

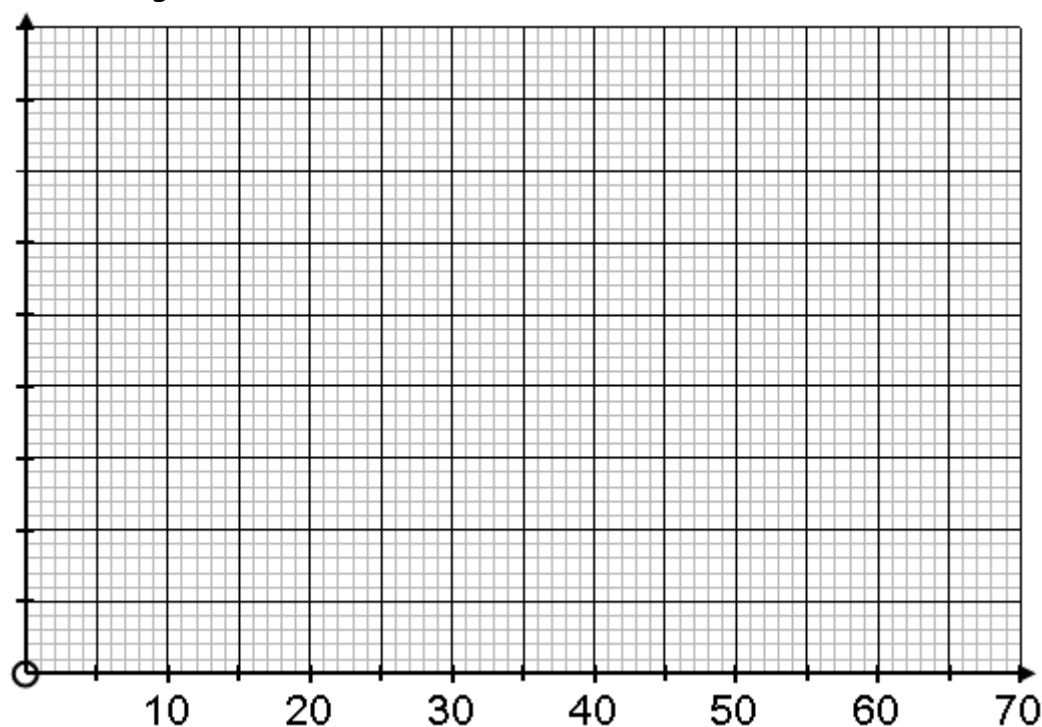
GCSE Exam Questions on Histograms

Question 1. (AQA June 2004 Higher Paper 2 Calculator OK)

The table shows the distribution of ages in a health club.

Age, y (years)	Frequency
$0 < y \leq 15$	75
$15 < y \leq 20$	350
$20 < y \leq 25$	850
$25 < y \leq 40$	750
$40 < y \leq 70$	600

(a) Draw a histogram to illustrate this data.



[3 marks]

(b) Members over 65 pay a reduced subscription.

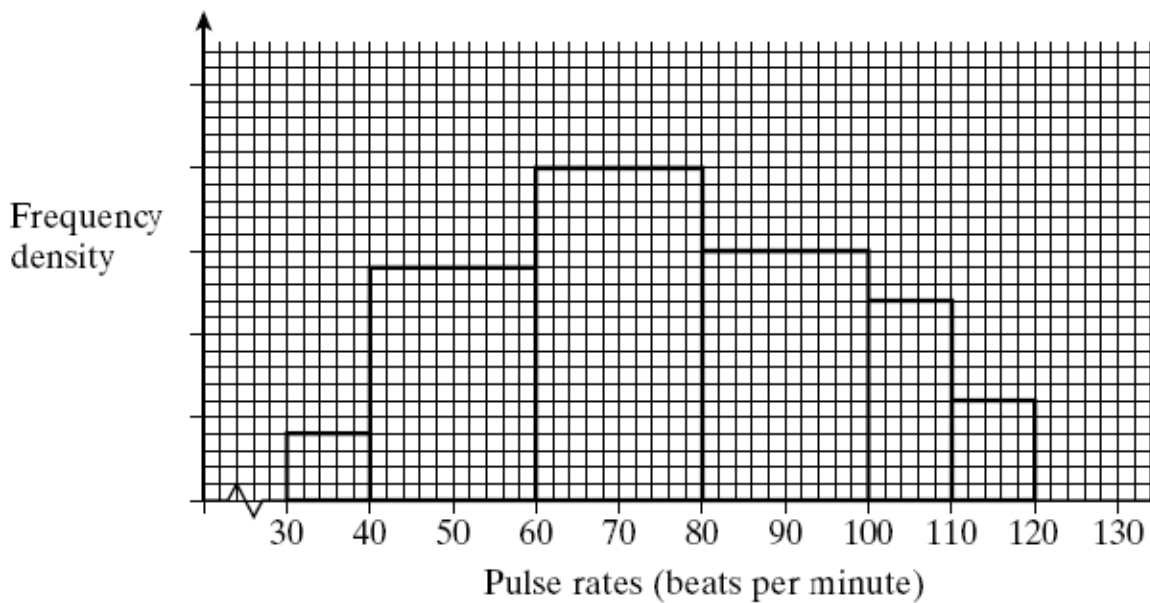
Estimate how many members are over 65.

[1 mark]

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Question 2. (AQA June 2004 Higher Paper 2 Calculator OK)

This histogram shows the pulse rates of some of the members of a health club.

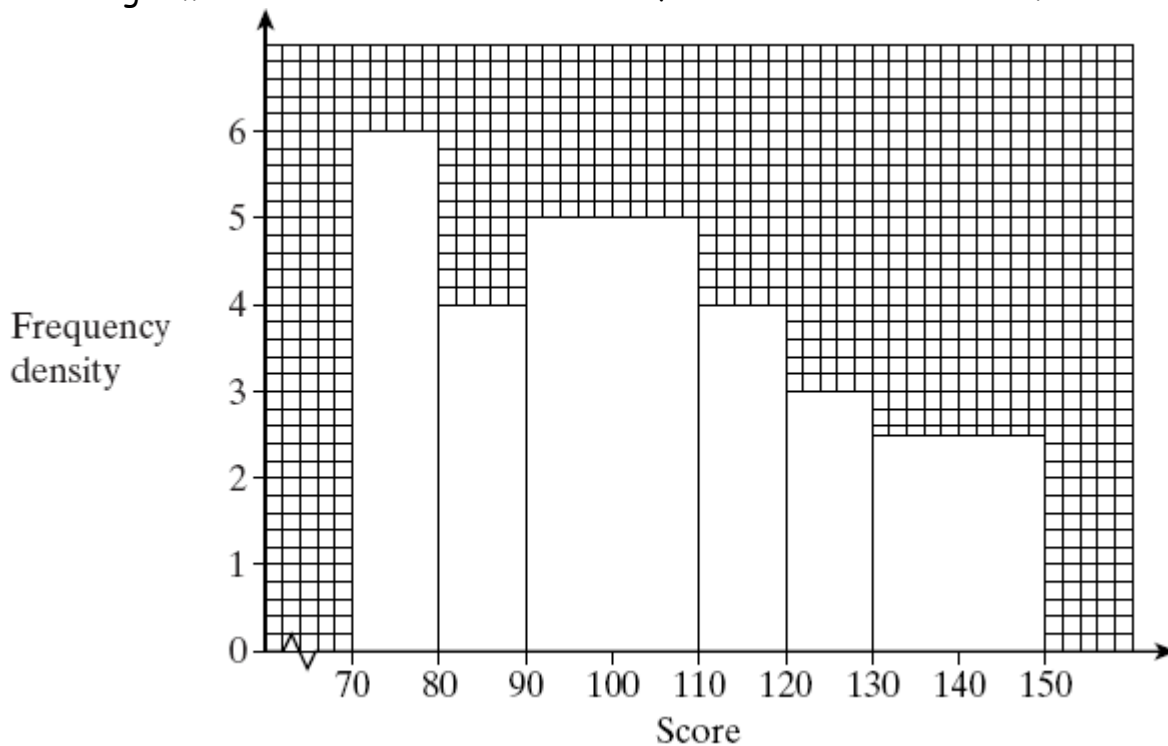


60 of the members have a pulse rate lower than 50 beats per minute.
How many members have a pulse rate greater than 90 beats per minute?

[4 marks]

Question 3. (AQA June 2005 Higher Paper 2 Calculator OK)

The histogram below shows the test scores of 320 children in a school.



(a) Find the median score.

[2 marks]

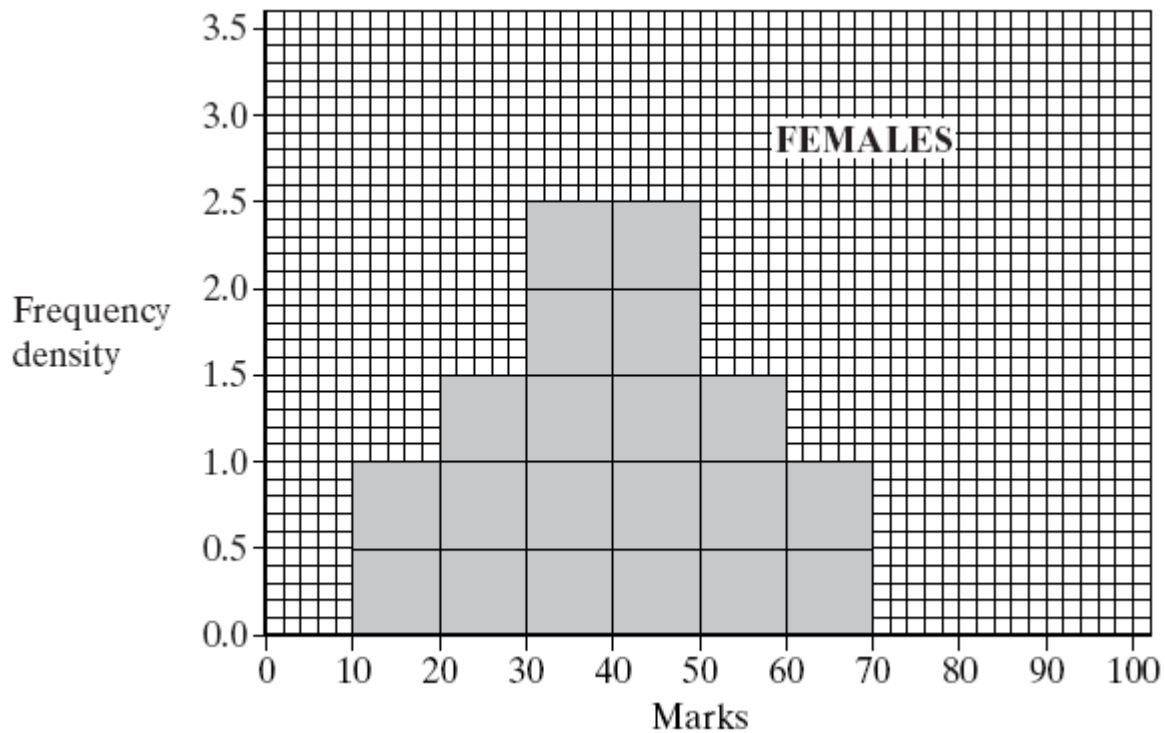
(b) Find the interquartile range of the scores.

[2 marks]

Question 4. (AQA November 2004 Higher Paper 2 Calculator OK)

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The histogram below shows the test scores of 100 female students.



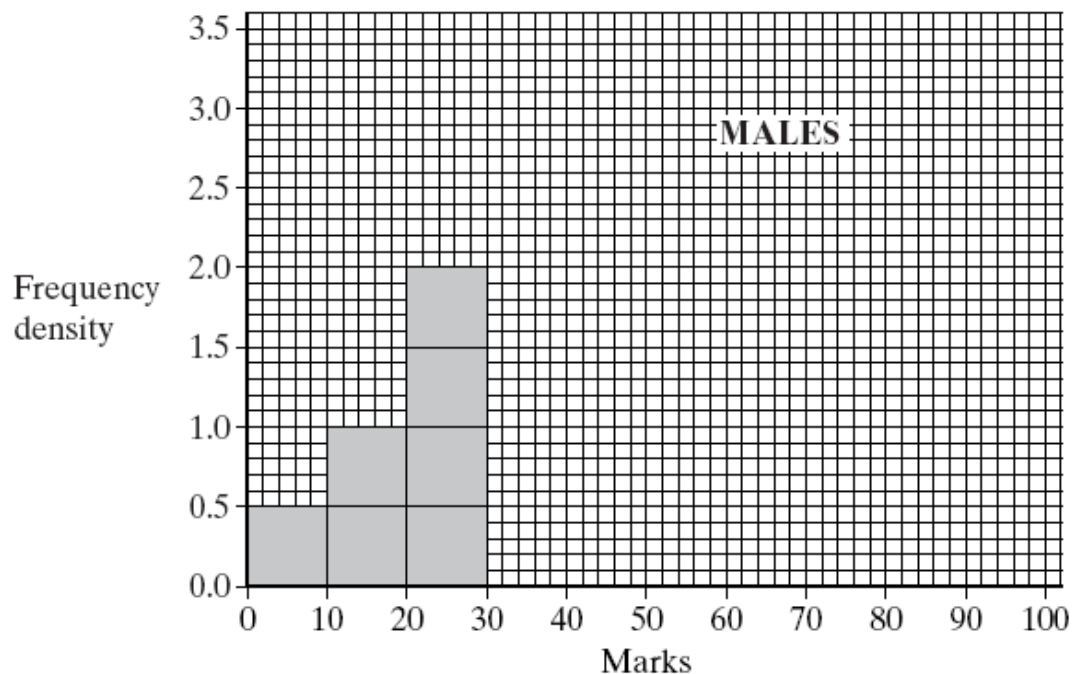
(a) What is the median score?

[1 mark]

(b) What is the interquartile range?

[1 mark]

This histogram is incomplete. It shows some of the test scores for 100 male students. The median test score for males is the same as for females. The upper quartile for the males is 50.



(c) What is the lower quartile for the male students?

[1 mark]

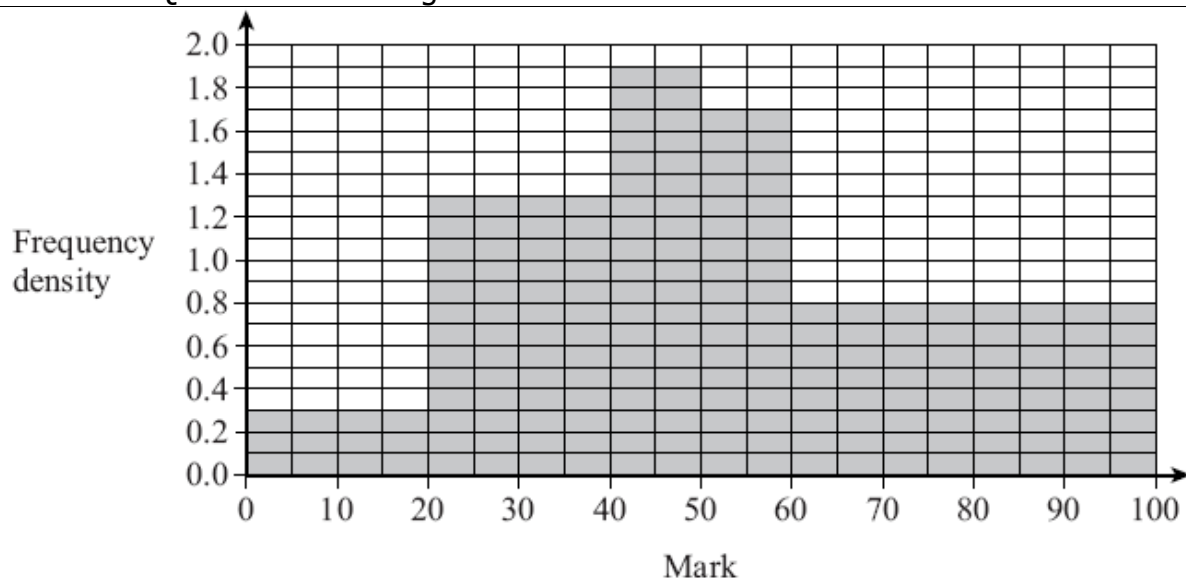
(d) Complete a possible histogram for the males on the grid above.

[2 marks]

Question 5. (AQA November 2006 Higher Paper 2 Calculator OK)

The histogram below shows the distribution of student marks for an examination.

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(a) How many students took the examination?

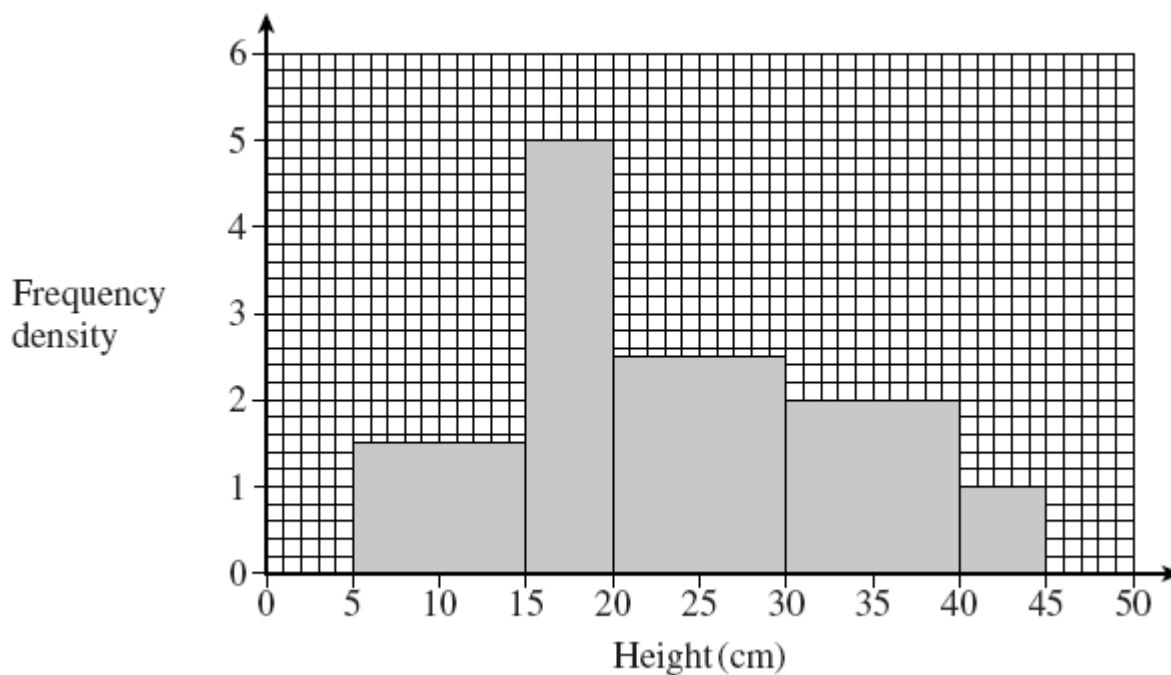
[3 marks]

(b) Calculate an estimate of the mean mark.

[4 marks]

Question 6. (AQA June 2007 Higher Paper 1 NO Calculator)

The histogram below represents the heights of plants, in cm, at a garden centre.



(a) How many plants are represented by the histogram?

[2 marks]

(b) Estimate the median height of the plants.

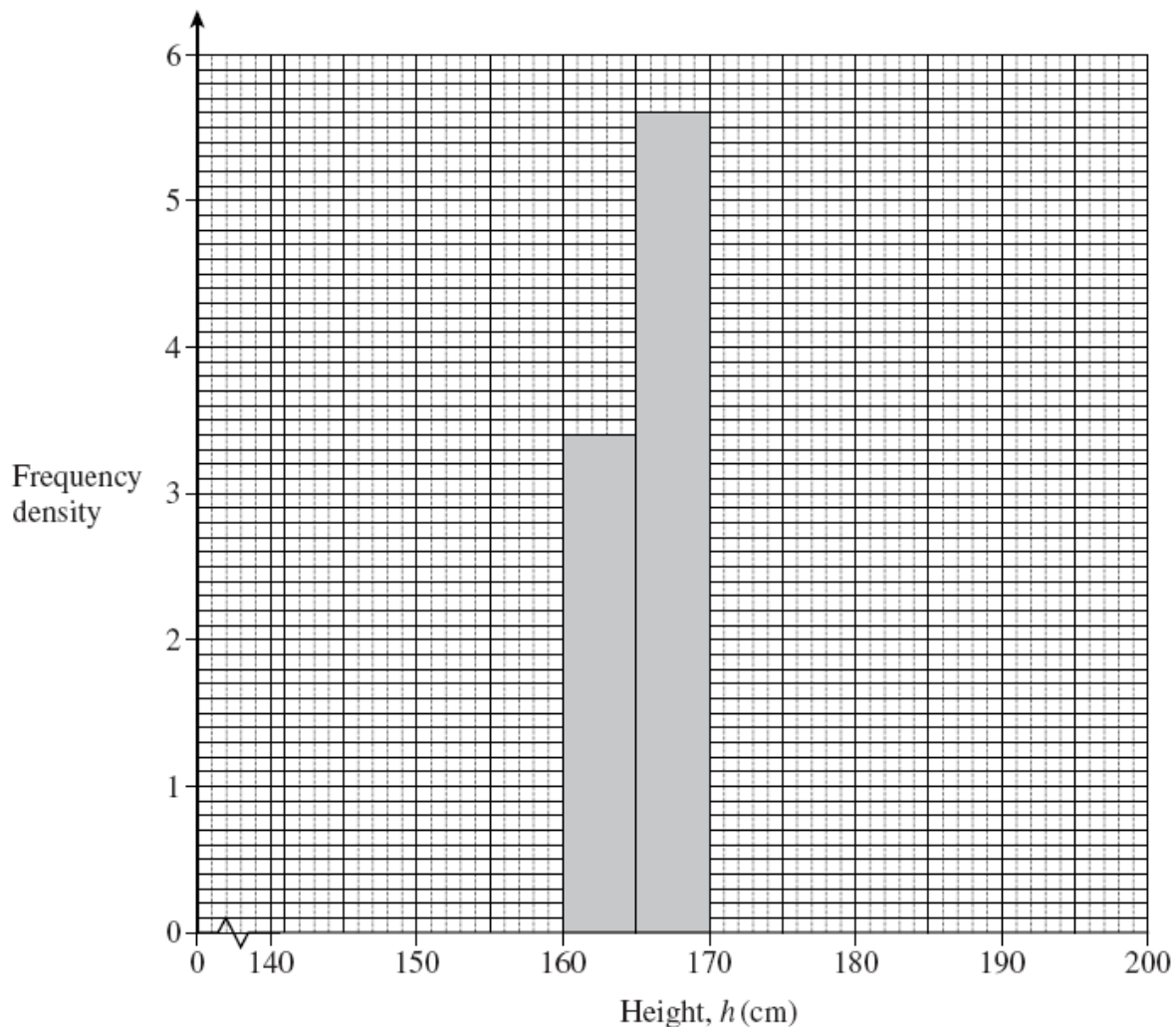
[2 marks]

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Question 7. (AQA November 2007 Higher Paper 2 Calculator OK)

The table and histogram below show the same data for the heights of 100 adults.

Height, h (cm)	$140 < h \leq 160$	$160 < h \leq 165$	$165 < h \leq 170$	$170 < h \leq 185$	$185 < h \leq 200$
Number of adults	25			18	12



Complete the table and the histogram

[4 marks]

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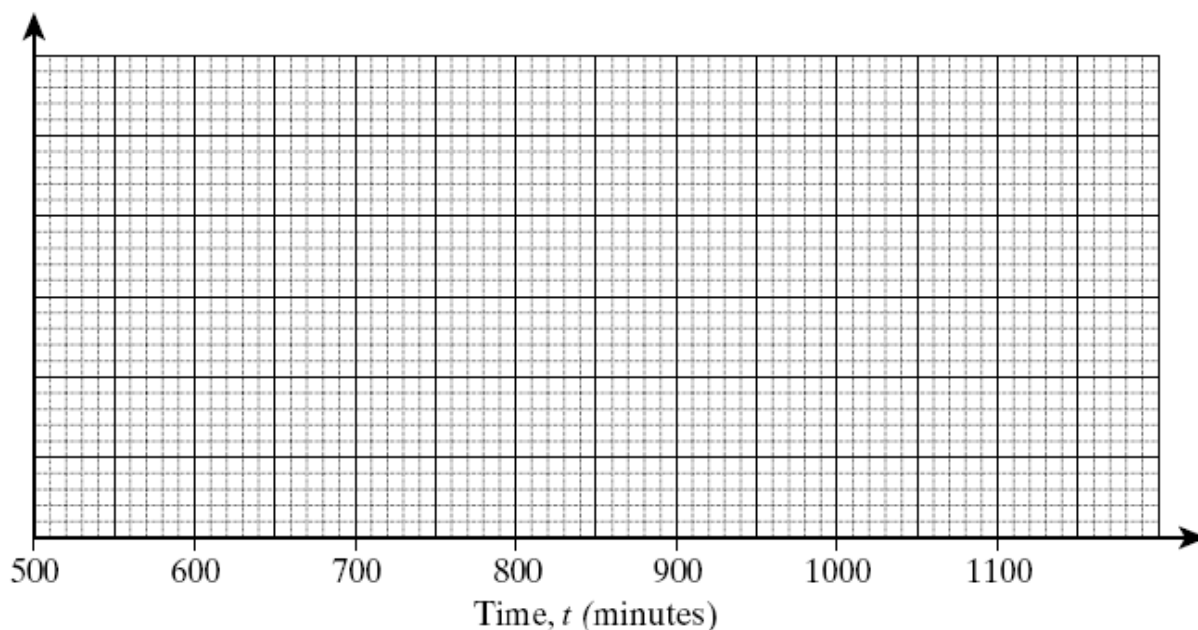
Question 8. (AQA November 2003 Higher Paper 1 NO Calculator)

Batteries are tested by putting them into toys and seeing how long they last.

The results of 60 tests are shown in the table on the right.

Time, t (minutes)	Frequency
$500 \leq t < 600$	8
$600 \leq t < 700$	15
$700 \leq t < 750$	10
$750 \leq t < 950$	18
$950 \leq t < 1150$	9

(a) Draw a histogram on the grid to show this information.



(b) Use your histogram, or otherwise, to estimate the median life of a battery.

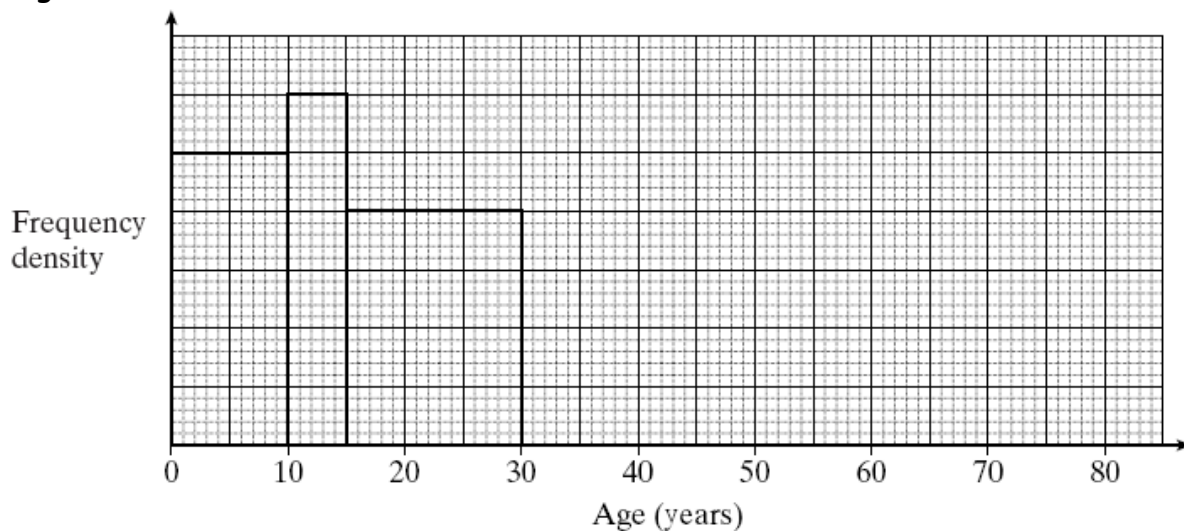
[2 marks]

GCSE Exam Questions on Histograms

Question 9. (AQA November 2005 Higher Paper 1 NO Calculator)

The histogram and the table are both incomplete.

They represent the same information about the ages of people living in a small village.



Age (years)	Frequency
$0 \leq x < 10$	50
$10 \leq x < 15$	
$15 \leq x < 30$	
$30 \leq x < 50$	60
$50 \leq x < 75$	25
$75 \leq x < 80$	20

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

[2 marks]

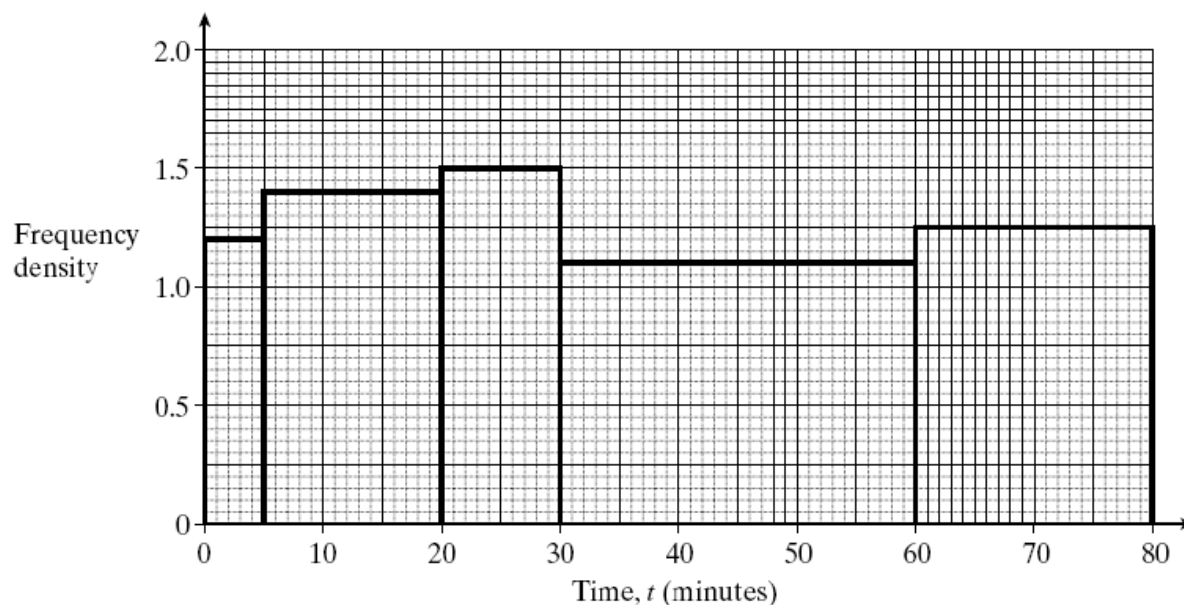
(b) Complete the histogram.

[2 marks]

GCSE Exam Questions on Histograms

Question 10. (AQA June 2003 Higher Paper 1 NO Calculator)

The histogram below shows information about how much time was spent in a supermarket by 100 shoppers.



(a) Complete the frequency table

Time, t (minutes)	$0 < t \leq 5$	$5 < t \leq 20$	$20 < t \leq 30$	$30 < t \leq 60$	$60 < t \leq 80$
Number of shoppers	6		15		25

(2 marks)

(b) 20% of the shoppers are in the supermarket for more than T minutes.
Calculate an estimate of the value of T.

[2 marks]