

Question 1

The table gives information about the number of kilometres that Ted cycled on each of the 30 days in April.

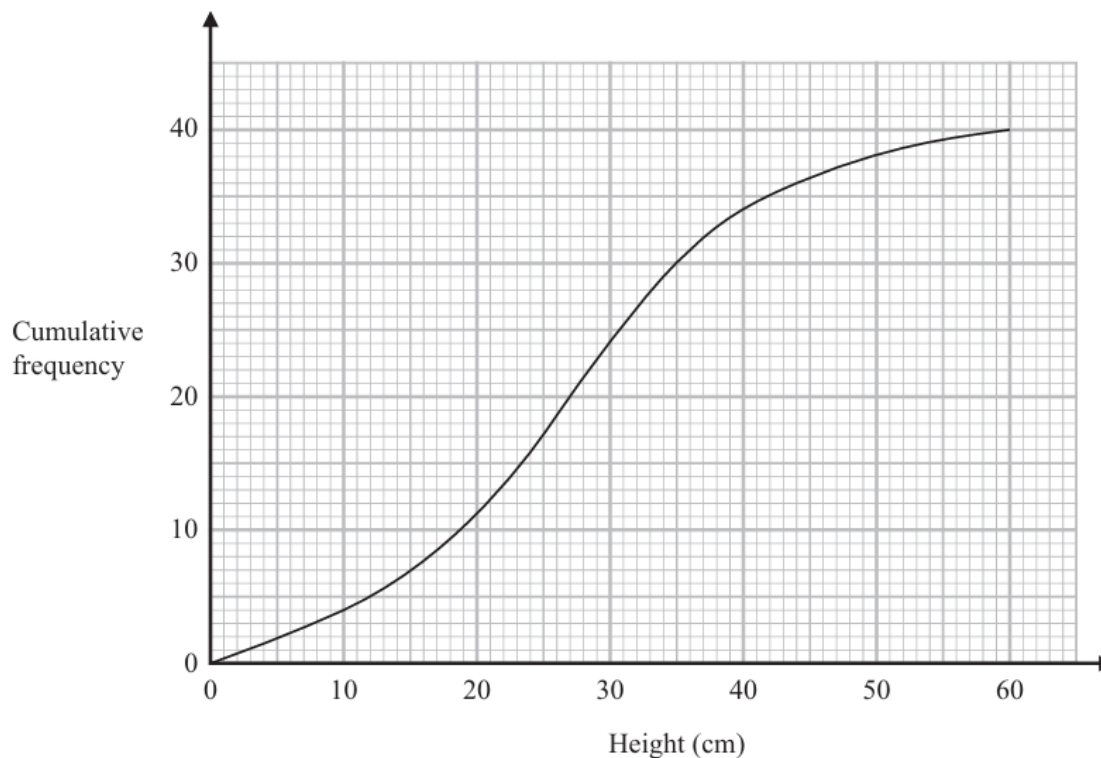
Number of kilometres (K)	Frequency
$0 \leq K < 5$	8
$5 \leq K < 10$	7
$10 \leq K < 15$	3
$15 \leq K < 20$	10
$20 \leq K < 25$	2

Calculate an estimate for the mean number of kilometres that Ted cycled on each day in April.

-----**(4)**

Question 2

The cumulative frequency graph shows information about the heights of 40 plants that Greta has grown.



- (a) Use the graph to find an estimate for the median height.

..... cm
(1)

- (b) Use the graph to find an estimate for the interquartile range of the heights.

..... cm
(2)

Plants with a height greater than 40 cm are premium plants.
Greta sells all the premium plants for 30 euros each.

- (c) Work out the total amount of money Greta receives for the premium plants.

.....**(2)**

Question 3

e, f and g represent integers such that

$e \quad f \quad 7 \quad g \quad 12 \quad 17$

is a list of integers written in order of size.

The integers have

- a range of 15
- a median of 8.5
- a mean of 9

Work out the value of e , the value of f and the value of g

$e = \dots\dots\dots$

$f = \dots\dots\dots$

$g = \dots\dots\dots$

(3)

Question 4

Ivan asked 15 people how many books they read last year.

Here are his results.

1 1 3 4 6 7 8 9 10 12 15 25 30 37 50

Work out the interquartile range of the number of books read.

$\dots\dots\dots$ **(2)**

Question 5

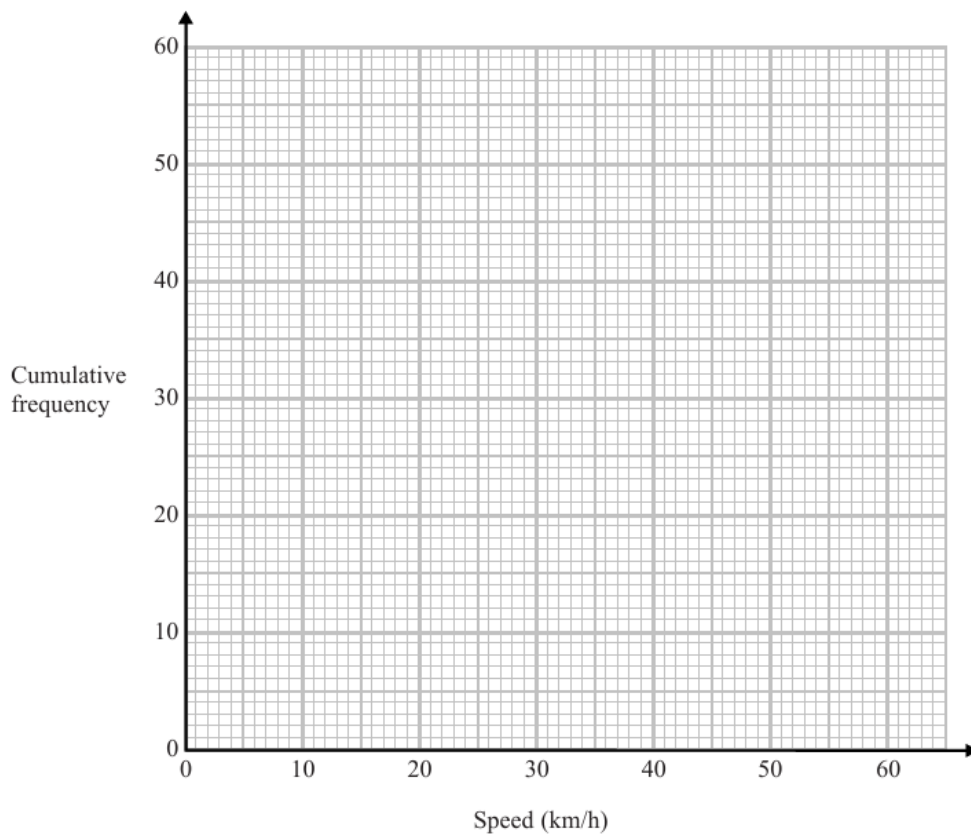
The table shows information about the speeds of 60 cycles.

Speed (s km/h)	Frequency
$0 < s \leq 10$	3
$10 < s \leq 20$	16
$20 < s \leq 30$	24
$30 < s \leq 40$	10
$40 < s \leq 50$	5
$50 < s \leq 60$	2

(a) Complete the cumulative frequency table.

Speed (s km/h)	Cumulative frequency
$0 < s \leq 10$	
$0 < s \leq 20$	
$0 < s \leq 30$	
$0 < s \leq 40$	
$0 < s \leq 50$	
$0 < s \leq 60$	

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



(2)

(c) Use your graph to find an estimate for the interquartile range of the speeds.

(2)

Question 6

The table shows information about the weights, in kilograms, of 40 babies.

Weight (w kg)	Frequency
$2 < w \leq 3$	12
$3 < w \leq 4$	16
$4 < w \leq 5$	9
$5 < w \leq 6$	2
$6 < w \leq 7$	1

(a) Write down the modal class.

.....
(1)

(b) Work out an estimate for the mean weight of the 40 babies.

..... kg
(4)

One of the 40 babies is going to be chosen at random.

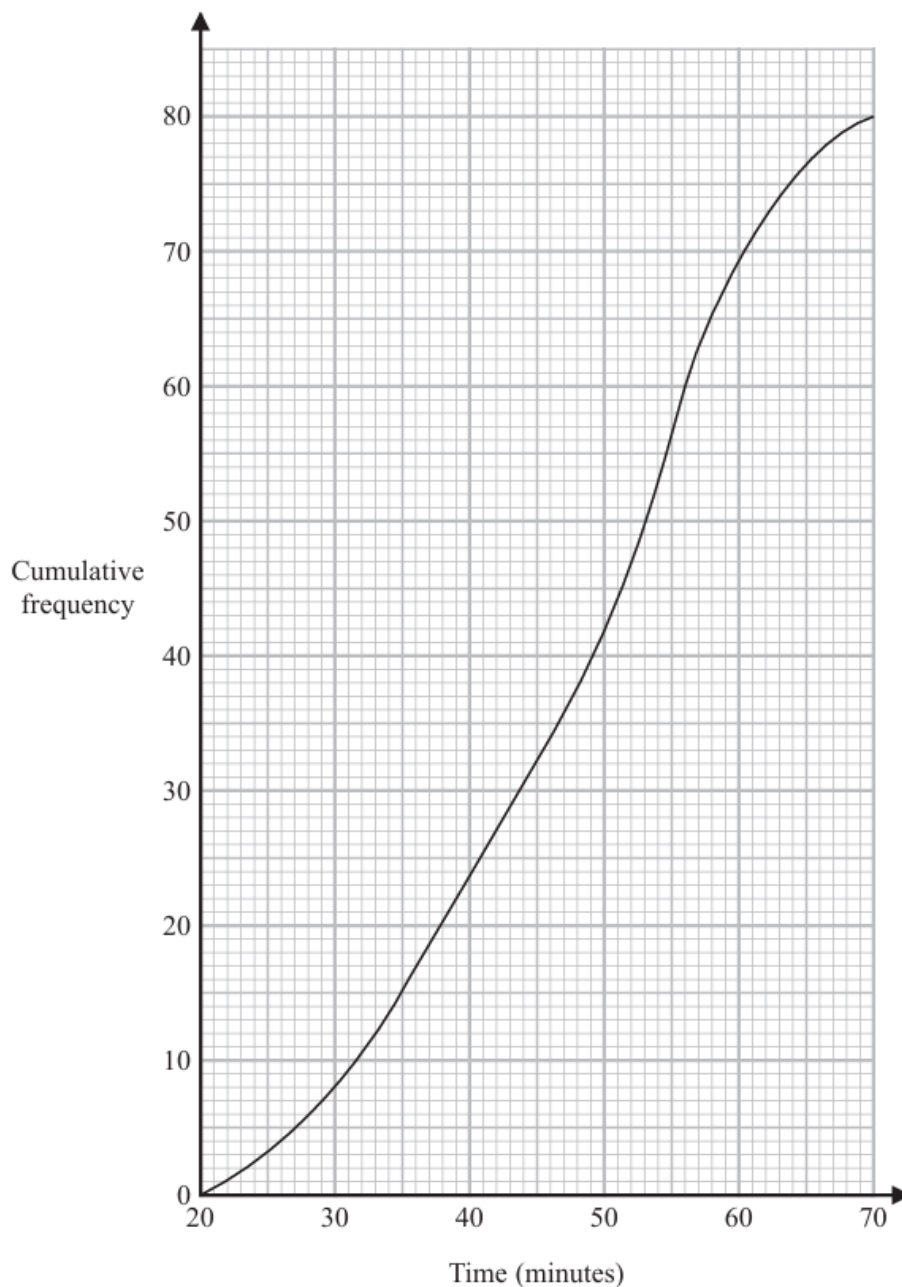
(c) Find the probability that this baby has a weight of more than 5 kg.

.....
(2)

Question 7

! A total of 80 men and women took part in a race.

The cumulative frequency graph gives information about the times, in minutes, they took for the race.



(a) Use the graph to find an estimate for the interquartile range.

..... minute:
(2)

60% of the men took 50 minutes or less for the race.
No women took 50 minutes or less for the race.

(b) Work out an estimate for the number of men who took part in the race.

.....
(3)

Question 8

The table gives information about the distances 100 adults travel to work.

Distance (d km)	Frequency
$0 < d \leq 5$	26
$5 < d \leq 10$	40
$10 < d \leq 15$	16
$15 < d \leq 20$	10
$20 < d \leq 25$	8

(a) Write down the modal class.

.....
(1)

(b) Work out an estimate for the mean distance.

Question 9

The frequency table gives information about the times, in minutes, that 60 people took to complete a puzzle.

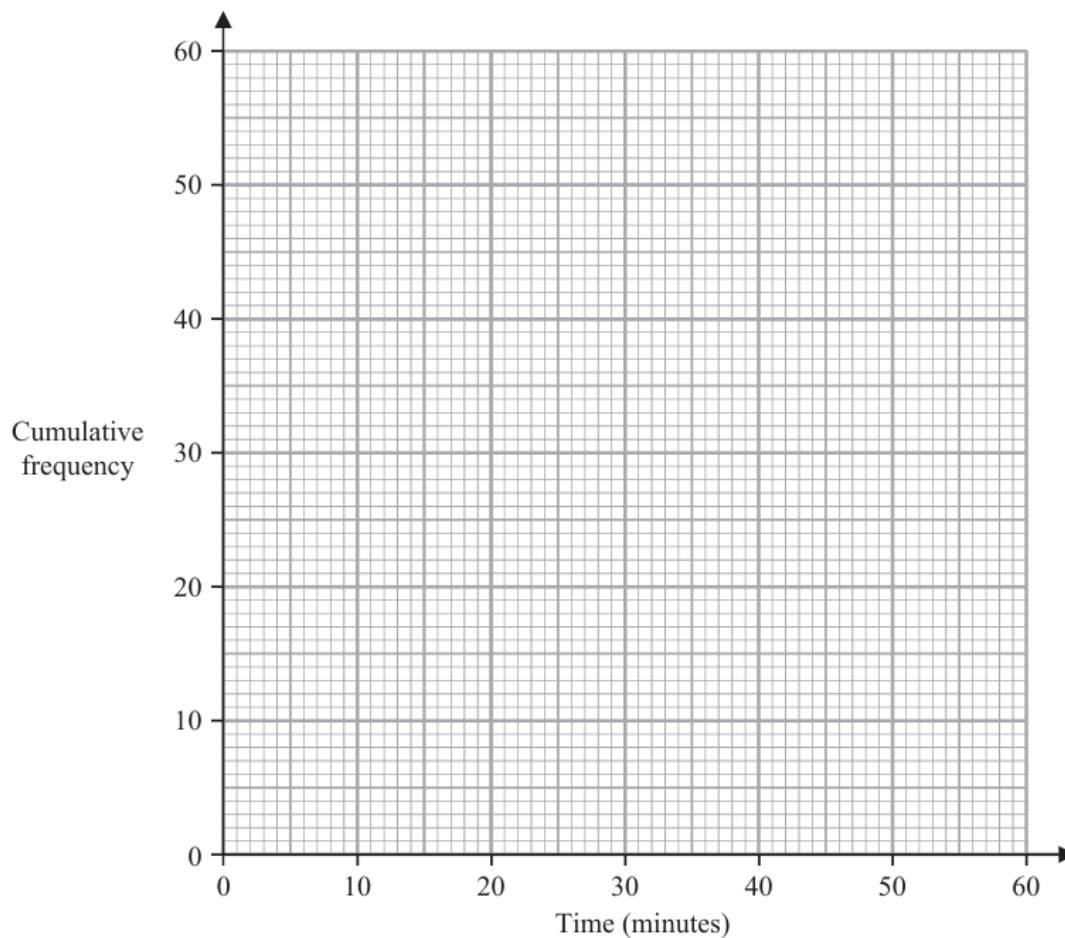
Time (t minutes)	Frequency
$0 < t \leq 10$	8
$10 < t \leq 20$	13
$20 < t \leq 30$	12
$30 < t \leq 40$	17
$40 < t \leq 50$	7
$50 < t \leq 60$	3

(a) Complete the cumulative frequency table.

Time (t minutes)	Cumulative frequency
$0 < t \leq 10$	
$0 < t \leq 20$	
$0 < t \leq 30$	
$0 < t \leq 40$	
$0 < t \leq 50$	
$0 < t \leq 60$	

(1)

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



(2)

(c) Use your graph to find an estimate for the median time.

..... minutes
(1)

(d) Use your graph to find an estimate for the number of these people who took more than 45 minutes to complete the puzzle.

.....
(2)

Question 10

The table shows some information about the hourly rates of pay of 60 workers.

Hourly rate of pay (p dollars)	Frequency
$10 < p \leq 15$	18
$15 < p \leq 20$	16
$20 < p \leq 25$	14
$25 < p \leq 30$	8
$30 < p \leq 35$	4

(a) Write down the modal class.

.....
(1)

(b) Work out an estimate for the mean hourly rate of pay of the 60 workers.

..... dollars
(4)

Question 11

The frequency table gives information about the weights, in kilograms, of 60 parcels in a delivery van.

Weight (w kilograms)	Frequency
$0 < w \leq 1$	4
$1 < w \leq 2$	15
$2 < w \leq 3$	20
$3 < w \leq 4$	11
$4 < w \leq 5$	6
$5 < w \leq 6$	4

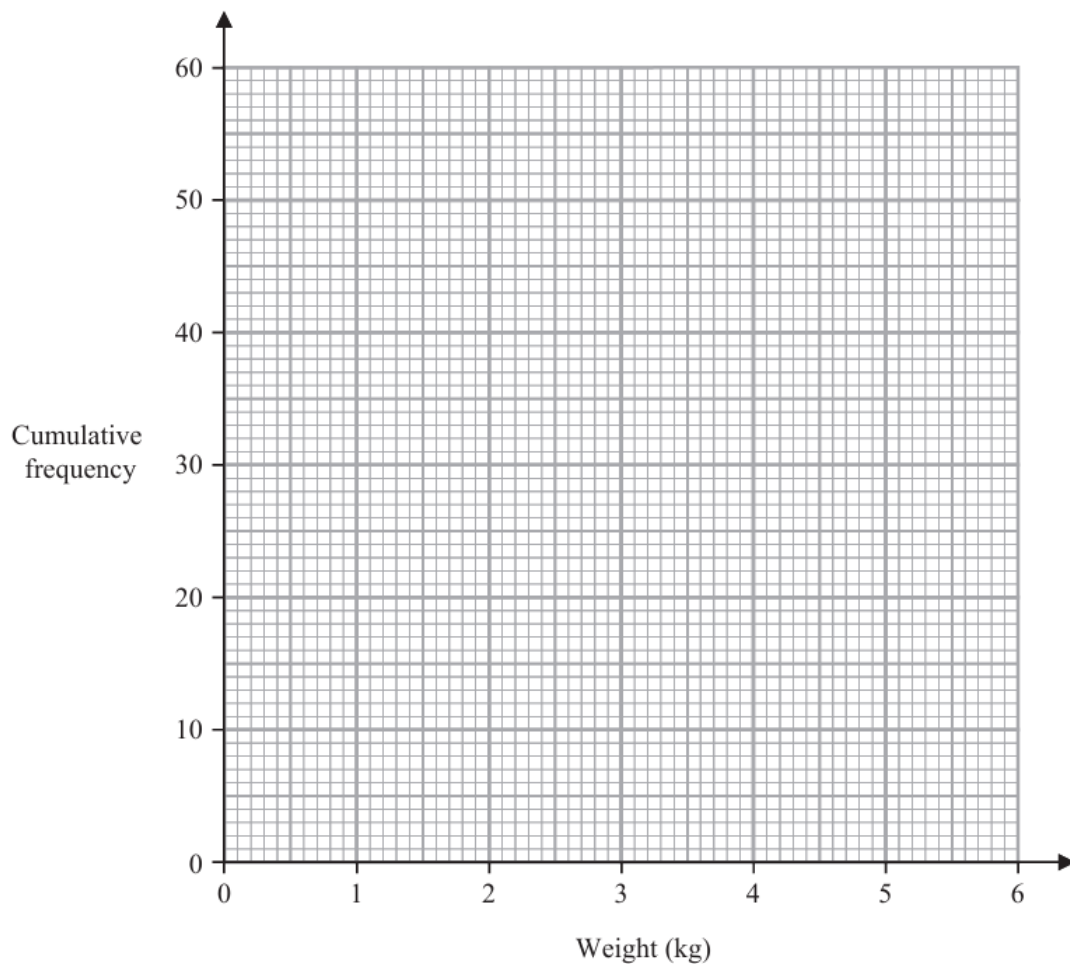
(a) Complete the cumulative frequency table.

Weight (w kilograms)	Cumulative frequency
$0 < w \leq 1$	
$0 < w \leq 2$	
$0 < w \leq 3$	
$0 < w \leq 4$	
$0 < w \leq 5$	
$0 < w \leq 6$	

(1)

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

(2)



(c) Use your graph to find an estimate for the median weight of the 60 parcels.

..... kilograms
(1)

(d) Use your graph to find an estimate for the number of these parcels that weigh more than 3.7 kilograms.

.....
(2)

Question 12

The table gives information about the distances, in km, that 70 teachers travel to school.

Distance (d km)	Frequency
$0 < d \leq 10$	7
$10 < d \leq 20$	17
$20 < d \leq 30$	18
$30 < d \leq 40$	14
$40 < d \leq 50$	10
$50 < d \leq 60$	4

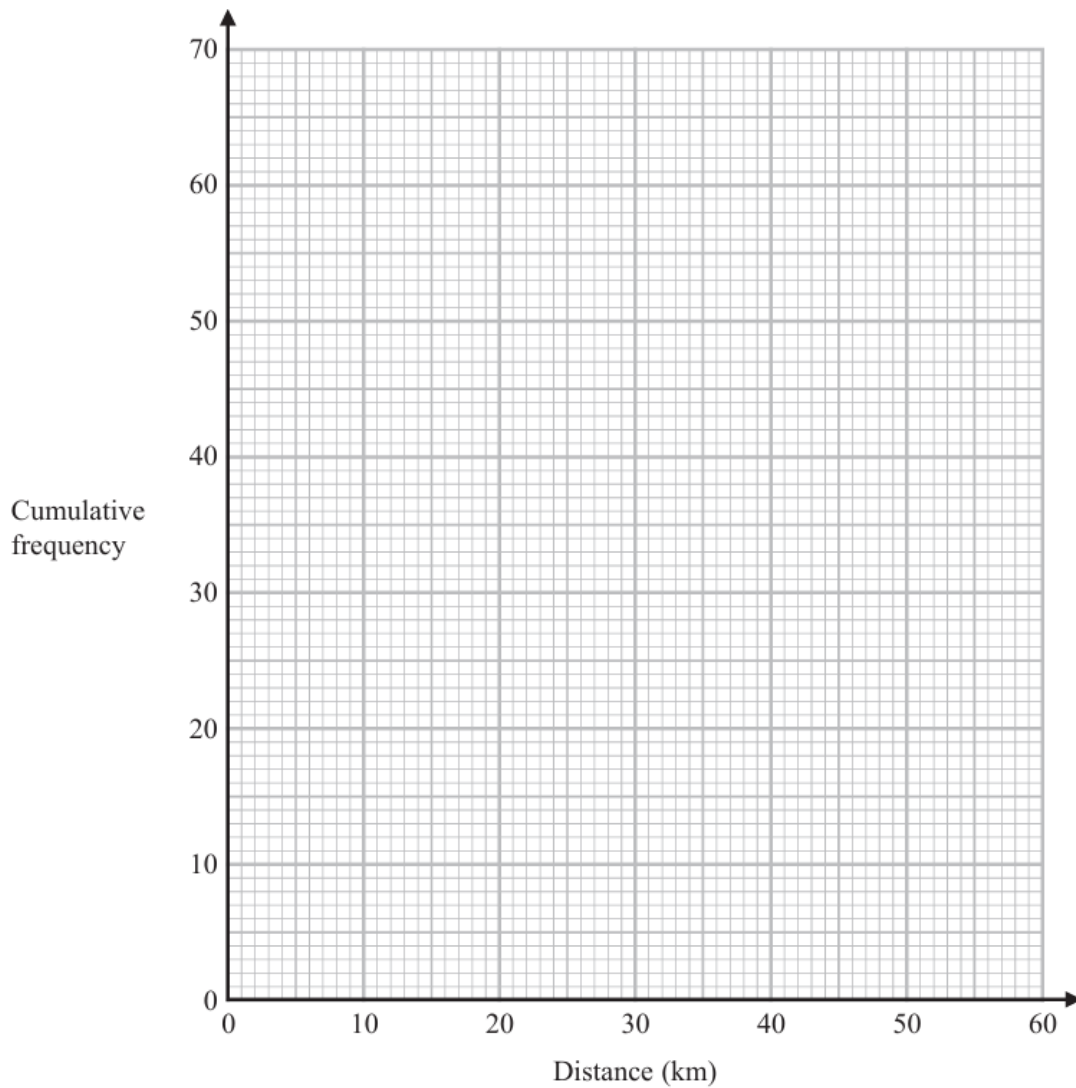
(a) Complete the cumulative frequency table.

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

(1)

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

(2)



(c) Use your graph to find an estimate for the interquartile range of the distances.

..... km

(2)

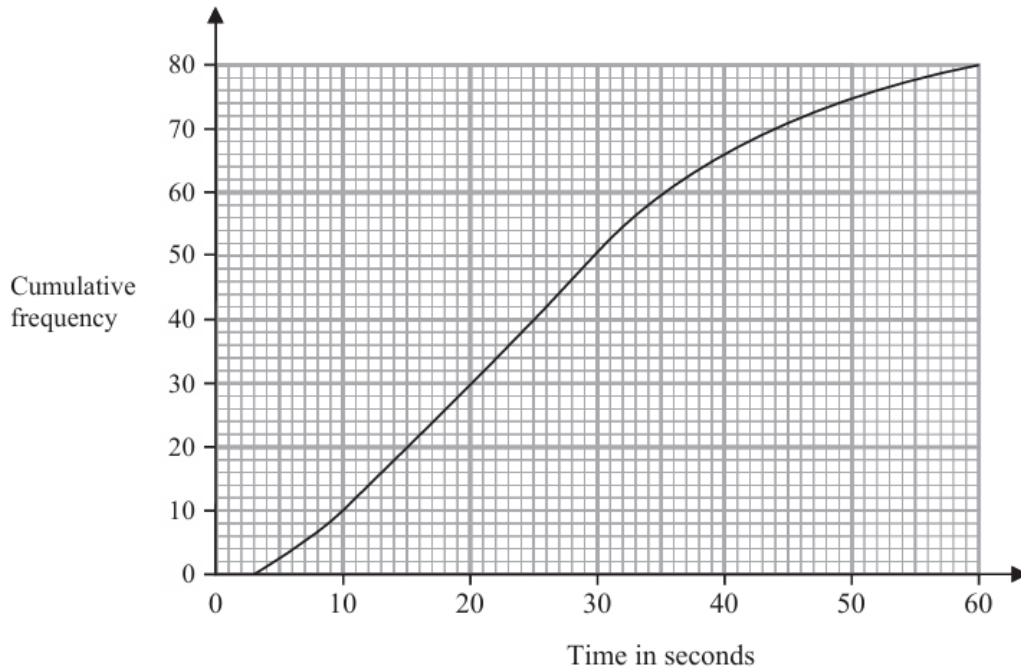
(d) Use your graph to find an estimate for the number of teachers who travel more than 46 km.

.....

(2)

Question 13

The cumulative frequency graph gives information about the times, in seconds, that 80 adults took to log in to an online bank.



(a) Find an estimate for the median time.

..... seconds
(1)

(b) Work out the percentage of these adults that took longer than 50 seconds to log in. Show your working clearly.

.....%
(3)

Question 14

Robert asked 11 people how many meetings they attended last week.

Here are the results in numerical order.

- 1 2 4 6 6 8 11 12 13 14 17

Find the interquartile range of the number of meetings.

(2)

Question 15

Here are the test marks of 15 students.

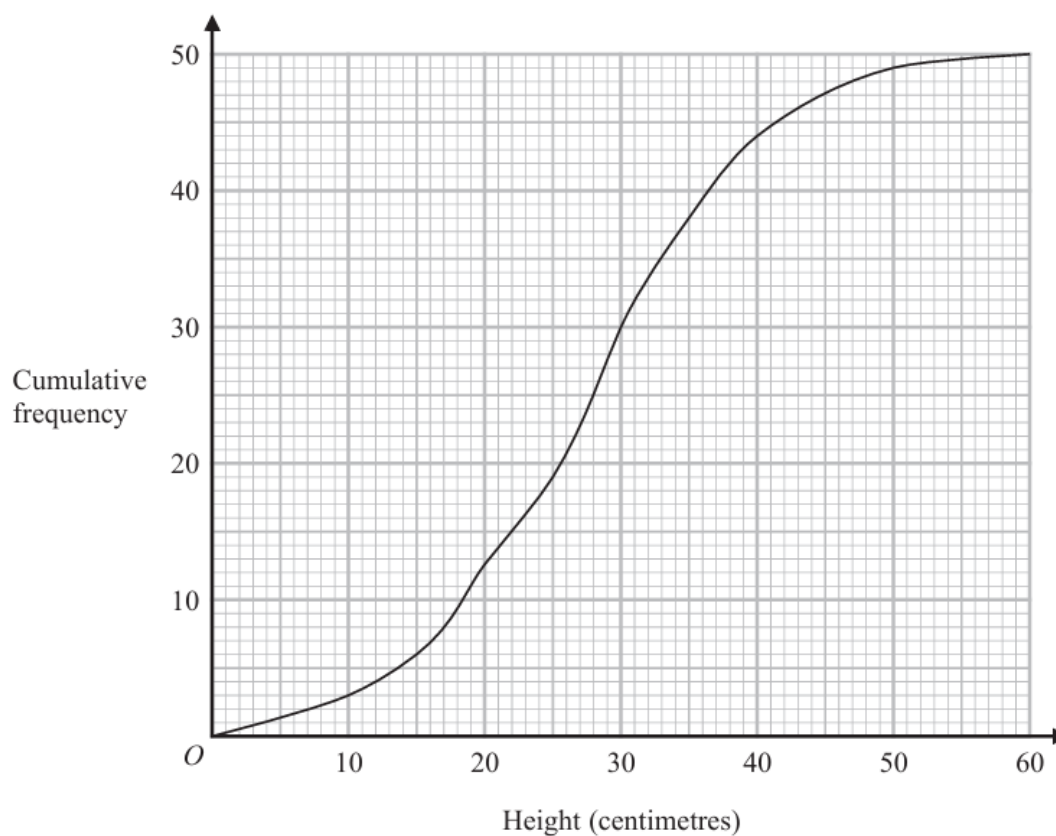
7 10 14 15 16 17 18 19 20 20 23 25 30 39 40

Find the interquartile range of these marks.

.....(2)

Question 16

The cumulative frequency graph shows information about the heights, in centimetres, of 50 plants in a flowerbed.



(a) Use the graph to find an estimate for the median height of these plants.

(a) Use the graph to find an estimate for the median height of these plants.

..... centimetres
(1)

(b) Use the graph to find the frequency for the class interval $30 < \text{Height} \leq 40$

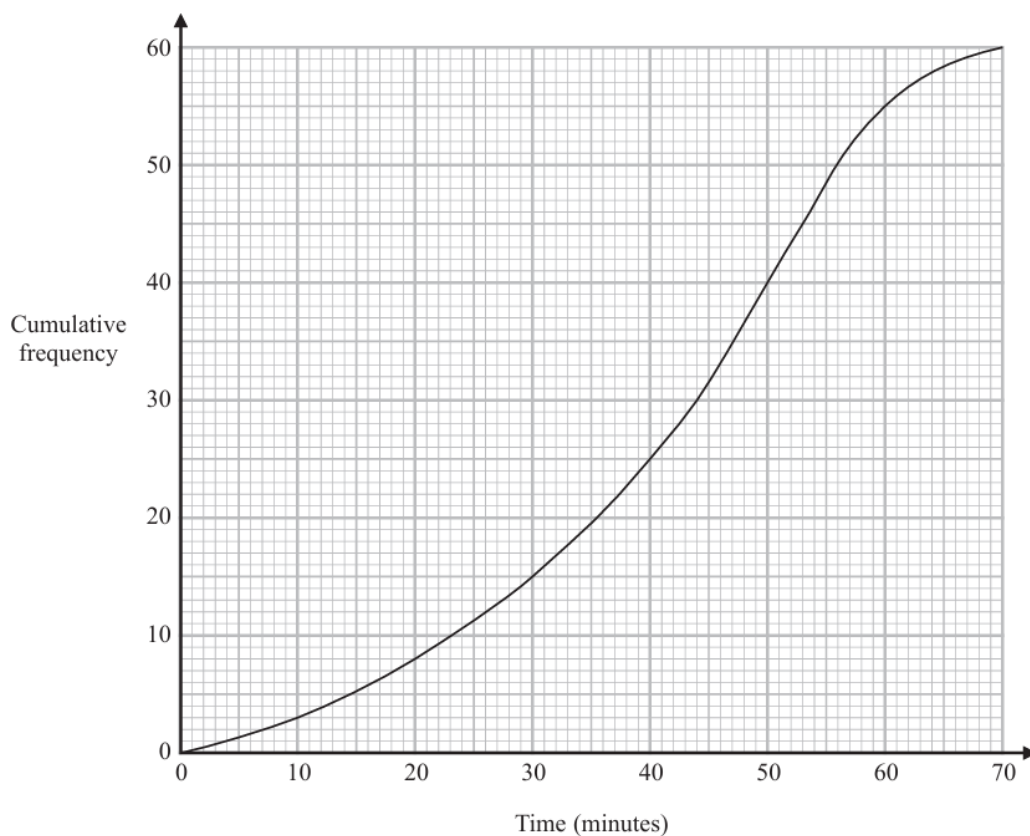
.....
(1)

(c) Use the graph to find an estimate for the number of plants with a height greater than 35 centimetres.

.....
(2)

Question 17

The cumulative frequency graph gives information about the time, in minutes, each of 60 people took to shop in a market.



- (a) Use the graph to find an estimate for the median time people took to shop in the market.

..... minutes

(1)

- (b) Use the graph to find an estimate for the number of people who took longer than 55 minutes to shop in the market.

.....

(2)

- (c) Use the graph to complete the frequency table to give information about the time, in minutes, each of the 60 people took to shop in the market.

Time taken to shop in the market (m minutes)	Frequency
$0 < m \leq 10$	3
$10 < m \leq 20$	5
$20 < m \leq 30$	
$30 < m \leq 40$	
$40 < m \leq 50$	
$50 < m \leq 60$	
$60 < m \leq 70$	

(2)

Question 18

The table gives information about the amounts of money, in euros, that 70 of Anjali's friends spent last Saturday.

Money spent (S euros)	Frequency
$0 < S \leq 8$	6
$8 < S \leq 16$	14
$16 < S \leq 24$	19
$24 < S \leq 32$	25
$32 < S \leq 40$	6

One of Anjali's 70 friends is going to be chosen at random.

(a) Find the probability that this friend spent more than 24 euros last Saturday.

.....
(1)

(b) Work out an estimate for the mean amount of money spent by Anjali's friends last Saturday.
Give your answer correct to 2 decimal places.

..... euros
(4)
