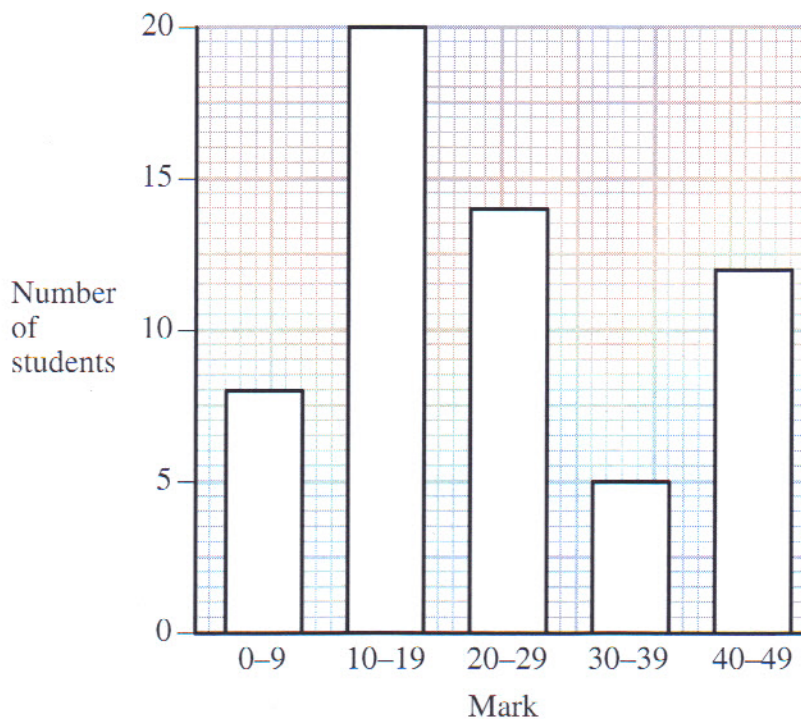


5. The frequency diagram gives information about the marks gained by a group of 59 students in a test.

May 05 4H



(a) Which is the modal class?

.....
(1)

A student is chosen at random from the whole group.

(b) Find the probability that this student's mark is less than 30.

.....
(2)

(c) Calculate an estimate of the total number of marks scored by all the students in the group.

.....
(3)

(Total 6 marks)

Q5



May 05 31

10. The table gives information about the ages, in years, of the 80 members of a sports club.

Age (t years)	Frequency
$10 < t \leq 20$	8
$20 < t \leq 30$	38
$30 < t \leq 40$	28
$40 < t \leq 50$	4
$50 < t \leq 60$	2

(a) Work out an estimate for the mean age of the 80 members.

..... years
(4)

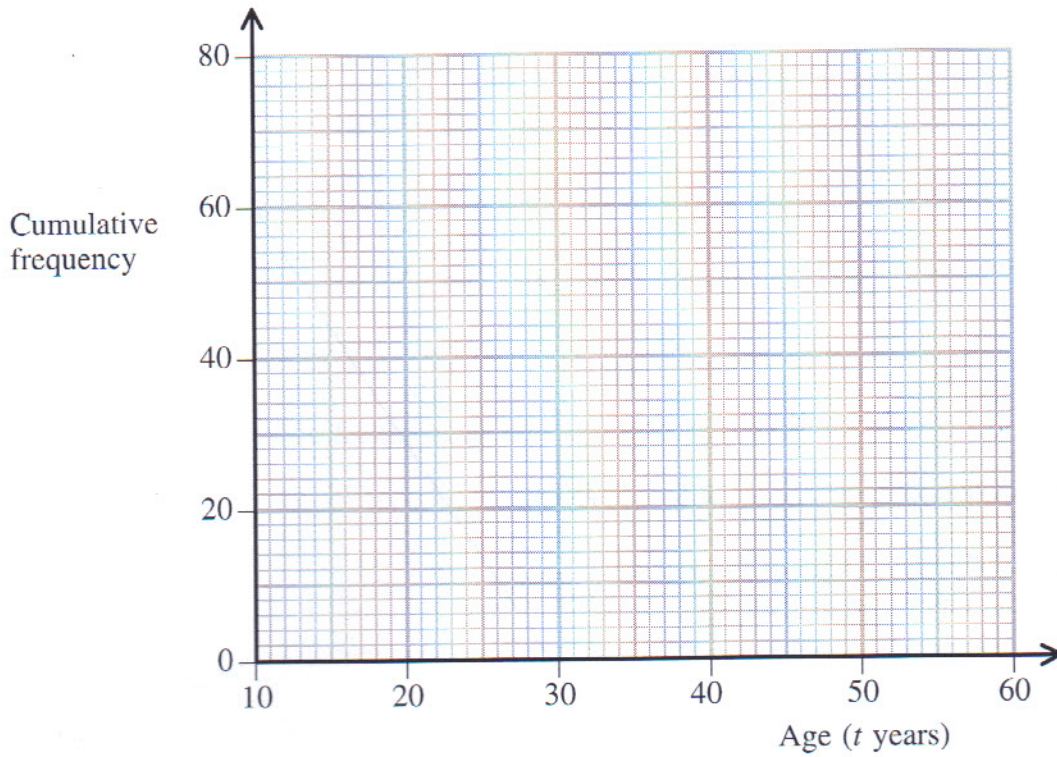
(b) Complete the cumulative frequency table.

Age (t years)	Cumulative frequency
$10 < t \leq 20$	
$10 < t \leq 30$	
$10 < t \leq 40$	
$10 < t \leq 50$	
$10 < t \leq 60$	

(1)



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



(2)

(d) Use your graph to find an estimate for the median age of the members of the club. Show your method clearly.

..... years

(2)

(Total 9 marks)

Q10

NOV 07 4H

7. There are four grades of egg.
The table shows how many eggs of each grade were laid by a hen last year.

Grade	Number of eggs
Extra large	55
Large	48
Medium	35
Small	12

- (a) In the first four months of this year, the hen laid 60 eggs.

Work out an estimate for the number of Extra large eggs the hen laid in these four months.

.....
(3)

- (b) The table below shows how the grade of an egg is related to its weight.

Grade	Weight (w grams)
Extra large	$w \geq 73$
Large	$63 \leq w < 73$
Medium	$53 \leq w < 63$
Small	$w < 53$

Work out an estimate for the total weight of 48 Large eggs and 35 Medium eggs.

..... g
(3)

- (c) Jody wants to use the information in the table to work out an estimate for the total weight of all the eggs laid by the hen last year.

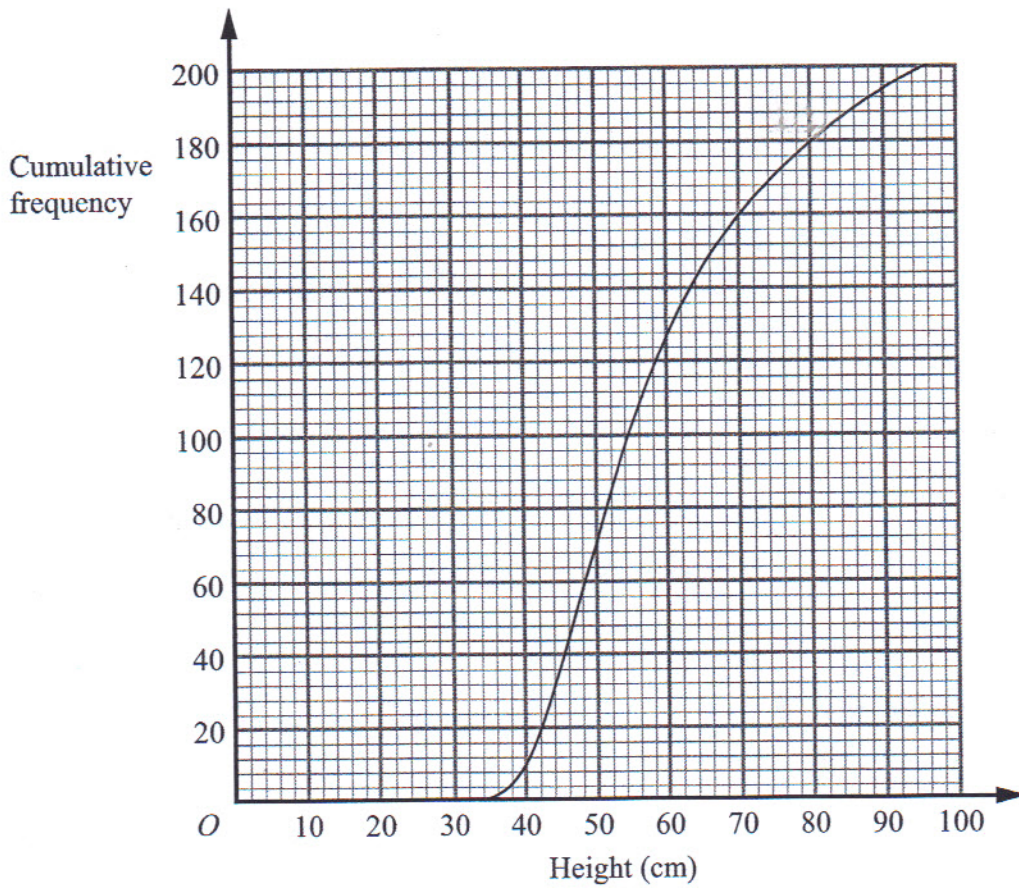
Explain why it is difficult to do this.

.....
(1)

(Total 7 marks)

Nov 09 3H

16. The cumulative frequency diagram shows information about the heights, in centimetres, of 200 plants.



(a) Find an estimate for the median height.

..... cm
(2)

(b) Work out an estimate for the number of plants whose heights are greater than 80 cm.

.....
(2)

(Total 4 marks)

Q16



May 07 3H

12. The grouped frequency table gives information about the weights of 60 cows.

Weight (w kg)	Frequency
$100 < w \leq 200$	10
$200 < w \leq 300$	16
$300 < w \leq 400$	15
$400 < w \leq 500$	9
$500 < w \leq 600$	6
$600 < w \leq 700$	4

(a) Complete the cumulative frequency table.

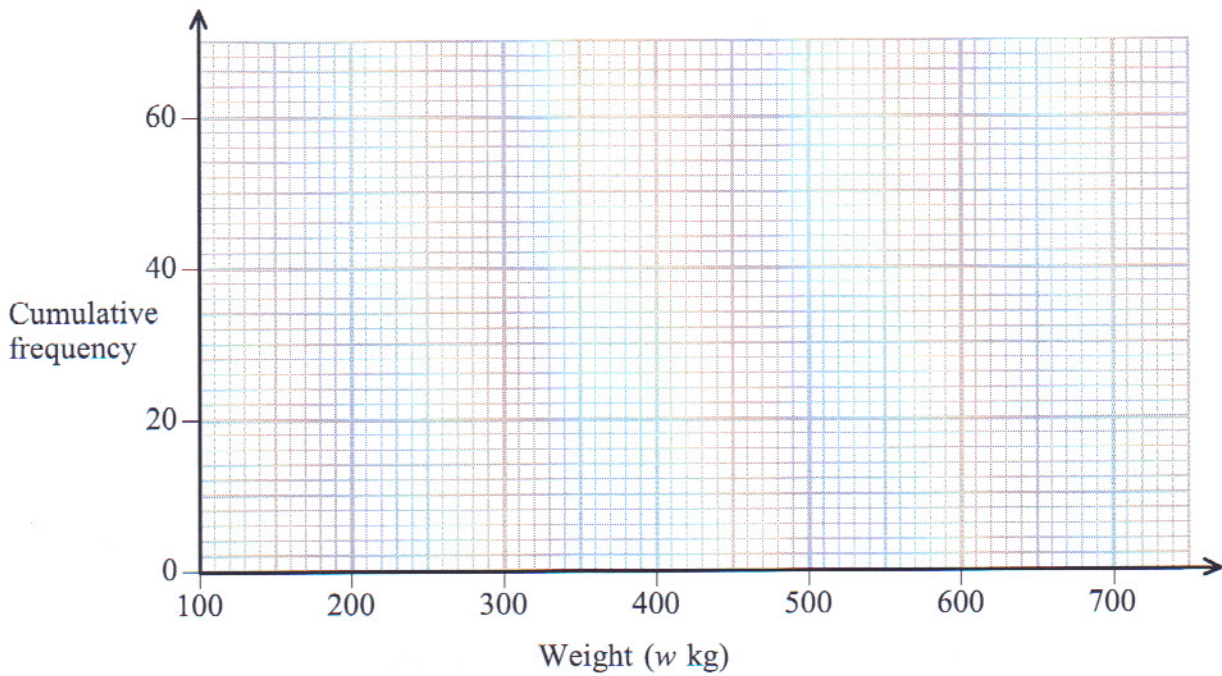
Weight (w kg)	Cumulative frequency
$100 < w \leq 200$	
$100 < w \leq 300$	
$100 < w \leq 400$	
$100 < w \leq 500$	
$100 < w \leq 600$	
$100 < w \leq 700$	

(1)



May 07 3H Q12 cont.

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



(2)

(c) Use your graph to find an estimate for the number of cows that weighed more than 430 kg.
Show your method clearly.

.....
(2)

Q12

(Total 5 marks)



Nov 06 44

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16. The grouped frequency table gives information about the time spent on the Internet last week by each of 80 students.

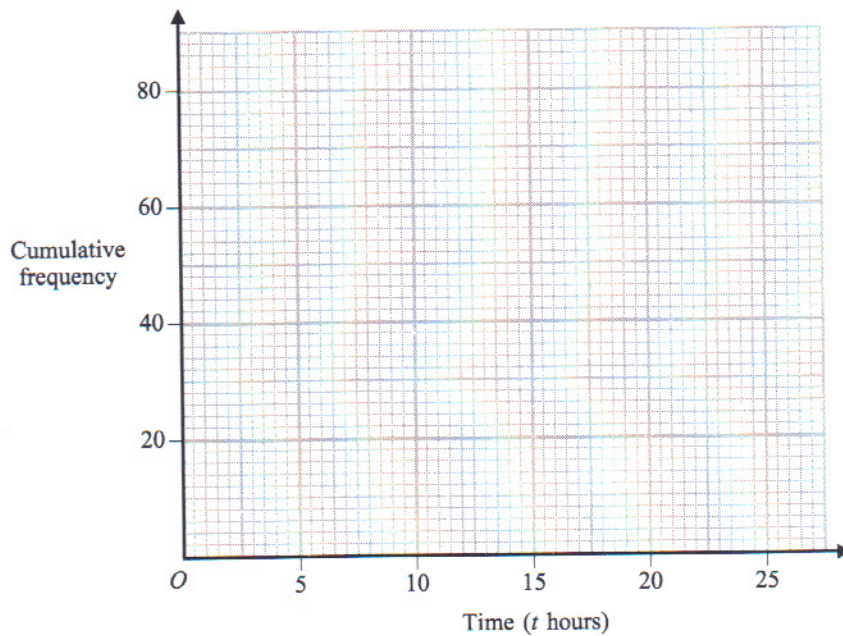
Time (t hours)	Frequency
$0 < t \leq 5$	28
$5 < t \leq 10$	22
$10 < t \leq 15$	14
$15 < t \leq 20$	10
$20 < t \leq 25$	6

(a) Complete the cumulative frequency table.

Time (t hours)	Cumulative frequency
$0 < t \leq 5$	
$0 < t \leq 10$	
$0 < t \leq 15$	
$0 < t \leq 20$	
$0 < t \leq 25$	

(1)

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



(2)



Nov 06 4th Q16
cont

Leave
blank

(c) Use your graph to find an estimate for the number of students who spent more than 17 hours on the Internet last week.
Show your method clearly.

.....

(2)

Q16

(Total 5 marks)

May 09 3H

Leave blank

10. The table shows information about the distances walked in a week by 40 people.

Distance (d km)	Frequency
$0 < d \leq 20$	8
$20 < d \leq 40$	24
$40 < d \leq 60$	5
$60 < d \leq 80$	2
$80 < d \leq 100$	1

(a) Work out an estimate for the mean distance walked in a week by the 40 people.

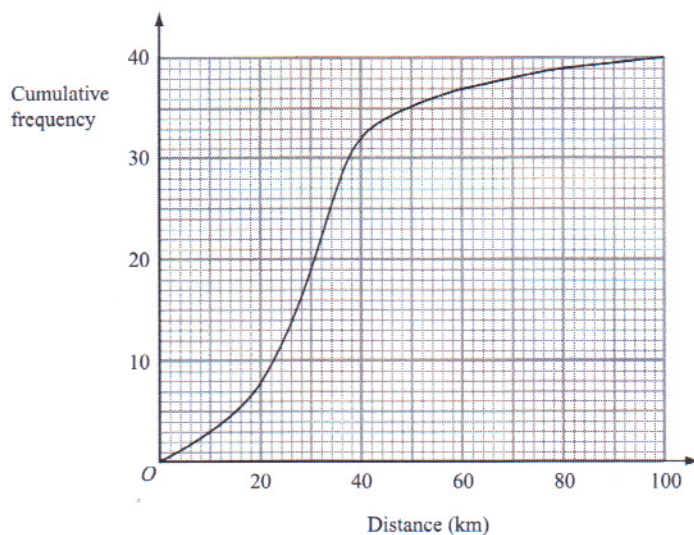
..... km
(4)



May 09 3H . Q10 cont.

Leave blank

The information in the table was used to draw the cumulative frequency graph.



(b) Find an estimate for the number of people who walked less than 25 km.

.....
(2)

(c) Find an estimate for the interquartile range of the distances walked by the 40 people.

..... km
(2)

Q10

(Total 8 marks)



11. The grouped frequency table gives information about life expectancy in the 54 countries of the Commonwealth.

NOV 08
3H

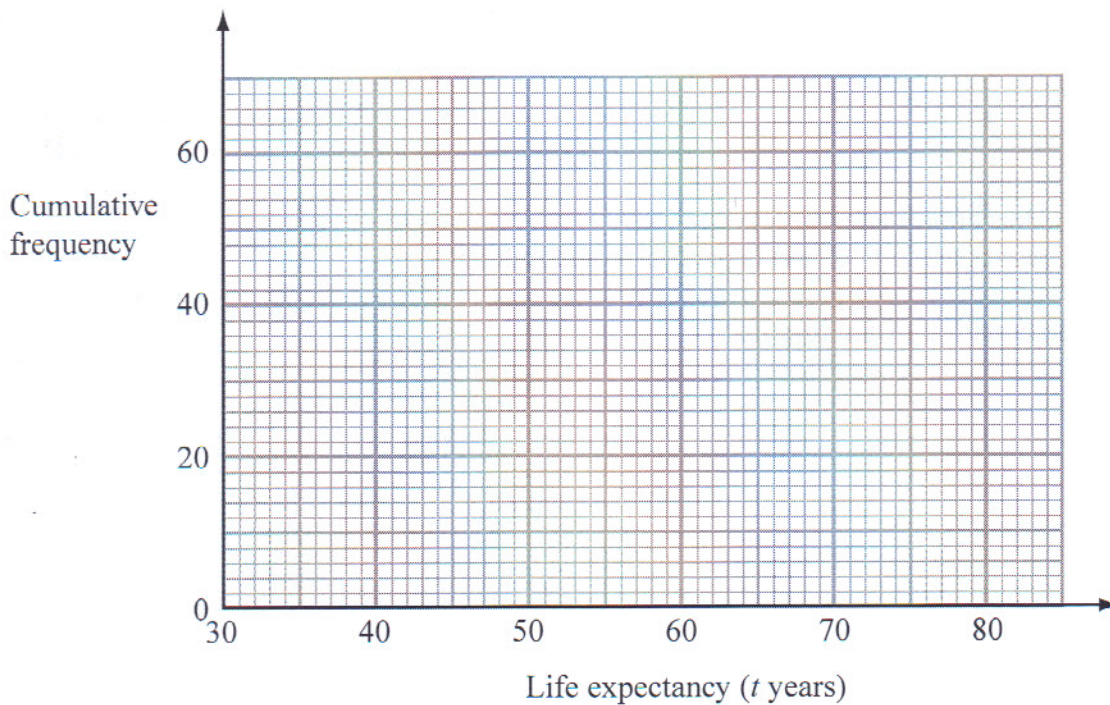
Life expectancy (t years)	Frequency
$30 < t \leq 40$	4
$40 < t \leq 50$	6
$50 < t \leq 60$	9
$60 < t \leq 70$	14
$70 < t \leq 80$	21

(a) Complete the cumulative frequency table.

Life expectancy (t years)	Cumulative frequency
$30 < t \leq 40$	
$30 < t \leq 50$	
$30 < t \leq 60$	
$30 < t \leq 70$	
$30 < t \leq 80$	

(1)

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



(2)



Nov 08 3H Q11 cont

Leave
blank

(c) Use your graph to find an estimate for the median of the life expectancies in Commonwealth countries.

..... years
(2)

(Total 5 marks)

Q11