



Bishops Online Tutoring



Education Consultancy

Edexcel GCSE Mathematics PIE CHARTS

Materials Required:

- Pen
- HB Pencil
- Ruler (in centimetres and millimetres)
- Protractor
- Compass

Information:

- The marks allocated for each question are displayed within brackets – utilise this information to gauge the appropriate amount of time to dedicate to each question
- Questions marked with an asterisk (*) will assess your written communication; be careful of spelling, punctuation and grammar with these questions

Instructions:

- Use a black ink pen to answer all questions
- Fill your name in the section below
- Answer the questions in the spaces provided
- Show your working out for all answers

Advice:

- Carefully read the question before attempting to answer it
- Be vary of time and try to answer every question
- If you have enough time in the end, go back and check your answers. A good way to check your answers is to retry the question with the hope of getting the same answer as before without looking at your working out from before

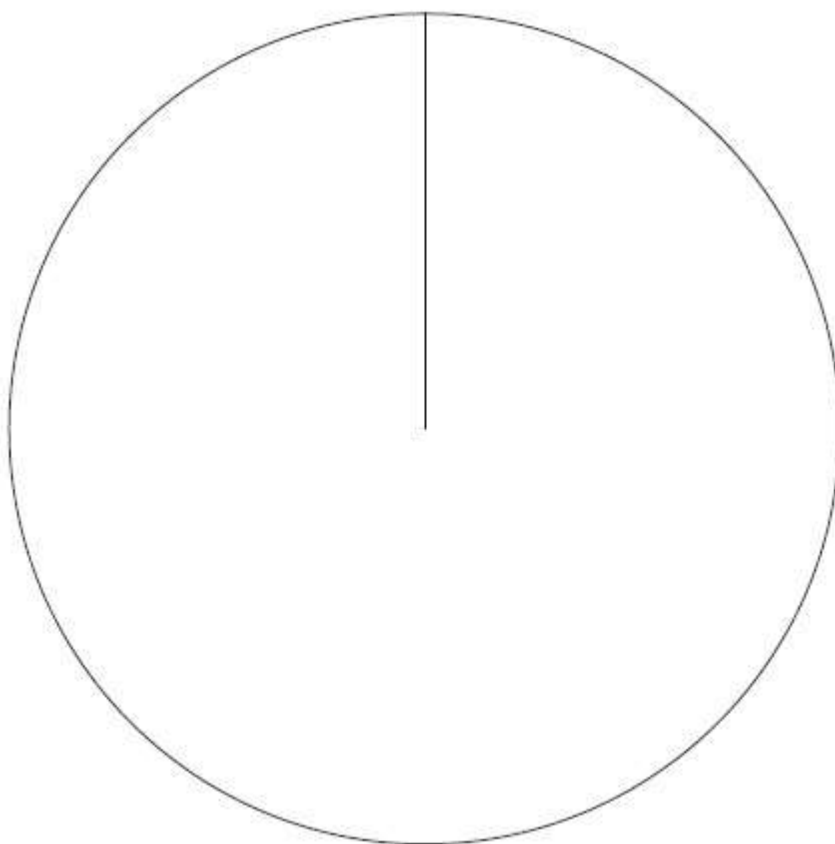
NO CALCULATOR ALLOWED

NAME:

1. The table gives information about the numbers of fish in a lake.

Fish	Frequency	
Perch	10	
Bream	23	
Carp	39	

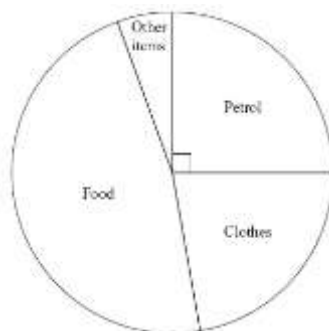
Draw an accurate pie chart to show this information.



(4 marks)

- 2 Mrs Yusuf went shopping at a superstore.

The pie chart shows information about the money she spent on petrol, on clothes, on food and on other items.



- (a) What did she spend most money on?

.....
(1)

- (b) What fraction of the money she spent was on petrol?

.....
(1)

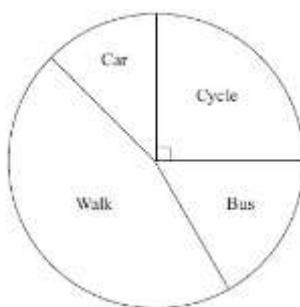
Mrs Yusuf spent £25 on petrol at the superstore.

- (c) In total, how much money did she spend?

£
(2)

(4 marks)

-
3. Harry asked each student in his class how they travelled to school that day. He used the results to draw this pie chart.



- (a) How did most of the students travel to school?

.....
(1)

Harry asked a total of 24 students.

- (b) Work out the number of students who cycled to school.

.....
(2)

(3 marks)

4. Sally recorded the musical instrument played by each of 30 students in the school orchestra. The table shows her results.

Musical instrument	Frequency	
Clarinet	5	
Guitar	12	
Flute	7	
Drums	6	

One of the students in the school orchestra is chosen at random.

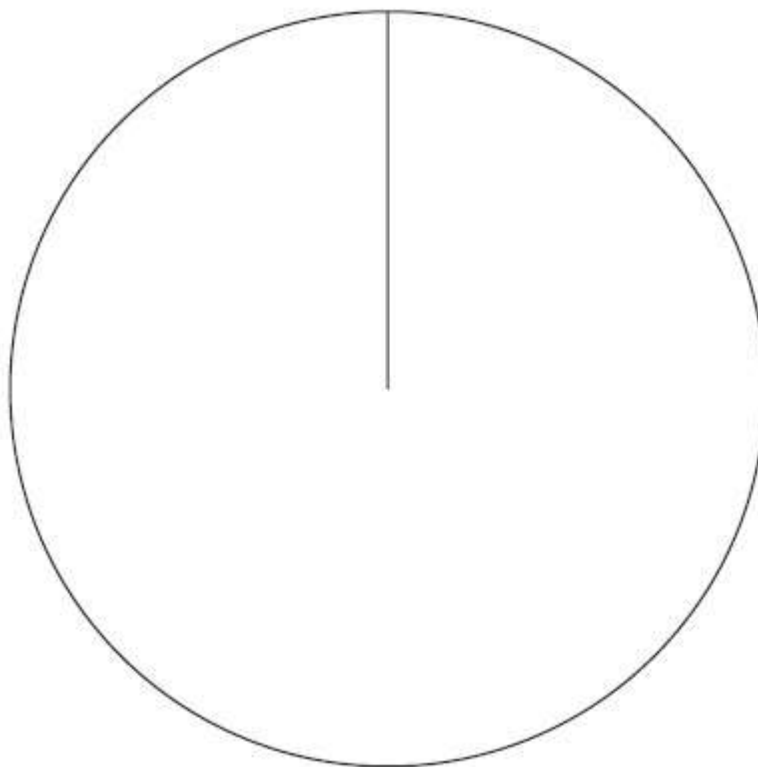
- (a) Find the probability that this student plays the flute.

(2)

.....

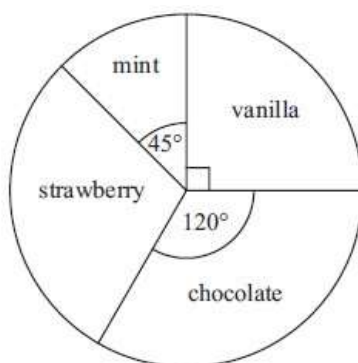
- (b) Draw an accurate pie chart to show the information shown in the table.

(4)



(6 marks)

- 5 Some children were asked to name their favourite flavour of ice cream. The pie chart and table show some information about their answers.

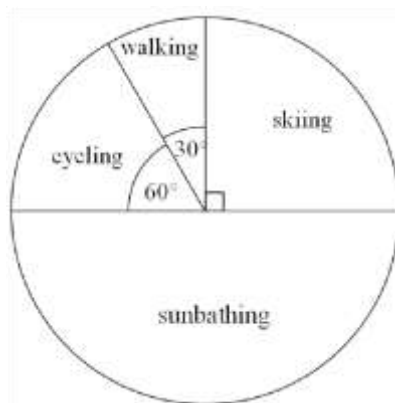


Use the pie chart to complete the table.

Flavour	Number of children	Angle of sector
vanilla	12	90°
mint	45°
strawberry	14
chocolate	120°

(3 marks)

6. Noreen carries out a survey of some students. The pie chart shows some information about their favourite holiday.



5 students said that walking is their favourite holiday.

- (a) How many students took part in the survey?

.....
(2)

Noreen chooses one of these students at random.

- (b) Write down the probability that this student's favourite holiday is cycling

.....
(1)

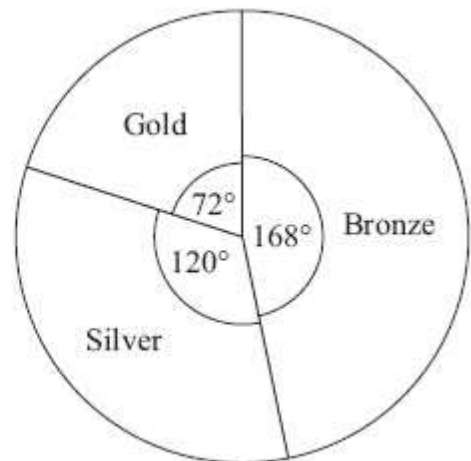
(3 marks)

7. The pie charts show some information about the numbers of medals won by Germany and by the Russian Federation in the 2010 Winter Olympics.

Medals won by Germany



Medals won by the Russian Federation



Germany won 7 bronze medals.

- (a) How many gold medals did Germany win?

.....
(2)

(b) Graham says,

‘The pie charts show that Germany won more gold medals than the Russian Federation’.

Is Graham right?

You must explain your answer.

.....

.....

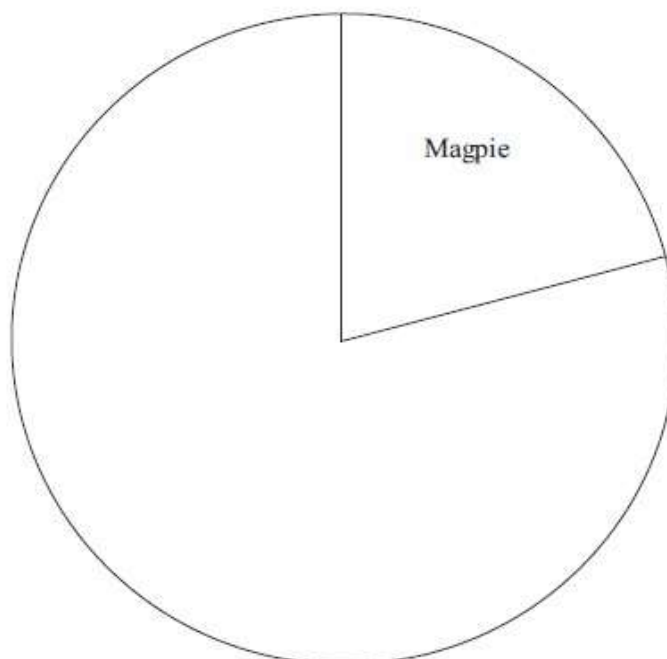
(1)

(3 marks)

8 The table gives some information about the birds Paula sees in her garden one day.

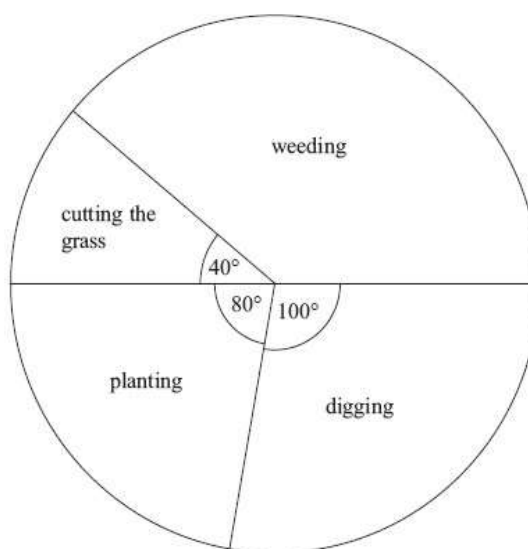
Bird	Frequency
Magpie	15
Thrush	10
Starling	20
Sparrow	27

Complete the accurate pie chart.



(3 marks)

9. The pie chart shows some information about the time Gill spent working in her garden one month.



- (a) What fraction of the time did Gill spend cutting the grass?

.....
(1)

Gill spent 7 hours weeding.

- (b) How much time did Gill spend planting?

..... hours
(3)

(4 marks)