Non-calculator Questions

NCFE

1.a)

Dennis finds 20 cars that he could buy.

He writes down how many miles each one has travelled.

45 565	55 421	69 720	62 483	72 596
48 010	58 750	63 245	67 328	79 812
49 950	63 500	64 750	75 005	81 505
53 250	68 600	60 500	72 975	81 099

Use the data to complete the frequency table below.

[2 marks]

Mileage	Frequency
	3
50 000 to 59 999	3
60 000 to 69 999	8
70 000 to 79 999	
80 000 to 89 999	2

b)

Draw a frequency chart.

Use the data from the completed table in question 1 (e).

[4 marks]

Chart to show miles travelled

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Linda also sells pet food.

The table shows Linda's takings in the first week:

£10.50	£5	£6.30	£7.20	£15	£8	£14.20	£6.50	£8
£5.67	£10.60	£13	£14.50	£15.78	£7.50	£3.40	£5.60	£4.55

Complete the frequency table for this data.

[3 marks]

£0 – £4.99	
£5 – £9.99	
£10 – £14.99	
£15+	
Total:	

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3.

A company conducts a survey. The survey asks people their ages. The data will be grouped.

Complete the table with the missing age groups.

Age group boundaries
25 and under
26 - 35
46 - 55
65 and over

(1 mark)

Highfield

4.

24 people took part in a quiz.

These are their scores.

7	14	9	16	13	9
8	10	14	7	18	19
16	12	5	17	3	4
15	12	15	6	18	6

Complete the frequency table with the two missing values.

Score	Frequency
0 – 5	
6 – 10	8
11 – 15	
16 – 20	6

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AQA

5.

Here are some values.

3	17	9	4	6	9	12	5
8	11	Q	1	15	18	7	1

Complete the grouped frequency table.

[2 marks]

Value	Tally	Frequency
1 to 5		
6 to 10		
11 to 15		
16 to 20		

Calculator Questions

Edexcel

1.

Martyn is a groundsman at a sports club.

He records the percentage of grass coverage in 12 places on a sports pitch.

Martyn lists the results.

grass coverage (%)							
55	32	64	45				
49	18	83	74				
27	91	40	62				

Martyn starts to show this information in a grouped frequency table. He will use five groups of equal size.

(a) Complete the grouped frequency table for Martyn.

(3)

grass coverage (%)	tally	frequency
1 to 20	I	1
	total	

Martyn clears all the rubbish left at the sports club.

He counts all the plastic drink bottles left each day for 60 days.

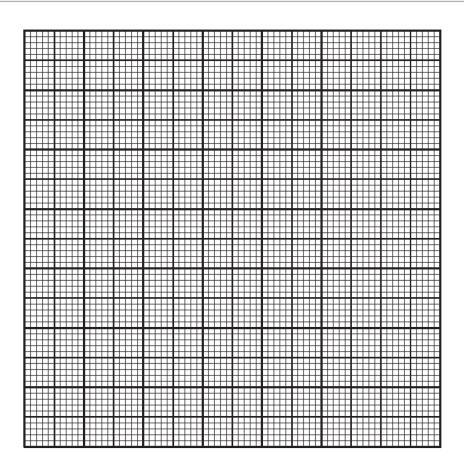
The table shows the results.

number of plastic bottles	frequency
0 – 9	2
10 – 19	12
20 – 29	15
30 – 39	23
40 – 49	8

Martyn wants to display this information in a chart.

Draw a chart to show this information.

(3)



Here is information about the distances travelled in miles by some people yesterday.

	distance	(miles)	
5	4	12	8
1	2	8	7
18	7	9	11
11	22	7	6
2	3	3	1

Sandro starts to show this information in a grouped frequency table.

Complete the grouped frequency table. Use five equal groups.

(3)

distance (miles)	tally	frequency
1 to 5	ШШ	8
6 to 10		

NCFE

4.

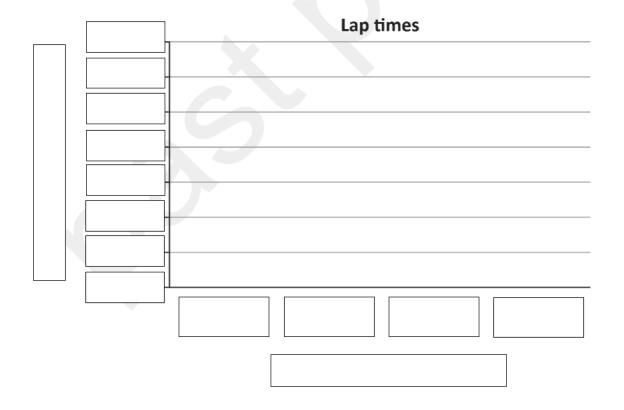
Here are people's lap times in seconds over the last week:

Using the lap times complete this frequency table:

Lap time in seconds	Frequency of people
20 – 25	
26 – 30	
31 – 35	
36 – 40	

Plot your results on this bar chart.

[4 marks]



At college, Zac learns about snakes.

He reads this data about the lengths of snakes found in one area:

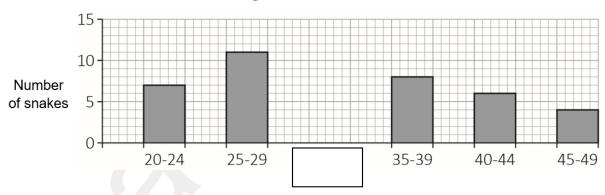
Length of snake (to nearest cm)	Number of snakes
20–24	7
25–29	11
30–34	13
35–39	8
40–44	6
45–49	4

The bar chart shows this data but one bar is incomplete.

Draw the bar to the correct height on the chart and label it.

[2 marks]

Lengths of snakes found in one area



Length of snake (to nearest cm)

Joe buys food and drink at the college café.

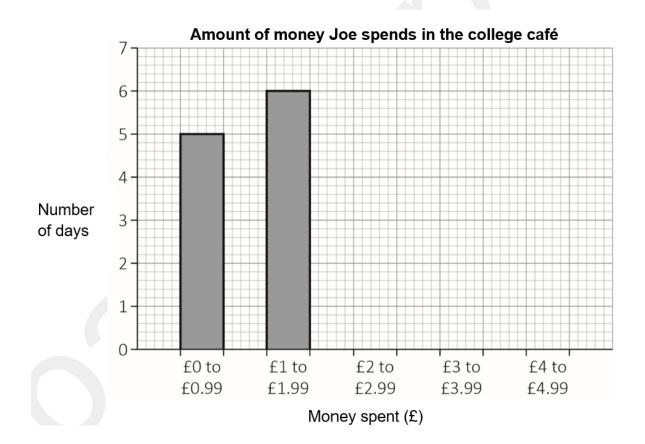
He keeps a record of how much money he spends at the café each day for 20 days.

The results are shown in this table:

£3.05	£2.23	£0.19	£1.05	£4.17
£3.50	£1.08	£0.90	£0.44	£1.32
£2.95	£1.50	£2.00	£3.64	£0.00
£2.55	£1.65	£1.75	£0.00	£2.05

Use the data to complete the bar chart.

[3 marks]



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7.

20 students take a maths test. Their tutor records the scores. The list below shows their scores:

 $15,\, 24,\, 6,\, 8,\, 29,\, 6,\, 12,\, 17,\, 24,\, 22,\, 25,\, 30,\, 18,\, 3,\, 11,\, 7,\, 18,\, 27,\, 28,\, 27$

Present these scores in three suitable groups	
	(2 marks)
Present this information in a suitable chart or graph.	
	There is
	spare graph paper on pg 21

(3 marks)

An inspector in a crisps factory measured the weight of crisps in 20 bags to check the accuracy of their weights.

The bags were labelled Average Contents 25g

The table below shows the weight of the bags of crisps.

	Weight of	f bags of crisps	in grams	
24.4	25.5	25.0	25.3	24.4
26.5	25.2	24.9	24.3	25.1
25.3	25.1	25.1	24.2	24.5
24.7	24.5	26.0	25.4	25.2

Present these weights in 3 suitable groups.

Make one comment about what the results show you.

Show your working
Comment

(4 marks)

A joiner has a video channel on the internet where he shares tips on how to make items for the home.

He wants to organise his videos into three suitable groups by time.

1 minute	1 minute	12 minutes	2 minutes	3 minutes	14 minutes
2 minutes	8 minutes	14 minutes	6 minutes	1 minute	7 minutes
12 minutes	4 minutes	9 minutes	11 minutes	3 minutes	14 minutes

Show how he will organise his videos.

Make one comment about what the results show you.

Show your grouping
Comment

(4 marks)

Highfield

10.

In a survey, 20 builders were asked how many bricks they could lay in one day.

These are the results:

492	520	412	390	400
530	550	390	445	410
392	548	495	320	502
340	440	510	378	467

a) Use the results to complete the table below using equal groups.

(2 marks)

Number of bricks:	Frequency:
301-350	
351-400	
Total:	

b) Using your table from 1/3a, create a graph or chart to represent the grouped da	ta.
Draw your graph below.	(4 marks)

The table below shows the scores of 16 students in an exam.

42	33	28	19	35	41	36
38	31	29	27	44	40	28
39	14	1				

Complete the table below to show frequency.

(1 mark)

Number of marks	Frequency
0 – 9	
10 – 19	
20 – 29	
30 – 39	
40 – 49	

AQA

12.

Here are 15 values.

Complete the frequency column of the table.

[2 marks]

Value	Frequency
1 – 10	2
11 – 20	
21 – 30	
31 – 40	