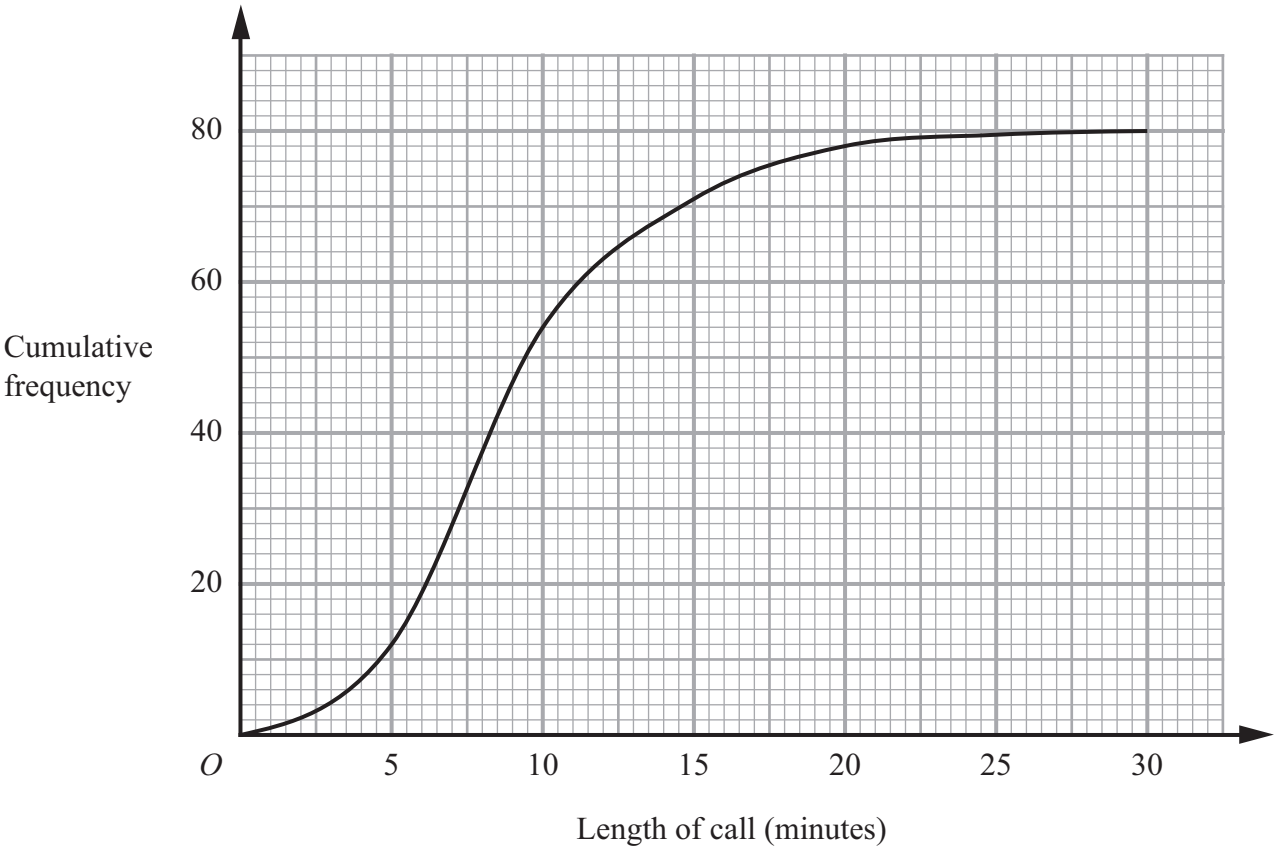
1. **[4 marks]**

The cumulative frequency graph gives information about the lengths, in minutes, of 80 telephone calls.



(a) Find an estimate for the number of calls which were longer than 15 minutes.

.....

(2)

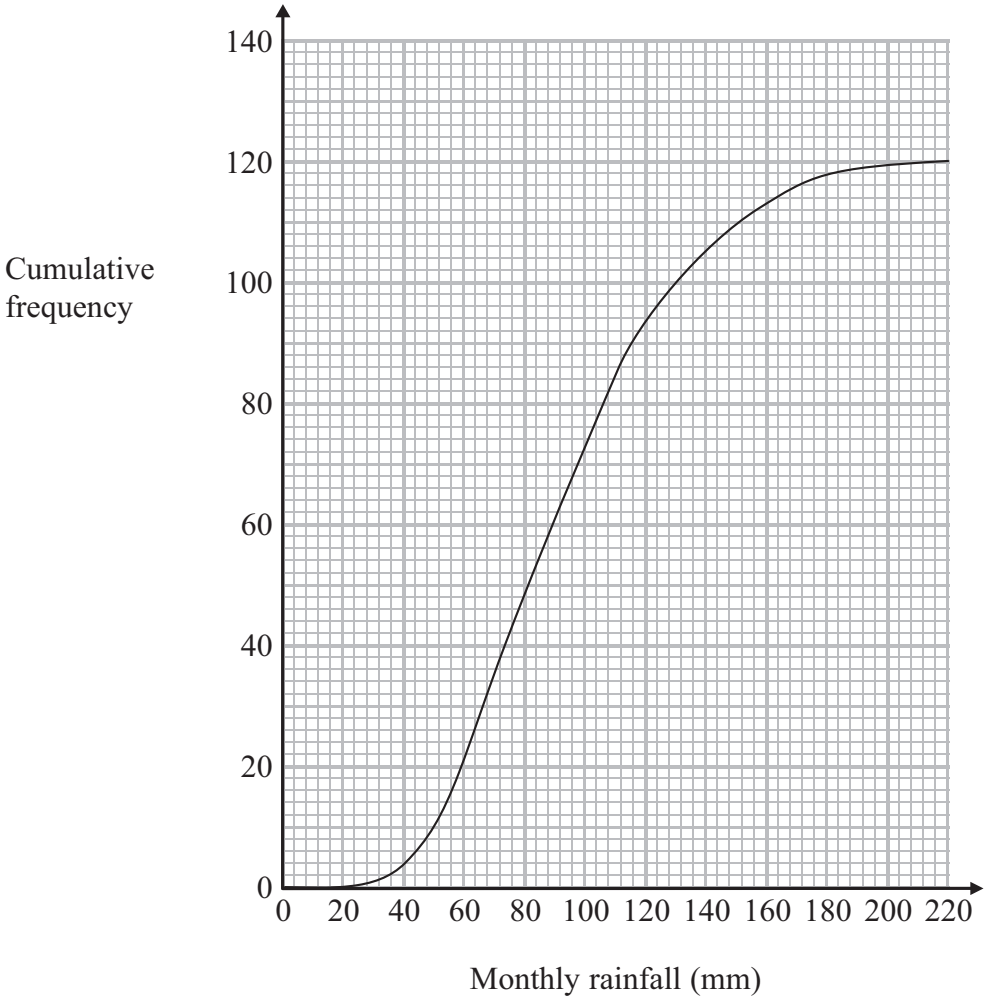
(b) Find an estimate for the interquartile range of the lengths of the 80 calls.

..... minutes

(2)

2. **[4 marks]**

The cumulative frequency graph gives information about the monthly rainfall, in millimetres, in the United Kingdom during 120 months in the years 2001 to 2010.



(a) Use the graph to estimate the number of months for which rainfall was less than 50 mm.

.....

(1)

(b) Use the graph to find an estimate for the median monthly rainfall.

..... mm

(1)

(c) Use the graph to find an estimate for the interquartile range of the monthly rainfall.

..... mm

(2)

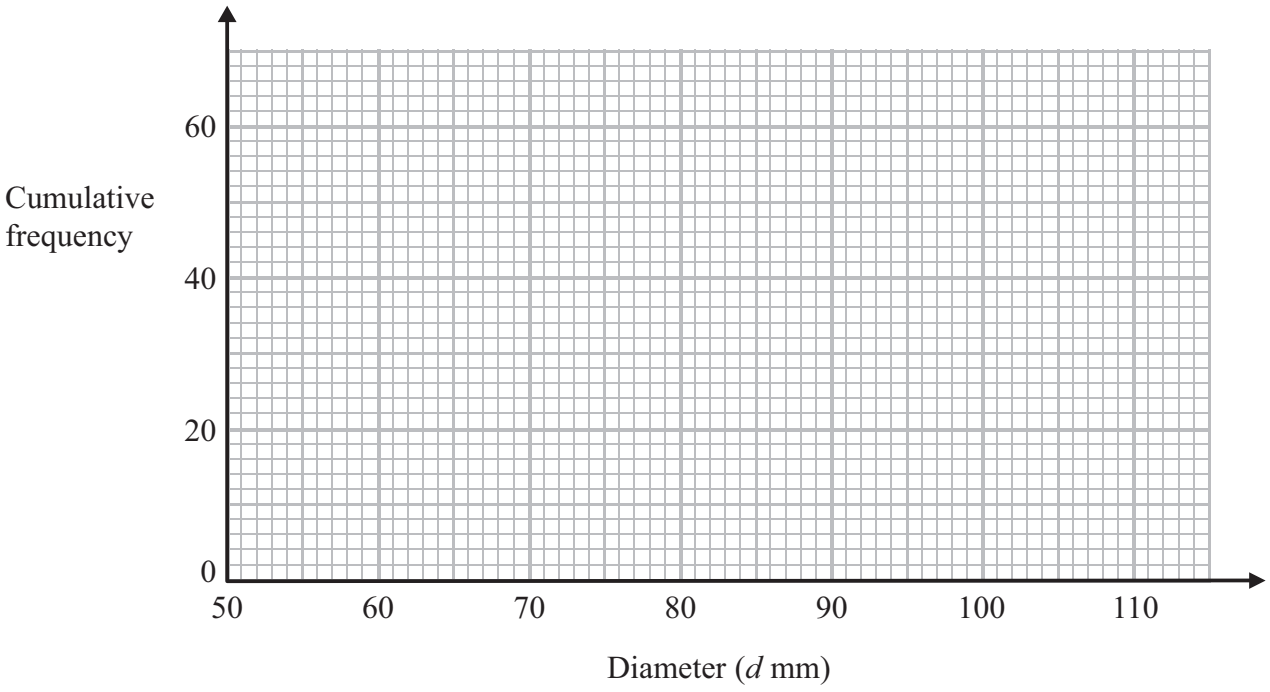
3. **[4 marks]**

The cumulative frequency table shows information about the diameters of 60 oranges.

Diameter (d mm)	**Cumulative frequency**
$50 < d \leqslant 60$	12
$50 < d \leqslant 70$	42
$50 < d \leqslant 80$	54
$50 < d \leqslant 90$	57
$50 < d \leqslant 100$	59
$50 < d \leqslant 110$	60

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

(2)



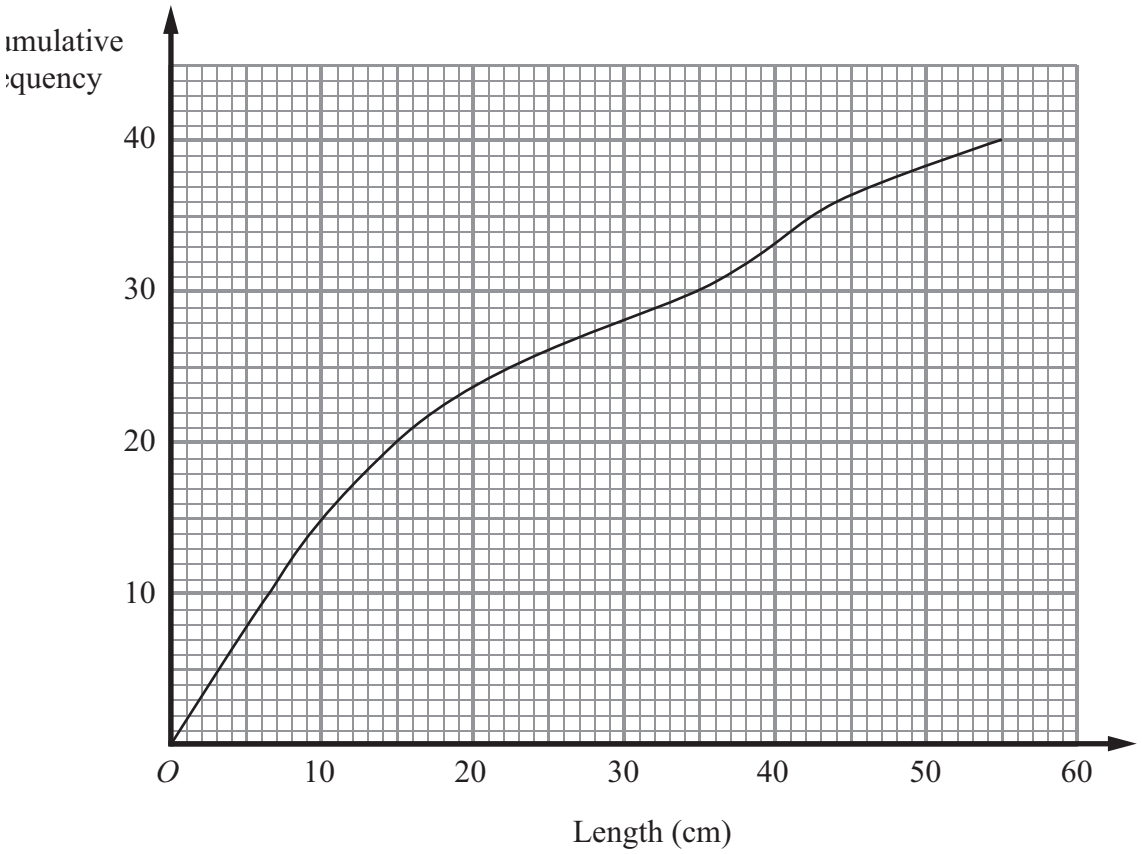
(b) Use your graph to find an estimate for the median diameter of the 60 oranges.

..... mm

(2)

4. **[5 marks]**

The cumulative frequency graph gives information about the lengths of 40 tree branches.



(a) Find an estimate for the median length.

..... cm

(2)

(b) Find an estimate for the interquartile range of the lengths.

..... cm

(2)

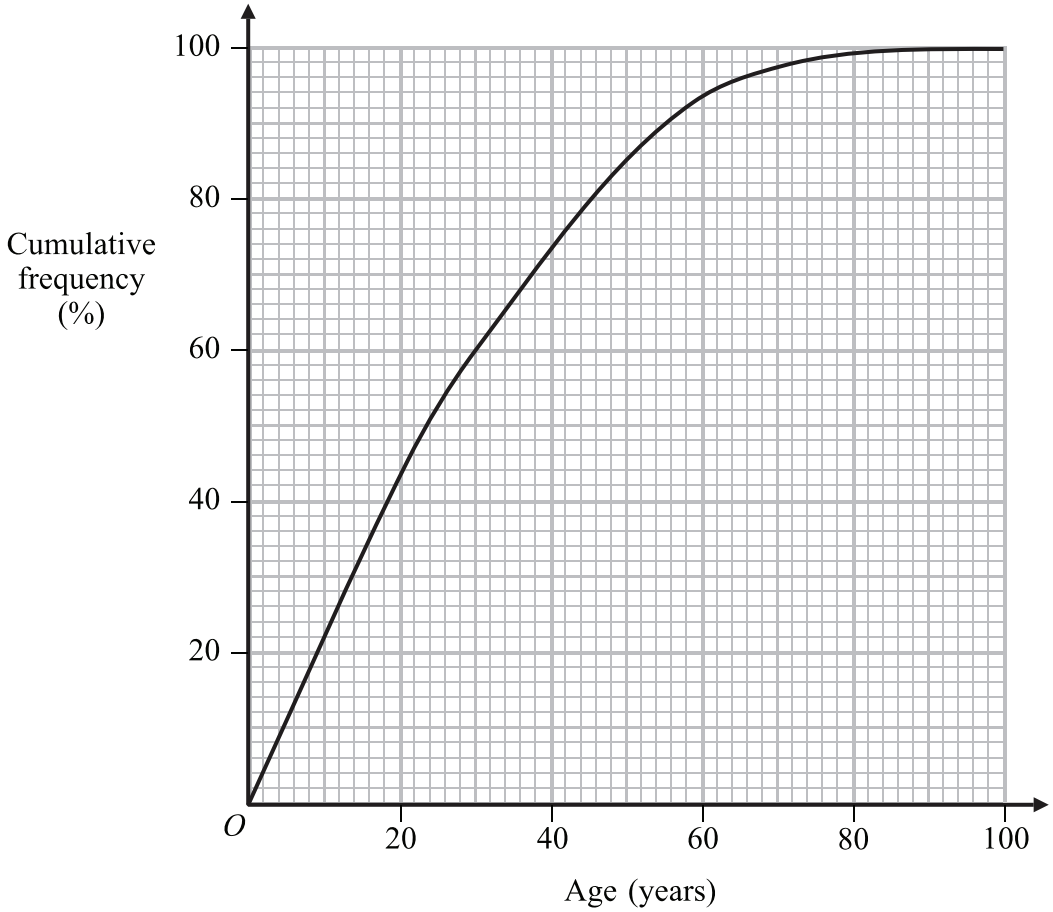
(c) Find an estimate for the number of branches with lengths of more than 44 cm.

.....

(1)

5. **[4 marks]**

The cumulative frequency graph gives information about the ages of people in India.
The cumulative frequency is given as a percentage of all the people in India.



(a) Use the cumulative frequency graph to find an estimate for the percentage of people in India who are

(i) aged less than 20,

.....%

(ii) aged 54 or over.

.....%

(2)

(b) Find an estimate for the interquartile range of the ages of people in India.

..... years

(2)

6. **[6 marks]**

The table gives some information about the incomes, £I, of 100 people in the UK.

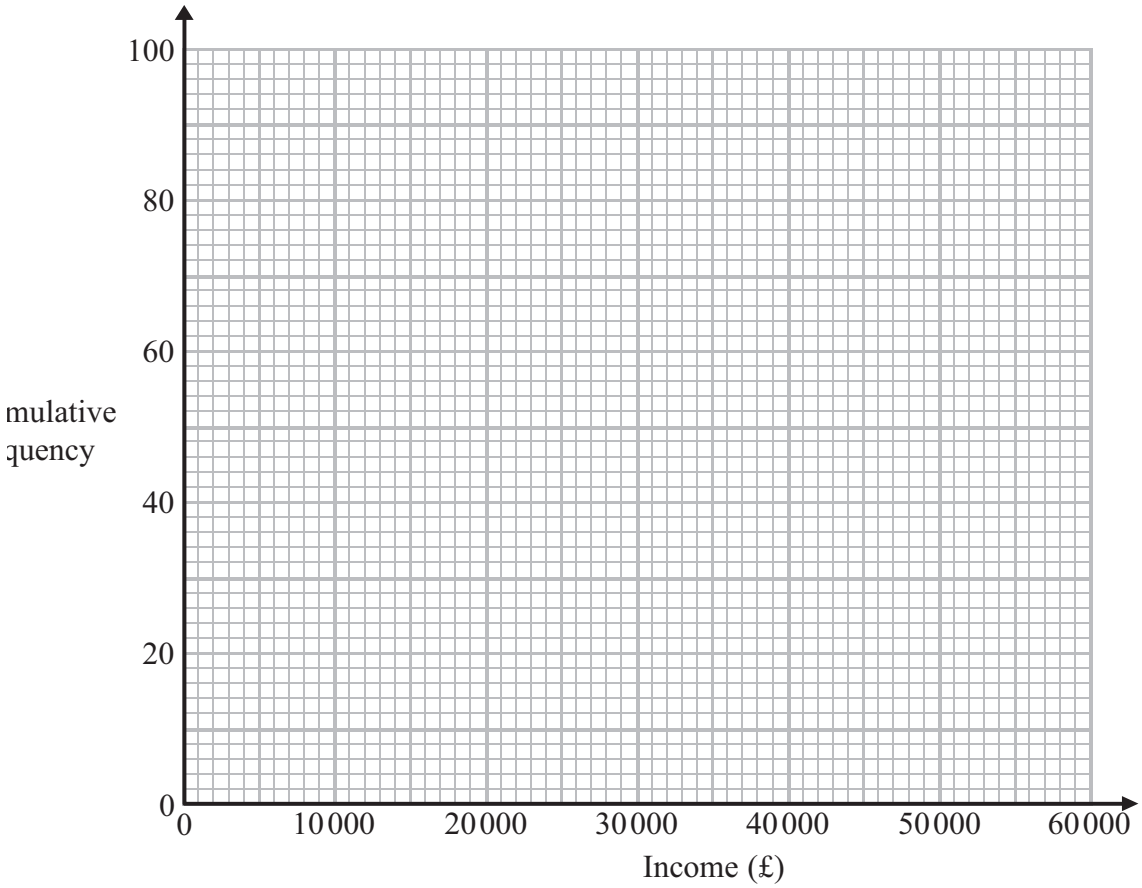
Income (£I)	Frequency
$0 < I \leqslant 10000$	12
$10000 < I \leqslant 20000$	41
$20000 < I \leqslant 30000$	25
$30000 < I \leqslant 40000$	12
$40000 < I \leqslant 50000$	6
$50000 < I \leqslant 60000$	4

(a) Complete the cumulative frequency table.

Income (£I)	Cumulative frequency
$0 < I \leqslant 10000$	12
$0 < I \leqslant 20000$	
$0 < I \leqslant 30000$	
$0 < I \leqslant 40000$	
$0 < I \leqslant 50000$	
$0 < I \leqslant 60000$	

(1)

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



(2)

(c) Use your graph to find an estimate for

(i) the median,

£.....

(ii) the interquartile range.

£.....

(3)

7. **[5 marks]**

The grouped frequency table gives information about the ages of 200 elephants.

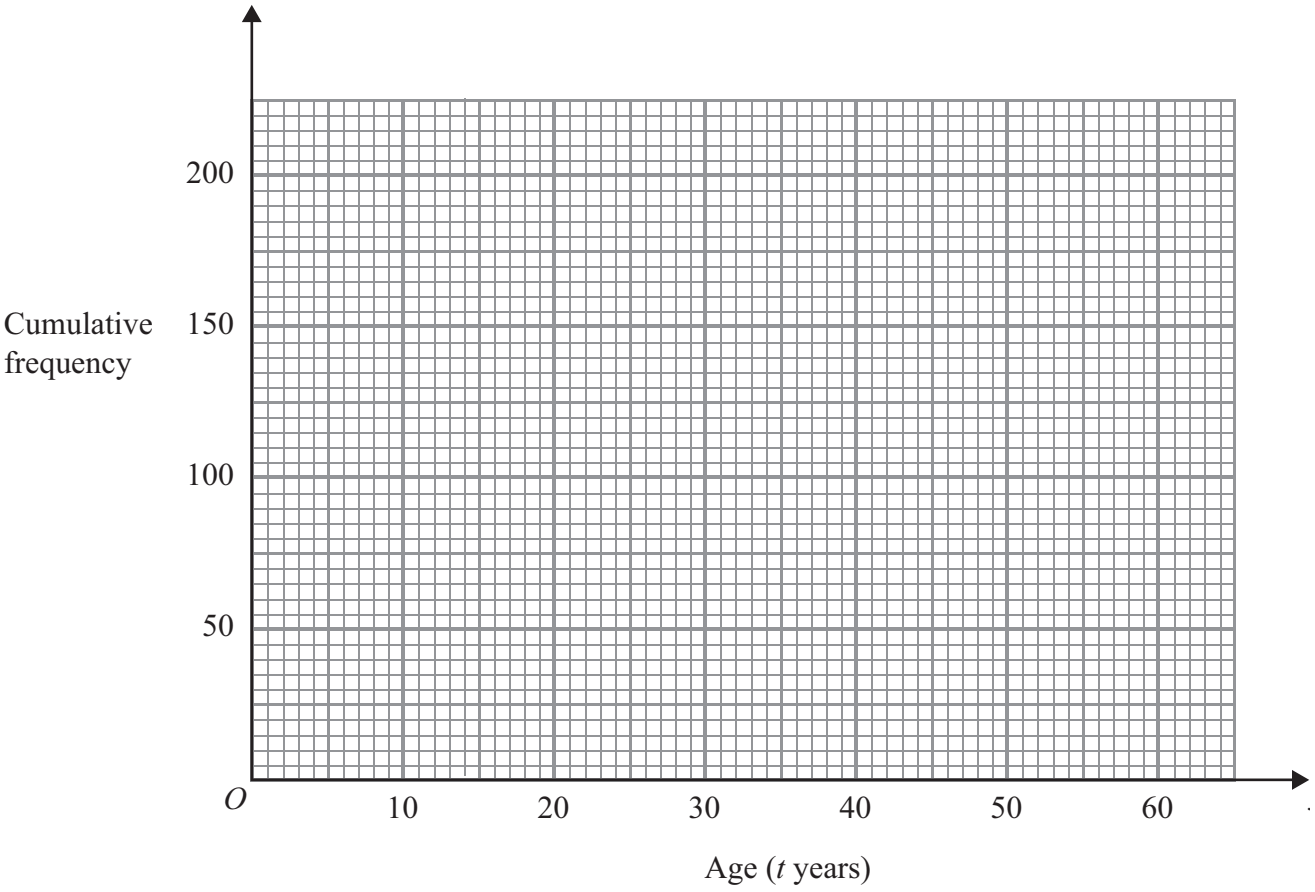
Age (t years)	Frequency
$0 < t \leqslant 10$	55
$10 < t \leqslant 20$	60
$20 < t \leqslant 30$	40
$30 < t \leqslant 40$	22
$40 < t \leqslant 50$	13
$50 < t \leqslant 60$	10

(a) Complete the cumulative frequency table.

Age (t years)	Cumulative frequency
$0 < t \leqslant 10$	
$0 < t \leqslant 20$	
$0 < t \leqslant 30$	
$0 < t \leqslant 40$	
$0 < t \leqslant 50$	
$0 < t \leqslant 60$	

(1)

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



(2)

(c) Use the graph to find an estimate for the number of elephants with ages of more than 26 years.

.....

(2)

8. **[5 marks]**

The table shows information about the lengths of time that 120 people spent in a supermarket.

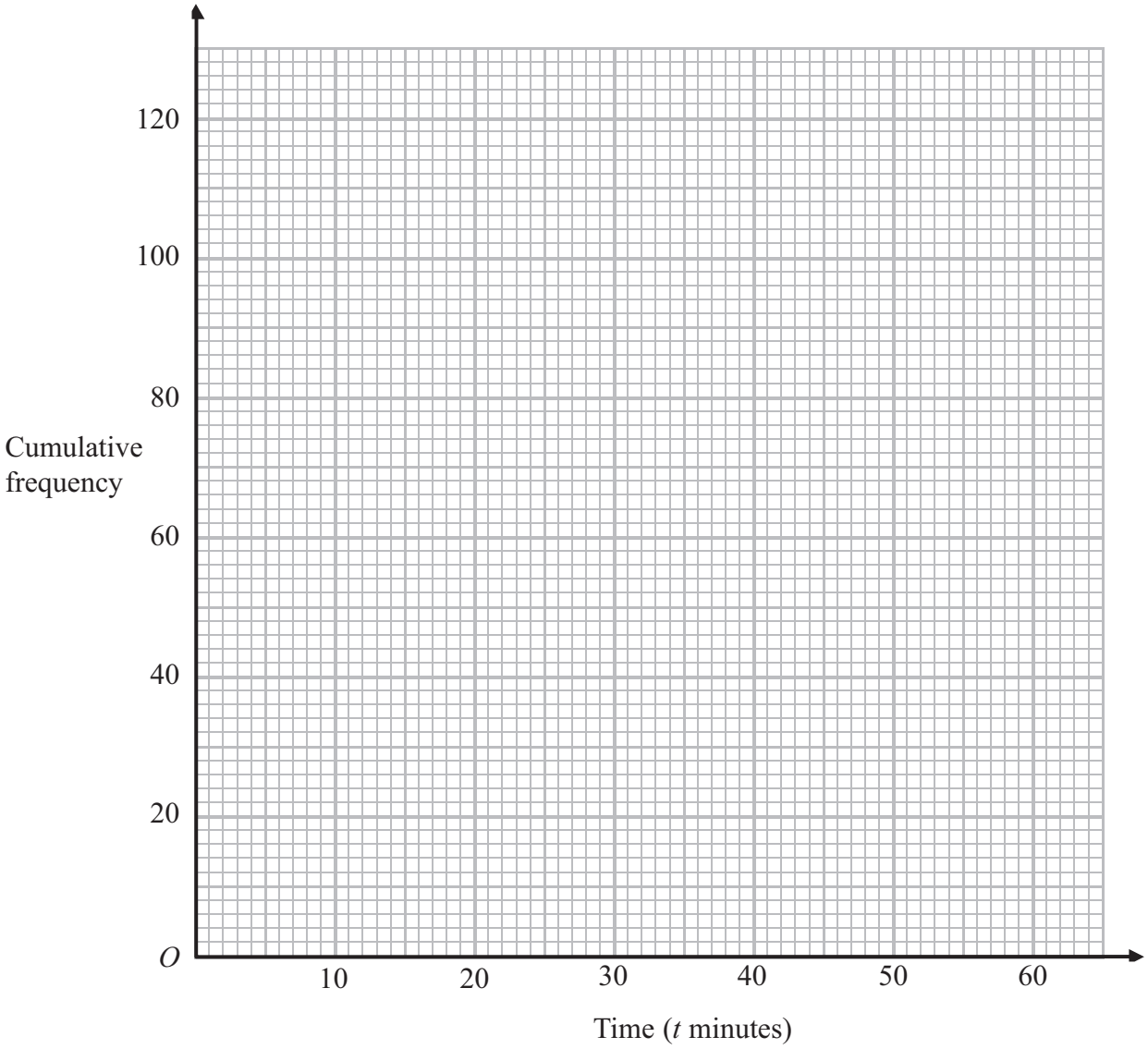
Time (t minutes)	Frequency
$0 < t \leqslant 10$	8
$10 < t \leqslant 20$	17
$20 < t \leqslant 30$	25
$30 < t \leqslant 40$	40
$40 < t \leqslant 50$	22
$50 < t \leqslant 60$	8

(a) Complete the cumulative frequency table.

Time (t minutes)	Cumulative frequency
$0 < t \leqslant 10$	
$0 < t \leqslant 20$	
$0 < t \leqslant 30$	
$0 < t \leqslant 40$	
$0 < t \leqslant 50$	
$0 < t \leqslant 60$	

(1)

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



(2)

(c) Use your graph to find an estimate for the median length of time spent in the supermarket by these people.

..... minutes

(2)