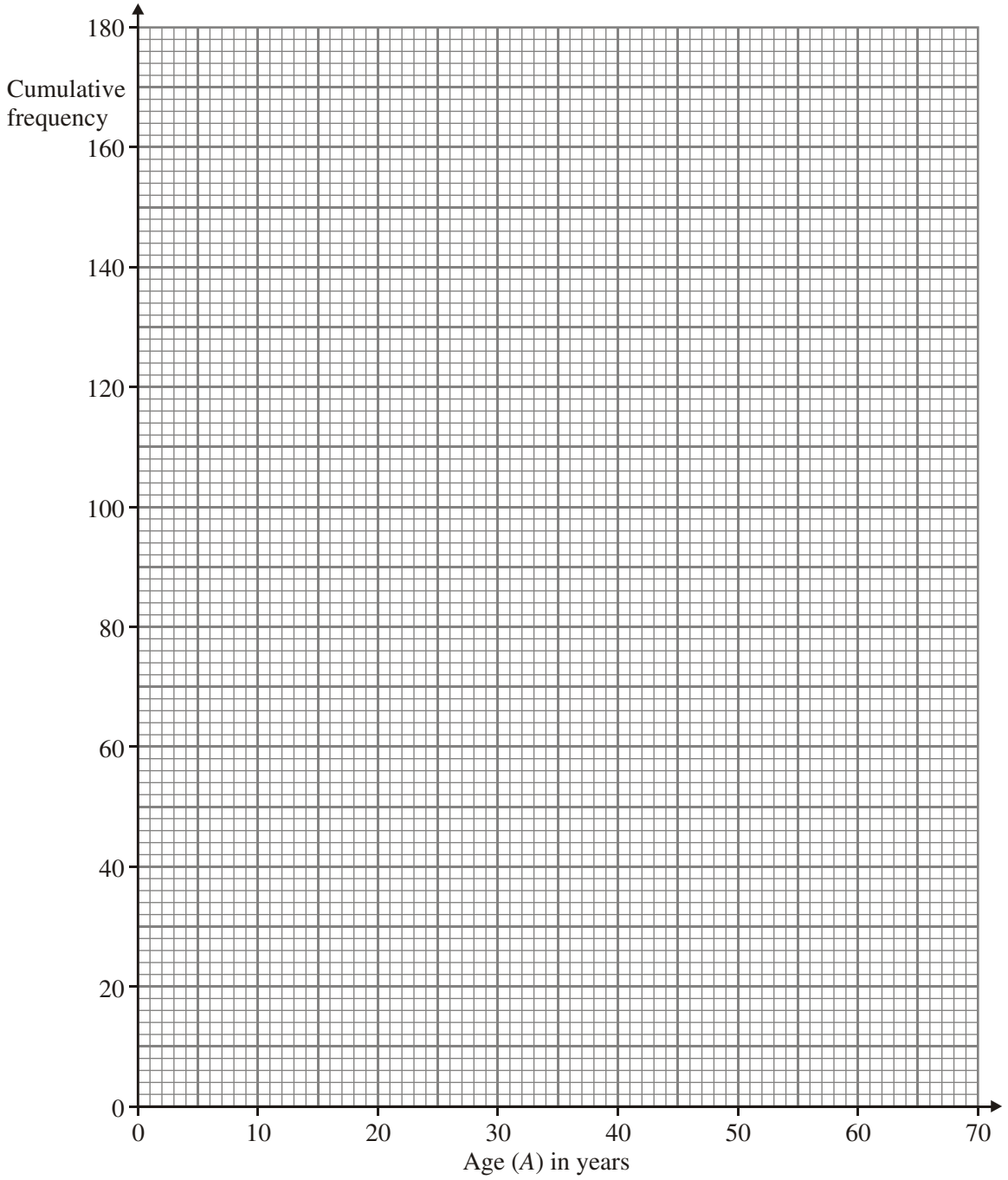
Complete the cumulative frequency table on the right.

Age (A) in years	Frequency
$15 < A \leq 25$	44
$25 < A \leq 35$	56
$35 < A \leq 45$	34
$45 < A \leq 55$	19
$55 < A \leq 65$	7

Age (A) in years	Cumulative Frequency
$15 < A \leq 25$	
$15 < A \leq 35$	
$15 < A \leq 45$	
$15 < A \leq 55$	
$15 < A \leq 65$	

B

On the grid, draw a cumulative frequency graph for your table.



C

a) Use the graph to find an estimate for the median age of the employees

…… cm

b) How many employees are less than 50 years old?

(3)

(Total 6 marks)

3.

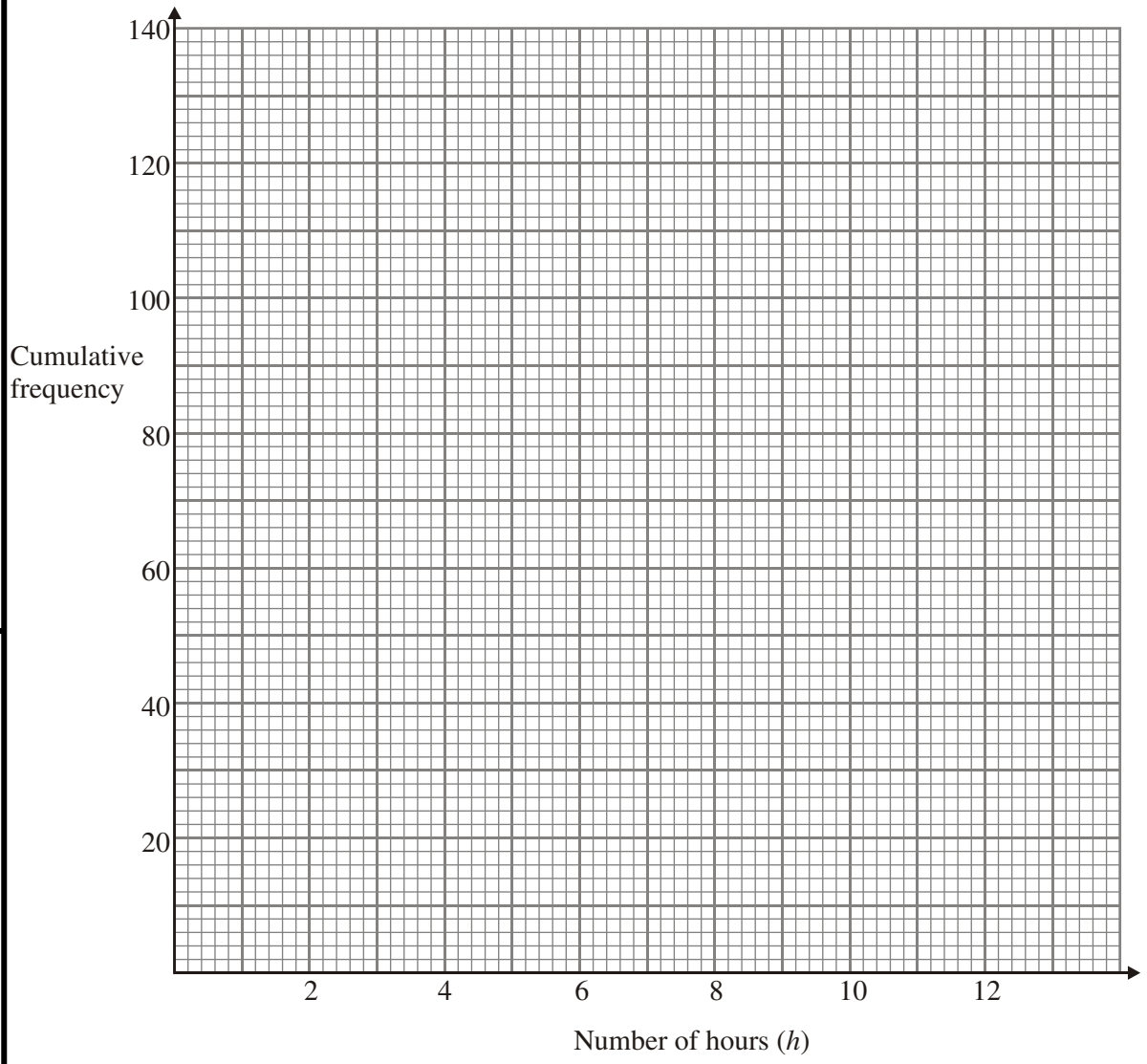
A

The left table shows information about the number of hours that 120 children used a computer last week.
Complete the cumulative frequency table (on right).

Number of hours (h)	Frequency
$0 < h \leq 2$	10
$2 < h \leq 4$	15
$4 < h \leq 6$	30
$6 < h \leq 8$	35
$8 < h \leq 10$	25
$10 < h \leq 12$	5

Number of hours (h)	Cumulative frequency
$0 < h \leq 2$	10
$0 < h \leq 4$	
$0 < h \leq 6$	
$0 < h \leq 8$	
$0 < h \leq 10$	
$0 < h \leq 12$	

B On the grid, draw a cumulative frequency graph for your table.



C

Use your graph to find an estimate for the number of children who used a computer for **less** than 7 hours last week.

.....

(2)

(Total 5 marks)

4.

A

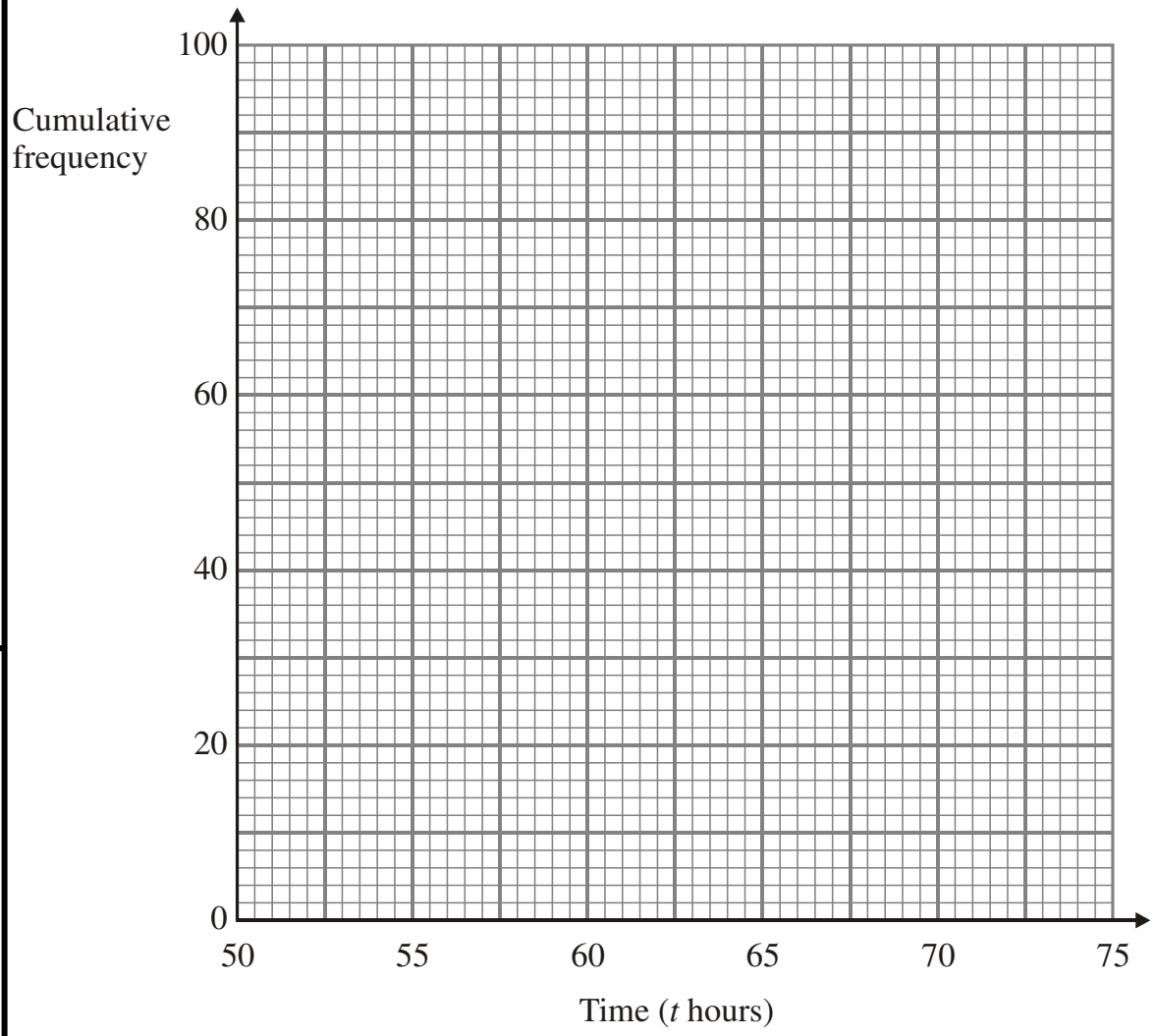
A company tested 100 batteries. The left table shows information about the time in hours that the batteries lasted.
Complete the cumulative frequency table (on right).

Time(t hours)	Frequency
$50 \leq t < 55$	12
$55 \leq t < 60$	21
$60 \leq t < 65$	36
$65 \leq t < 70$	23
$70 \leq t < 75$	8

Time (t hours)	Cumulative frequency
$50 \leq t < 55$	12
$50 \leq t < 60$	
$50 \leq t < 65$	
$50 < t < 70$	
$50 \leq t < 75$	

B

On the grid, draw a cumulative frequency graph for your table.



C

i) Use your completed graph to find an estimate for the median time.

……hours

ii) Use your graph to work out how many batteries lasted longer than 63 minutes.

……

(2)

(Total 5 marks)

5.

A

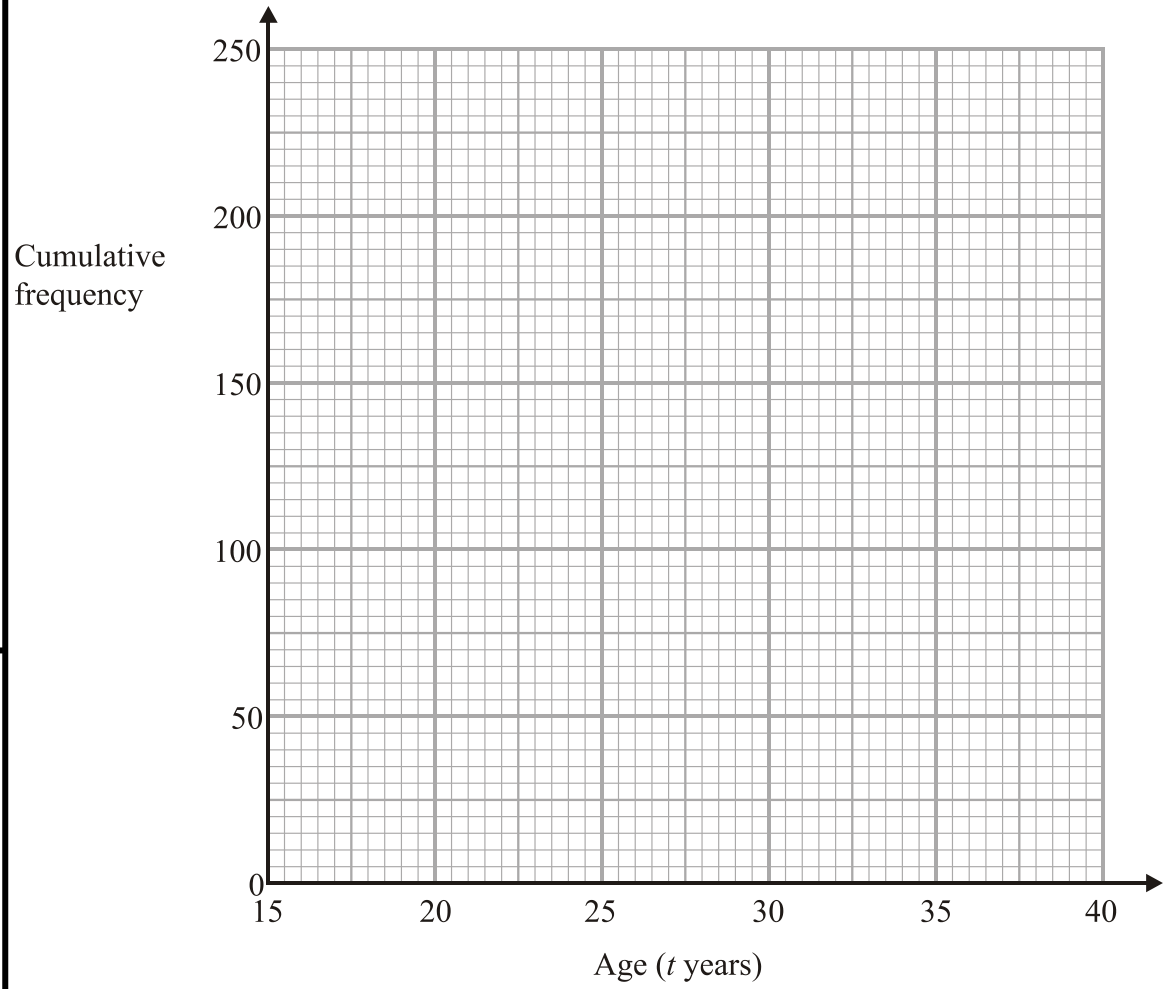
The table shows information about the ages of the 240 people at a club.
Complete the cumulative frequency table.

Age (t years)	Frequency
$15 \leq t < 20$	95
$20 \leq t < 25$	90
$25 \leq t < 30$	35
$30 \leq t < 35$	15
$35 \leq t < 40$	5

Age (t years)	Cumulative frequency
$15 \leq t < 20$	
$15 \leq t < 25$	
$15 \leq t < 30$	
$15 \leq t < 35$	
$15 \leq t < 40$	

B

On the grid, draw a cumulative frequency graph for your table.



C

Use your graph to find an estimate for the median age of the people.

..... years

(1)

(Total 4 marks)

6.

A

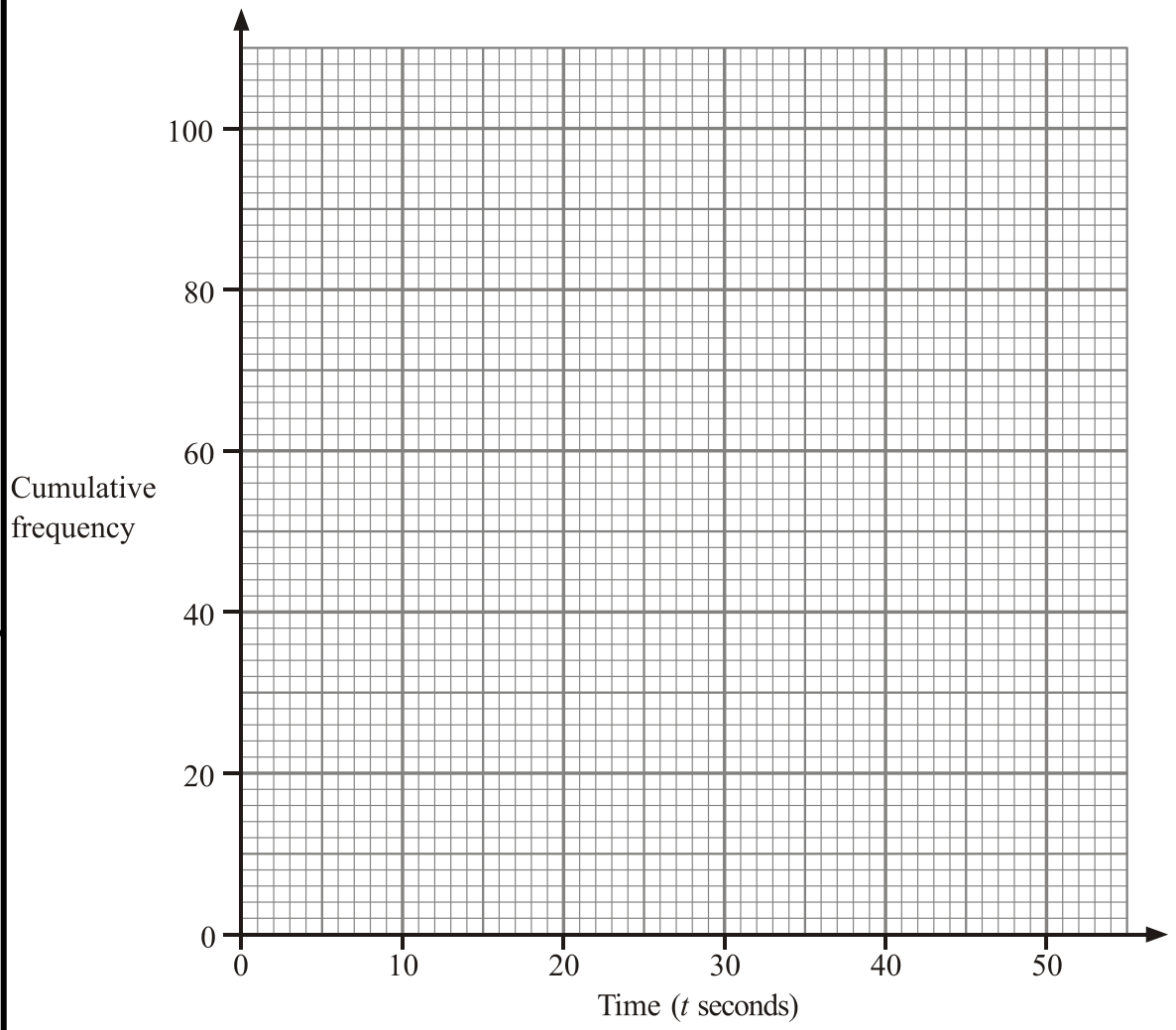
An operator took 100 calls at a call centre. The table gives information about the time (t seconds) it took the operator to answer each call.
Complete the cumulative frequency table (on the right).

Time (t seconds)	Frequency
$0 < t \leq 10$	16
$10 < t \leq 20$	34
$20 < t \leq 30$	32
$30 < t \leq 40$	14
$40 < t \leq 50$	4

Time (t seconds)	Cumulative Frequency
$0 < t \leq 10$	16
$0 < t \leq 20$	
$0 < t \leq 30$	
$0 < t \leq 40$	
$0 < t \leq 50$	

B

On the grid, draw a cumulative frequency graph for your table.



C

Use your graph to find an estimate for the number of calls the operator took **more** than 18 seconds to answer.

.....

(2)

(Total 5 marks)

7.

A

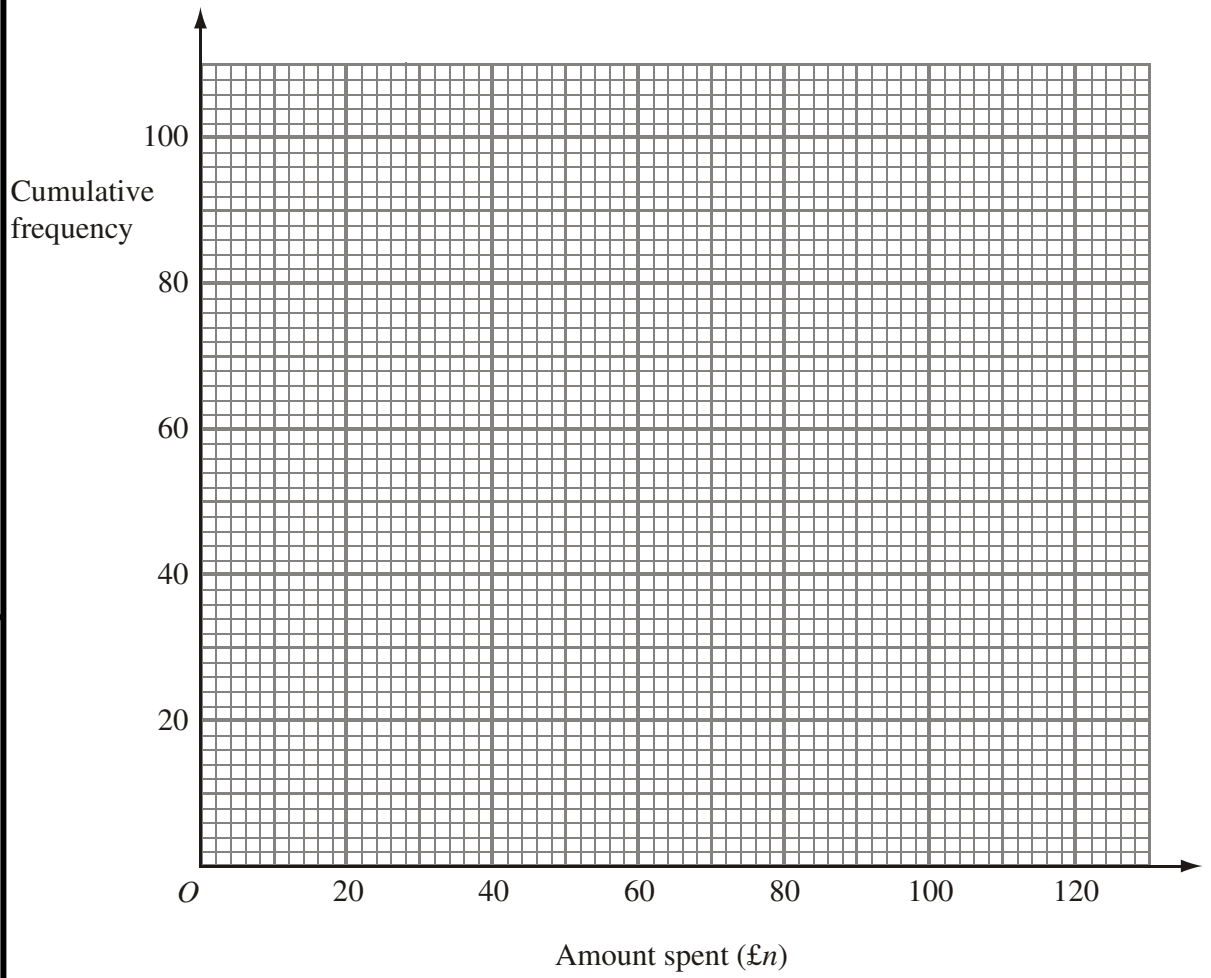
The table shows information about the amount spent by 100 customers in a supermarket.
Complete the cumulative frequency table for this information.

Amount spent (£n)	Frequency
$0 < n \leq 20$	18
$20 < n \leq 40$	22
$40 < n \leq 60$	35
$60 < n \leq 80$	15
$80 < n \leq 100$	8
$100 < n \leq 120$	2

Amount spent (£n)	Cumulative frequency
$0 < n \leq 20$	18
$0 < n \leq 40$	
$0 < n \leq 60$	
$0 < n \leq 80$	
$0 < n \leq 100$	
$0 < n \leq 120$	

B

On the grid, draw a cumulative frequency graph for your table.



C

Use your graph to find an estimate for the median amount spent.

£ .....

(1)

(Total 4 marks)

8.

A

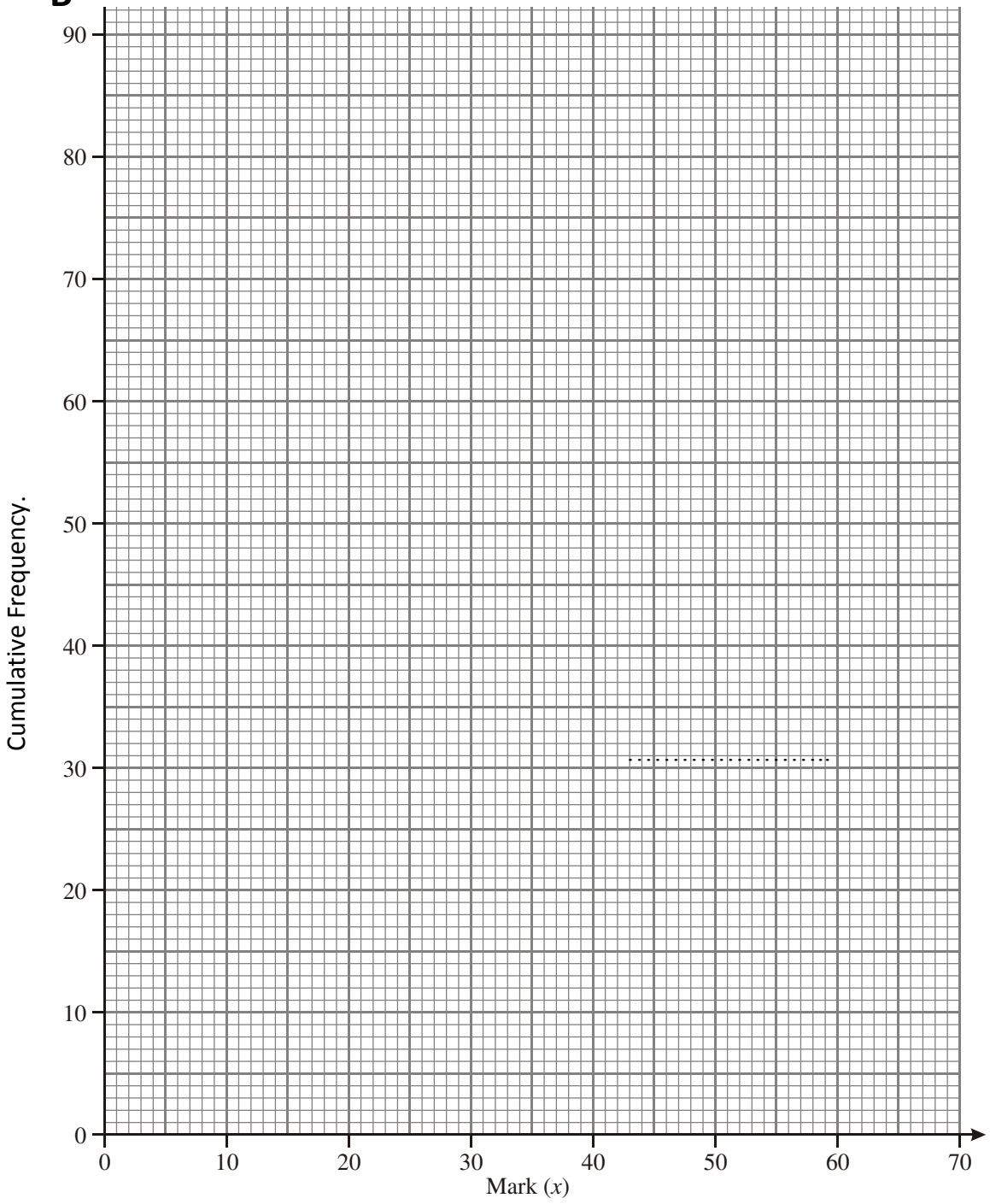
90 students took an examination. The grouped frequency table shows information about their results.
Complete the cumulative frequency table.

Mark (x)	Frequency
$0 < x \leq 10$	3
$10 < x \leq 20$	10
$20 < x \leq 30$	17
$30 < x \leq 40$	30
$40 < x \leq 50$	21
$50 < x \leq 60$	7
$60 < x \leq 70$	2

Mark (x)	Cumulative Frequency
$0 < x \leq 10$	3
$0 < x \leq 20$	
$0 < x \leq 30$	
$0 < x \leq 40$	
$0 < x \leq 50$	
$0 < x \leq 60$	
$0 < x \leq 70$	

B

On the grid, draw a cumulative frequency graph for your table.



C

i) Use your graph to find an estimate for the median mark.

.....

The pass mark for the examination was 28.

ii) Use your graph to find an estimate for the number of students who passed the examination

.....

(Total 6 marks)