

- 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

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

(Total for Question 1 is 4 marks)

- 2 Paula asks 16 members of her class the number of pets they each have. Here are her results.

1 2 2 4 0 1 2 1
 3 3 4 1 1 0 3 2

- (a) Complete the frequency table for her results.

Number of pets	Tally	Frequency
0		
1		
2		
3		
4		

(2)

- (b) Write down the mode for the number of pets.

.....
(1)

- (c) Work out the range for the number of pets.

.....
(1)

(Total for Question 2 is 4 marks)

- 3 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 3 is 5 marks)

- 4 Egor rolled a dice 24 times.
Here are his results.

2 3 5 4 6 2
 1 3 3 5 1 3
 3 5 5 6 2 5
 4 3 4 3 3 4

- (a) Complete the frequency table for Egor's results.

Number on dice	Tally	Frequency
1		
2		
3		
4		
5		
6		

(2)

- (b) Write down the mode of the numbers that Egor rolled.

.....
(1)

Egor thinks the dice he rolled is biased.

- (c) Give a reason why the results could show that the dice is biased.

.....

(1)

(Total for Question 4 is 4 marks)

- 5 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 5 is 3 marks)

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)

(Total for Question 6 is 7 marks)

7 There are 25 pens in a packet.

7 of the pens are green.

10 of the pens are black.

The rest of the pens are red.

Jurgen takes at random a pen from the packet.

(a) Find the probability that

(i) the pen is black,

.....
(1)

(ii) the pen is red.

.....
(1)

Heidi records the number of packets of pens sold in her shop to each customer last Friday.
The table shows information about her results.

Number of packets	Frequency
1	14
2	17
3	15
4	12
5	9

(b) Write down the mode of the number of packets.

.....
(1)

(c) Work out the total number of packets of pens sold last Friday.

.....
(2)

(Total for Question 7 is 5 marks)

- 8 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 8 is 5 marks)

9 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)

(Total for Question 9 is 5 marks)

- 10** The frequency table shows information about the number of cookies made by each of the 21 people in a cookery class.

Number of cookies made	Frequency
10	1
11	7
12	2
13	5
14	4
15	2

- (a) Write down the mode of the number of cookies made.

.....
(1)

- (b) Find the median number of cookies made.

.....
(2)

- (c) Find the total number of cookies made by the 21 people in the cookery class.

.....
(2)

(Total for Question 10 is 5 marks)

- 11** Ivor asks 20 children in his class to name their favourite fruit.
Here are his results.

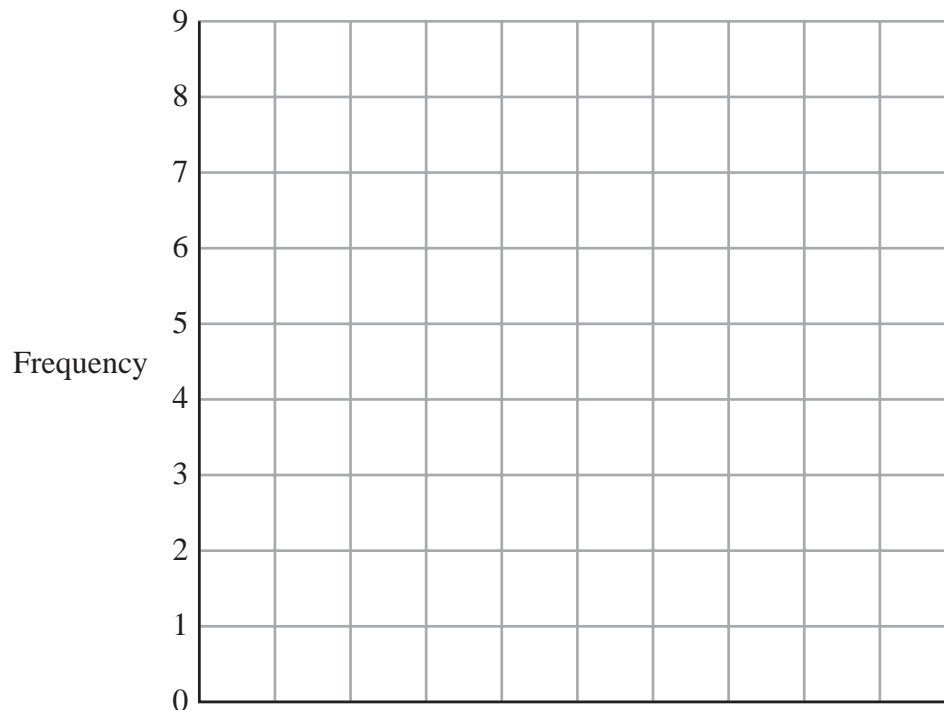
apple	orange	grape	peach	grape
banana	apple	orange	grape	peach
apple	apple	banana	peach	orange
grape	orange	apple	orange	orange

- (a) Complete the frequency table to show this information.

Fruit	Tally	Frequency
apple		
banana		
grape		
peach		
orange		

(2)

- (b) Complete the bar chart for the information in your table.



(3)

(Total for Question 11 is 5 marks)

- 12** 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 12 is 3 marks)
