

Presenting Data GCSE Foundation Questions

Question 1

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

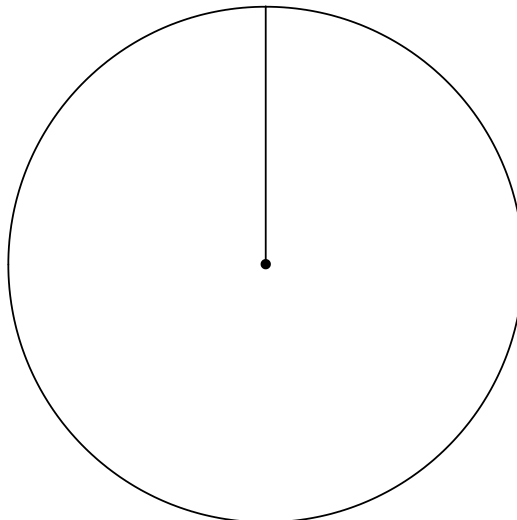
(a) Complete the table to show this information

Activity	Tally	Frequency
Gym		
Swimming		
Squash		
Aerobics		
Total		30

(3 marks)

(b) Draw a pie chart to show this information

(5 marks)



Question 2

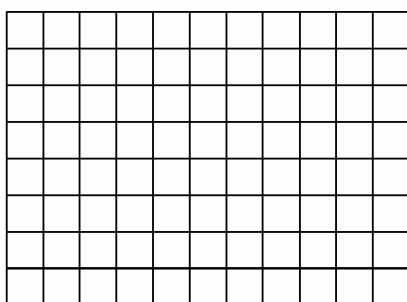
Aisha measured the heights of the 30 students in her class.
The measurements are all written correct to the nearest centimetre.
Here are the results she obtained.

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 3

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.

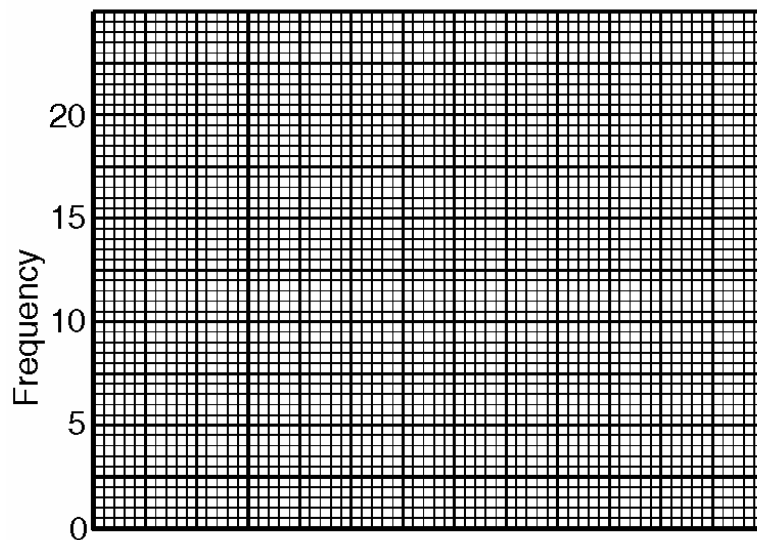
These are the results.

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 4

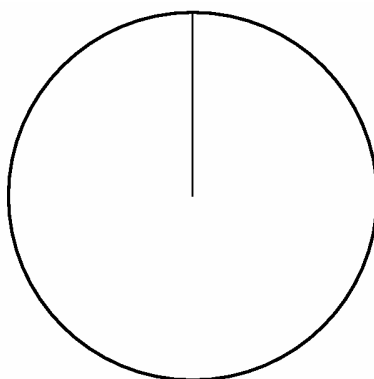
Patrick carried out a survey of 45 pupils in Year 11.
He asked how many books they had borrowed from the library in the last month.
These are Patrick's results.

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 5

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

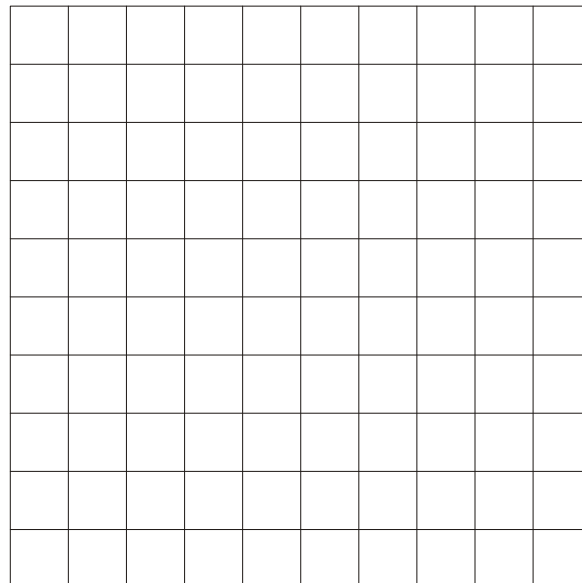
(a) Complete the frequency table below.

(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 6

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)

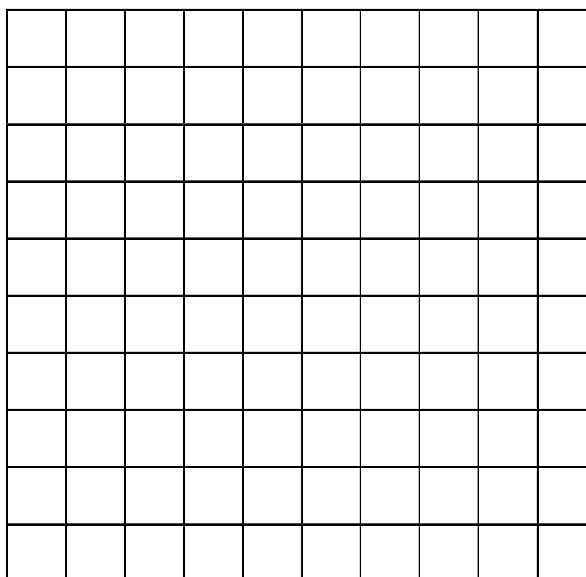
(b) Write down the modal class of the number of tickets sold.

(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)

Question 7

Here is a pictogram.

It shows the number of people who had a meal in a café on each of four days.

Monday	  
Tuesday	 
Wednesday	   
Thursday	     
Friday	

 represents 20 people

(a) Write down the number of people who had a meal in the café on

- (i) Monday,
- (ii) Wednesday,
- (iii) Thursday.

(3 marks)

















On Friday, 55 people had a meal in the café.

(b) Show this information on the pictogram.

(2 marks)

Question 8

The pictogram shows the number of televisions sold by a shop each month.

January	   
February	   
March	    
April	  
May	

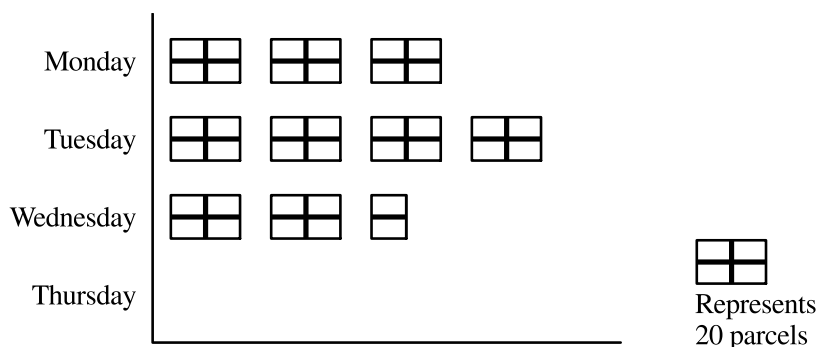


Represents 10 televisions.

- (a) In which month were the most televisions sold? **(1 mark)**
- (b) Write down the number of televisions sold in
- (i) January,
- (ii) April. **(2 marks)**
- (c) Work out the total number of televisions sold in January, February, March and April. **(1 mark)**
- 45 televisions were sold in May.
- (d) Show this information on the pictogram. **(1 mark)**

Question 9

The pictogram shows the number of parcels posted at the High Street Post Office on Monday, Tuesday and Wednesday.



- (a) How many parcels were posted on
- Monday,
 - Wednesday?

(2 marks)

25 parcels were posted on Thursday.

- (b) Show this in a pictogram.

(2 marks)

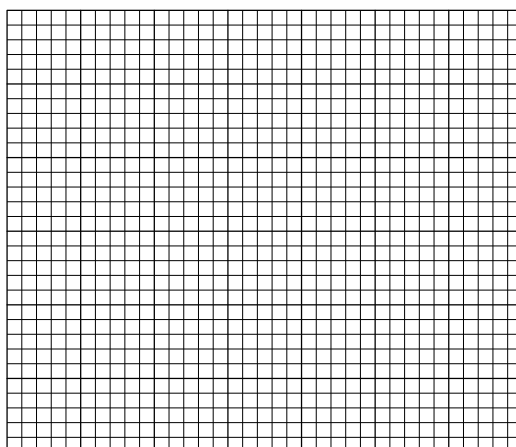
Question 10

A farmer has 40 hens.

The table shows the number of eggs laid by the hens.

Number of eggs	Frequency
0	2
1	8
2	9
3	11
4	6
5	4

(a) Draw a bar chart to show this information



(b) Work out the number of hens which laid 3 eggs or more.

(1 mark)

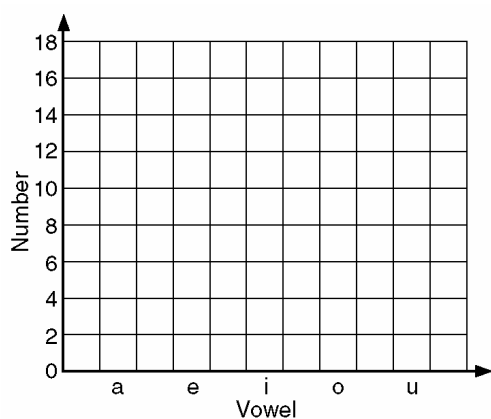
(c) Write down the mode.

(1 mark)

Question 11

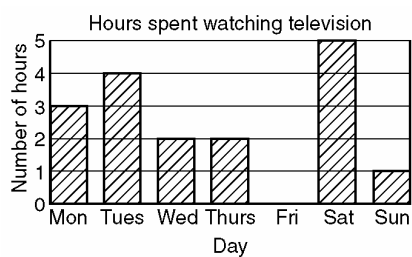
Zeeshan counts the number of vowels in a sentence. The results are shown in the table. Draw a bar chart to show this information.

Letter	a	e	i	o	u
Frequency	14	17	8	9	6



Question 12

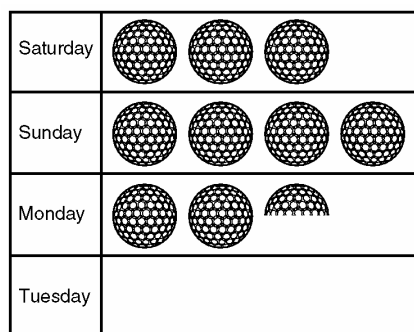
The bar chart shows the number of hours Jason spent watching television in one week.



- (a) Write down the day on which he watched most television.
- (b) Work out the total number of hours he spent watching television during the week.

Question 13

The pictogram shows the number of golfers who played at the local golf club last week.



Represents
20 golfers 

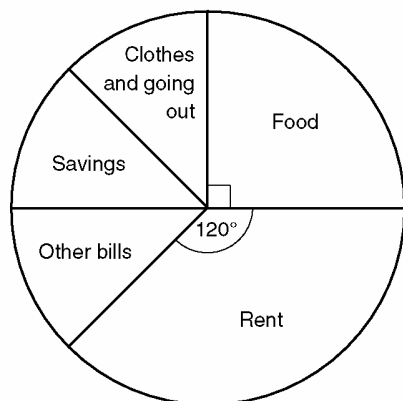
- (a) How many golfers played on Sunday?
- (b) How many golfers played on Monday?

On Tuesday 35 golfers played

- (c) Complete the pictogram to show this.

Question 14

The pie chart shows how Jenny spends her monthly income.

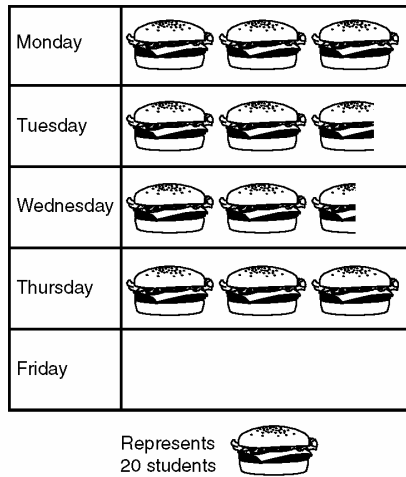


Jenny spends £150 a month on food.

- (a) Work out Jenny's monthly income.
- (b) Work out how much rent Jenny pays each month.

Question 15

Here is a pictogram to show the number of students that had a cooked meal in the school canteen one week last winter.



- (a) How many students had a cooked meal on
- Monday
 - Wednesday
 - Tuesday

On Friday 45 students ate a cooked meal.

- (b) Show this information on the pictogram.

Angelo rolls a six faced dice numbered from 1 to 6 and throws a coin at the same time.

- (c) Write down a list of all possible combinations that could occur.

Question 16

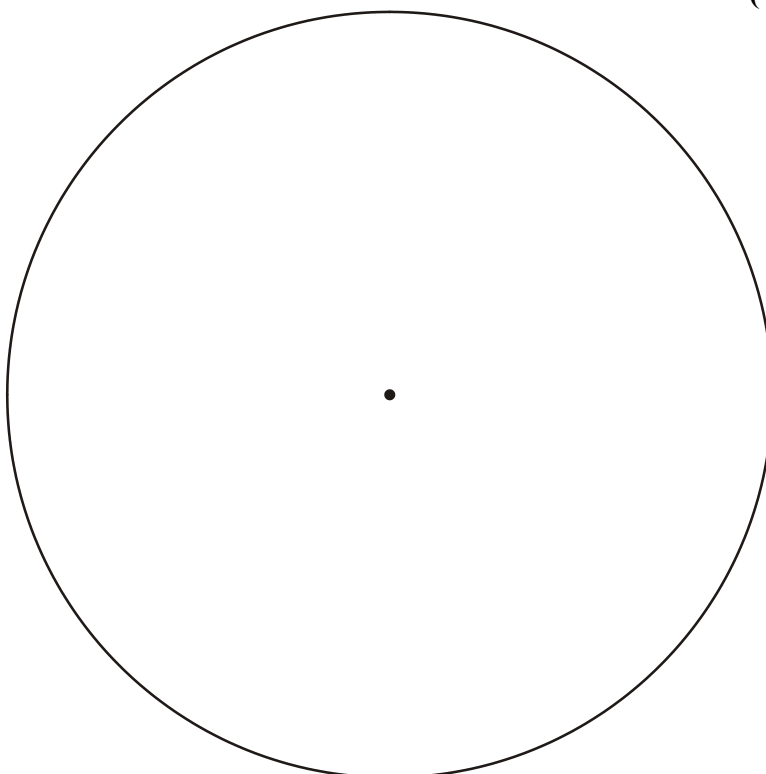
In an English lesson, the 24 pupils in a class were each asked to write down the first vowel in their name. The table shows the information.

First vowel in a pupil's name	Number of pupils
A	6
E	3
I	5
O	8
U	2

This information can be shown in a pie chart.

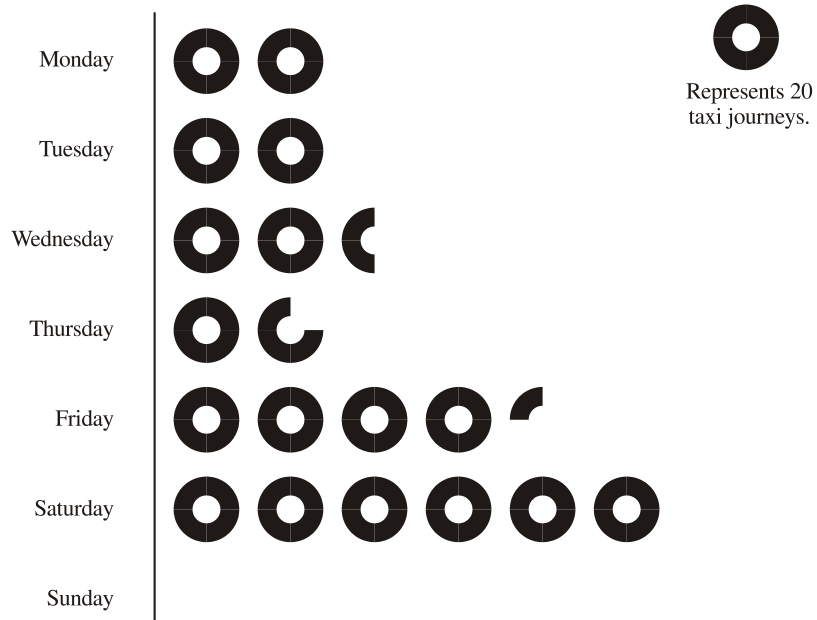
Construct the pie chart in the circle below.

(4 marks)



Question 17

Here is a pictogram showing the number of taxi journeys last week.



- (a) Write down the number of taxi journeys on
- i) Monday
 - ii) Wednesday
 - iii) Friday

(3 marks)

On Sunday there were 100 taxi journeys.

- (b) Show this on the pictogram.

(2 marks)

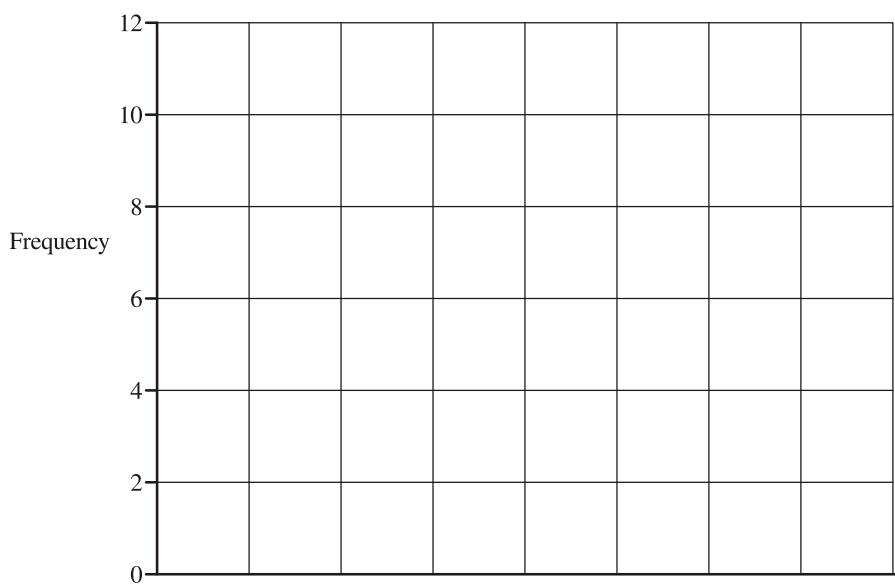
Question 18

Ian collected data on the food students bought in the school canteen.

Here are his results.

Food	Frequency
Chips	12
Beans	5
Hamburger	10
Chicken Curry	4

On the grid below draw a bar chart to show this information.



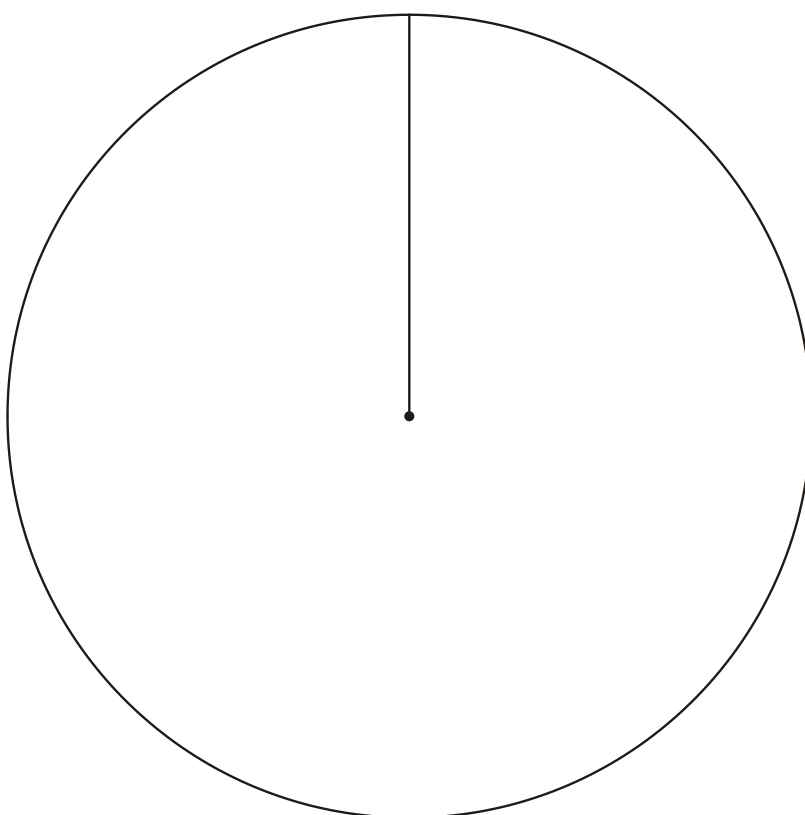
(3 marks)

Question 19

The table gives information about the times 60 teachers take to travel to school.

Time in minutes	Frequency	Angle
Less than 10	5	
Between 10 and 15	15	
Between 15 and 20	12	
More than 20	28	

Draw a pie chart to show this information



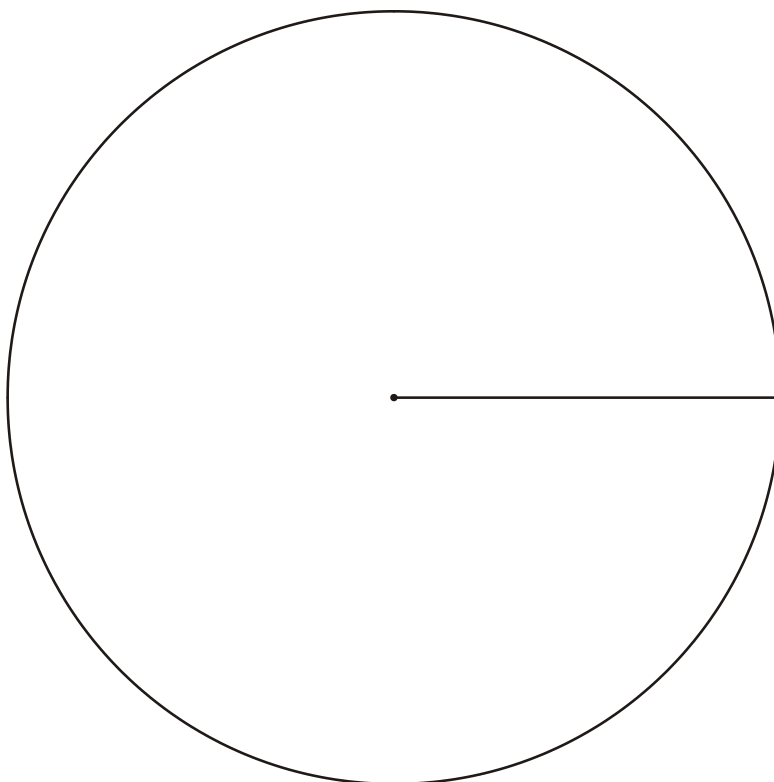
(4 marks)

Question 20

40 passengers at Gatwick Airport were asked which country they were flying to. Here is a frequency table which shows that information.

Country	Number of passengers	
USA	14	
France	10	
Spain	11	
Greece	5	

Draw an accurate pie chart to show this information.
Use the circle below.



(4 marks)