

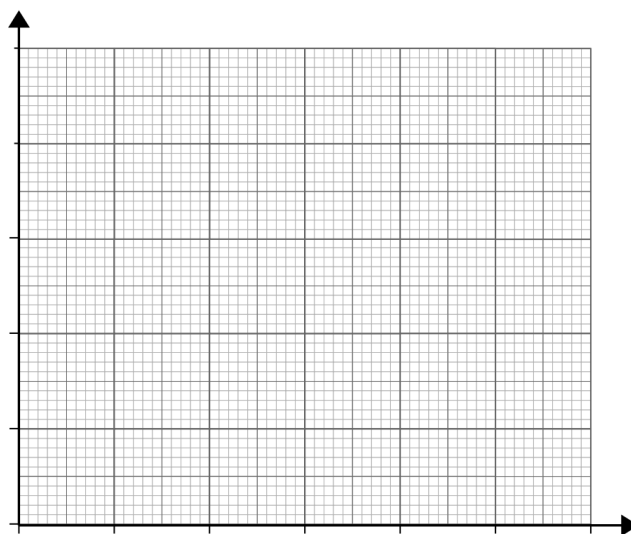


Histograms Exam Practice

Q1. The table below shows the height of some plants measured in cm.

Height of plant (to nearest cm)	Frequency	
$70 \leq h < 80$	8	
$80 \leq h < 90$	27	
$90 \leq h < 120$	45	
$120 \leq h < 140$	20	
$140 \leq h < 160$	12	

Draw a histogram on the grid below

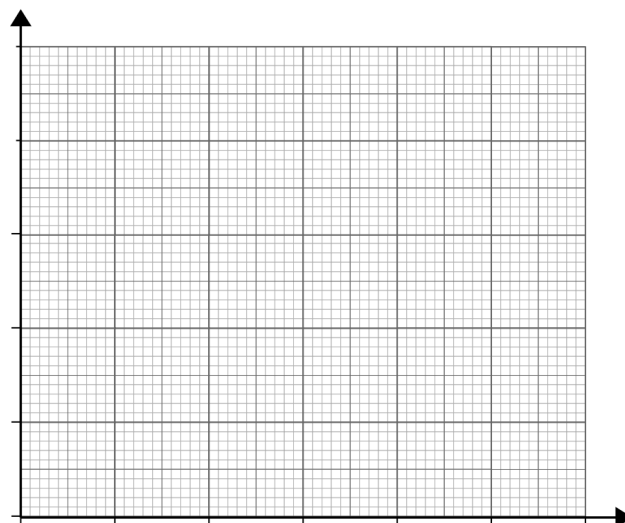


(3 marks)

Q2. The table below shows the weight of some dogs measured in kg.

Weight of a dog (Kg)	Frequency	Frequency Density
$10 \leq w < 20$	40	
$20 \leq w < 50$		0.4
$50 \leq w < 70$		1.5
$70 \leq w < 80$	25	
$80 \leq w < 110$	20	

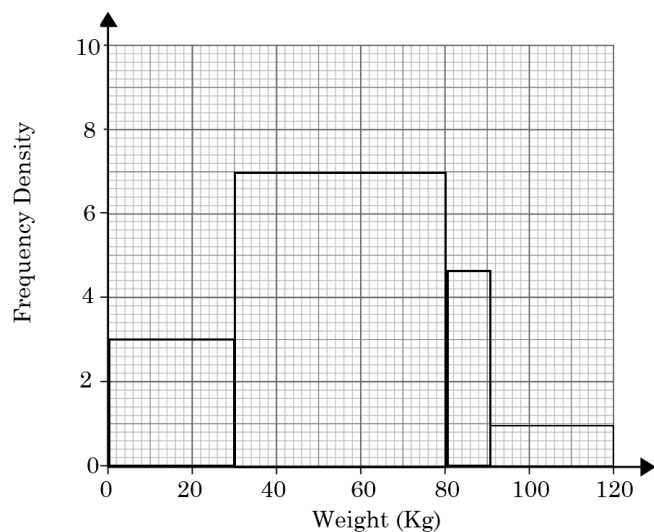
Complete the table, and draw a histogram on the grid below.



(3 marks)



Q3. The histogram below shows the distribution of the weights of some animals in a zoo.



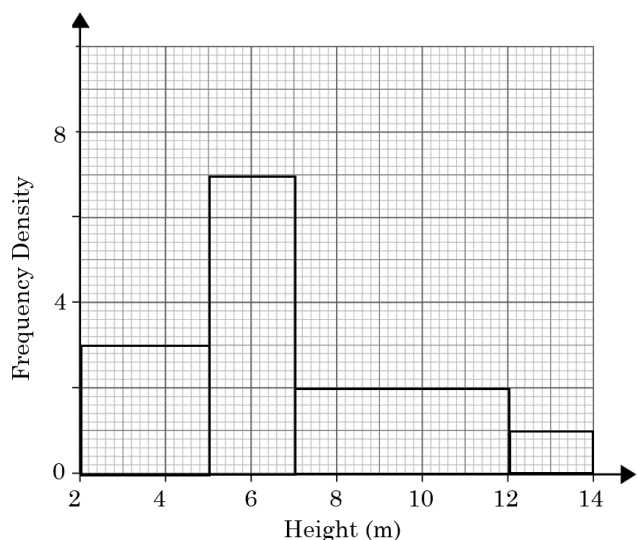
a) Work out an estimate for the number of animals which weigh between 60 kg and 110 kg

(2 marks)

b) Explain why your answers above are only estimates.

(1 mark)

Q4. The histogram shows the distribution of the heights of trees in Abbey forest.



a) Work out an estimate for the mean height of a tree

(3 marks)

b) Work out an estimate for the interquartile range

(4 marks)

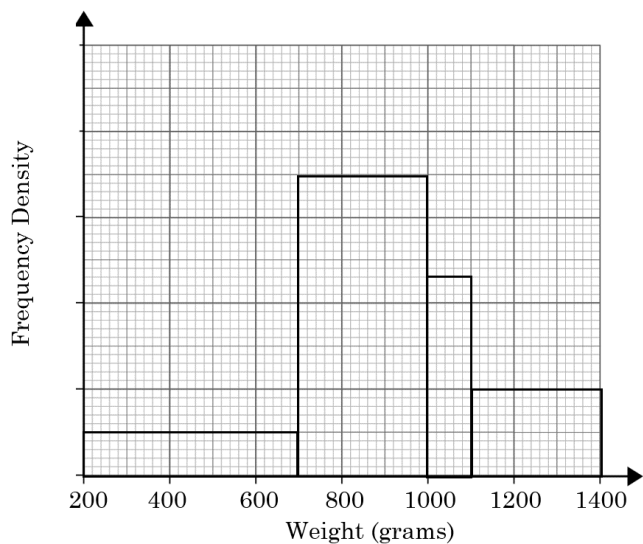
c) The interquartile range in Broadley woods is 20.3. Compare the distribution of the trees in each wood.

(1 mark)



Q5. The histogram shows the distribution of pineapples in a food warehouse.

Work out an estimate for the proportion of pineapples which weigh more than 0.940 kg

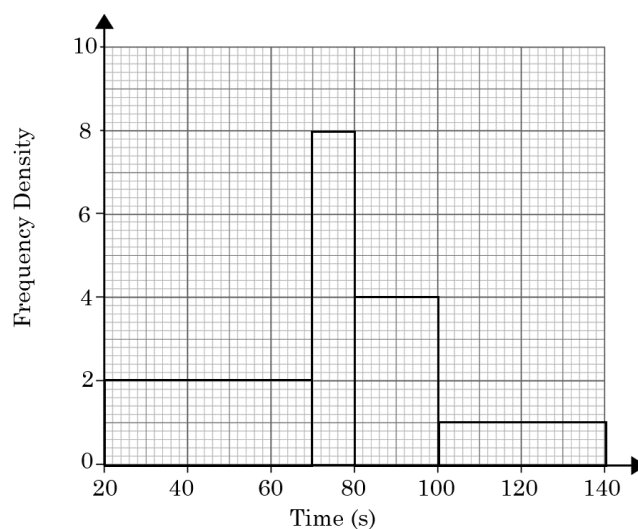


(3 marks)

Q6. An educational psychologist investigated the time taken by some pupils to complete a word puzzle.

The results showed that 30 students took between 70 and 90 seconds.

Use this information to complete both the table and the histogram on the grid below.



Time taken	Freq	Freq. Density
$20 \leq s < 70$		
$70 \leq s < 80$		
$80 \leq s < 100$		
$100 \leq s < 140$		

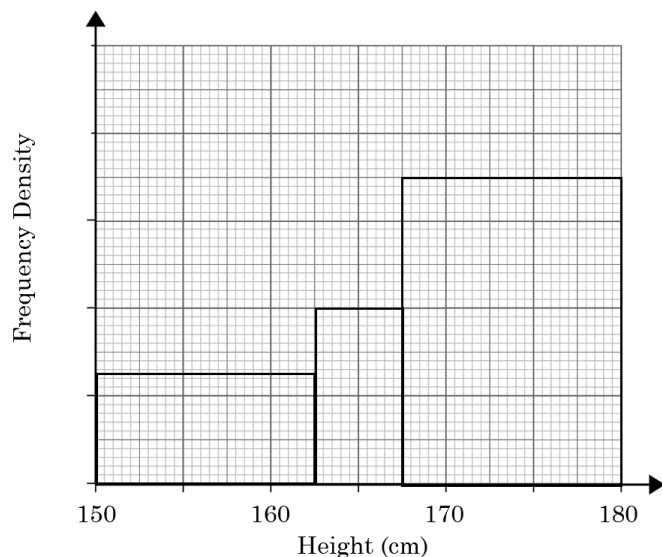
(4 marks)



Q7. In Colebridge, the height of every adult female is recorded.

The median height of a woman in Colebridge is 170 cm, where the population of adult women is 560.

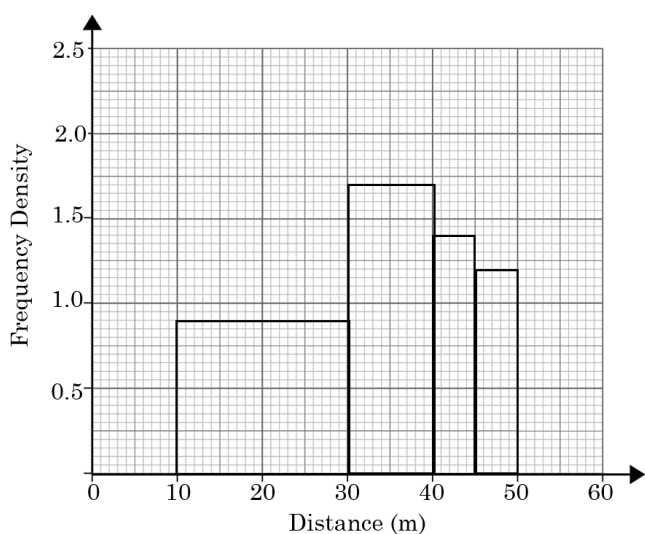
Estimate the number of women who are taller than 160 cm.



(4 marks)

Q8. 48 athletes took part in a discus competition, and the distances they managed to throw the discus are shown by the histogram below:

a) Complete the frequency table below



Distance thrown (m)	Frequency
$10 \leq d < 30$	
$30 \leq d < 35$	
$35 \leq d < 40$	
$40 \leq d < 45$	

(3 marks)

b) 25% of the athletes threw the discus further than d metres. Calculate an estimate of d .

(2 marks)