

Question 1

The table below shows the monthly payment for an insurance scheme. The payments depend on the age at which a person starts paying. There are two rates, Standard Rate and Discount Rate.

Age	Monthly Payments per Person	
	Standard Rate in pounds	Discount Rate in pounds
0 - 16	7.20	6.12
17 - 19	12.60	10.71
20 - 39	17.00	14.45
40 - 59	23.40	19.89
60 - 74	41.40	35.19
75 and over	84.80	72.08

Alison is aged 17. She pays the Standard Rate.

- (a) i) Write down Alison's monthly payment.
 ii) Work out the total amount Alison will pay in a year.

Mr Masih pays at the Discount Rate.

He pays £19.89 each month.

If he were one year older, he would pay £35.19 each month.

- (b) How old is Mr Masih?

The standard monthly payment for an insurance scheme for Tom is £7.20.

This is reduced for the Discount monthly payment to £6.12.

- (c) Work out the percentage reduction.

Question 2

30 people used a Sports Centre one evening.
Here is a list of the activities in which they took part.

Gym	Swimming	Squash	Swimming	Aerobics
Swimming	Aerobics	Aerobics	Aerobics	Gym
Aerobics	Gym	Gym	Gym	Squash
Squash	Gym	Squash	Gym	Gym
Gym	Aerobics	Aerobics	Squash	Gym
Gym	Aerobics	Squash	Gym	Aerobics

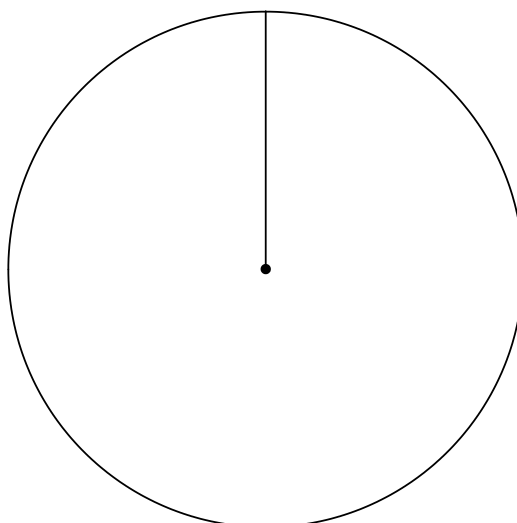
(a) Complete the table to show this information

Activity	Tally	Frequency
Gym		
Swimming		
Squash		
Aerobics		
Total		30

(3 marks)

(b) Draw a pie chart to show this information

(5 marks)



Question 3

Rachel and Teri were collecting information on the type of meal bought by students in the school canteen.

In the space below draw a suitable collection sheet for this information. **(3 marks)**

Question 4

The table shows the cost of some of Gino's pizzas.



Gino's Pizza Choice	Deep Pan			Thin Crust		
	Regular	Medium	Family	Regular	Medium	Family
Supreme	£3.30	£5.75	£8.50	£3.10	£5.45	£8.25
Mexican	£3.10	£5.30	£8.00	£2.95	£5.05	£7.70
Vegetable	£2.95	£5.15	£7.40	£2.75	£4.95	£7.15
Seafood	£3.00	£5.20	£7.45	£2.80	£5.00	£7.20

(a) Write down the cost of a Deep Pan Regular Vegetable pizza.

Alberto spent £5.45 on a pizza.

(b) Which pizza did Alberto buy?

Volvo	Fiat	Ford	Ford	Rover
Rover	Rover	Fiat	Volvo	Honda
Honda	Volvo	Ford	Ford	Ford
Rover	Rover	Ford	Fiat	Vauxhall
Vauxhall	Vauxhall	Ford	Volvo	Rover

Question 6

There are 50 pupils in each of the groups, Year 9, Year 10 and Year 11 at Lucea High School.

A survey was carried out to find how many pets these pupils owned.

The results are shown in the table below.

Number of pets	Year 9	Year 10	Year 11
0	2	5	32
1	29	22	11
2	14	19	6
3	5	4	1
4	1	0	0

- (a) How many pupils in Year 10 own no pets?
- (b) How many of the pupils own exactly 2 pets?
- (c) What is the most common number of pets owned by pupils?
- (d) Which year group owns the least number of pets? Use the figures to explain your answer.

Question 7

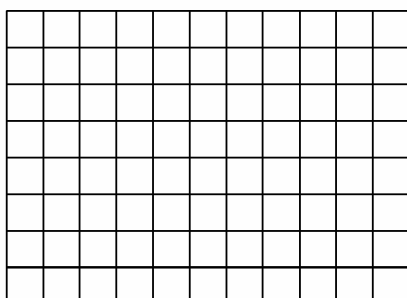
Aisha measured the heights of the 30 students in her class.
The measurements are all written correct to the nearest centimetre.
Here are the results she obtained.

Aisha uses a tally table to record her results in groups of 5 cm starting at 161 cm.

(a) Complete the tally table for Aisha's data.

Group	Tally	Frequency
161 to 165		

(b) On the grid below draw a bar chart of Aisha's results.



Question 8

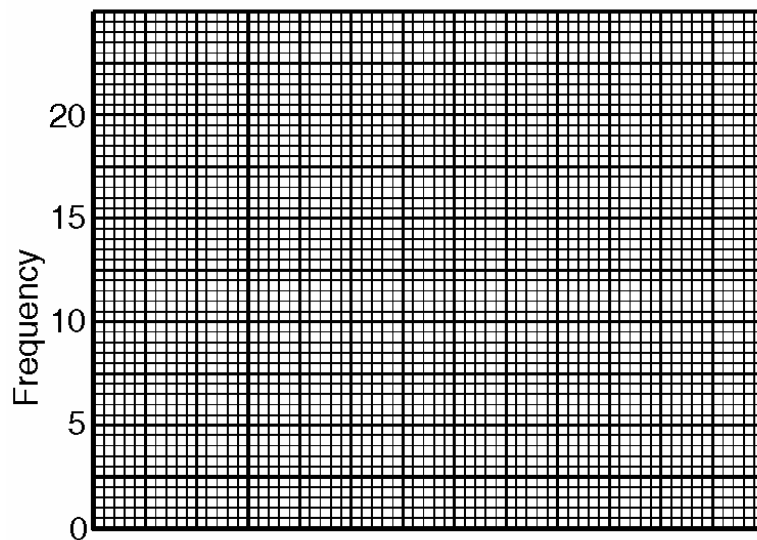
Robin had a holiday job packing cheese.
 Each pack of cheese should weigh 500 grams.
 Robin had 30 packs of cheese.
 Robin checked the weights, in grams, correct to the nearest gram.
 These are the results.

512 506 503 506 499
 499 500 504 502 503
 496 497 497 509 506
 499 497 498 507 511
 498 491 496 506 507
 493 496 503 510 508

- (a) Complete the grouped frequency table for the weights. Use class intervals of 5 g.

Weight (w grams)	Tally	Frequency
$490 \leq w < 495$		

- (b) On the grid draw a frequency diagram to represent the data.



Question 9

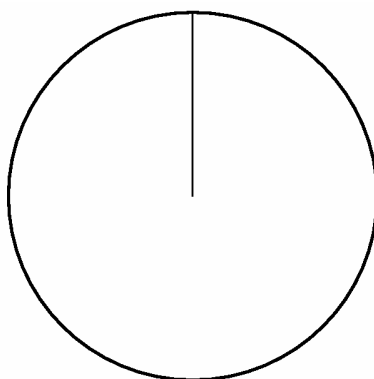
Patrick carried out a survey of 45 pupils in Year 11.
He asked how many books they had borrowed from the library in the last month.
These are Patrick's results.

4, 6, 3, 9, 10, 5, 4, 7, 6, 3, 8, 3, 1, 9, 0,
12, 5, 6, 3, 3, 0, 7, 9, 4, 3, 8, 2, 1, 6, 1,
3, 4, 6, 0, 7, 10, 4, 8, 1, 6, 7, 1, 2, 3, 1.

(a) Complete the frequency table.

Number of books	Tally	Frequency
0 to 2		
3 to 5		
6 to 8		
more than 8		6

(b) Construct a pie chart to show this information.



(c) What fraction of the group had borrowed 6, 7 or 8 books?

Question 10

In a town 1800 cars were stolen in a year. The table shows information about the times of day when they were stolen.

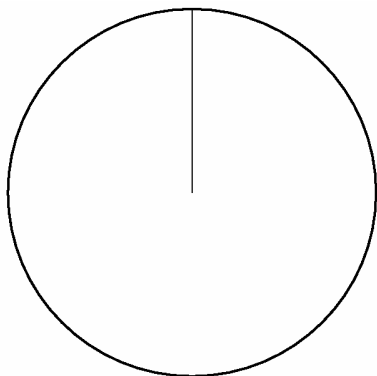
Time	Number of cars
Midnight to 6 am	700
6 am to midday	80
Midday to 6 pm	280
6 pm to midnight	470
Time unknown	270

This information can be shown in a pie chart.

(a) Work out the angle of each sector of the pie chart.

Time	Angle of sector
Midnight to 6 am	
6 am to midday	
Midday to 6 pm	
6 pm to midnight	
Time unknown	
Total of angles	360°

(b) Construct the pie chart in the circle below.



(c) What fraction of the number of cars was stolen between Midday and 6pm?
Write your fraction in its simplest form.

Question 11

A set of 25 times in seconds is recorded.

12.9 10 4.2 16 5.6 18.1 8.3 14 11.5 21.7
 22.2 6 13.6 3.1 11.5 10.8 15.7 3.7 9.4 8
 6.4 17 7.3 12.8 13.5

(a) Complete the frequency table below, using intervals of 5 seconds.

Time (t) seconds	Tally	Frequency
$0 \leq t < 5$		

(b) Write down the modal class interval.

Question 12

Bill carries out a survey of the colours of cars people buy.
He makes a list of the colours of the 20 cars in the school car park.
Here is a list of the colours of the 20 cars.

Red	Red	Red	Blue	White
White	Blue	Red	Green	Green
Red	White	Green	Red	White
Red	Green	Red	White	White

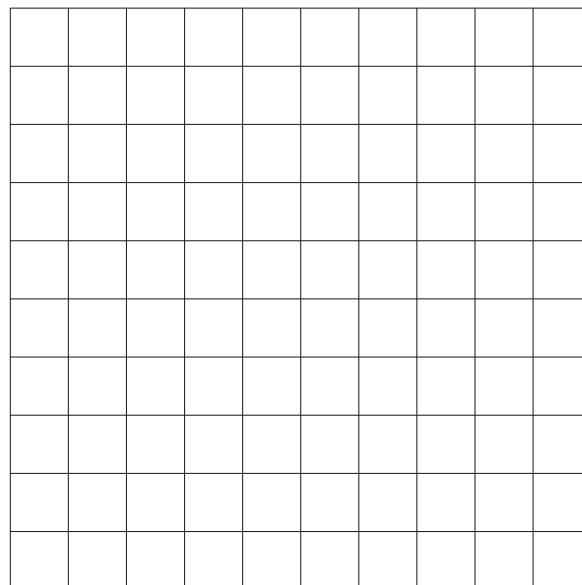
(a) Complete the frequency table below.

(2 marks)

Colour of car	Tally	Frequency
Red		
Blue		
White		
Green		

(b) Draw a bar chart for this information.

(3 marks)



(c) Write down the colour of car which is the mode.

(1 mark)

Question 13

Karl's and Eleanor's school is near a busy main road.

They decide to carry out a survey of the different types of vehicles that travel on the main road.

Design a suitable data sheet so that they can collect their data easily.

Question 14

Nazia is going to carry out a survey of the types of videos her friends have watched.

In the space below draw a suitable data collection sheet that Nazia could use.

(3 marks)

Question 15

Grace and Gemma were carrying out a survey on the food people eat in the school canteen.

Grace wrote the question

"Which foods do you eat?"

Gemma said that this question was too vague.

Write down two ways in which this question could be improved. **(2 marks)**

Question 16

The list shows the number of tickets sold for each performance of a pantomime.

622 565 668 191 276 264 653 231 212 641
 217 572 528 586 495 561 563 697 681 255
 517 401 104 579 511 666 306 422 278 192

(a) Complete the frequency table.

Number of tickets sold	Tally	Frequency
100 to 199		
200 to 299		
300 to 399		
400 to 499		
500 to 599		
600 to 699		

(3 marks)

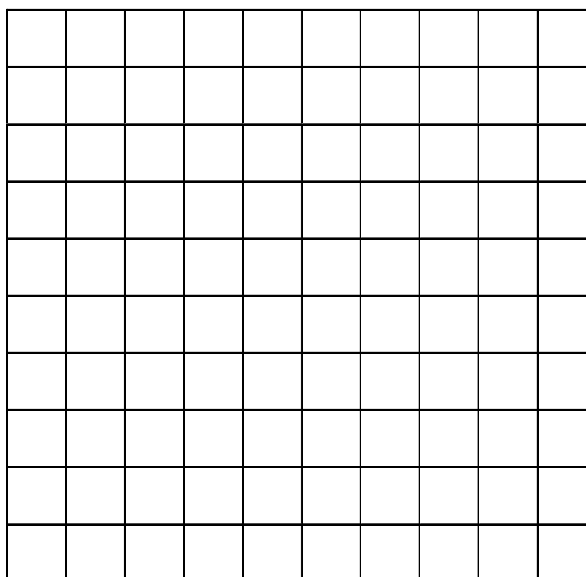
(b) Write down the modal class of the number of tickets sold.

(1 mark)

The numbers of coaches used to bring people to the pantomime for the first five days, Monday to Friday, are shown in the table opposite.

Day	Number of coaches
Monday	8
Tuesday	5
Wednesday	4
Thursday	1
Friday	3

- (c) On the grid, draw a bar chart to show the information in the table.



(3 marks)