



EXAM PAPERS PRACTICE

GCSE OCR Math J560
Cumulative Frequency
Graphs

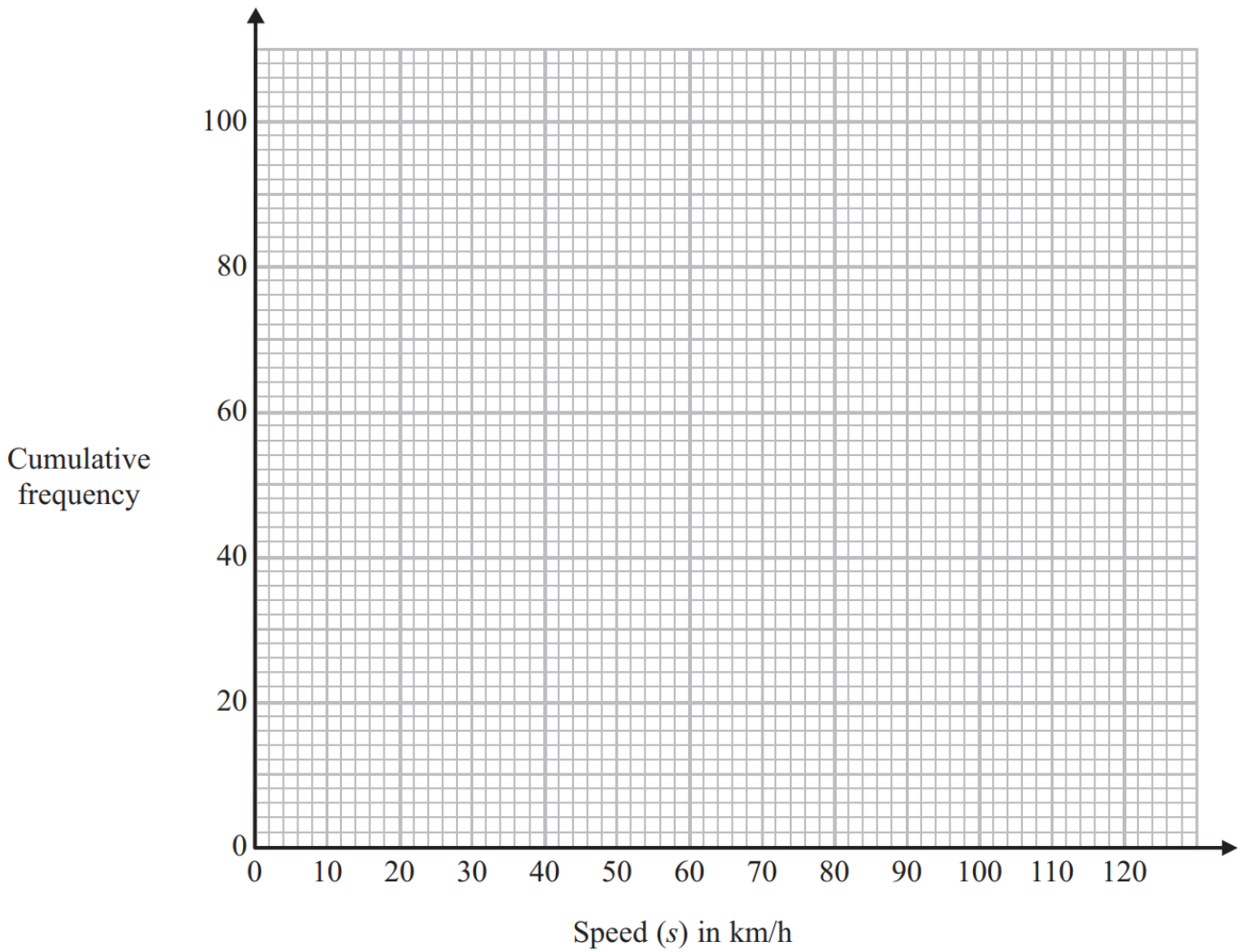
Question Paper

*"We will help you to
achieve A Star "*



Question 1

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



[2 marks]



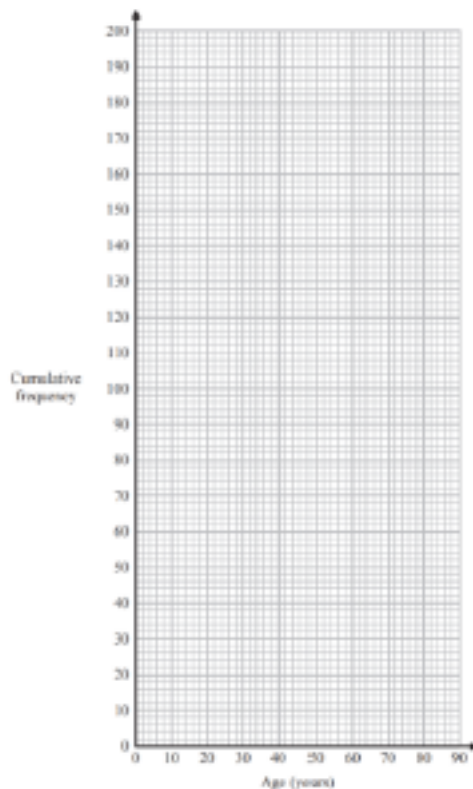
Question 2

There are 200 workers at a factory.

The cumulative frequency table gives information about their ages.

Age (a years)	Cumulative frequency
$0 < a \leq 20$	25
$0 < a \leq 30$	70
$0 < a \leq 40$	138
$0 < a \leq 50$	175
$0 < a \leq 60$	186
$0 < a \leq 70$	194
$0 < a \leq 80$	200

(a) On the grid opposite, draw a cumulative frequency graph for this information.



[2 marks]



Question 3

Sue works for a company that delivers parcels.

One day the company delivered 80 parcels.

The table shows information about the weights, in kg, of these parcels.

Weight (w kg)	Frequency
$0 < w \leq 1$	19
$1 < w \leq 2$	17
$2 < w \leq 3$	15
$3 < w \leq 4$	12
$4 < w \leq 5$	10
$5 < w \leq 6$	7

(a) Complete the cumulative frequency table.

Weight (w kg)	Cumulative frequency
$0 < w \leq 1$	
$0 < w \leq 2$	
$0 < w \leq 3$	
$0 < w \leq 4$	
$0 < w \leq 5$	
$0 < w \leq 6$	

[1 mark]



Question 4

Sue says,
“75% of the parcels weigh less than 3.4 kg.”

- *(c) Is Sue correct?
You must show how you get your answer.

[3 marks]

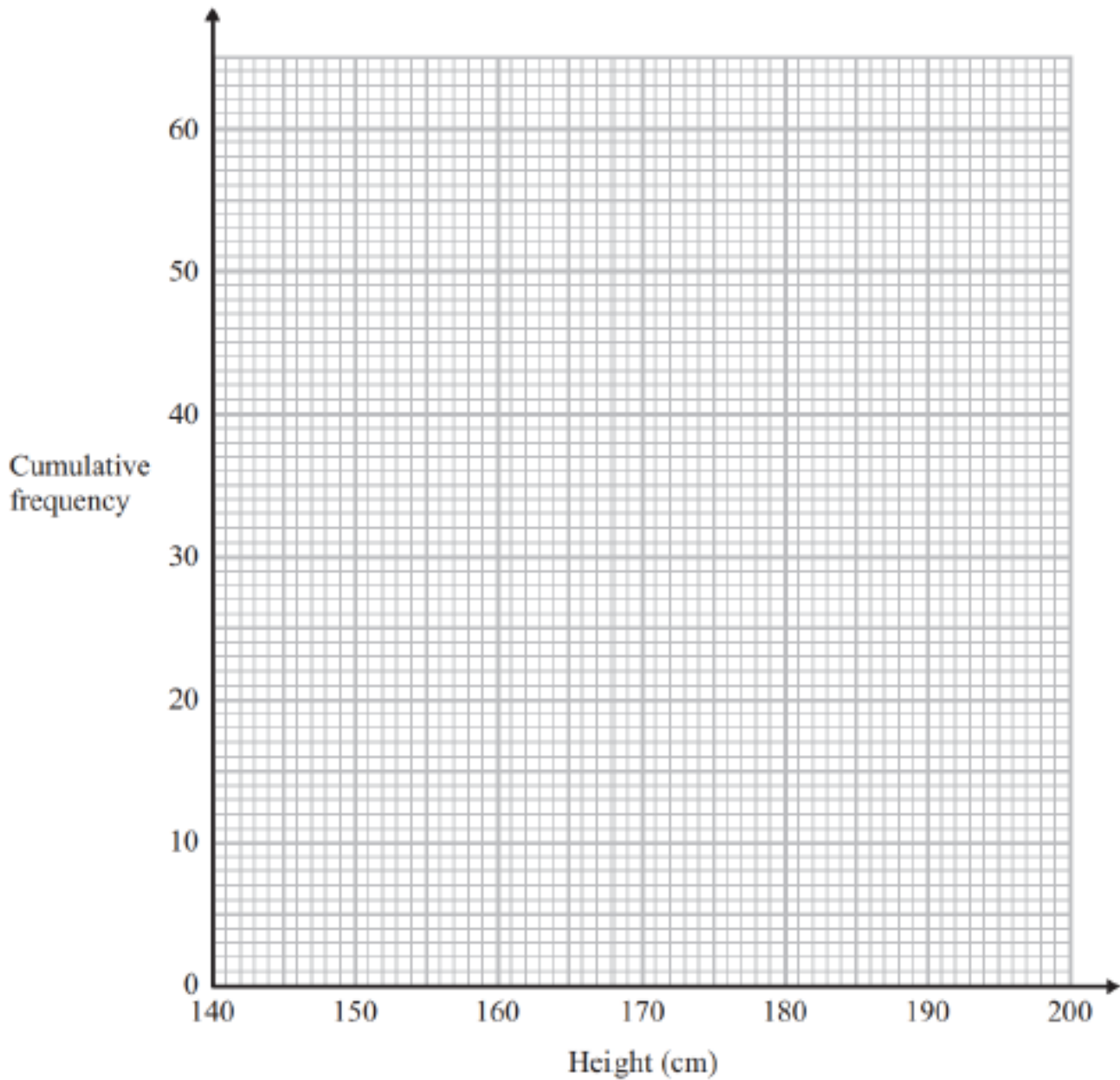
Question 5

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

[2 marks]



Question 6



(b) Find an estimate

(i) for the median,

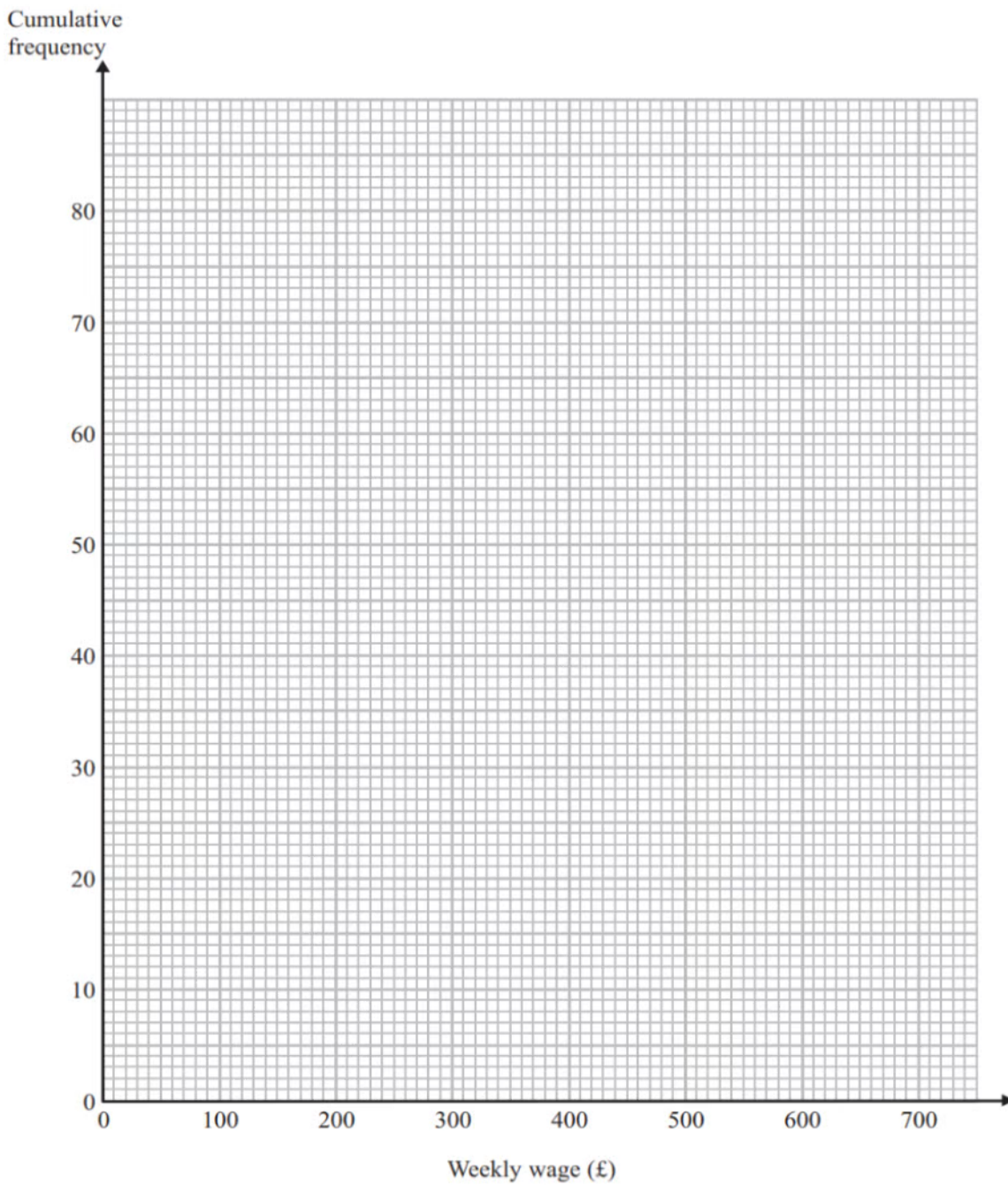
(ii) for the interquartile range.

[3 marks]



Question 7

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



[2 marks]



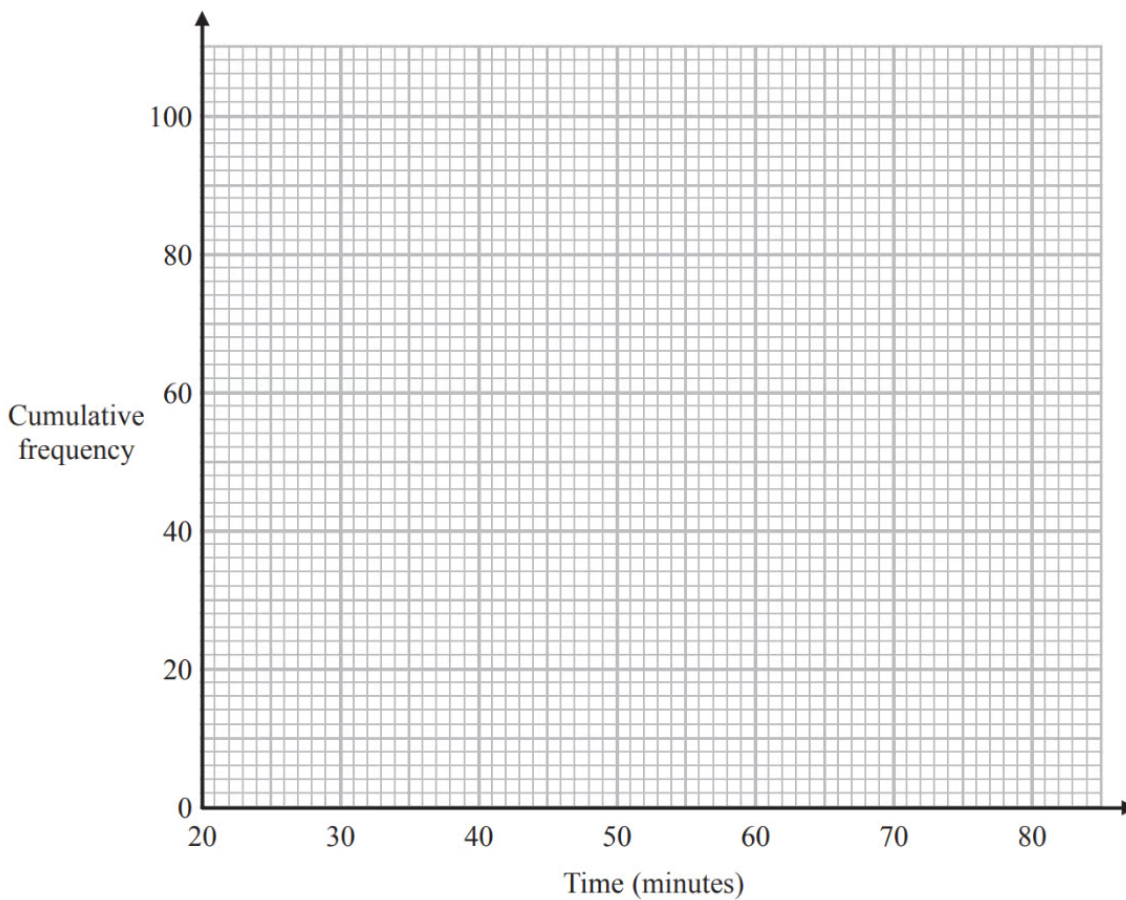
Question 8

(d) Use your graph to find an estimate for the number of workers with a weekly wage of more than £530

[2 marks]

Question 9

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



[2 marks]



Question 10

- (d) Use your graph to find an estimate for the number of people who took longer than 63 minutes.

[2 marks]

Question 11

- (b) Use the graph to find an estimate for the interquartile range of the weights.

[2 marks]

Question 12

Jamil says,

“ $80 - 40 = 40$ so the range of the weights is 40 g.”

- (b) Is Jamil correct?
You must give a reason for your answer.

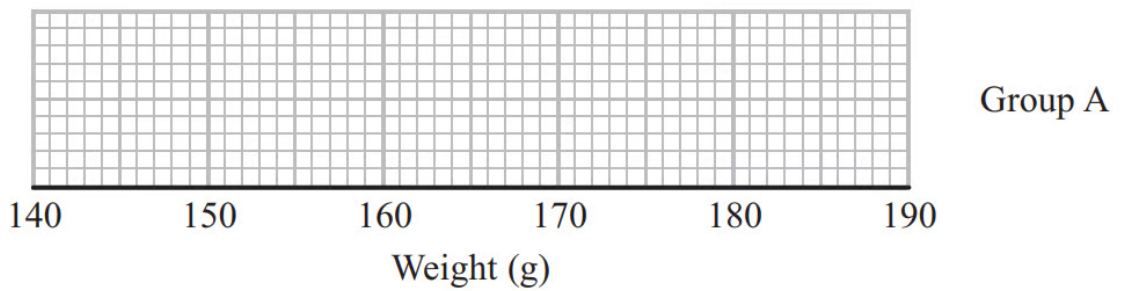
[1 mark]



Question 13

The 60 tomatoes from group A
had a minimum weight of 153 grams
and a maximum weight of 186 grams.

- (b) Use this information and the cumulative frequency graph to draw a box plot
for the 60 tomatoes from group A.

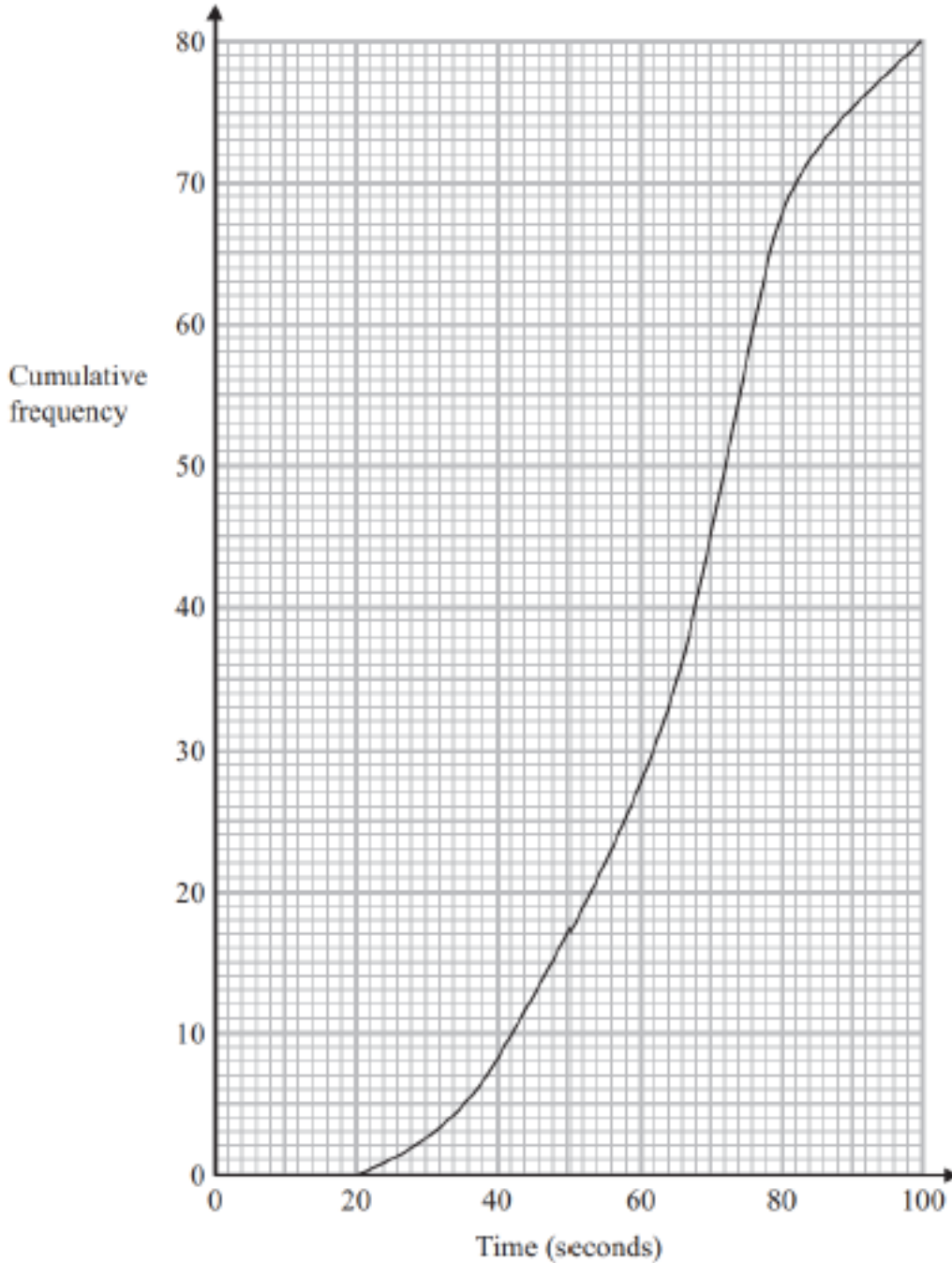


[3 marks]



Question 14

The cumulative frequency graph shows information about the times 80 swimmers take to swim 50 metres.



(a) Use the graph to find an estimate for the median time.

[1 mark]

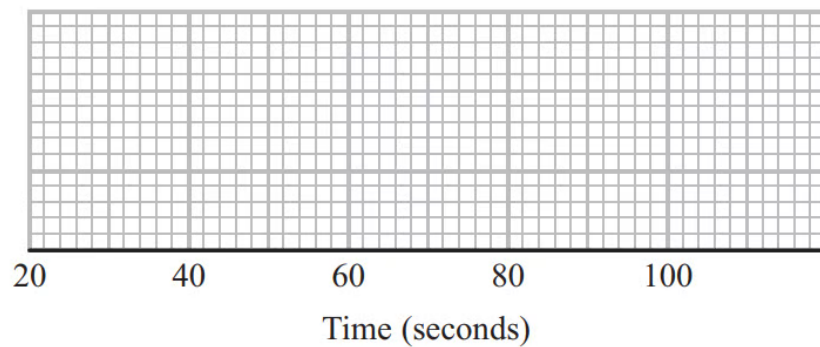


Question 15

For these 80 swimmers

the least time taken was 28 seconds
and the greatest time taken was 96 seconds.

- (c) Use the cumulative frequency graph and the information above to draw a box plot for the times taken by the swimmers.



[3 marks]