

8300

GCSE MATHEMATICS

Foundation tier – Questions by Topic

Statistics

Drawing pie charts

v1.0

Name _____

Materials

For this paper you must have:

- Mathematical instruments
- A calculator



Information

- The marks for questions are shown in brackets

Advice

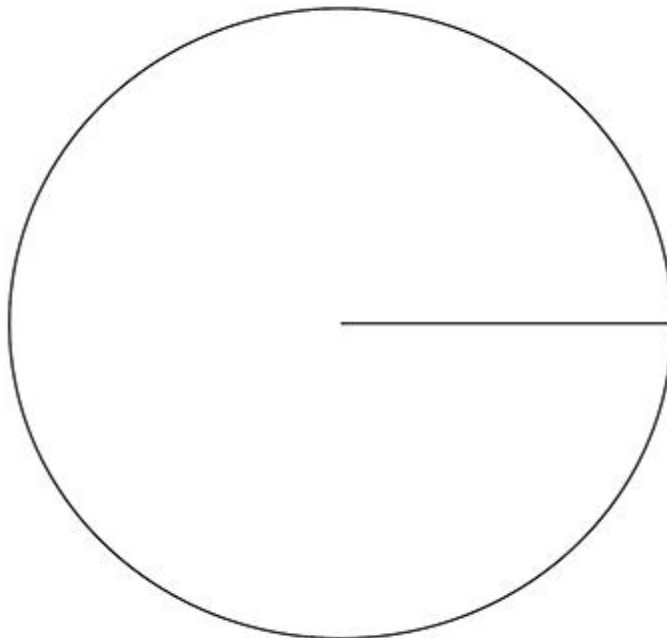
- In all calculations, show clearly how you work out your answer

Q1.

60 people were asked if they would vote in an election.

- $\frac{1}{4}$ of the people said No
- 20 people said Yes
- The rest said Maybe

Draw and label a pie chart to show this information.



(Total 3 marks)

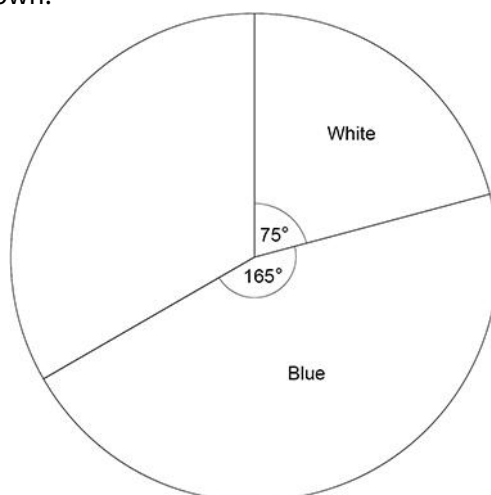
Q2.

Some players were asked the shirt colour of their football team.

Each answer was either White, Blue, Red or Green.

A pie chart is drawn to represent the answers.

Two of the sectors are shown.



- (a) The number who answered Red is three times the number who answered Green.
Complete the pie chart.

(3)

- (b) There were 600 players altogether.
How many players answered White?

Answer _____

(2)

(Total 5 marks)

Q3.

A shop sells ice creams.
Each ice cream has two scoops.



The possible flavours are vanilla (V), strawberry (S), chocolate (C) and mint (M).
The two scoops can be the same flavour or different flavours.

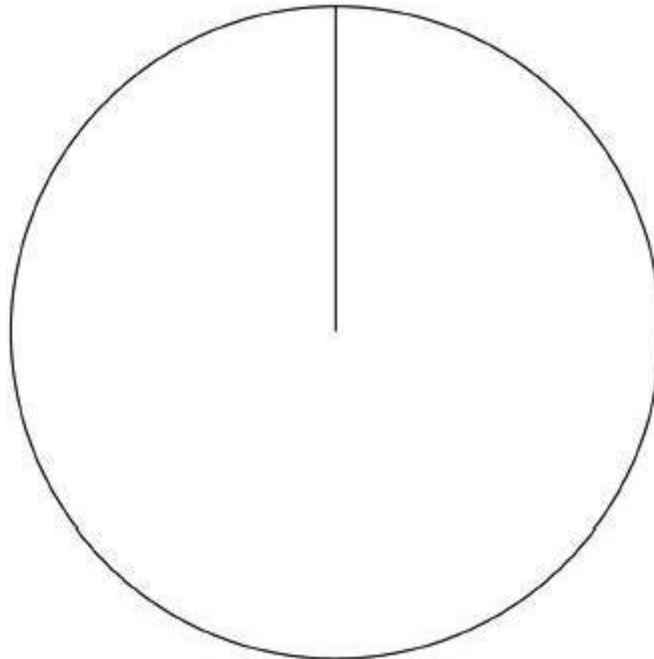
(a) List **all** the possible options for the two scoops.

(2)

(b) In one hour the shop sells 180 scoops of ice cream.
The number of scoops of each flavour is shown in the table.

Flavour	Vanilla	Strawberry	Chocolate	Mint
Number of scoops	45	75	50	10

Complete the pie chart to represent the data.



(4)

(Total 6 marks)

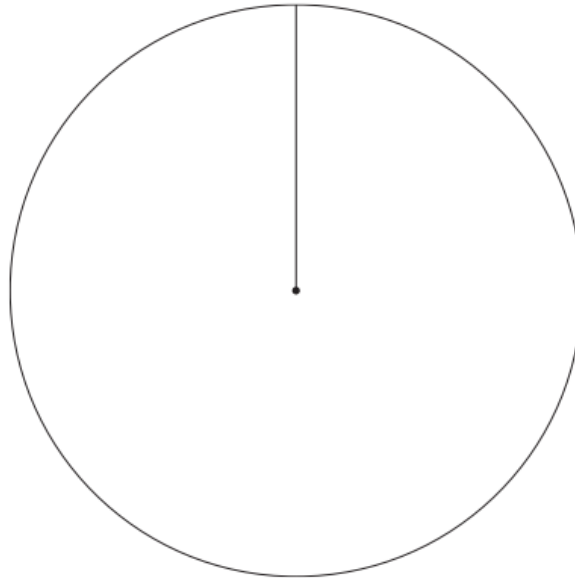
Q4.

Ian sells cans of drinks.

(a) The table shows the percentages of drinks sold on Monday morning.

Drink	Percentage Sold
Cola	30%
Lemonade	20%
Orange	50%

Draw a pie chart for the data.



(4)

(b) The pictogram shows information about the drinks sold on Monday afternoon.
The key is missing.

Cola	    
Lemonade	 
Orange	  

80 cans were sold that afternoon.
How many cans of cola were sold?

(3)

(c) 80 cans were also sold in the morning.

(i) Write down **one** difference between the cans sold in the morning and in the afternoon.

(1)

(ii) Ian orders more cans.

Which flavour should he order least of, based on Monday's sales?

Circle your answer.

Cola

Lemonade

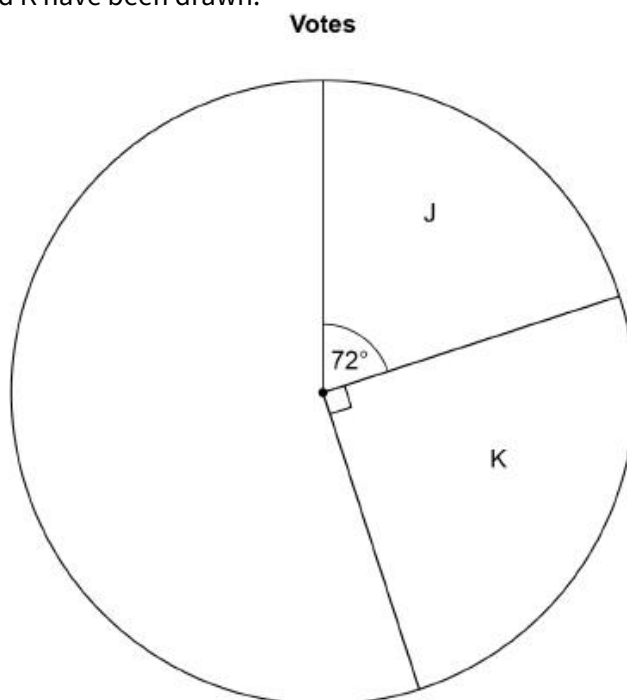
Orange

(1)

(Total 9 marks)

Q5.

In an election there were four candidates, J, K, L and M.
Fran is drawing a pie chart to show the results.
The sectors for J and K have been drawn.



- (a) Twice as many people voted for L as voted for M.
Complete the pie chart.

(3)

- (b) Altogether, 16 200 people voted.
How many voted for J?

(2)

(Total 5 marks)

Q6.

In a pie chart, one sector represents $\frac{1}{4}$ of the data.
What is the angle of that sector?
Circle your answer.

4°

25°

45°

90°

(Total 1 mark)

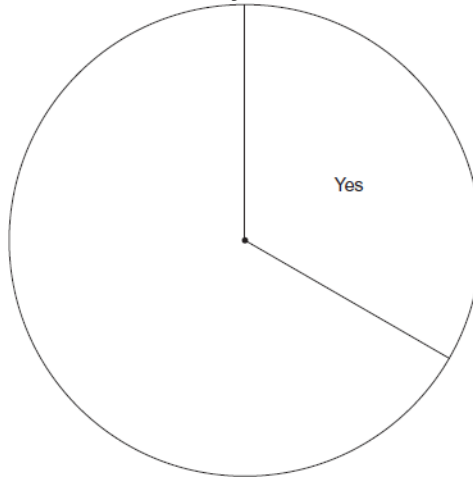
Q7.

A reporter asked people if they agreed with a government policy.

1
2
3
4
5

said Yes
said No
The rest said Don't know

Survey results



Complete the pie chart.

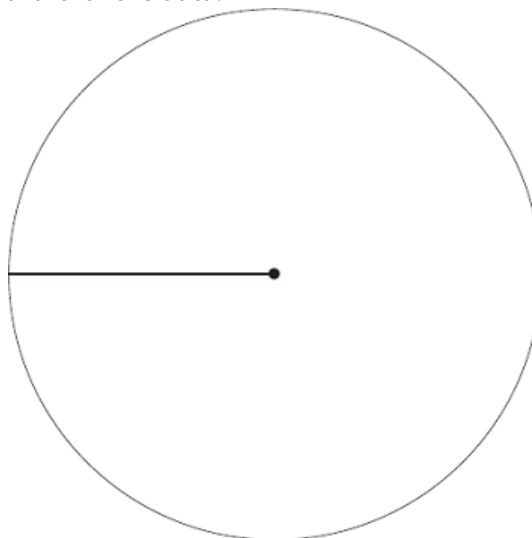
(Total 3 marks)

Q8.

The table shows where 72 people went on holiday.

Spain	36	
Portugal	18	
Turkey	6	
Other	12	
Total = 72		

Draw a fully labelled pie chart for the data.



(Total 4 marks)