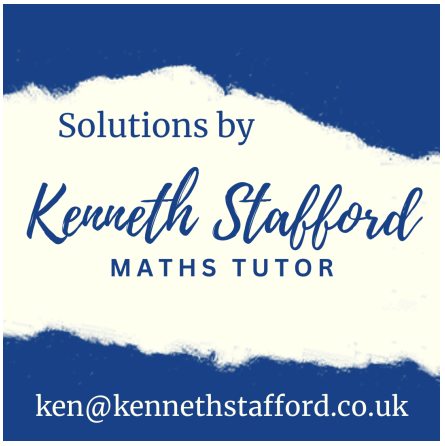
Name: SOLUTIONS

GCSE (1 - 9)

Pie Charts





These questions are compiled from *released* Pearson Edexcel GCSE maths exam papers
They contain exam questions from up until the ***Summer 2023*** exam series
More recent exam papers do exist but are withheld for mock exams
As new exam papers are released these worksheets will gradually be updated
The ***most current*** version of these worksheets will always be available at: kennethstafford.co.uk

Question	Where the question appeared
1	Edexcel, GCSE, Summer 2017, Paper 1F, Q14
2	Edexcel, GCSE, Autumn 2017, Paper 2F, Q5
3	Edexcel, GCSE, Summer 2018, Paper 2F, Q12
4	Edexcel, GCSE, Autumn 2018, Paper 3F, Q12
5	Edexcel, GCSE, Autumn 2019, Paper 1F, Q18
6	Edexcel, GCSE, Autumn 2020, Paper 2F, Q14
7	Edexcel, GCSE, Summer 2023, Paper 3F, Q12
8	Edexcel, GCSE, November 2022, Paper 2F, Q16

1

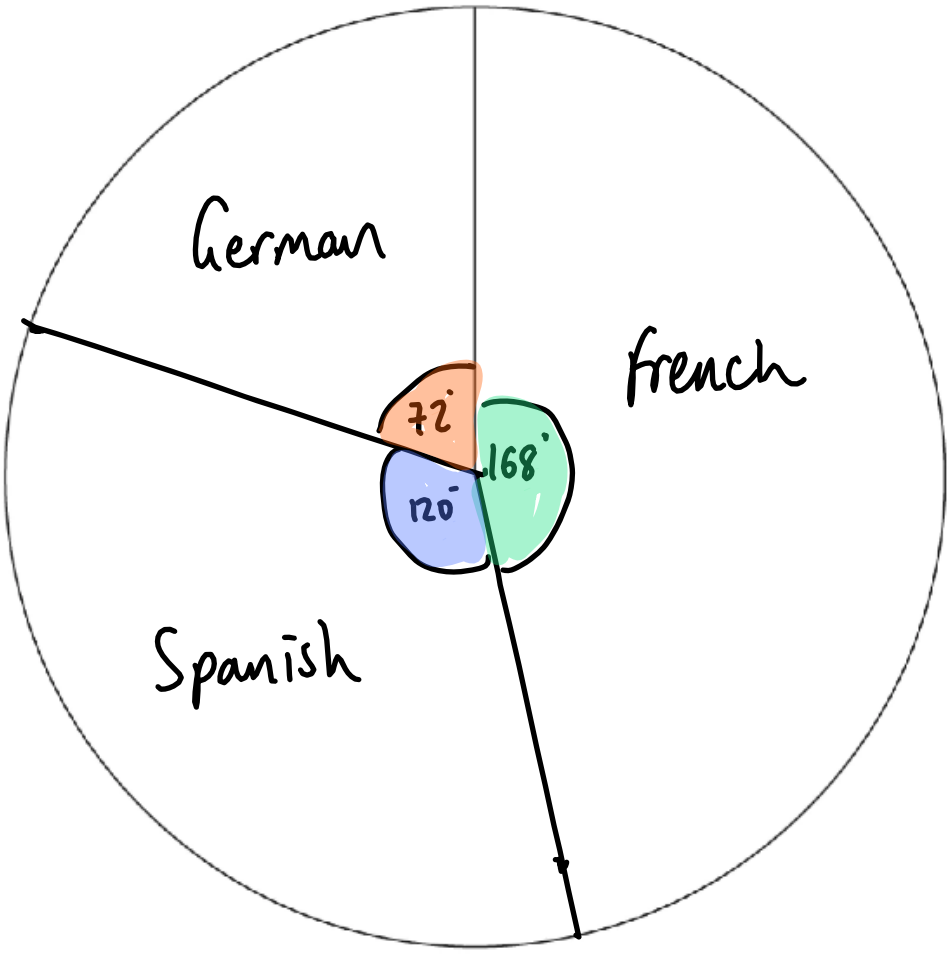
Year 9 students from Halle School were asked to choose one language to study.

The table shows information about their choices.

360 ÷ 120 = 3

Language	Number of students	Angle
French	56	x 3 = 168
Spanish	40	x 3 = 120
German	24	x 3 = 72
	120	360

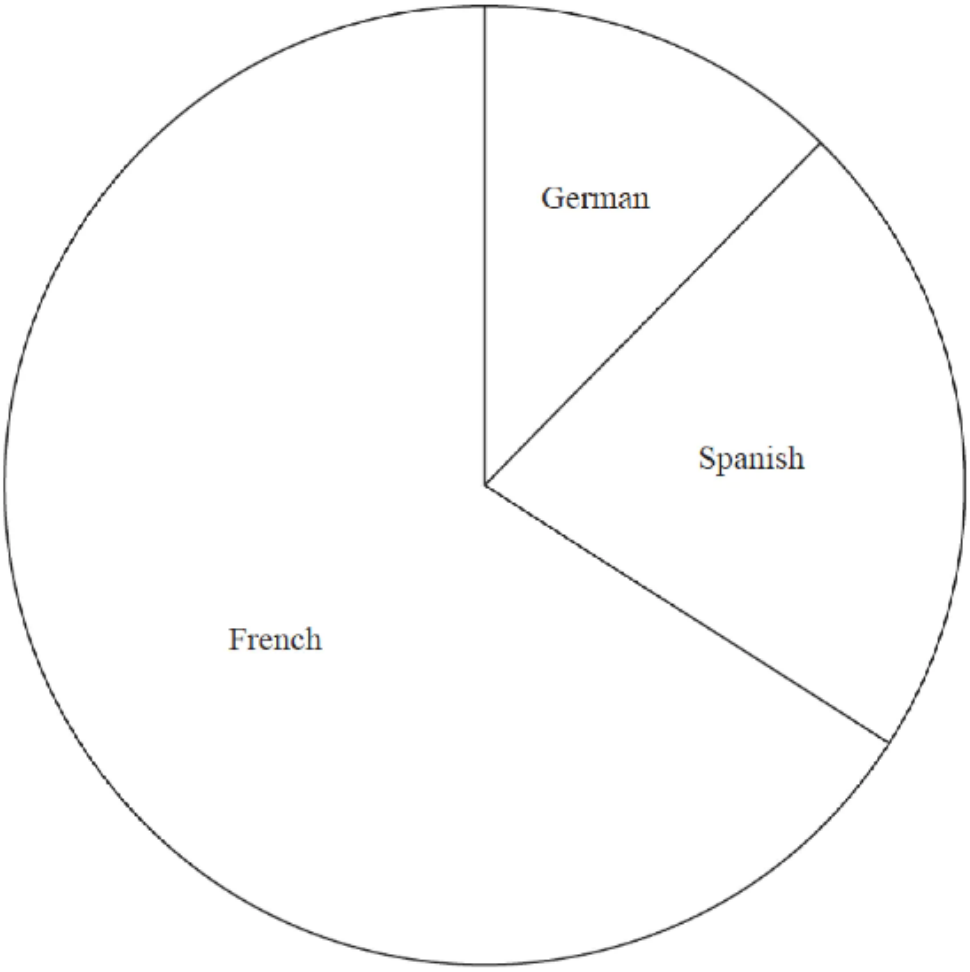
(a) Draw an accurate pie chart to show this information.



(3)

Year 9 students from Lowry School were also asked to choose one language to study.

This accurate pie chart shows information about their choices.



Shameena says,

"The pie chart shows that French was chosen by more Year 9 students at Lowry School than at Halle School."

(b) Is Shameena right?
You must explain your answer.

Not necessarily. We don't know how many students are at each school.
A bigger proportion of Year 9s at Lowry school chose French. (1)

(Total for Question 14 is 4 marks)

[Edexcel, GCSE, Summer 2017, Paper 1F, Q14]

2

60 students were asked how they get to school.

The table shows the results.

	Bus	Walk	Car	Bicycle
Number of students	15	27	12	6

(a) What fraction of the 60 students did **not** walk to school?

60 - 27 = 33

$\frac{33}{60}$

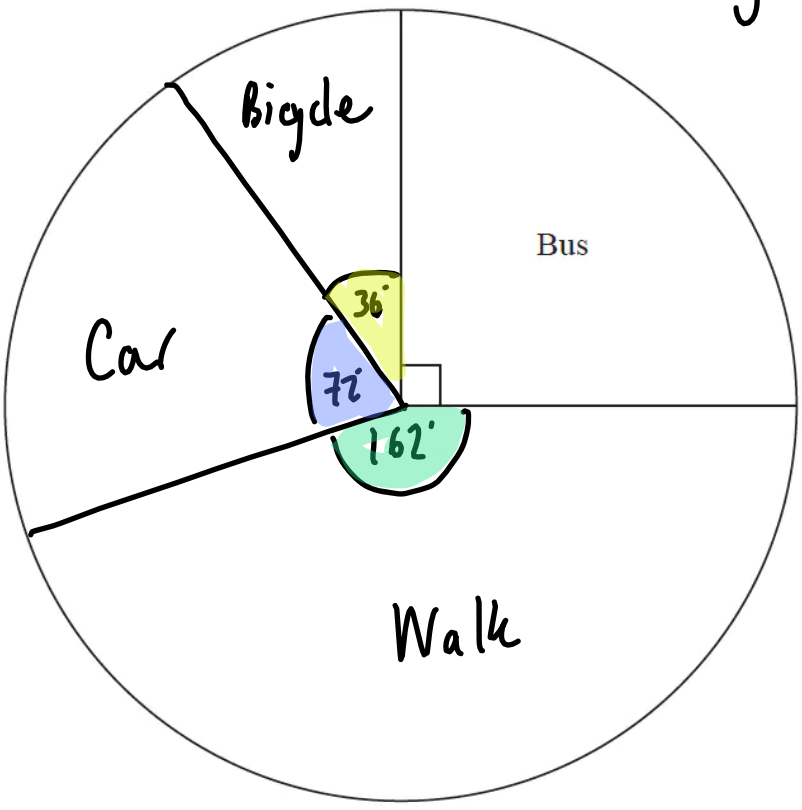
.....

(2)

(b) Complete the pie chart for the information in the table.

360 ÷ 60 = 6

Walk = 27 x 6 = 162°
Car = 12 x 6 = 72°
Bicycle = 6 x 6 = 36°



(4)

(Total for Question 5 is 6 marks)

[Edexcel, GCSE, Autumn 2017, Paper 2F, Q5]

3

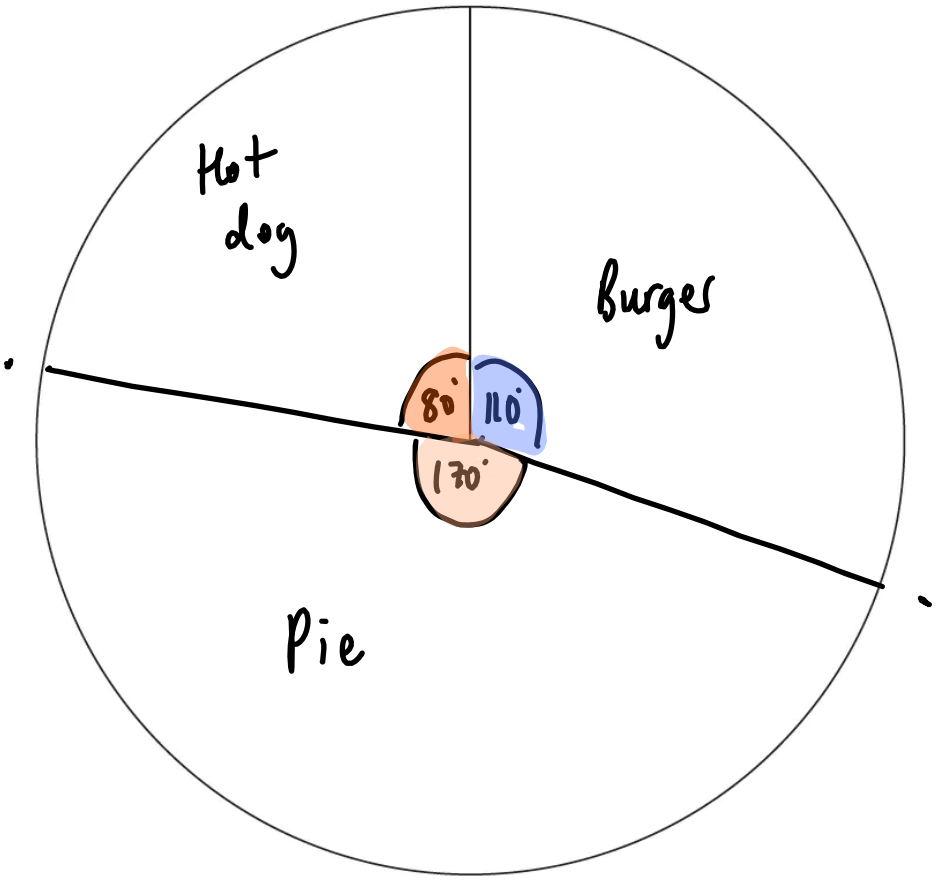
$360 \div 36 = 10$

A group of football fans were asked what their half time snack was.

The table below gives information about their answers.

Snack	Number of fans	Angle
burger	11 $\times 10$	$= 110°$
pie	17 $\times 10$	$= 170°$
hot dog	8 $\times 10$	$= 80°$
	36	$360°$

Draw an accurate pie chart for this information.



(Total for Question 12 is 3 marks)

[Edexcel, GCSE, Summer 2018, Paper 2F, Q12]

4

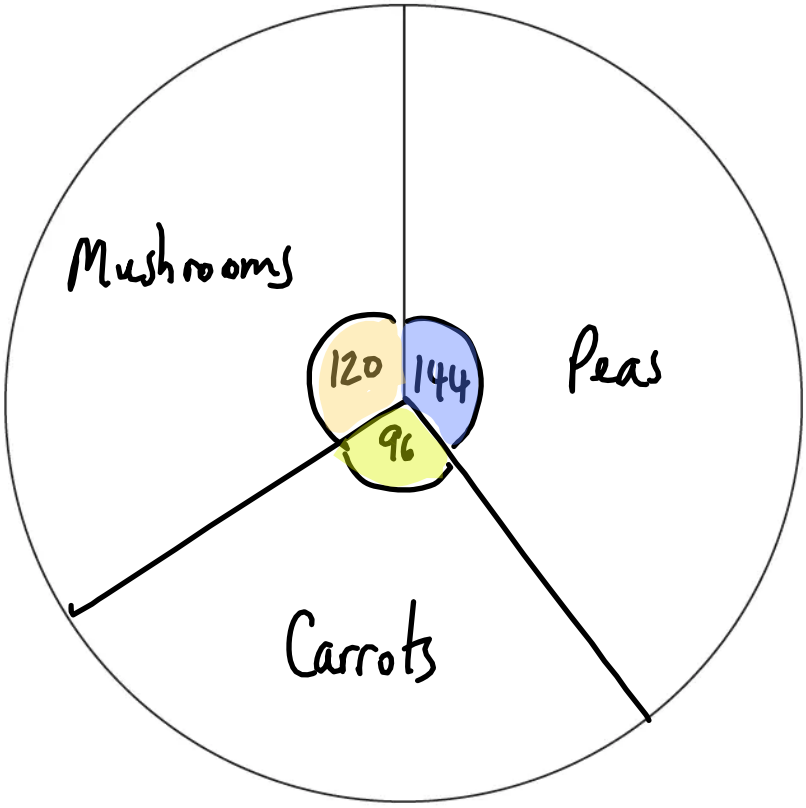
Joan asked each of 60 people to name their favourite vegetable.

$360 \div 60 = 6$

Here are her results.

Vegetable	Frequency		Angle
Peas	24	$\times 6 =$	144°
Carrots	16	$\times 6 =$	96°
Mushrooms	20	$\times 6 =$	120°
			360°

Draw an accurate pie chart for her results.



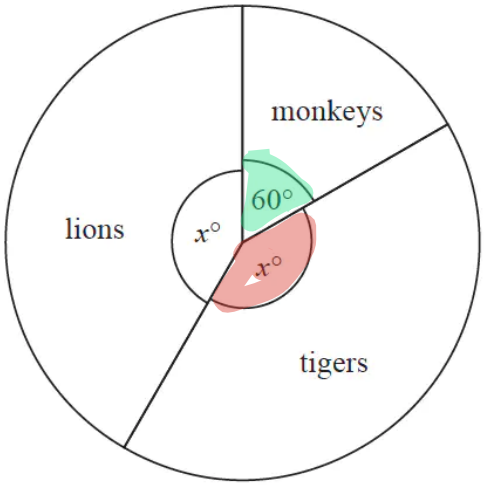
(Total for Question 12 is 3 marks)

[Edexcel, GCSE, Autumn 2018, Paper 3F, Q12]

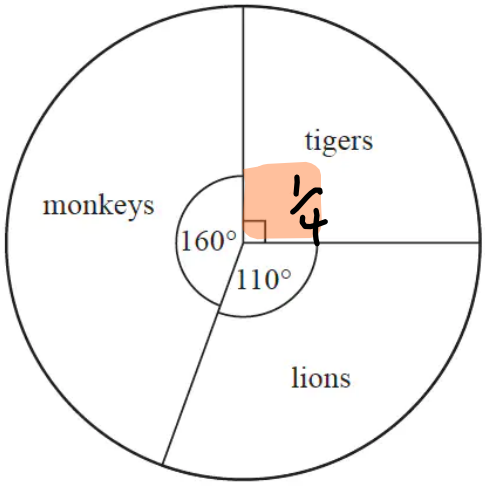
5

The pie charts show information about the favourite animal of each student at school **A** and of each student at school **B**.

School **A**



School **B**



There are 480 students at school **A**.

There are 760 students at school **B**.

Henry says,

"The same number of students at each school have tigers as their favourite animal."

Is Henry correct?
You must show how you get your answer.

School A

$360 - 60 = 300$

$2x = 300$

$x = 150$

$\text{Tigers} = \frac{150}{360}$

$\frac{150}{360} \times 480 =$ 200 tigers

School B

$\frac{1}{4} \times 760 =$ 190 tigers

No. More people at School B have tigers as their favourite animal.

(Total for Question 18 is 4 marks)

[Edexcel, GCSE, Autumn 2019, Paper 1F, Q18]

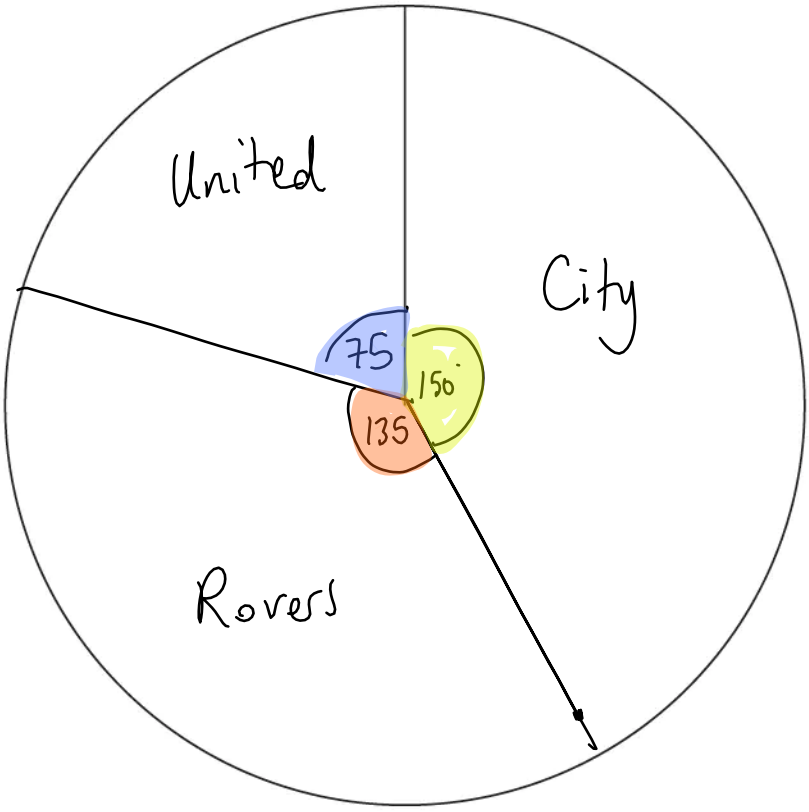
6

The table gives information about the number of goals scored by each of three teams.

Team	Number of goals	Angle
City	50	150°
Rovers	45	135°
United	25	75°
	120	360°

Draw an accurate pie chart for this information.

$360 \div 120 = 3$



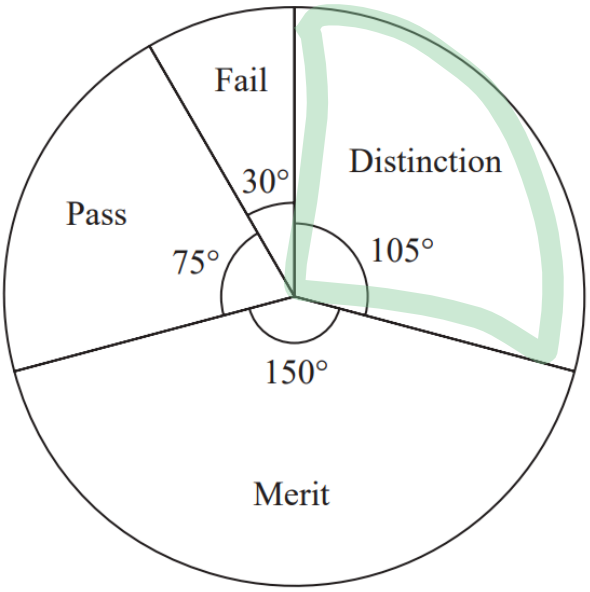
(Total for Question 14 is 3 marks)

[Edexcel, GCSE, Autumn 2020, Paper 2F, Q14]

7

Some students took a guitar exam.

The pie chart shows information about the grades the students got.



(a) Write down the modal grade.

Merit

(1)

7 students got distinction.

(b) Work out the total number of students who took the guitar exam.

7 students = 105°

1 student = 15° ÷7

24 students = 360° x24

24

(3)

(Total for Question 12 is 4 marks)

[Edexcel, GCSE, Summer 2023, Paper 3F, Q12]

8

There are three different types of potato in a box.

The table gives the number of each type of potato.

Type of potato	Number of potatoes
Jersey Royal	90
Charlotte	105
Maris Piper	105

300

$\times 1.2 = 108^\circ$

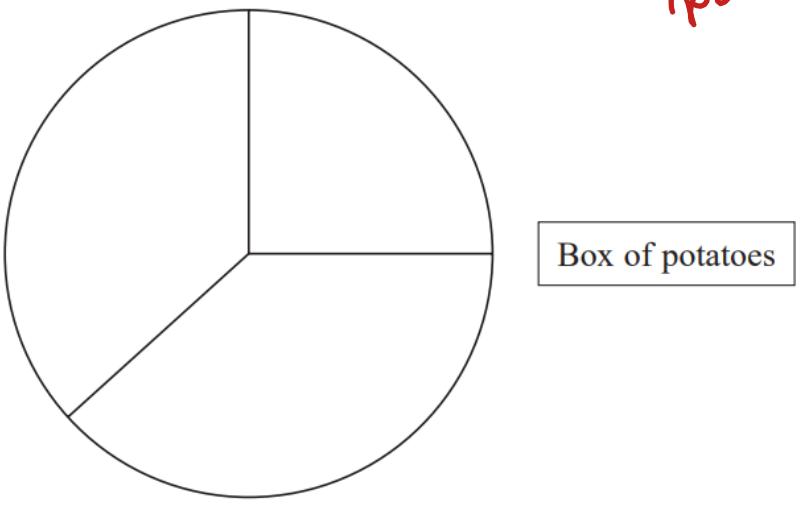
$\times 1.2 = 126^\circ$

$\times 1.2 = 126^\circ$

360°

1 potato = 1.2°

Salim draws this pie chart for the information in the table.



Write down two different things that are wrong or misleading with this pie chart.

1 Labels are missing

2 Pie chart is drawn inaccurately

(Total for Question 16 is 2 marks)

[Edexcel, GCSE, November 2022, Paper 2F, Q16]

3