

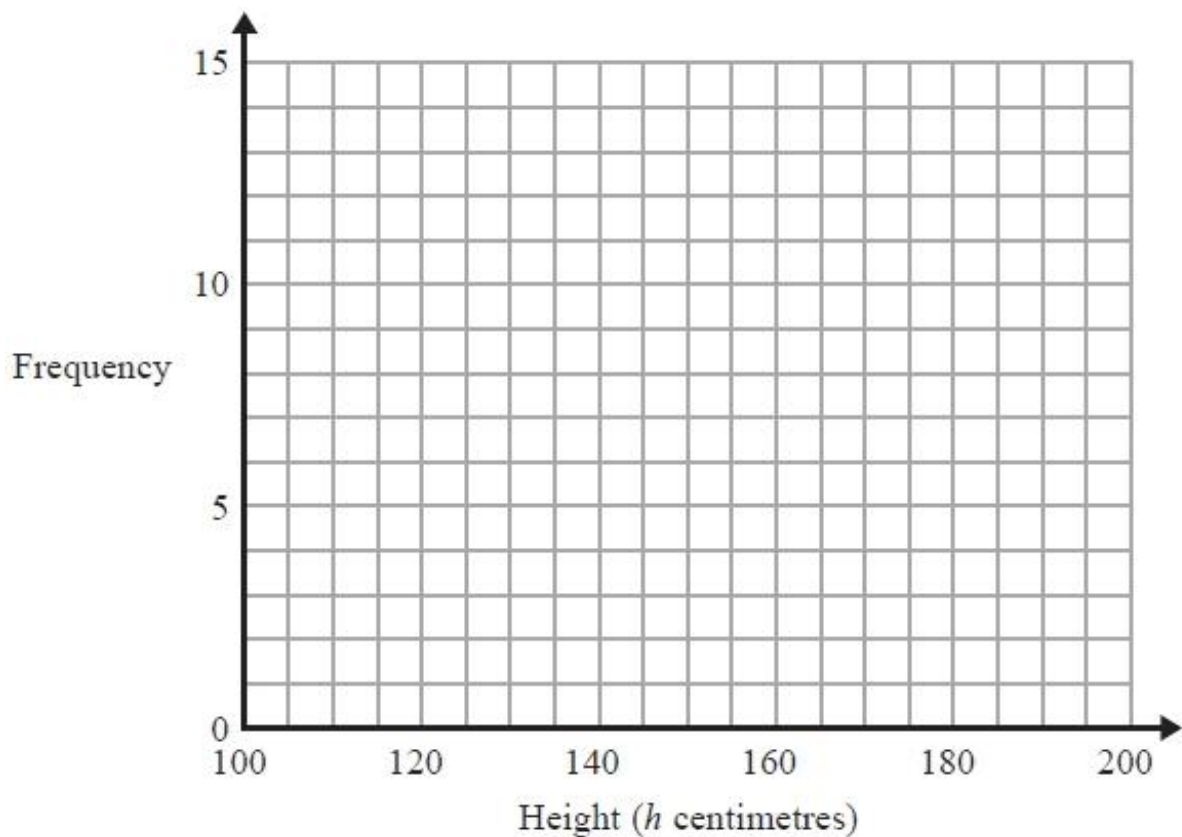
Delta 3 – Unit 4 Revision Questions

Q1.

The table shows information about the heights, in centimetres, of 30 sunflower plants.

Height (h centimetres)	Frequency
$100 < h \leq 120$	2
$120 < h \leq 140$	6
$140 < h \leq 160$	7
$160 < h \leq 180$	12
$180 < h \leq 200$	3

(a) On the grid, draw a frequency polygon for this information.



(2)

(b) Write down the modal class interval.

.....

(1)

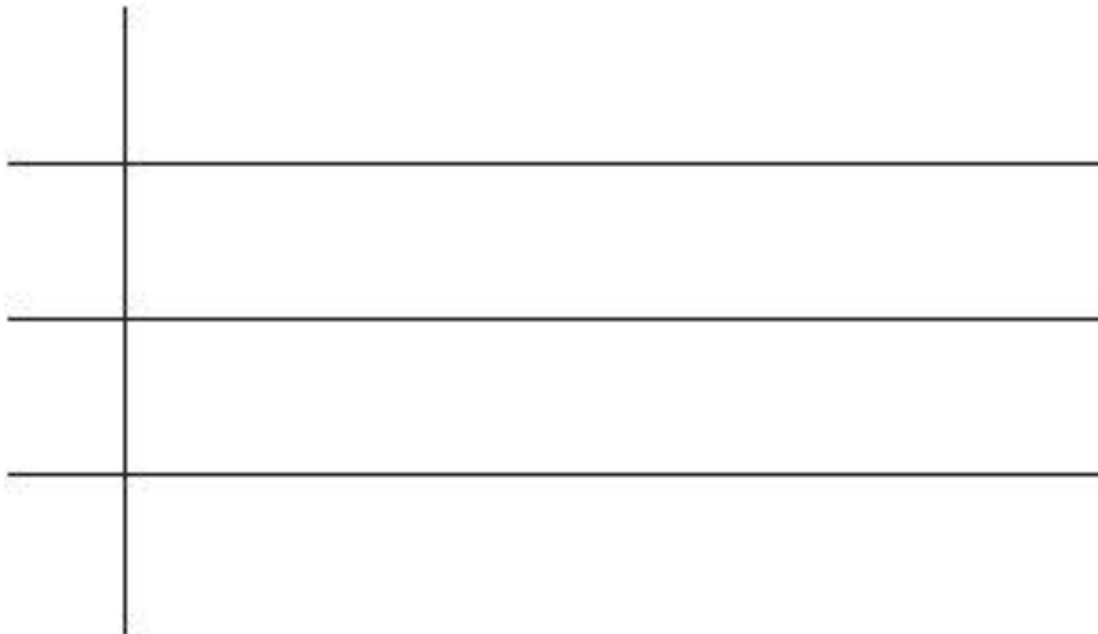
(Total for question = 3 marks)

Q2.

Chloe recorded the test marks of 20 students.

22	29	38	16	36	18	30	21	27	43
14	41	25	38	46	19	48	34	23	46

(a) Show this information in an ordered stem and leaf diagram.



(3)

One of these students is going to be chosen at random.

(b) Find the probability that this student has a test mark less than 28

.....

(2)
(Total for question = 5 marks)

Q3.

The table shows information about the weekly earnings of 20 people who work in a shop.

Weekly earnings (£ x)	Frequency
$150 < x \leq 250$	1
$250 < x \leq 350$	11
$350 < x \leq 450$	5
$450 < x \leq 550$	0
$550 < x \leq 650$	3

(a) Work out an estimate for the mean of the weekly earnings.

£
(3)

Nadiya says,

"The mean may **not** be the best average to use to represent this information."

(b) Do you agree with Nadiya?

You must justify your answer.

.....
.....

(1)
(Total for question = 4 marks)

Q4.

The table shows information about the ages of 90 employees in a factory.

Age (a years)	Frequency
$15 < a \leq 25$	12
$25 < a \leq 35$	27
$35 < a \leq 45$	18
$45 < a \leq 55$	23
$55 < a \leq 65$	10

Age (a years)	Frequency
$15 < a \leq 25$	
$25 < a \leq 35$	
$35 < a \leq 45$	
$45 < a \leq 55$	
$55 < a \leq 65$	

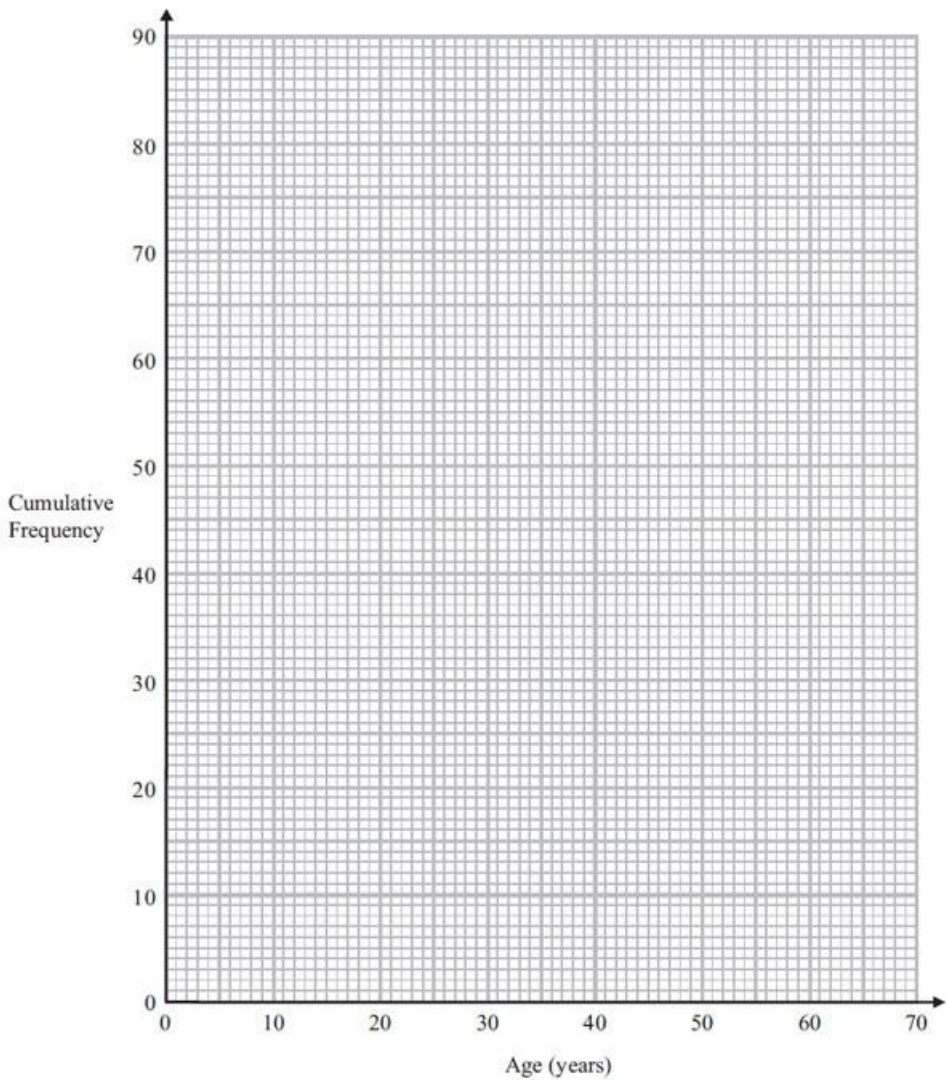
(a) Calculate an estimate for the mean age.

(4)

(b) Complete the cumulative frequency table.

(1)

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



(d) Find an estimate for

- (i) the median age,
- (ii) the number of the employees over the age of 50

(3)

Total for Question is 10 marks)

Q5.

Lyndsey records the number of miles (m) she drives each day for 120 days.

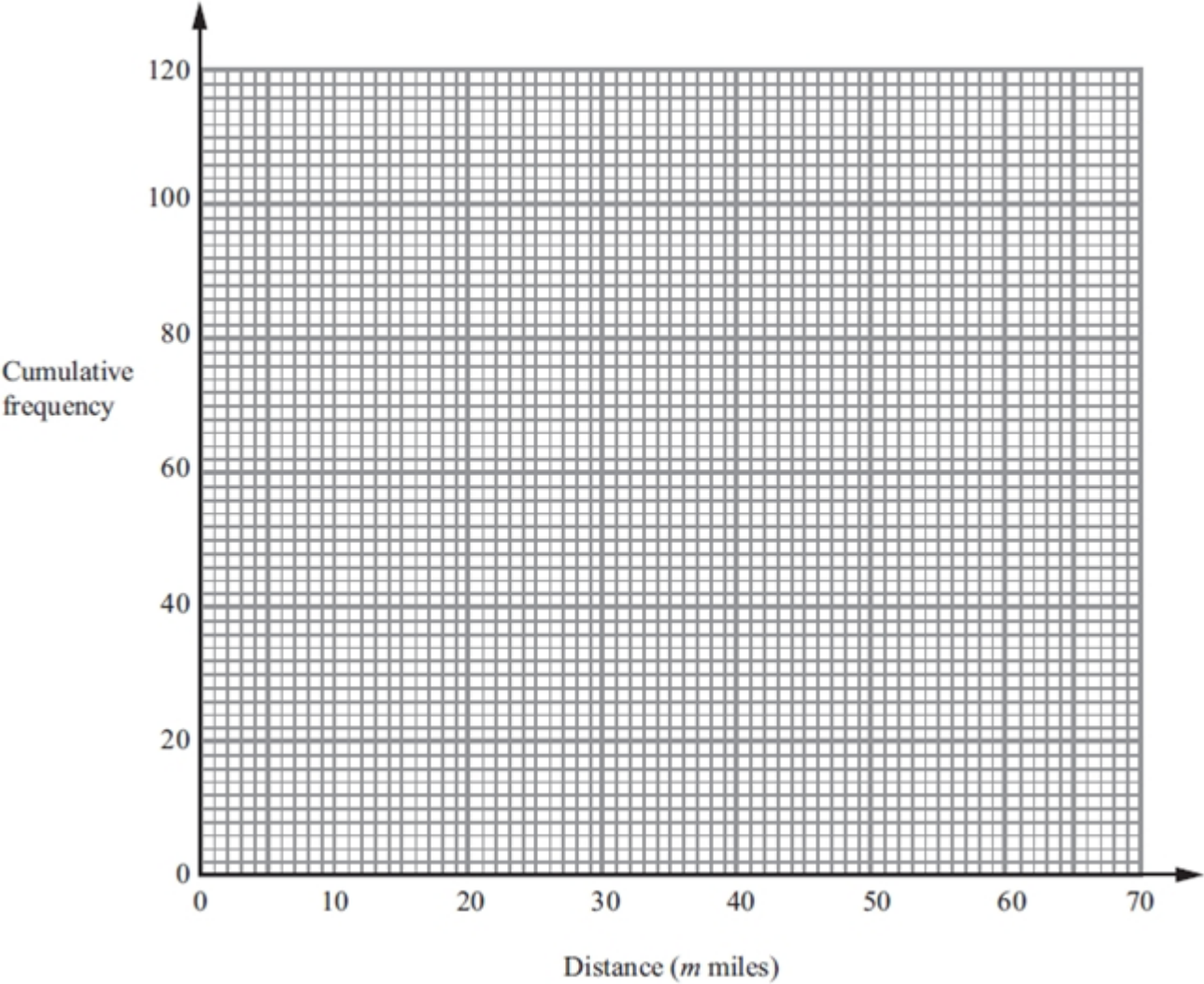
Some information about the results is given in the table.

Distance (m miles)	Frequency
$0 < m \leq 10$	4
$10 < m \leq 20$	18
$20 < m \leq 30$	24
$30 < m \leq 40$	40
$40 < m \leq 50$	24
$50 < m \leq 60$	10

(a) Complete the cumulative frequency table.

Distance (m miles)	Cumulative frequency
$0 < m \leq 10$	
$0 < m \leq 20$	
$0 < m \leq 30$	
$0 < m \leq 40$	
$0 < m \leq 50$	
$0 < m \leq 60$	

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



(2)

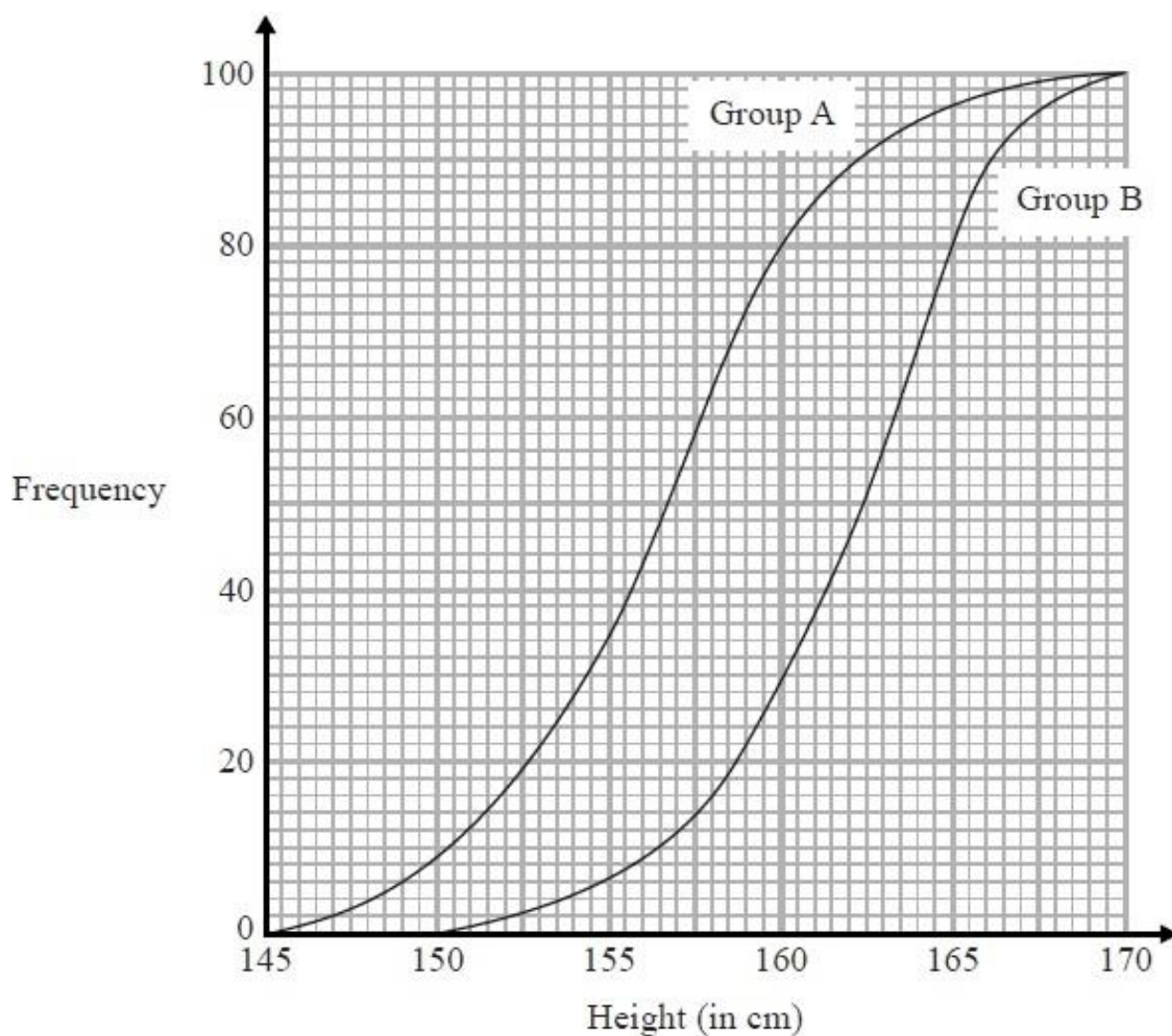
(c) Work out an estimate for the number of days on which Lyndsey drives more than 36 miles.

.....days

(2)

(Total for Question is 5 marks)

Q6.
 The cumulative frequency graphs give information about the heights of two groups of children, group A and group B.



Compare the heights of the children in group A and the heights of the children in group B.

.....

.....

.....

.....

.....

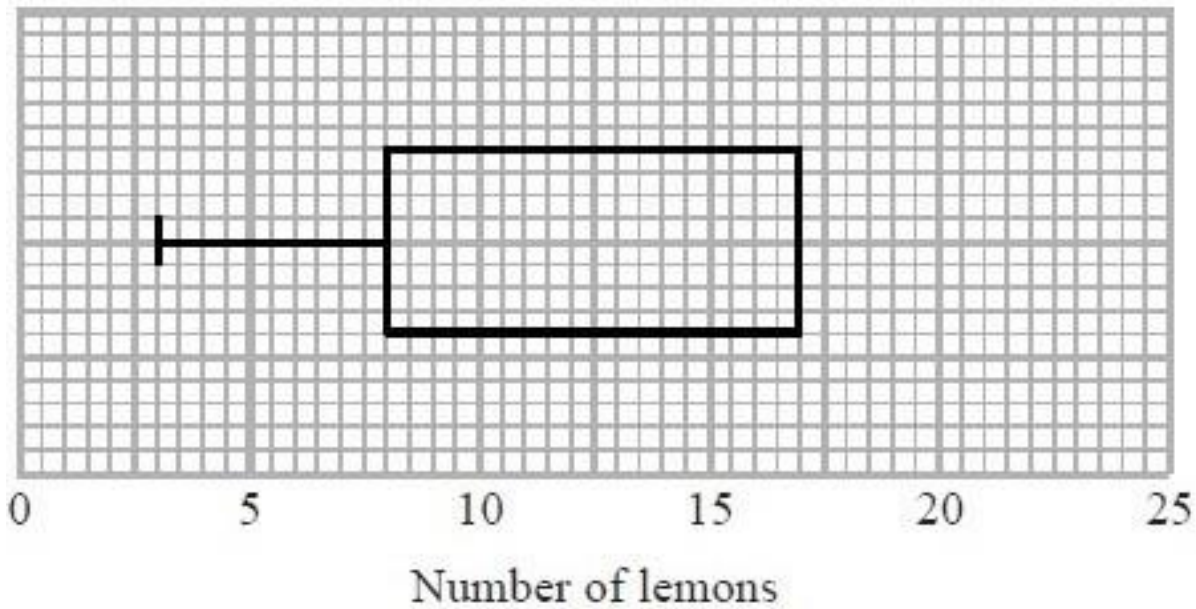
.....

(Total for Question is 2 marks)

Q7.

Presta recorded the number of lemons on each of 60 lemon trees.
The incomplete table and box plot give information about her results.

	Number of lemons
Smallest number	
Lower quartile	8
Median	11
Upper quartile	
Greatest number	22



(a) (i) Use the information in the table to complete the box plot.

(ii) Use the information in the box plot to complete the table.

(3)

Some of these 60 lemon trees have 8 or more lemons on them.

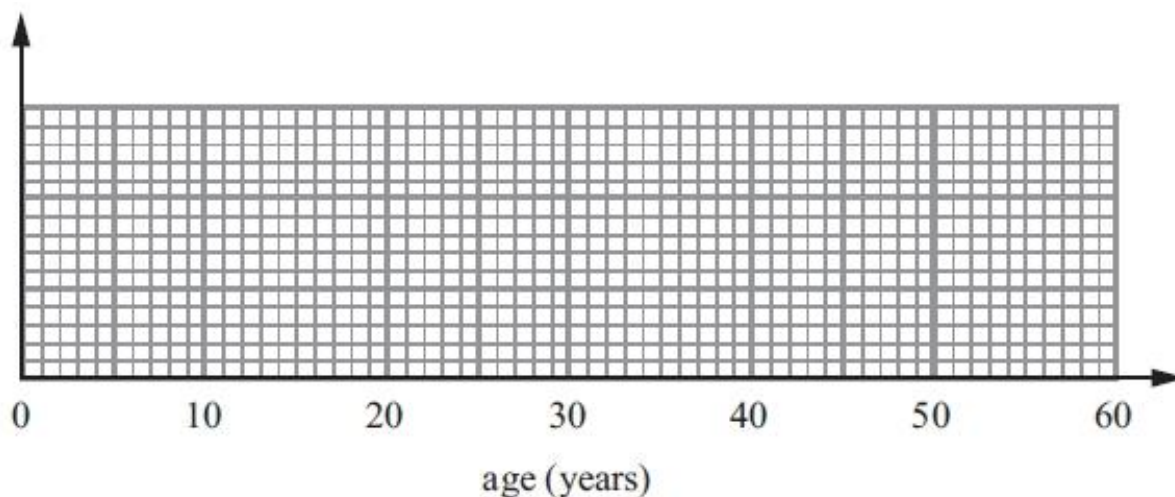
(b) Find an estimate for the number of lemon trees with 8 or more lemons on them.

Q8.

Here are the ages, in years, of 15 women at West Ribble Tennis Club.

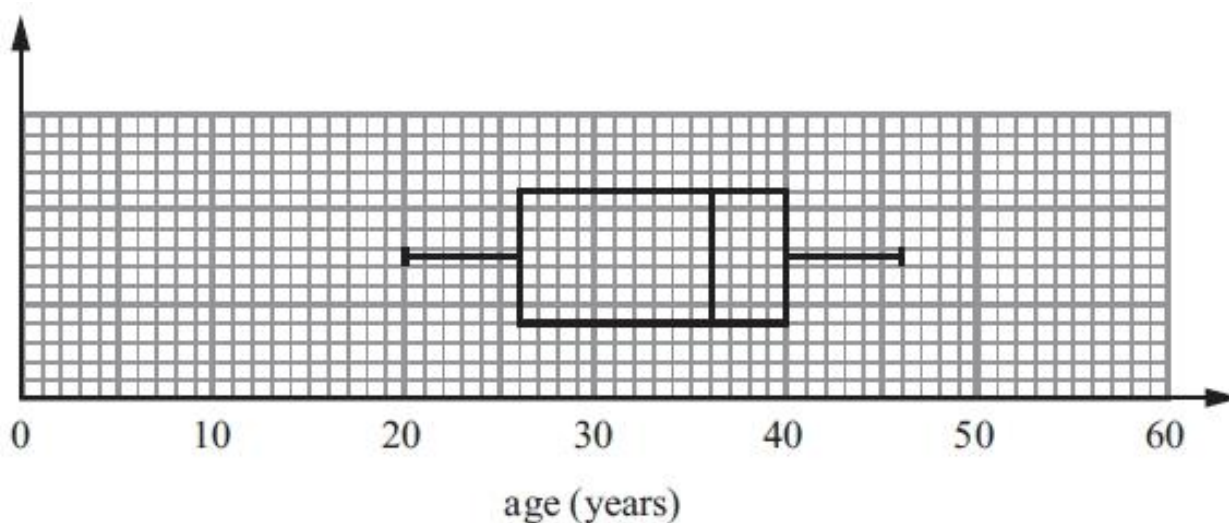
16, 18, 18, 20, 25, 25, 27, 28, 30, 35, 38, 42, 45, 46, 50

(a) On the grid, draw a box plot for this information.



(3)

The box plot below shows the distribution of the ages of the men at West Ribble Tennis Club.



*(b) Use the box plots to compare the distributions of the ages of these women and the distributions of the ages of these men.

.....

.....

.....

.....

(2)

(Total for Question is 5 marks)

Q9.

The table shows some information about the weights of oranges.

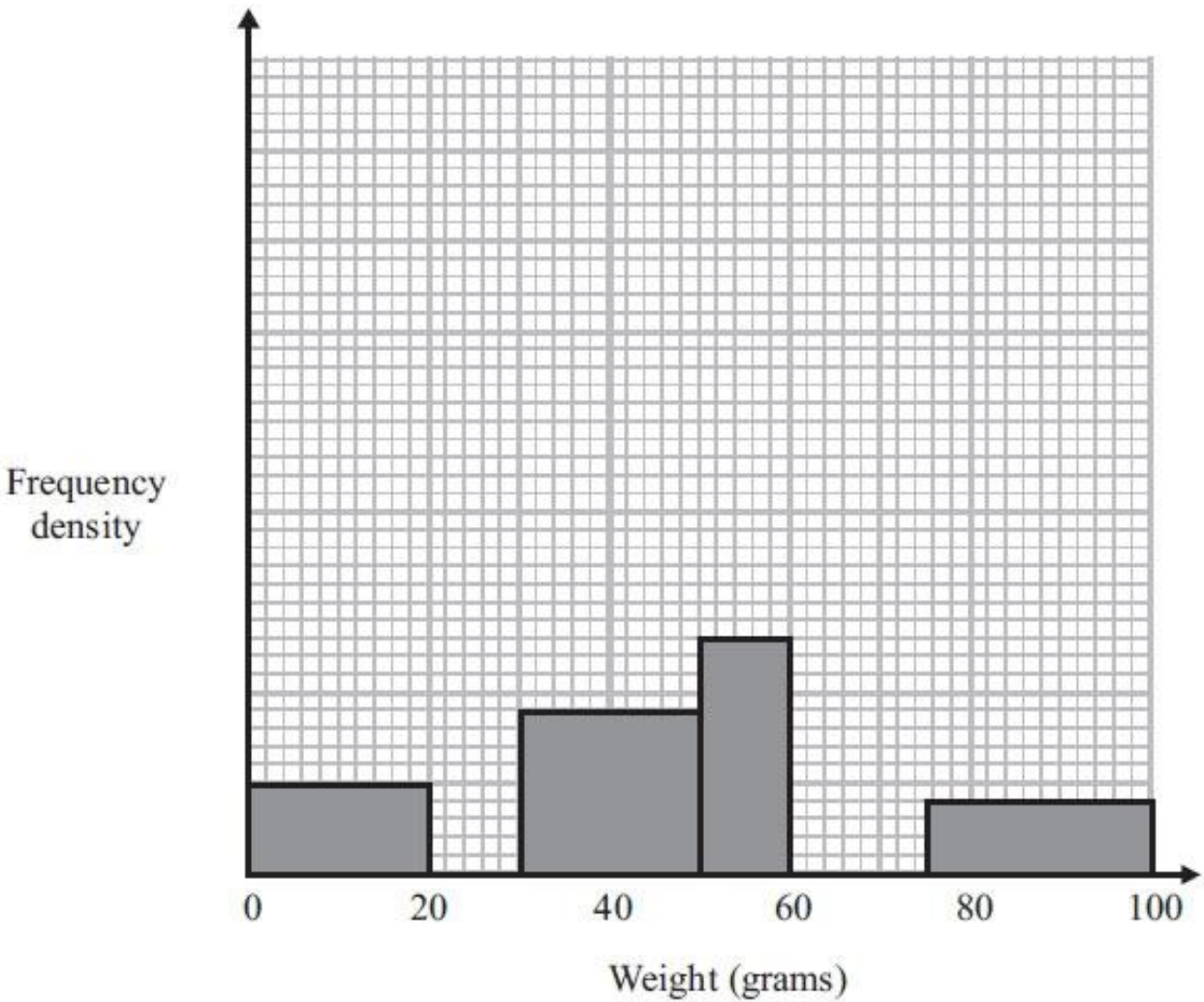
Weight (w grams)	Frequency
$0 < w \leq 20$	
$20 < w \leq 30$	15
$30 < w \leq 50$	
$50 < w \leq 60$	13
$60 < w \leq 75$	15
$75 < w \leq 100$	10

(a) Use the histogram to complete the table.

(2)

(b) Use the table to complete the histogram.

(2)



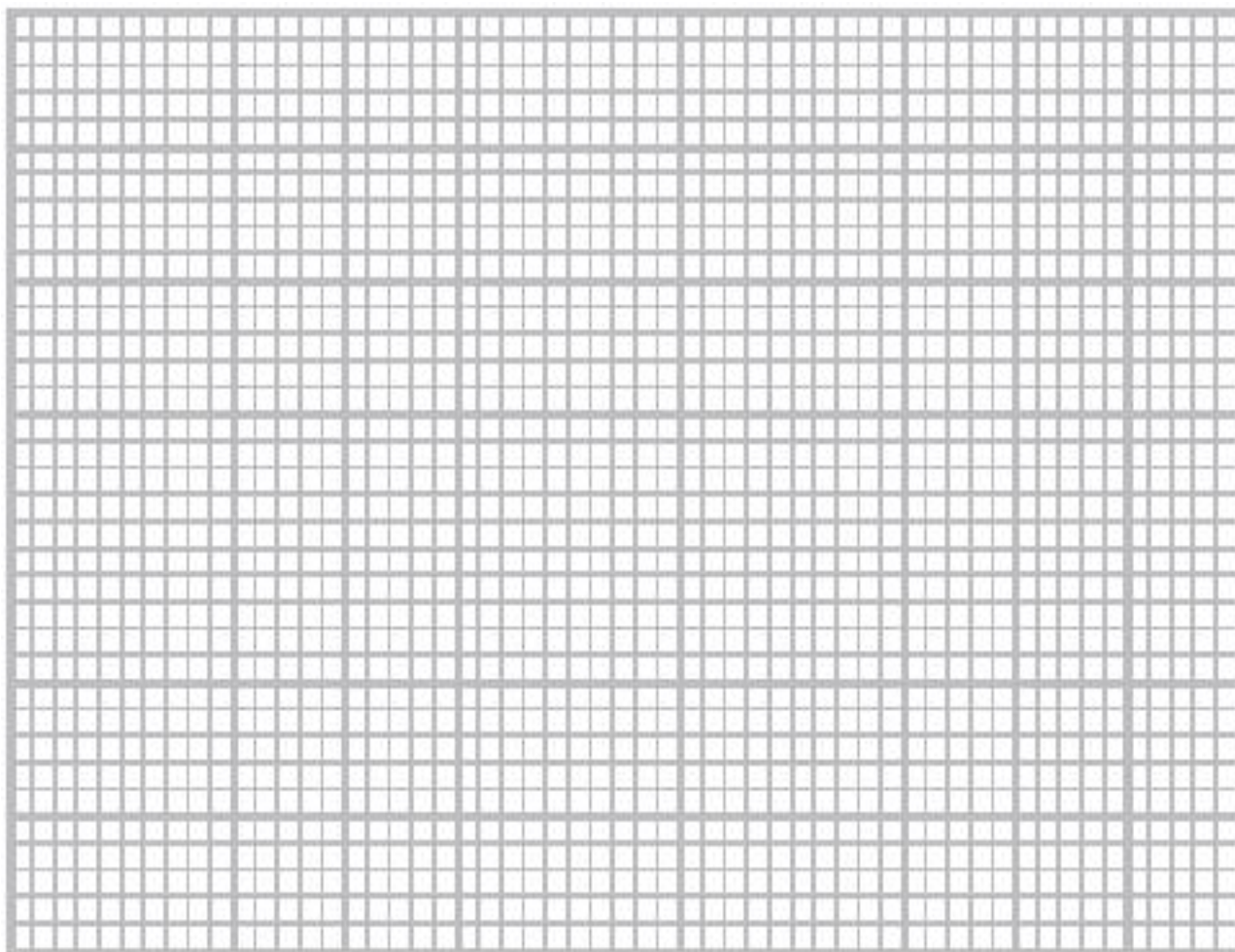
(Total for Question is 4 marks)

Q10.

The table shows some information about the length of time some birds were on a bird table.

Time (t seconds)	Frequency
$0 < t \leq 10$	8
$10 < t \leq 20$	16
$20 < t \leq 25$	15
$25 < t \leq 30$	12
$30 < t \leq 50$	6

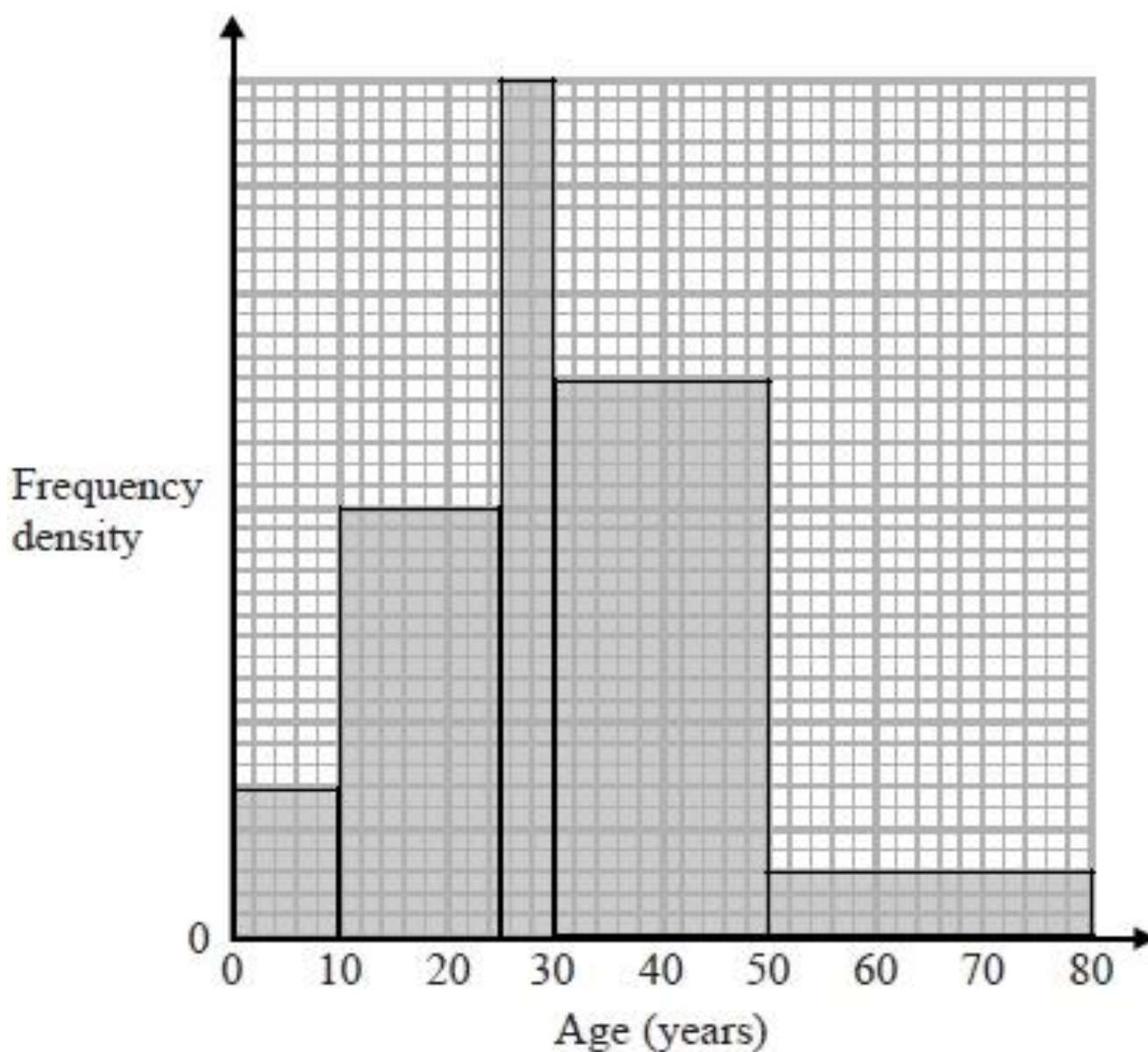
Draw a histogram for the information in the table.



(Total for question = 3 marks)

Q11.

The histogram shows information about the ages of the members of a football supporters club.



There are 20 members aged between 25 and 30

One member of the club is chosen at random.

What is the probability that this member is more than 30 years old?

.....
(Total for question = 3 marks)