

Name: _____

GCSE (1 – 9)

Pie Charts

Instructions

- Use **black** ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all your working out.**

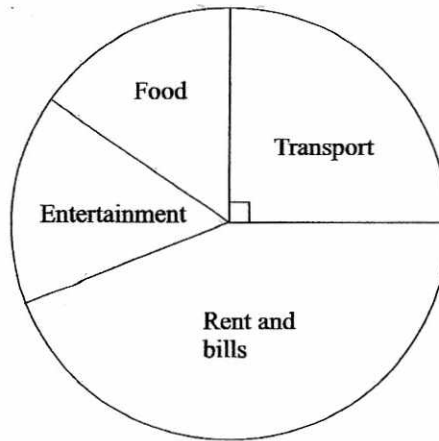
Information

- The marks for each question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end

1 The pie chart shows information about the money Fiona spent last month.



(a) What did Fiona spend most money on?

Rent and Bills (1)

(b) What fraction Fiona's spending was on transport?

$\frac{1}{4}$ (1)

Fiona spent £320 on transport.

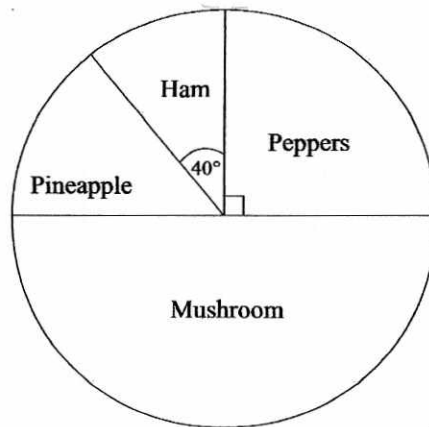
(c) How much did Fiona spent in total?

$£320 \times 4$

£1280 (2)

(Total for question 1 is 4 marks)

2 The pie chart shows information about the favourite pizza toppings of a group of students.



Use the pie chart to complete the table

$\frac{90}{18} = 5$

Topping	Frequency	Angle of Sector
Peppers	18	90
Mushroom	36	180
Pineapple	10	50
Ham	8	40

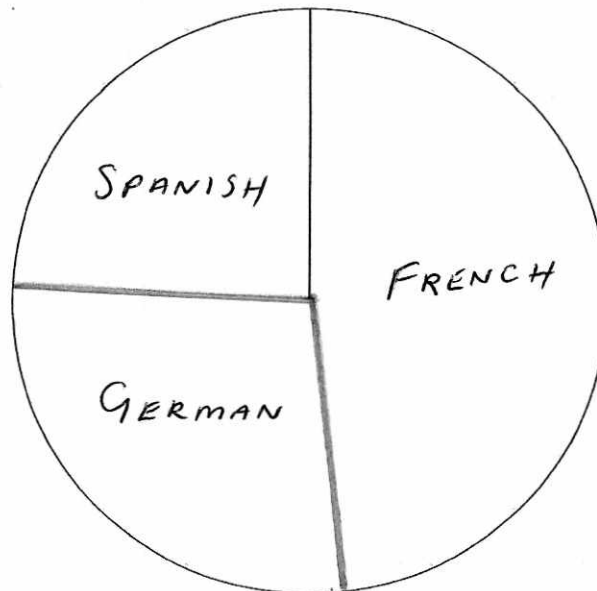
$\div 5$ (Total for question 2 is 4 marks)

3 The table gives information about the languages studied by year 11 students at school A.

Language	French	German	Spanish
Number of Students	58	33	29
Angle	174	99	87

T
120
360

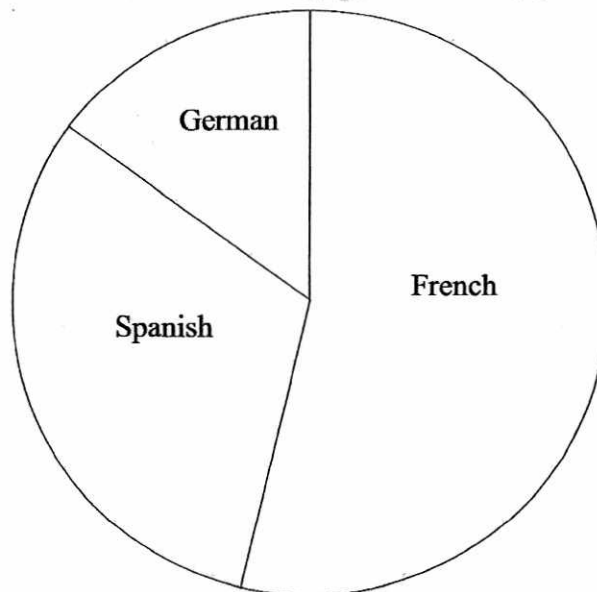
(a) Draw an accurate pie chart for this information



$$\frac{360}{120} = 3$$

(4)

The pie chart below shows information about the languages studied by year 11 students at school B.



Maggie says: "the pie charts show that more year 11 students at school B study French"

(b) Is Maggie right?

You must explain your answer

No, we don't know how many students study French at school B.

(1)

(Total for question 3 is 5 marks)

4 The table shows some information about the favourite biscuits of some people.

Biscuit	Digestive	Custard Cream	Shortbread	T
Frequency	9	15	16	40
	81 $\downarrow \times 9$	135 $\downarrow \times 9$	144 $\downarrow \times 9$	360

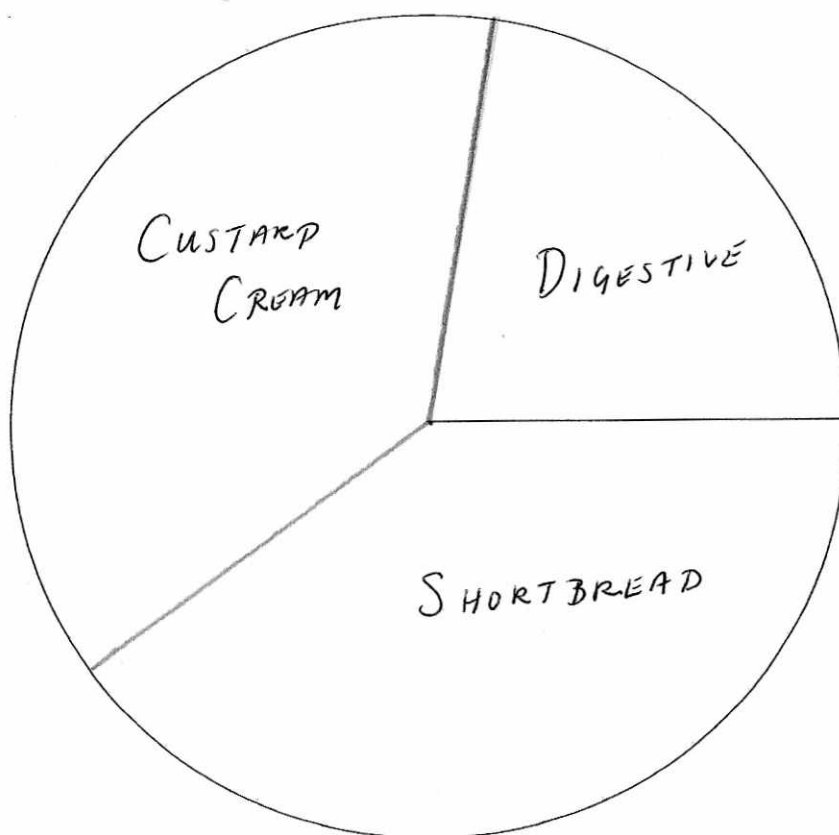
$$\frac{360}{40} = 9$$

(a) Which type of biscuit is the mode?

..... Shortbread

(b) Draw an accurate pie chart to show this information.

(1)



(4)

(Total for question 4 is 5 marks)

5 The table shows some information about the colours of cars parked in a car park.

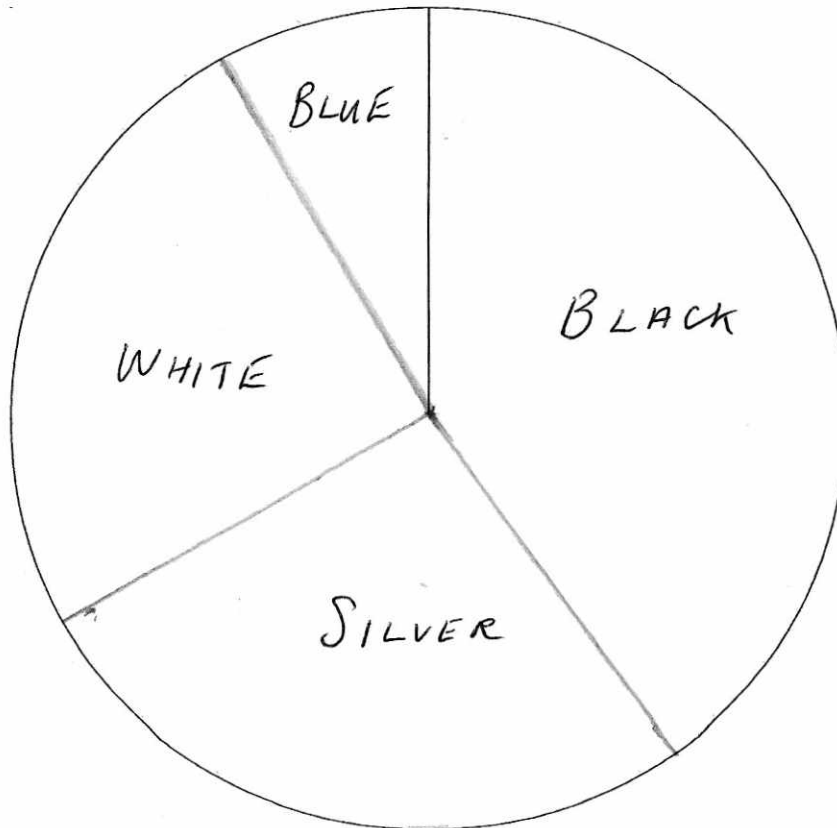
Colour	Frequency	Angle
Black	24	144
Silver	16	96
White	15	90
Blue	5	30
Total	60	360

- (a) What fraction of cars are white?
Give your answer in its simplest form.

$$\frac{15}{60} = \frac{1}{4}$$

$$\frac{1}{4}$$

- (b) Draw an accurate pie chart to show this information.



(4)

(Total for question 5 is 6 marks)

6 The table shows some information about the favourite sport of some students.

Colour	Frequency	Angle
Football	30	150°
Hockey	12	60°
Netball	20	100°
Rugby	10	50°

(a) A student is selected at random.

i) Find the probability their favourite sport is netball.

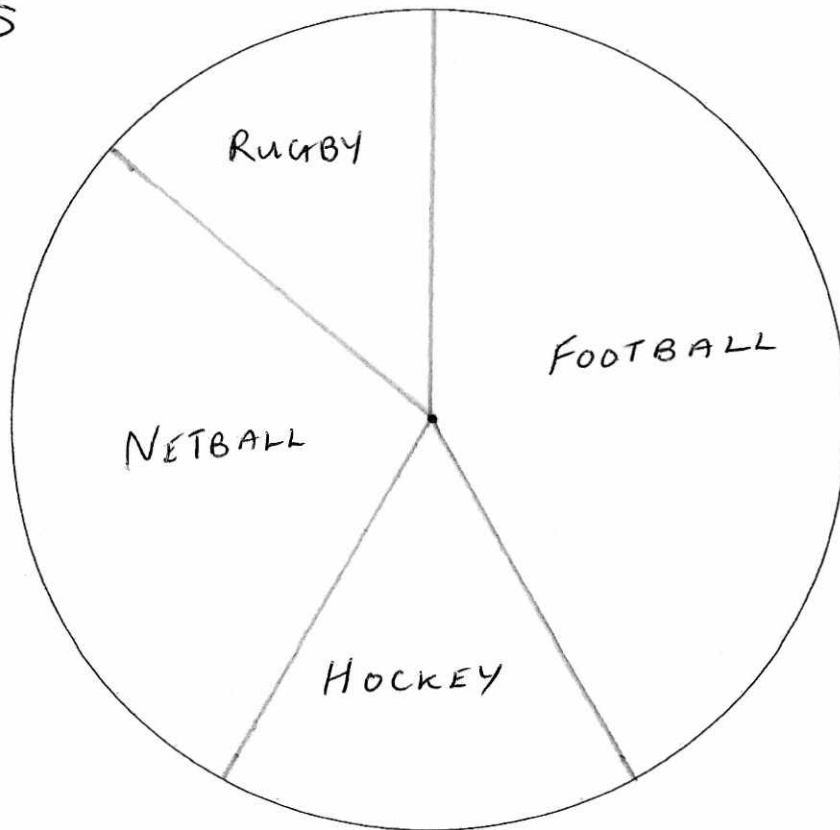
$$\frac{20}{72} \text{ or } \frac{5}{18}$$

ii) Find the probability their favourite sport is **not** netball.

$$\frac{52}{72} \text{ or } \frac{13}{18}$$

(b) Draw an accurate pie chart to show this information.

$$\frac{150}{30} = 5$$



(4)

(Total for question 6 is 6 marks)

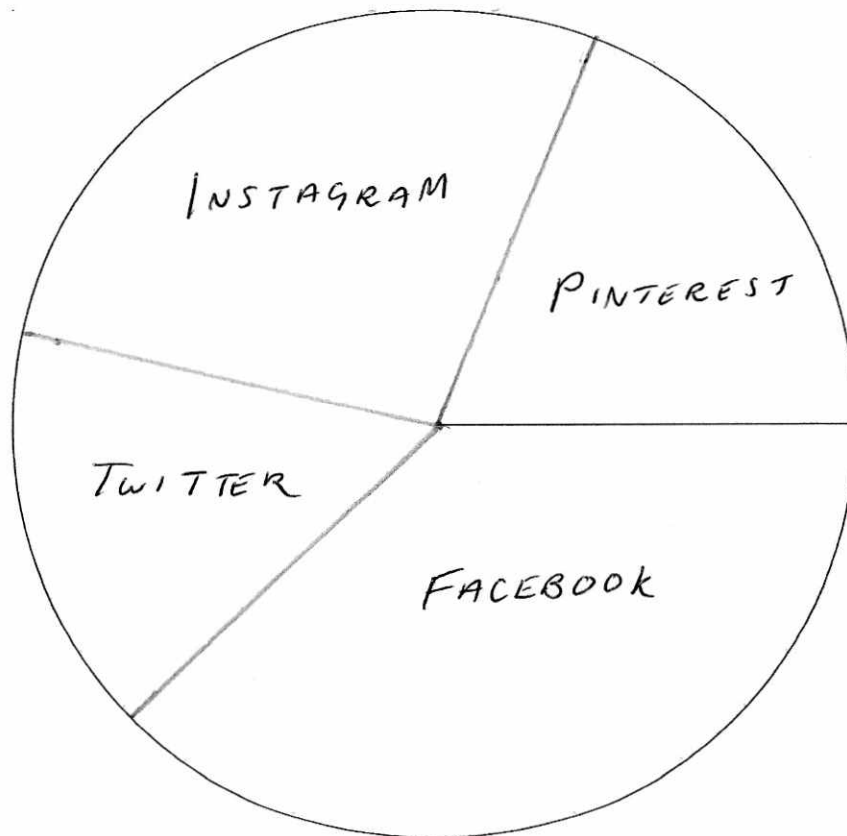
7 The table shows some information about 90 people's favourite social network.

Colour	Frequency	ANGLE
Facebook	34	136
Twitter	14	56
Instagram	25	100
Pinterest	17	68
TOTAL	90	360

(a) One of the people is picked at random. What is the probability they did **not** pick Twitter?

$$\frac{76}{90} \quad \text{OR} \quad \frac{38}{45}$$

(b) Draw an accurate pie chart to show this information.



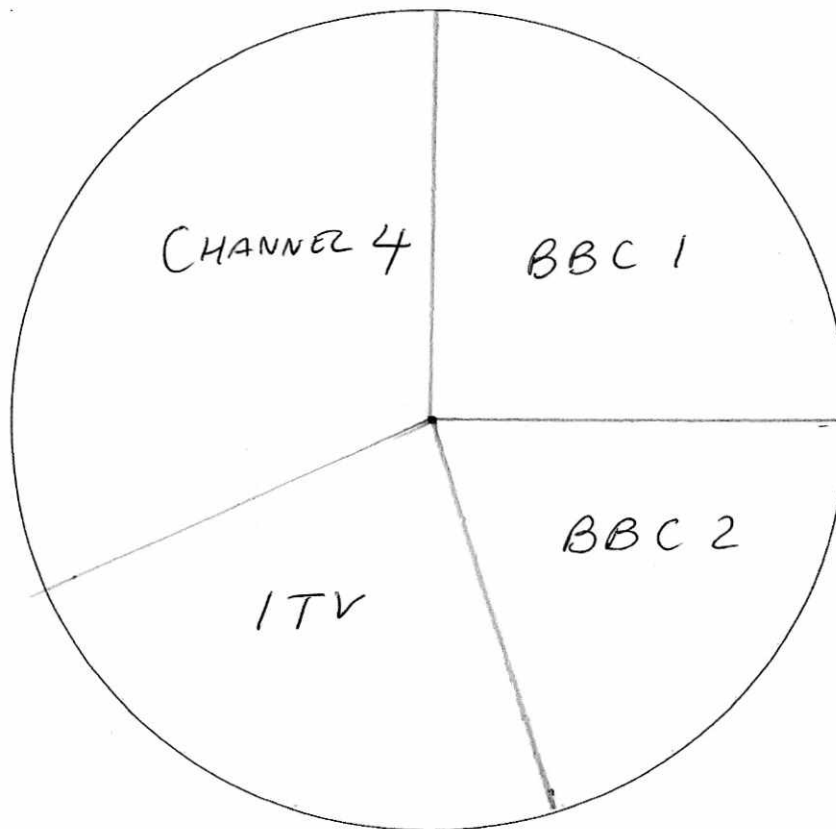
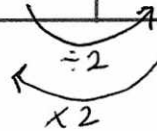
(4)

(Total for question 7 is 6 marks)

8 The table shows some information about the favourite television channel of some people.

Colour	Frequency	Angle of Sector
BBC 1	180	90°
BBC 2	144	72°
ITV	168	84°
Channel 4	228	114°
Total	720	360°

Draw an accurate pie chart to show this information.



(Total for question 8 is 4 marks)