



EXAM PAPERS PRACTICE

GCSE OCR Math J560
Histograms

Question Paper

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



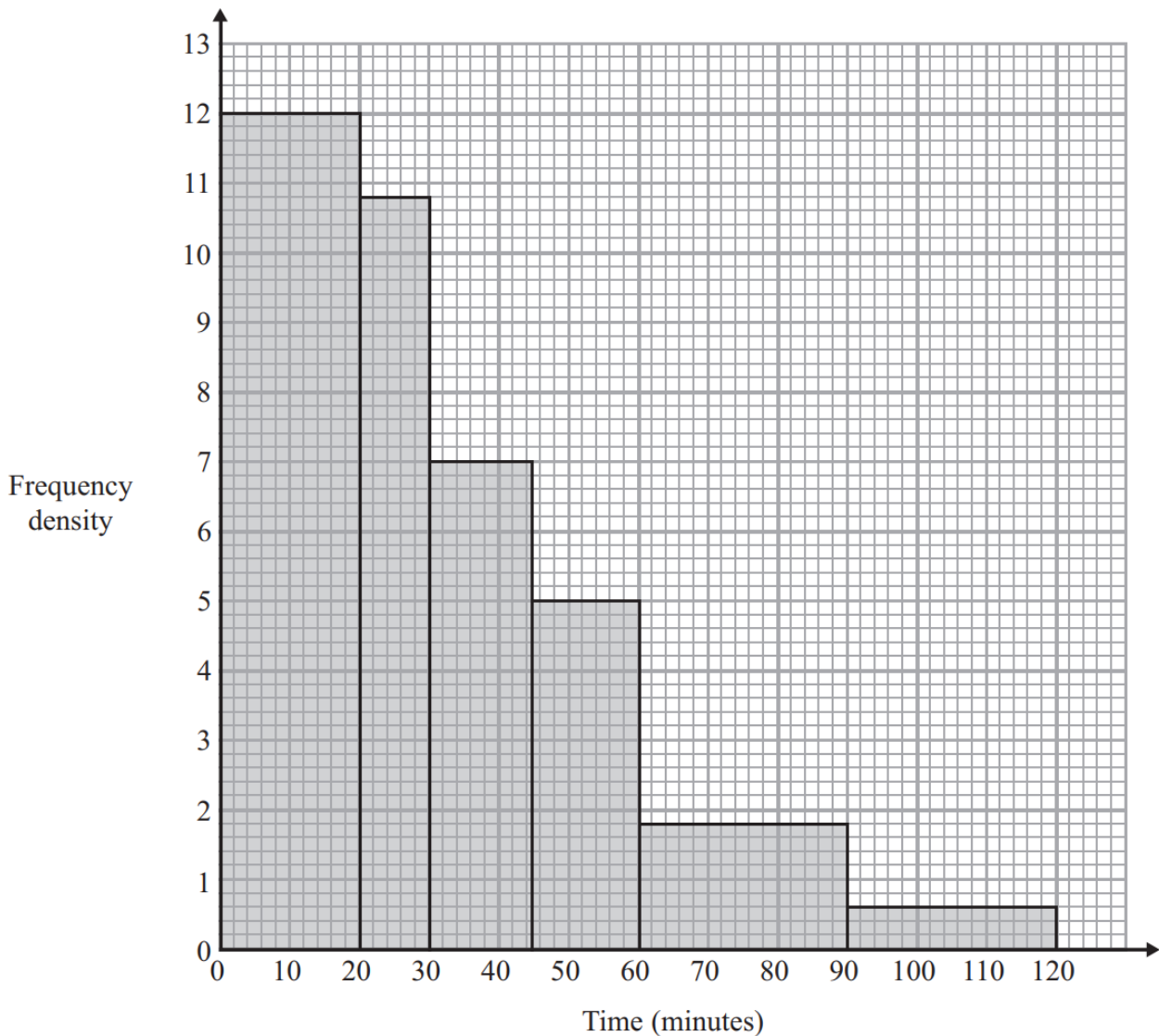
Question 1

(b) Work out an estimate for the number of cars with a speed of more than 85 km/h.

[2 marks]

Question 2

The histogram shows information about the times, in minutes, that some passengers had to wait at an airport.



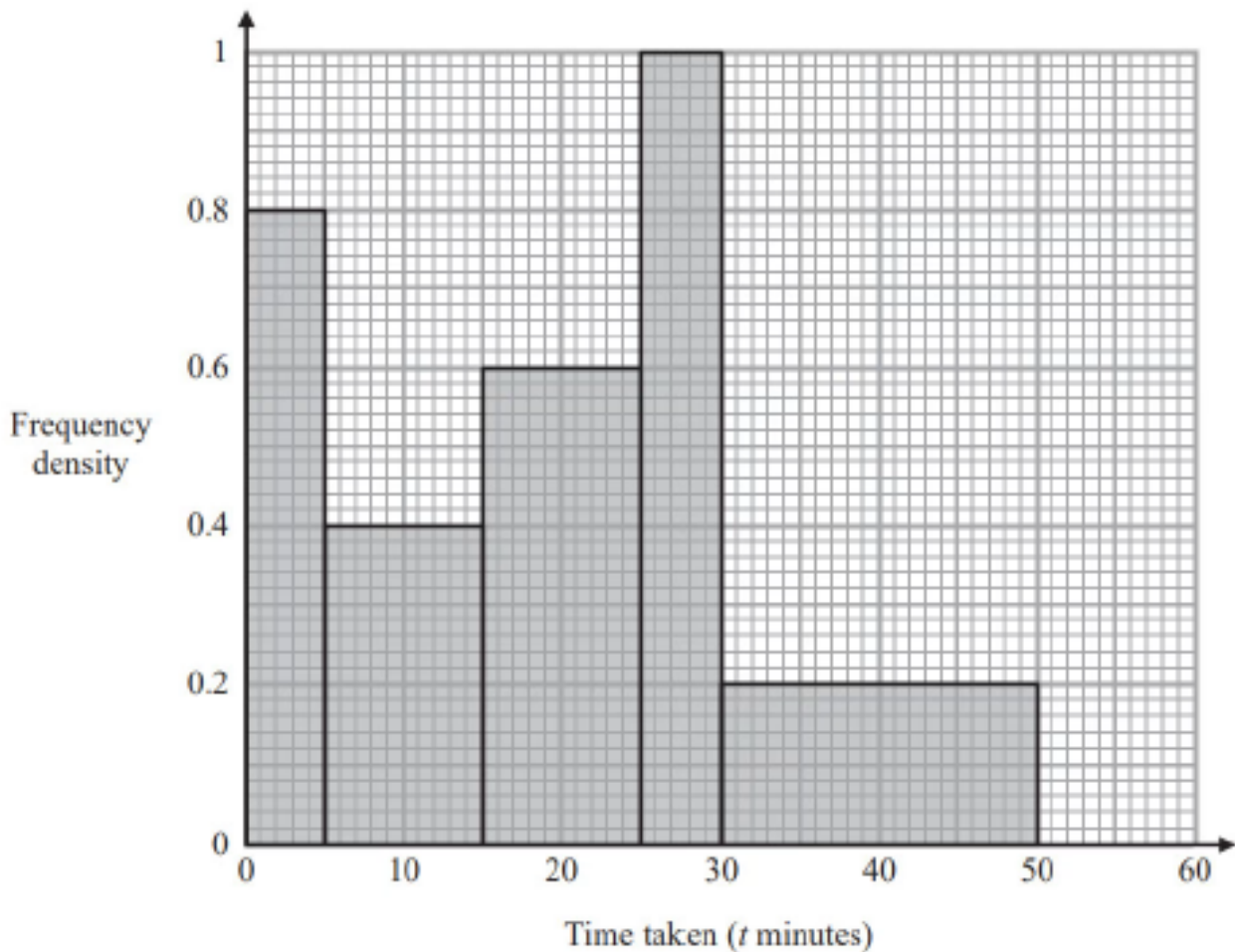
Work out the percentage of the passengers who had to wait for more than one hour.

[3 marks]



Question 3

The histogram shows information about the times taken by some students to finish a puzzle.



(a) Complete the frequency table for this information.

| Time taken (t minutes) | Frequency |
|---------------------------|-----------|
| $0 < t \leq 5$ | 4 |
| $5 < t \leq 15$ | |
| $15 < t \leq 25$ | |
| $25 < t \leq 30$ | |
| $30 < t \leq 50$ | |

[2 marks]



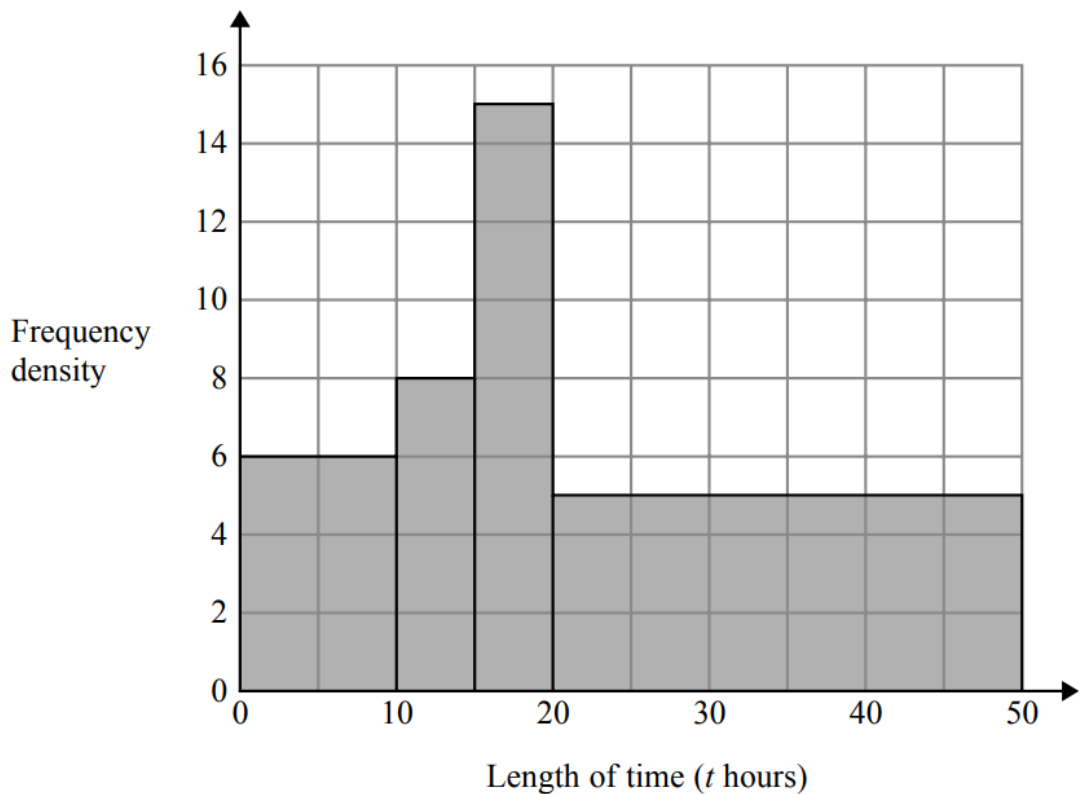
Question 4

Bhavna recorded the lengths of time, in hours, that some adults watched TV last week.

The table shows information about her results.

| Length of time (t hours) | Frequency |
|-----------------------------|-----------|
| $0 \leq t < 10$ | 6 |
| $10 \leq t < 15$ | 8 |
| $15 \leq t < 20$ | 15 |
| $20 \leq t < 40$ | 5 |

Bhavna made some mistakes when she drew a histogram for this information.



Write down **two** mistakes Bhavna made.

[2 marks]

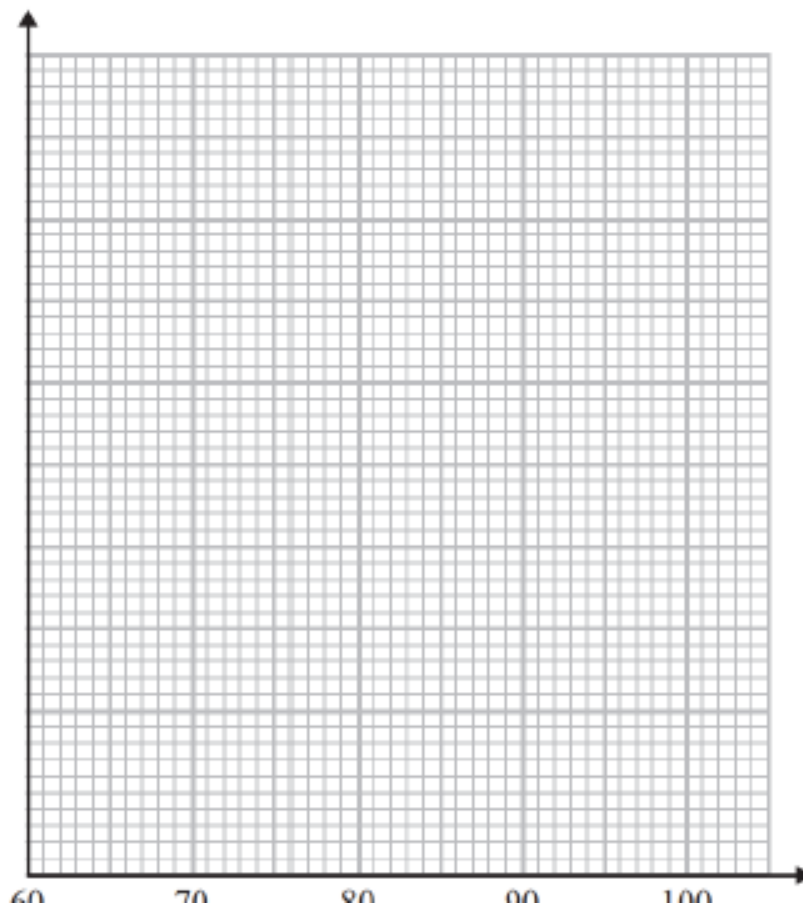


Question 5

The table gives some information about the speeds, in km/h, of 100 cars.

| Speed (s km/h) | Frequency |
|-------------------|-----------|
| $60 < s \leq 65$ | 15 |
| $65 < s \leq 70$ | 25 |
| $70 < s \leq 80$ | 36 |
| $80 < s \leq 100$ | 24 |

(a) On the grid, draw a histogram for the information in the table.

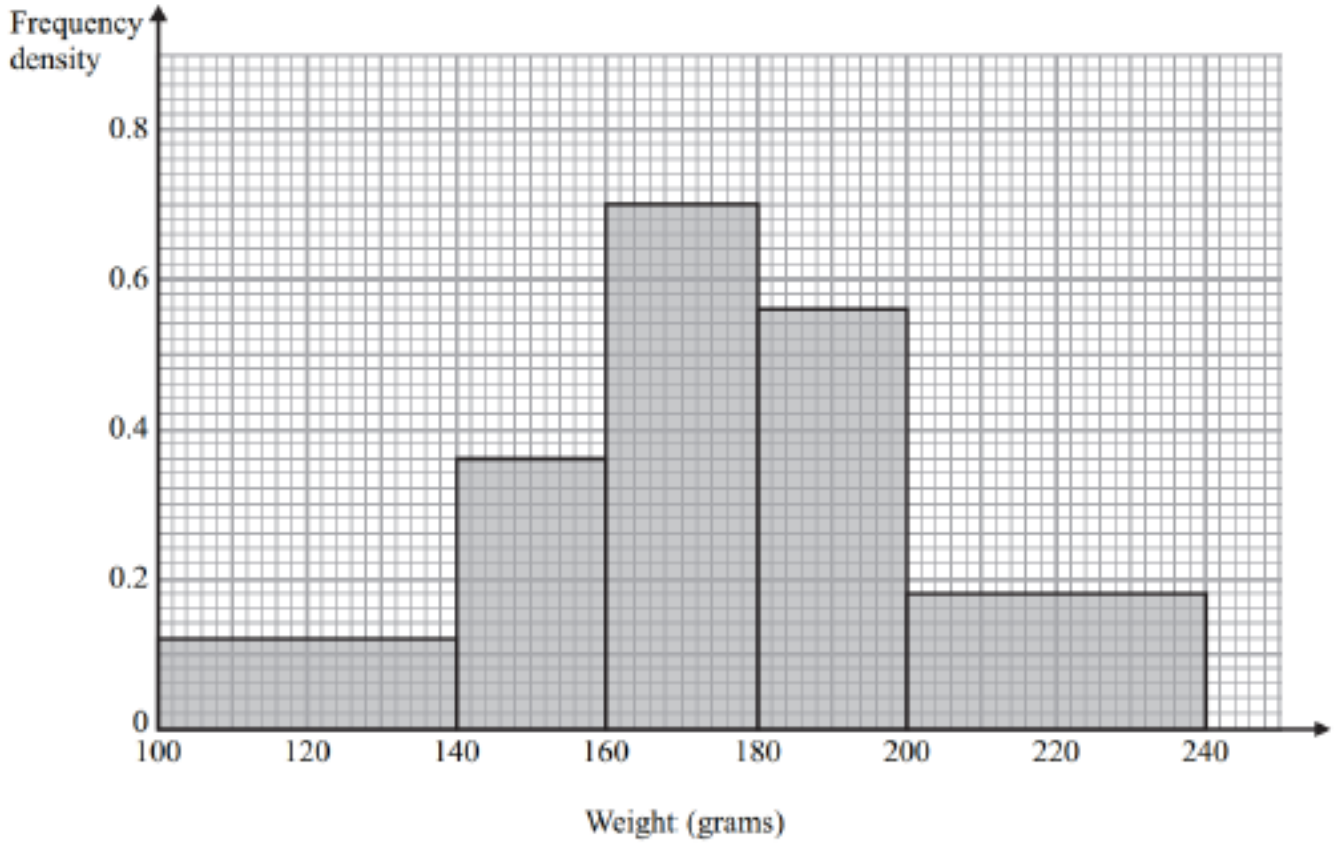


[3 marks]



Question 6

The histogram shows some information about the weights of a sample of apples.



Work out the proportion of apples in the sample with a weight between 140 grams and 200 grams.

[4 marks]



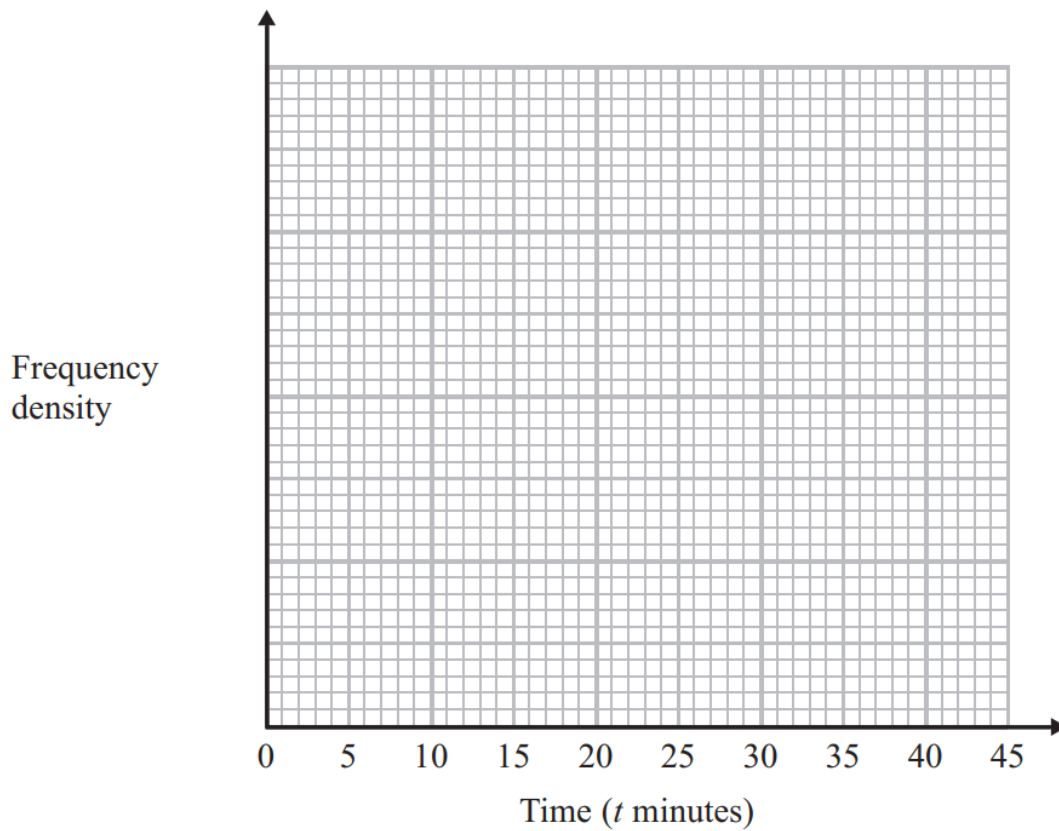
Question 7

Bill works for a computer service centre.

The table shows some information about the length of time, t minutes, of the phone calls Bill had.

| Time (t minutes) | $0 < t \leq 10$ | $10 < t \leq 15$ | $15 < t \leq 20$ | $20 < t \leq 30$ | $30 < t \leq 45$ |
|---------------------|-----------------|------------------|------------------|------------------|------------------|
| Number of calls | 12 | 15 | 13 | 18 | 3 |

On the grid, draw a histogram to show this information.



[3 marks]



Question 8

- (b) Work out the proportion of people in the sample who have a salary greater than £40 000

[2 marks]

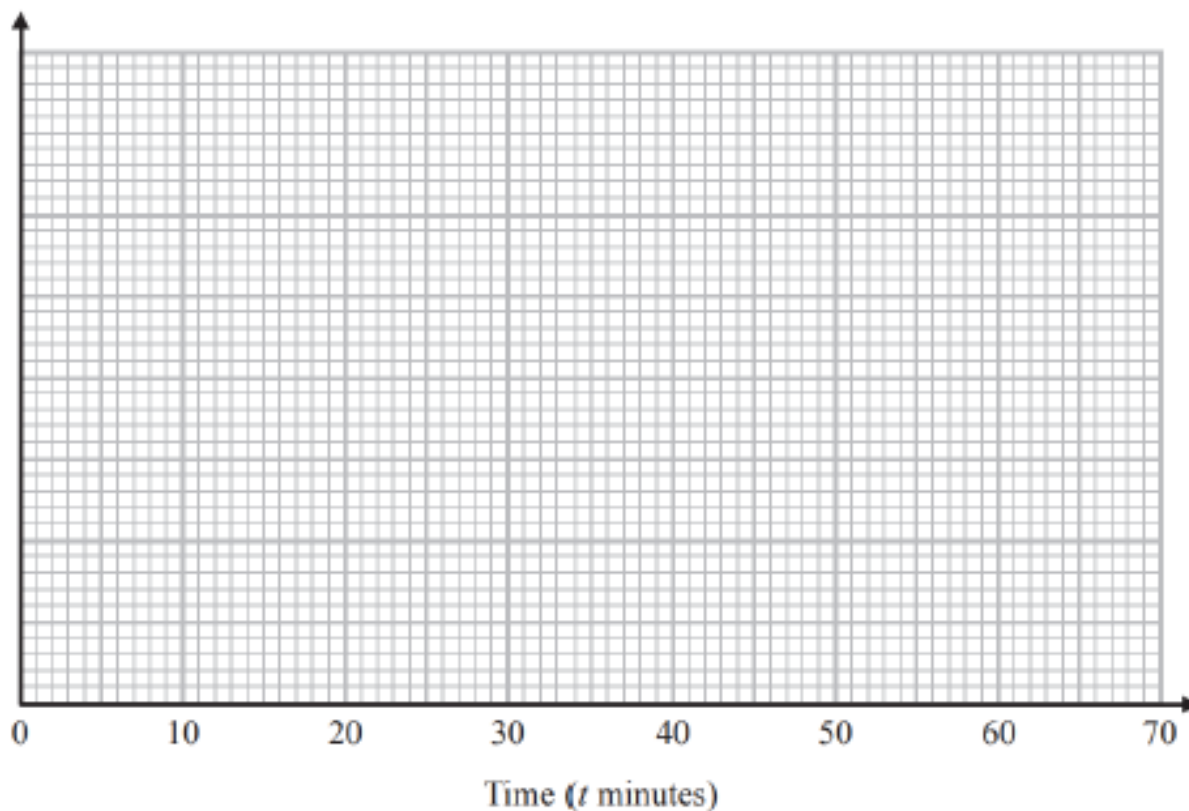


Question 9

The table gives information about the lengths of time some people were in a supermarket.

| Time (t minutes) | Frequency |
|---------------------|-----------|
| $0 < t \leq 5$ | 8 |
| $5 < t \leq 15$ | 32 |
| $15 < t \leq 30$ | 36 |
| $30 < t \leq 40$ | 18 |
| $40 < t \leq 60$ | 6 |

Draw a histogram for the information in the table.

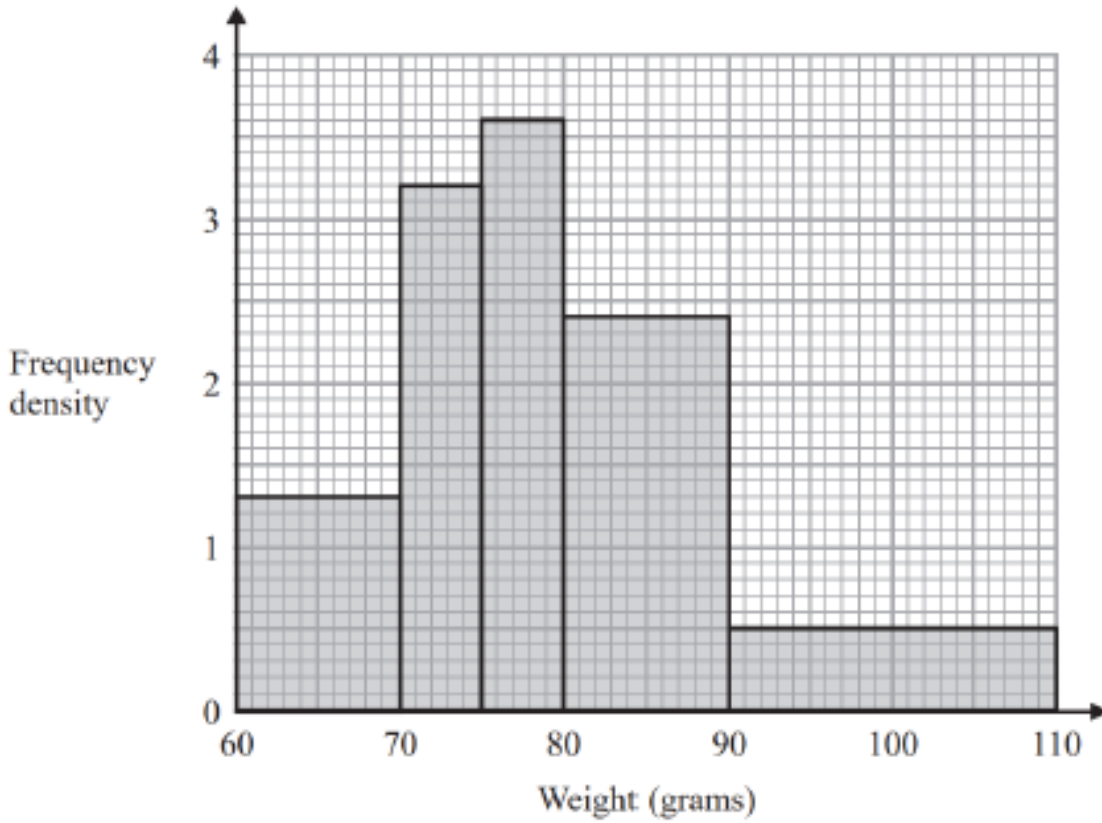


[3 marks]



Question 10

The histogram shows information about the weights, in grams, of some plums.



Work out an estimate for the proportion of these plums with a weight of less than 100 grams.

[3 marks]



Question 11

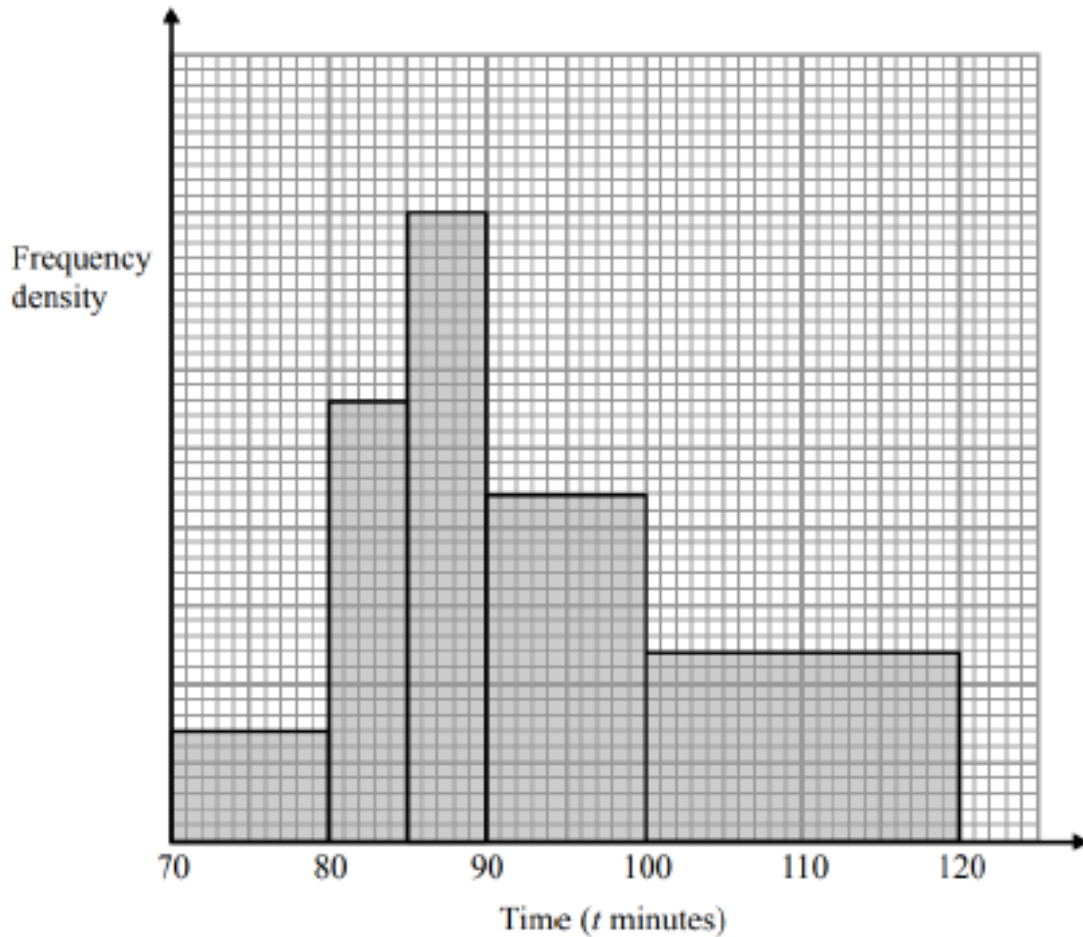
- (b) Work out an estimate for the fraction of the students who have a height between 150 cm and 170 cm.

[2 marks]



Question 12

The histogram shows information about the time taken by cyclists to finish a cycle race.



7 cyclists took 80 minutes or less to finish the race.

(i) Work out an estimate for the number of cyclists who took more than 105 minutes to finish the race.

(ii) Explain why your answer to part (i) is only an estimate.

[4 marks]



Question 13

(b) Find an estimate for the median.

[2 marks]

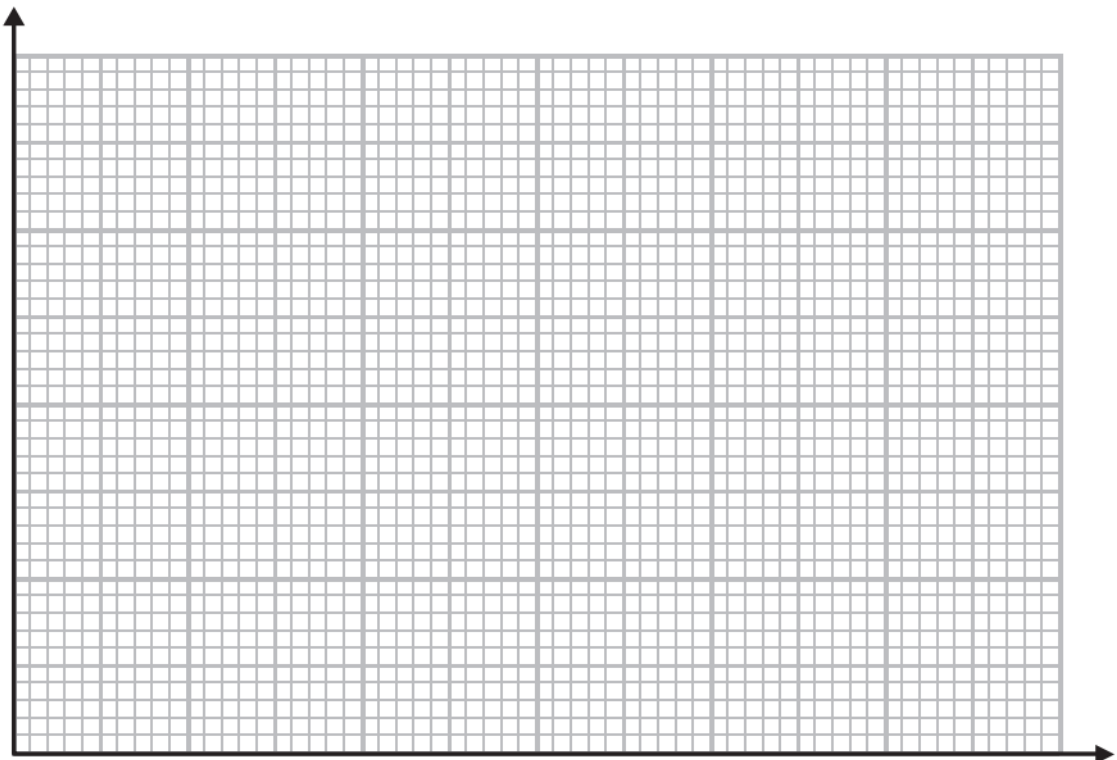


Question 14

The table gives information about the heights, h metres, of trees in a wood.

| Height (h metres) | Frequency |
|----------------------|-----------|
| $0 < h \leq 2$ | 7 |
| $2 < h \leq 4$ | 14 |
| $4 < h \leq 8$ | 18 |
| $8 < h \leq 16$ | 24 |
| $16 < h \leq 20$ | 10 |

Draw a histogram to show this information.

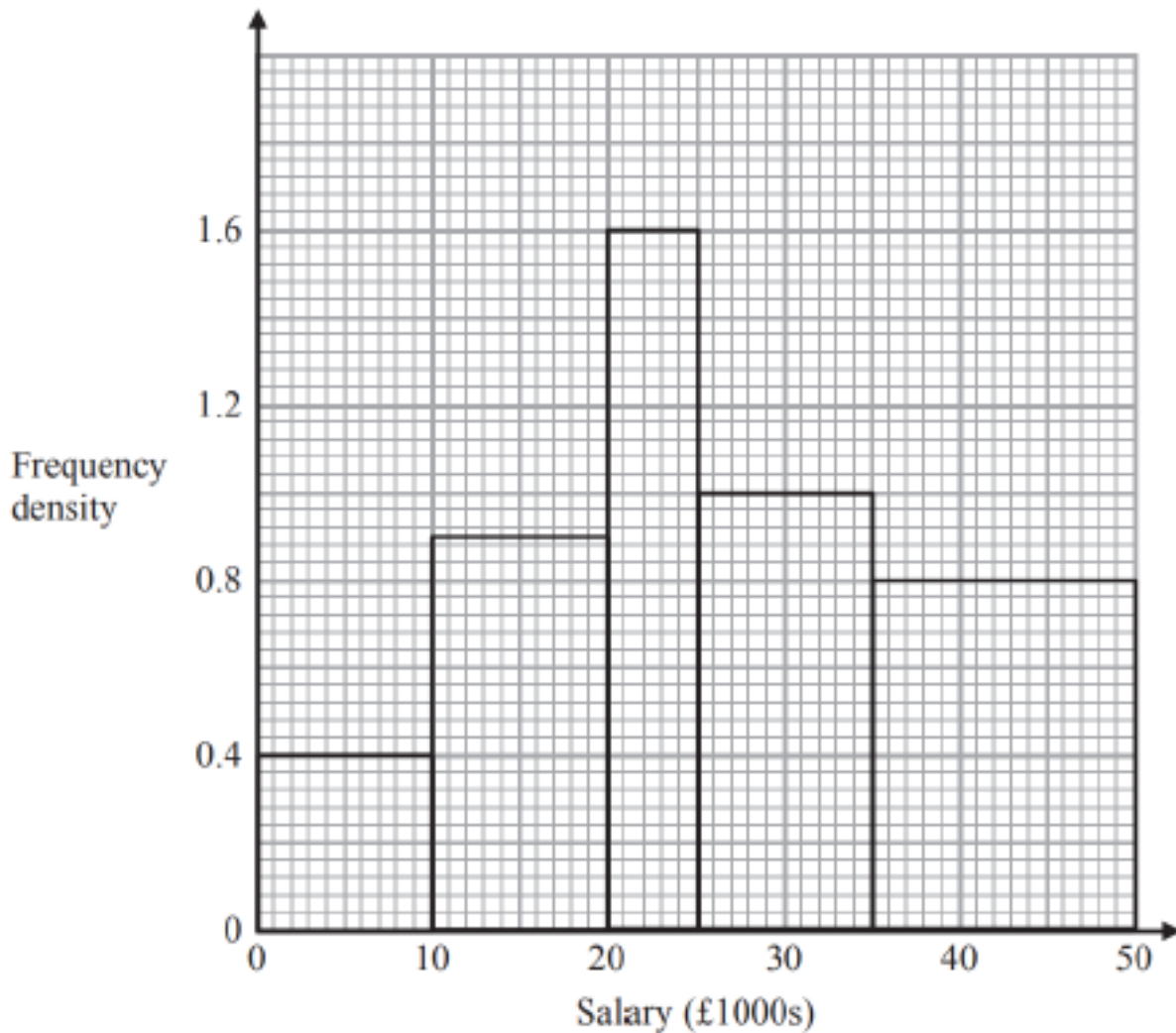


[3 marks]



Question 15

The histogram shows some information about the salaries of a sample of people.



(a) Use the histogram to complete the frequency table.

| Salary (p) in £1000s | Frequency |
|--------------------------|-----------|
| $0 < p \leq 10$ | 4 |
| $10 < p \leq 20$ | |
| $20 < p \leq 25$ | |
| $25 < p \leq 35$ | |



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| | |
|------------------|--|
| $35 < p \leq 50$ | |
|------------------|--|

[2 marks]