

GCSE Mathematics

F

Pie Charts

Foundation Tier | Grades 3-5

Total Marks	Time	Questions
56	56 min	20

Instructions:

- Do not use a calculator when you see: 
- Answer all questions in the spaces provided.
- Show all your working - marks are awarded for method as well as final answers.
- Cross through any work you do not want to be marked.
- Check your answers if you have time at the end.

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Edexcel-style questions**Q1**

Grade 3

Edexcel style

40 students were asked their favourite colour. The table shows the results. Calculate the angle for Red on a pie chart.

Colour	Red	Blue	Green	Yellow
Frequency	10	14	8	8

Answer _____

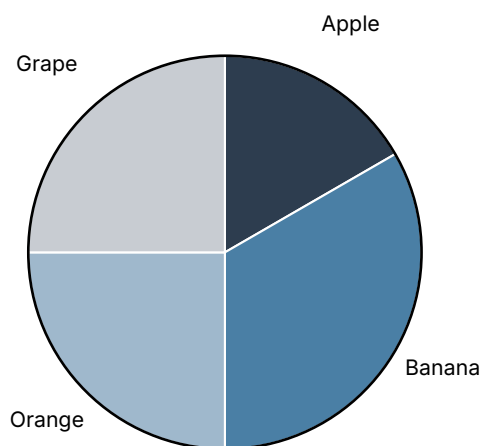
teachably

[2 marks]**Q2**

Grade 3

Edexcel style

The pie chart shows the favourite fruit of 72 students. The Apple sector has an angle of 60° . How many students chose Apple?



Answer _____

teachably

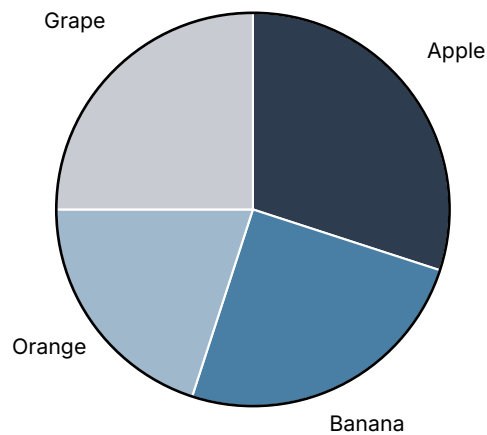
[2 marks]

Q3

Grade 4

Edexcel style

In a pie chart showing favourite fruit, the Orange sector has an angle of 72° and represents 8 students. Find the total number of students surveyed.



Answer _____

teachably

[2 marks]

Q4

Grade 4

Edexcel style

In School A (200 students), the 'Cycling' sector of the pie chart has an angle of 45° . In School B (320 students), the 'Cycling' sector also has an angle of 45° . Which school has more students who cycle, and by how many?

Answer _____

teachably

[4 marks]

Q5

Grade 5

Edexcel style

80 people were asked their preferred mode of transport for their commute. The table shows the results. A pie chart is drawn to represent this data. Find the angle for Train, and find how many more degrees this is than the angle for Bike.

Transport	Car	Train	Bus	Bike
Frequency	32	24	16	8

Answer _____

AQA-style questions

Q6

Grade 3

AQA style

60 people were surveyed about their favourite season. The table shows the results. Calculate the angle for Summer on a pie chart.

Season	Spring	Summer	Autumn	Winter
Frequency	12	24	15	9

Answer _____

teachably

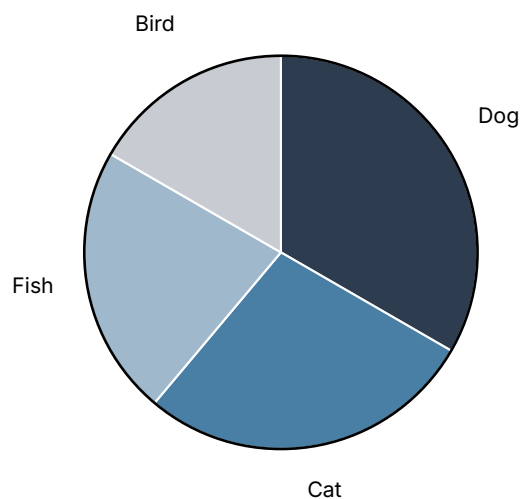
[2 marks]

Q7

Grade 3

AQA style

The pie chart shows the favourite pet of 90 people. The Dog sector has an angle of 120° . How many people chose Dog?



Answer _____

teachably

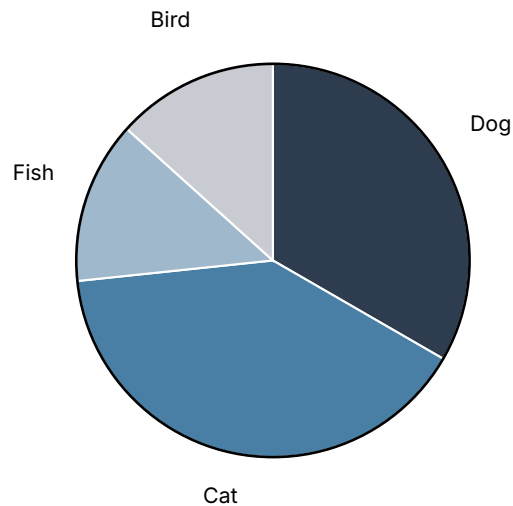
[2 marks]

Q8

Grade 4

AQA style

In a pie chart showing favourite pet, the Fish sector has an angle of 48° and represents 6 people. Find the total number of people surveyed.



Answer _____

teachably

[2 marks]**Q9**

Grade 4

AQA style

In Town A (300 residents surveyed), the 'Recycling' sector has an angle of 60° . In Town B (450 residents surveyed), the 'Recycling' sector also has an angle of 60° . Which town has more residents who recycle, and by how many?

Answer _____

teachably

[4 marks]

Q10

Grade 5

AQA style

72 students were asked their favourite lunch option. The table shows the results. A pie chart is drawn to represent this data. Find the angle for Pizza, and find how many more degrees this is than the angle for Salad.

Lunch	Pizza	Sandwich	Pasta	Salad
Frequency	27	18	15	12

Answer _____

OCR-style questions

Q11

Grade 3

OCR style

45 students were asked how they travel to school. The table shows the results. Calculate the angle for Bus on a pie chart.

Transport	Walk	Car	Bus	Bike
Frequency	15	10	15	5

Answer _____

teachably

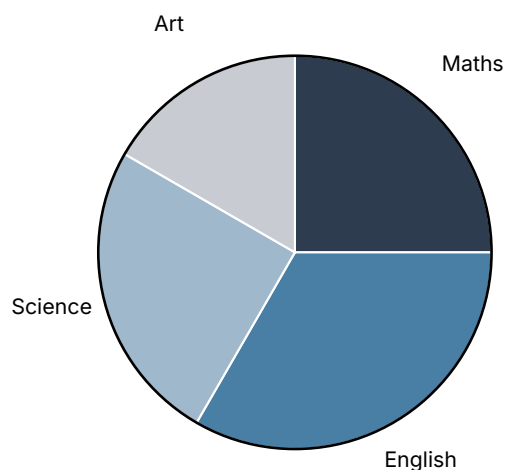
[2 marks]

Q12

Grade 3

OCR style

The pie chart shows the favourite subject of 60 students. The Maths sector has an angle of 90° . How many students chose Maths?



Answer _____

teachably

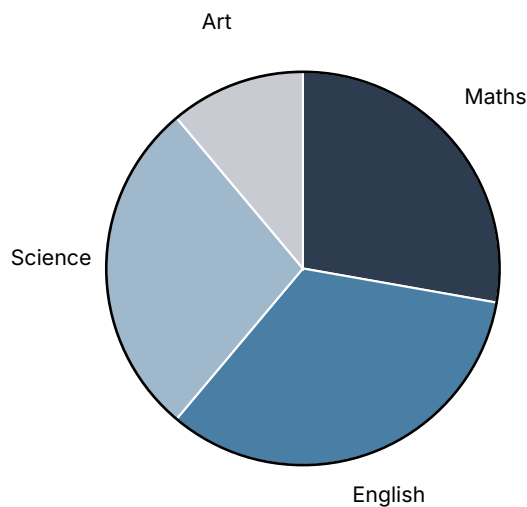
[2 marks]

Q13

Grade 4

OCR style

In a pie chart showing favourite subject, the Art sector has an angle of 40° and represents 6 students. Find the total number of students surveyed.



Answer _____

teachably

[2 marks]

Q14

Grade 4

OCR style

In Factory A (180 workers), the 'Night shift' sector has an angle of 80° . In Factory B (270 workers), the 'Night shift' sector also has an angle of 80° . Which factory has more night shift workers, and by how many?

Answer _____

teachably

[4 marks]

Q15

Grade 5

OCR style

96 people were asked their preferred holiday type. The table shows the results. A pie chart is drawn to represent this data. Find the angle for Beach, and find how many more degrees this is than the angle for Adventure.

Holiday	Beach	City	Countryside	Adventure
Frequency	40	24	20	12

Answer _____

teachably

[4 marks]

Teachably-style questions

Q16



Grade 3

Teachably style

50 customers were asked their favourite drink. The table shows the results. Calculate the angle for Tea on a pie chart.

Drink	Tea	Coffee	Juice	Water
Frequency	15	10	15	10

Answer

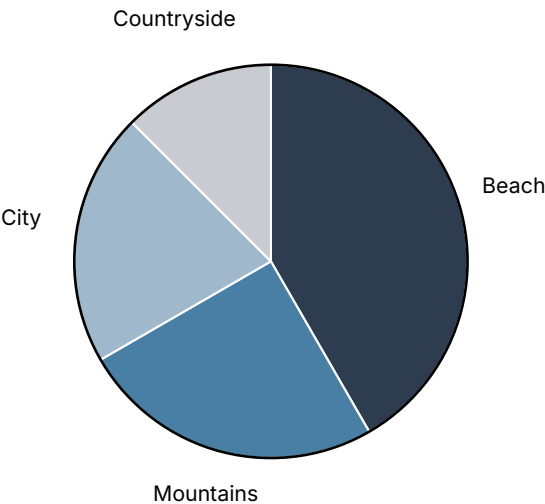
Q17



Grade 3

Teachably style

The pie chart shows the favourite holiday destination of 48 people. The Beach sector has an angle of 150°. How many people chose Beach?



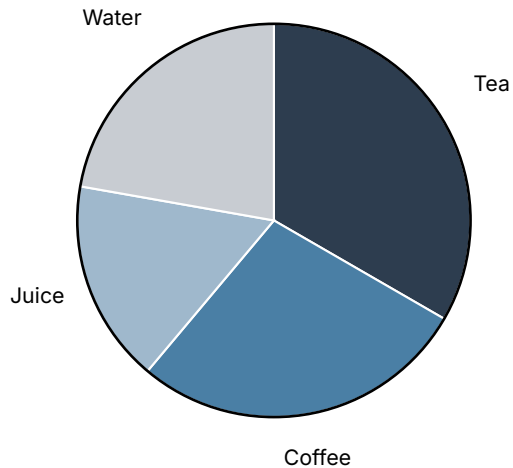
Answer

Q18

Grade 4

Teachably style

In a pie chart showing favourite drink, the Juice sector has an angle of 60° and represents 9 customers. Find the total number of customers surveyed.



Answer _____

teachably

[2 marks]

Q19

Grade 4

Teachably style

In Survey A (240 people), the 'Vegetarian' sector has an angle of 90° . In Survey B (160 people), the 'Vegetarian' sector also has an angle of 90° . Which survey has more vegetarians, and by how many?

Answer _____

teachably

[4 marks]

Q20

Grade 5

Teachably style

84 customers were asked their preferred coffee type. The table shows the results. A pie chart is drawn to represent this data. Find the angle for Latte, and find how many more degrees this is than the angle for Espresso.

Coffee	Latte	Cappuccino	Americano	Espresso
Frequency	35	21	14	14

Answer _____

teachably

[4 marks]

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