

- 1 The table gives information about the length of time, in minutes, that each of 60 students took to travel to school on Monday.

Length of time (t minutes)	Frequency
$0 < t \leq 10$	4
$10 < t \leq 20$	10
$20 < t \leq 30$	15
$30 < t \leq 40$	25
$40 < t \leq 50$	6

- (a) Write down the modal class interval.

.....
(1)

- (b) Work out an estimate for the mean length of time taken by these 60 students to travel to school on Monday.
Give your answer correct to one decimal place.

..... minutes
(4)

(Total for Question 1 is 5 marks)

- 2 The table shows information about the lengths of time, in minutes, 120 customers spent in a supermarket.

Length of time (L minutes)	Frequency
$20 < L \leq 30$	6
$30 < L \leq 40$	26
$40 < L \leq 50$	31
$50 < L \leq 60$	40
$60 < L \leq 70$	17

- (a) Write down the modal class.

.....
(1)

- (b) Work out an estimate for the mean length of time spent by the 120 customers in the supermarket.

.....minutes
(4)

(Total for Question 2 is 5 marks)

- 3 The table shows information about the number of minutes each of 120 buses was late last Monday.

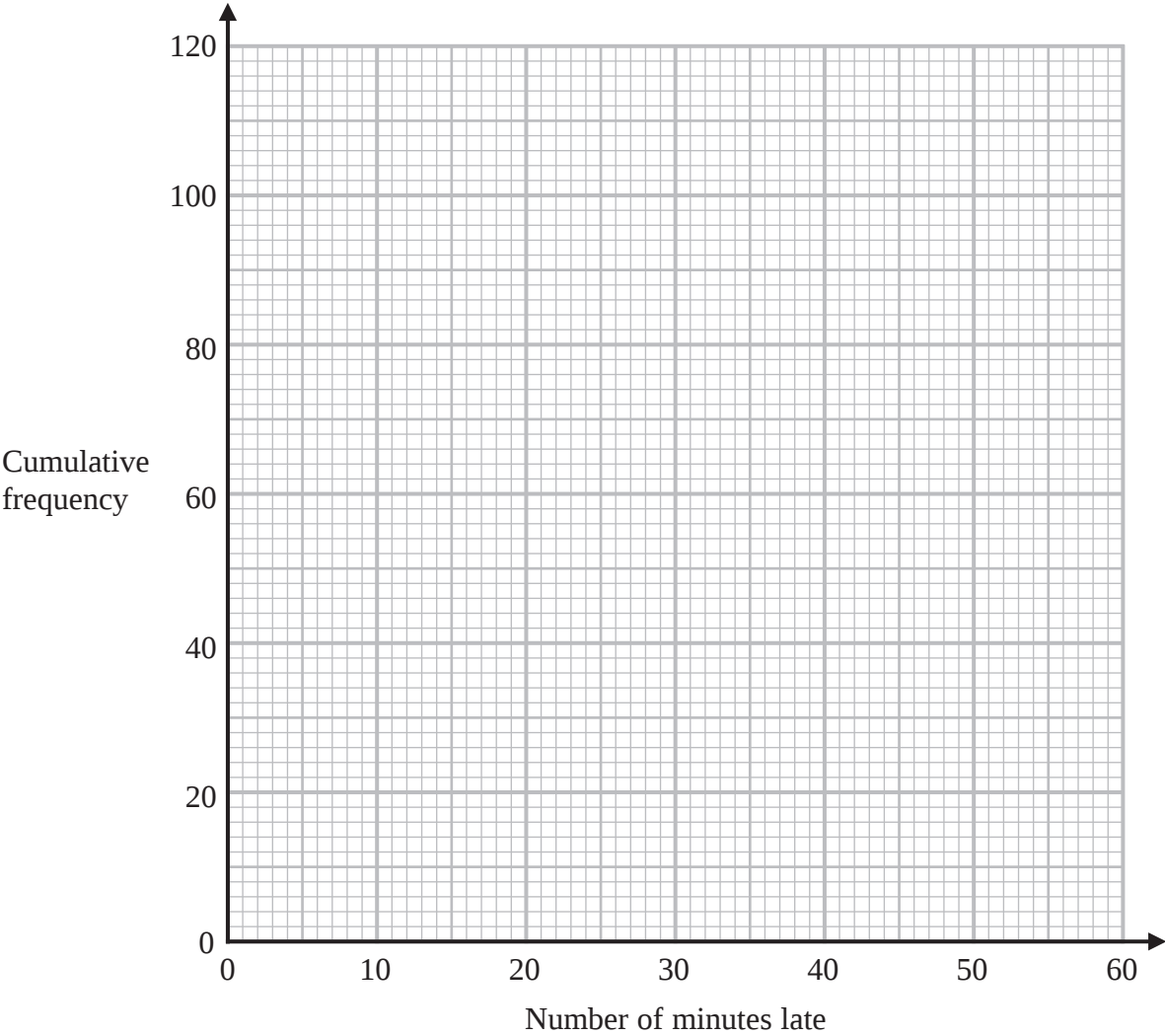
Number of minutes late (L)	Frequency
$0 < L \leq 10$	10
$10 < L \leq 20$	16
$20 < L \leq 30$	44
$30 < L \leq 40$	29
$40 < L \leq 50$	15
$50 < L \leq 60$	6

- (a) Complete the cumulative frequency table below.

Number of minutes late (L)	Cumulative frequency
$0 < L \leq 10$	
$0 < L \leq 20$	
$0 < L \leq 30$	
$0 < L \leq 40$	
$0 < L \leq 50$	
$0 < L \leq 60$	

(1)

(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.

.....minutes
(2)

(d) Use your graph to find an estimate for the number of buses that were more than 48 minutes late last Monday.

.....
(2)

- 4 The table gives information about the amount of money, in £, that Fiona spent in a grocery store each week during 2019

Amount spent (£ x)	Frequency
$0 \leq x < 20$	5
$20 \leq x < 40$	11
$40 \leq x < 60$	8
$60 \leq x < 80$	19
$80 \leq x < 100$	9

Work out an estimate for the total amount of money that Fiona spent in the grocery store during 2019

£.....

(Total for Question 4 is 3 marks)

5 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.

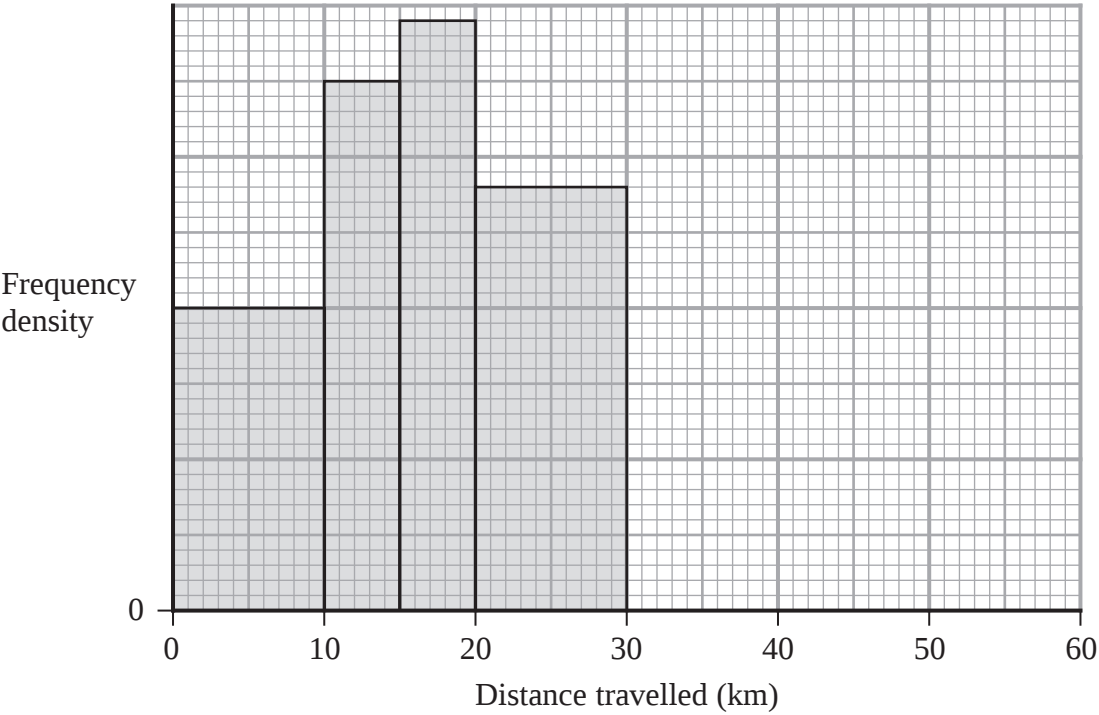
(c) Find the probability that this baby has a weight of more than 5 kg.

.....

(2)

6 The table and histogram give information about the distance travelled, in order to get to work, by each person working in a large store.

Distance (d km)	Frequency
$0 \leq d < 10$	40
$10 \leq d < 15$	
$15 \leq d < 20$	
$20 \leq d < 30$	
$30 \leq d < 60$	30



Using the information in the table and in the histogram,

(a) complete the table,

(2)

(b) complete the histogram.

(1)

One of the people working in the store is chosen at random.

(c) Work out an estimate for the probability that the distance travelled by this person, in order to get to work, was greater than 25 km.

.....
(2)

(Total for Question 6 is 5 marks)

7 The table gives information about the speeds, in kilometres per hour, of 80 motorbikes as each pass under a bridge.

Speed (s kilometres per hour)	Frequency
$40 < s \leq 50$	10
$50 < s \leq 60$	16
$60 < s \leq 70$	19
$70 < s \leq 80$	23
$80 < s \leq 90$	12

(a) Write down the modal class.

.....
(1)

(b) Work out an estimate for the mean speed of the motorbikes as they pass under the bridge.
Give your answer correct to 3 significant figures.

..... kilometres per hour
(4)

(Total for Question 7 is 5 marks)

8 The table shows information about the frame size, in cm, of 60 bicycles sold in a shop.

Frame size (S cm)	Frequency
$30 < S \leq 36$	4
$36 < S \leq 42$	14
$42 < S \leq 48$	18
$48 < S \leq 54$	19
$54 < S \leq 60$	5

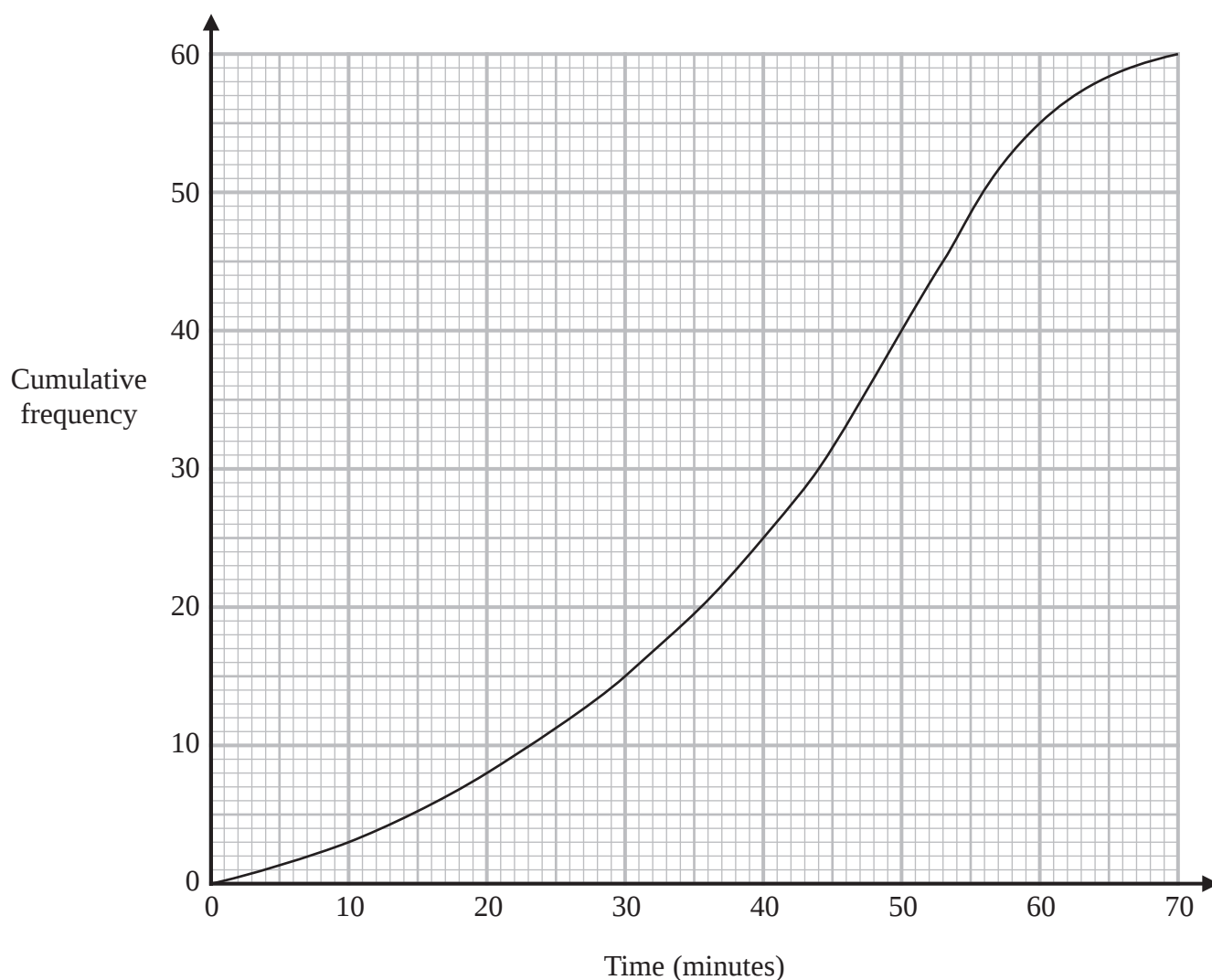
(a) Write down the modal class.

.....
(1)

(b) Work out an estimate for the mean frame size.

..... cm
(4)

- 9 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)

(Total for Question 9 is 5 marks)

10 The table gives information about the number of minutes that Abby spent walking each day in September.

Number of minutes (M)	Frequency
$0 < M \leq 30$	5
$30 < M \leq 60$	6
$60 < M \leq 90$	8
$90 < M \leq 120$	9
$120 < M \leq 150$	2

Work out an estimate for the total number of minutes that Abby spent walking in September.

..... minutes

(Total for Question 10 is 3 marks)