

Name:

Date:

Pie Charts

GCSE

Edexcel

Mathematics

Grade (9-1)

Mark

Score (%)

— 83

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Materials

For this paper you must have:

- Ruler
- Pencil, Rubber, Protractor and Compass
- Scientific calculator, which you are expected to use when appropriate

Instructions

- Answer all questions
- Answer questions in the space provided
- All working must be shown
- Do all rough work in this book. Cross out any rough work you don't want to be marked

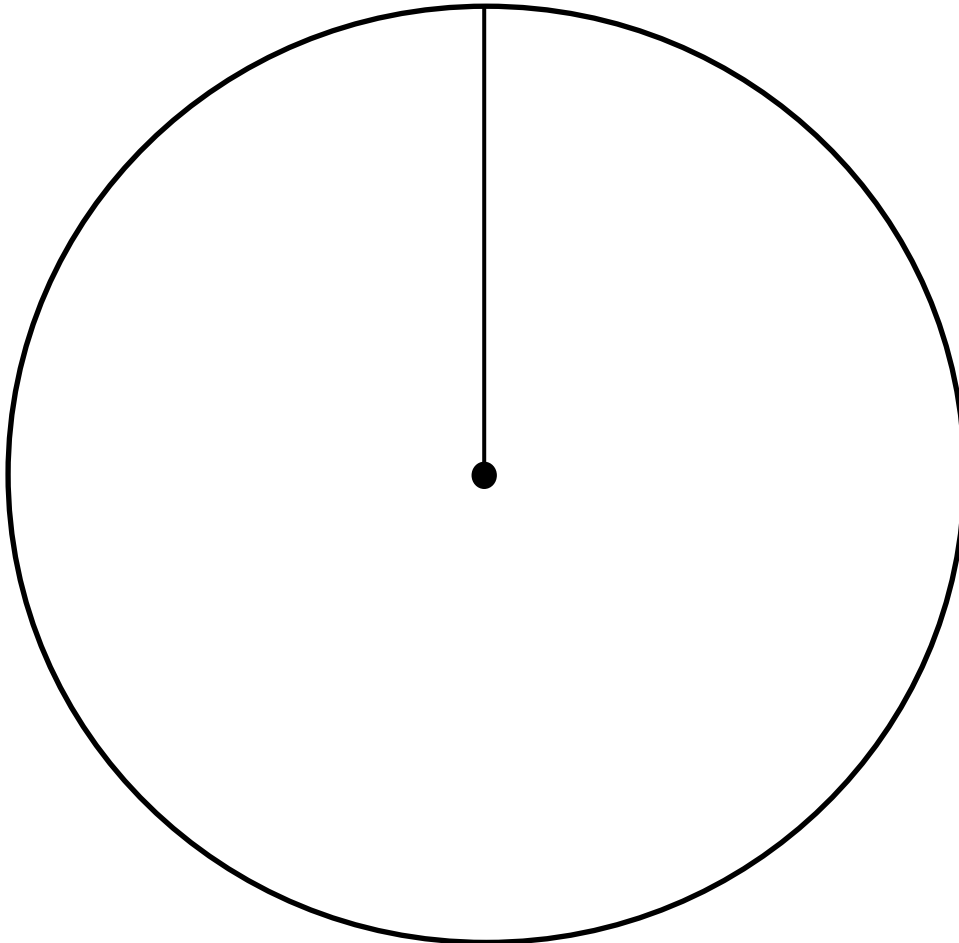
Information

- The marks for the questions are shown in brackets

1 The table below gives information about different flowers sold in a flower shop.

Flower	Number Sold
Rose	34
Daisy	57
Tulip	29

Draw a pie chart to represent the information given in the table.

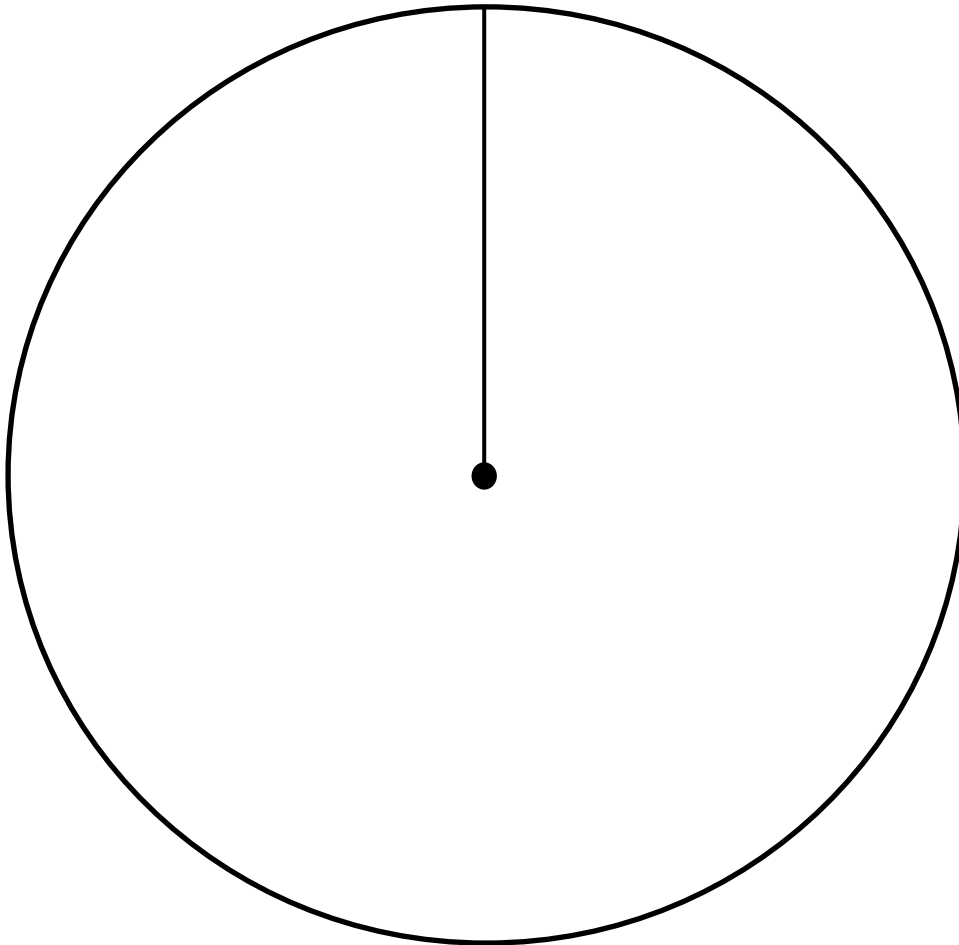


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(Total for question 1 is 4 marks)

2 The table below shows the number of children in a class born in each month.

Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Number	2	4	1	1	3	5	6	2	0	1	0	3

Draw a pie chart to represent the information given in the table.



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 (Total for question 2 is 6 marks)

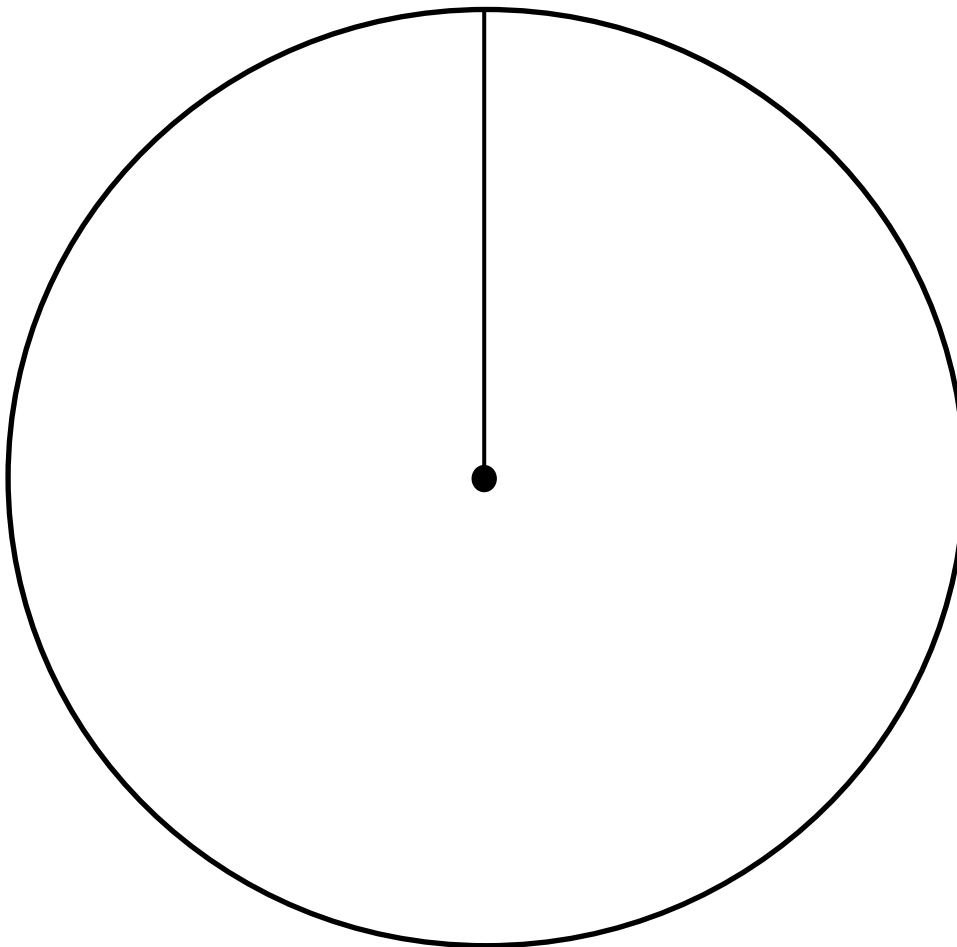
3 The table below gives information about different food items sold in a school canteen.

Food Item	Number Sold	Angle in Pie Chart
Burger	45	
Pizza	12	
Fries	70	

(a) Complete the table.

(3)

(b) Draw a pie chart to represent the information given in the table.



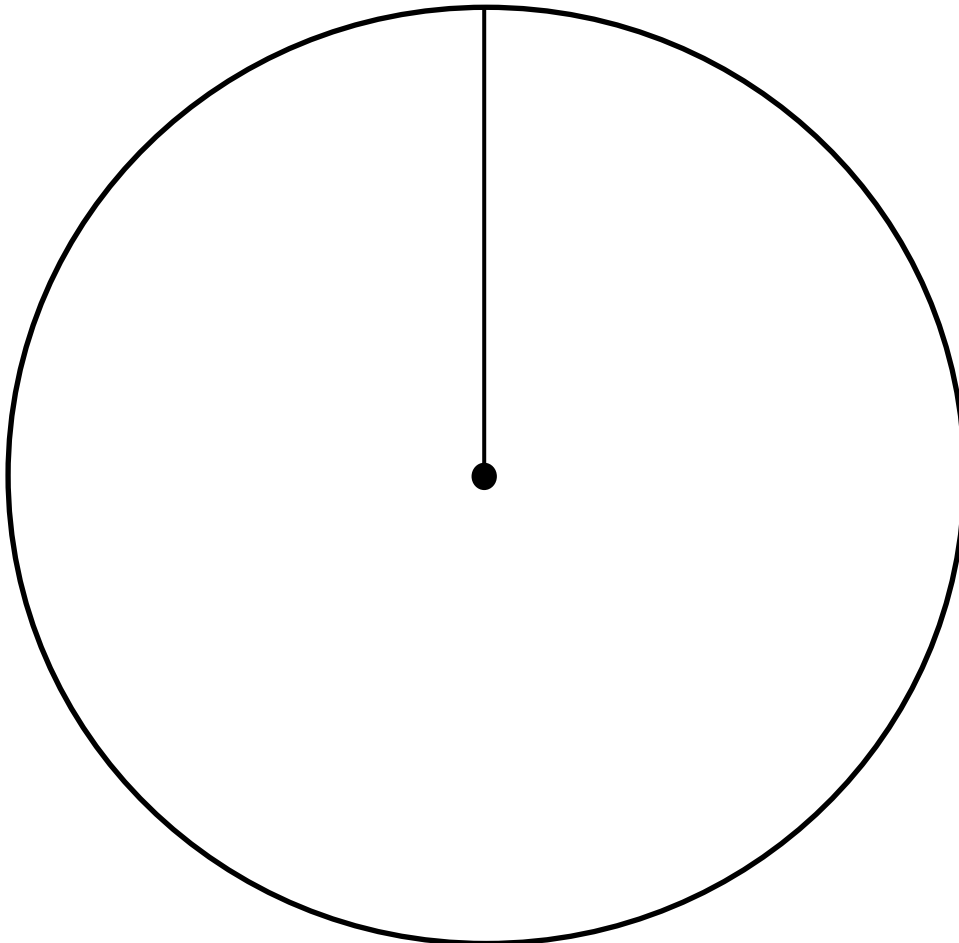
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 (Total for question 3 is 5 marks)



4 The table below gives information about percentage of students in Year 1 to Year 5

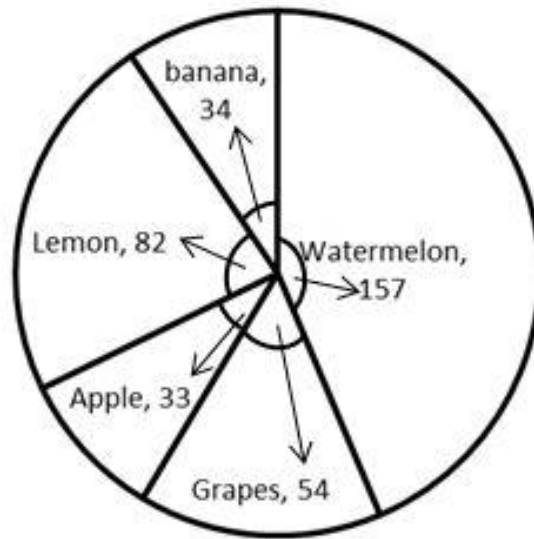
Year	Percentage
Year 1	20
Year 2	12
Year 3	25
Year 4	32
Year 5	11

Draw a pie chart to represent the information given in the table.



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(Total for question 4 is 4 marks)

5 The pie below gives information about different fruit sold in a market.



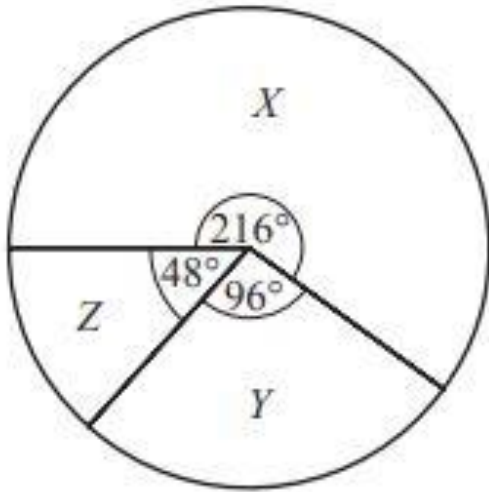
The angle occupied by each sector on the pie chart is shown.

Given that a total of 1800 fruits were sold, how many of each fruit were sold?

Fruit	Number Sold
Banana	
Lemon	
Apple	
Grapes	
Watermelon	

(Total for question 5 is 5 marks)

- 6 In a survey, some students were asked which of three pictures, labeled X, Y and Z, they preferred.
The results are represented in the pie chart.



- (a) Calculate the percentage of students who preferred X.

.....
(1)

- (b) Given that 44 students preferred Y, calculate the number of students who took part in the survey.

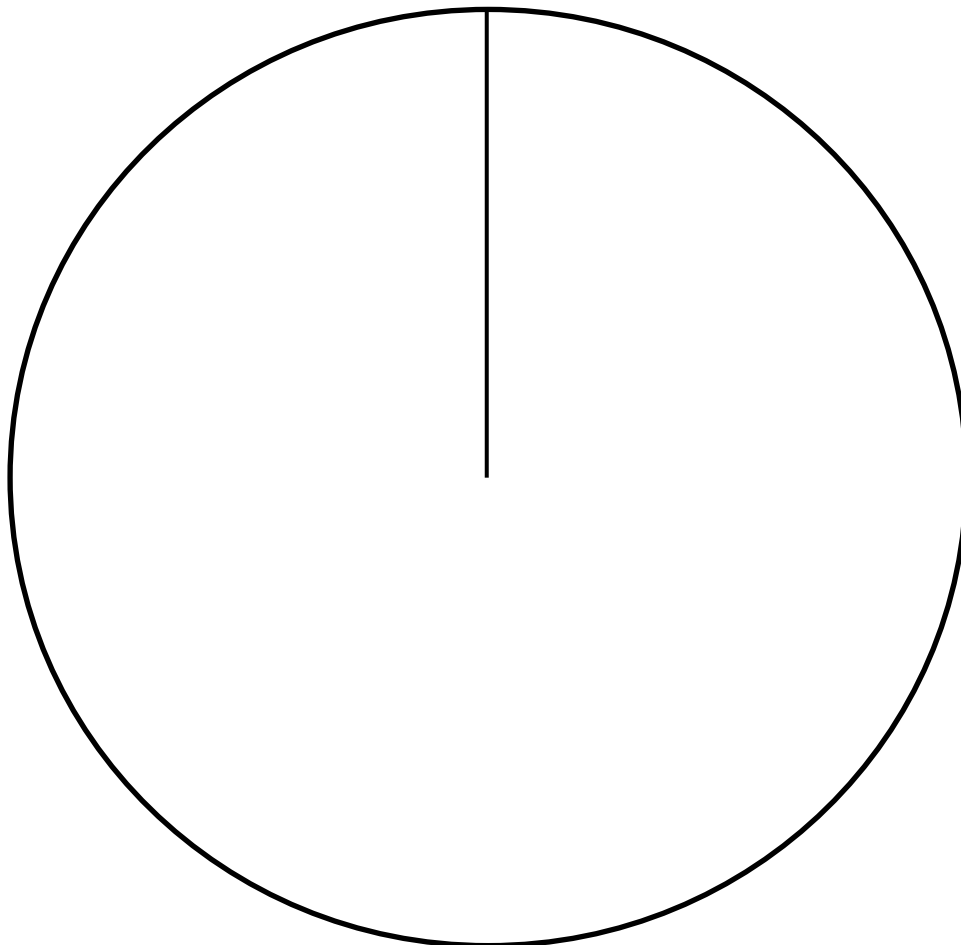
.....
(3)

(Total for question 6 is 4 marks)

7 The table below gives information about colors of cars parked in a school's parking lot.

Color	Number of Cars
Black	5
Beige	2
Red	9
Blue	3
White	1

Draw a pie chart to represent the information given in the table.



.....
(Total for question 7 is 3 marks)



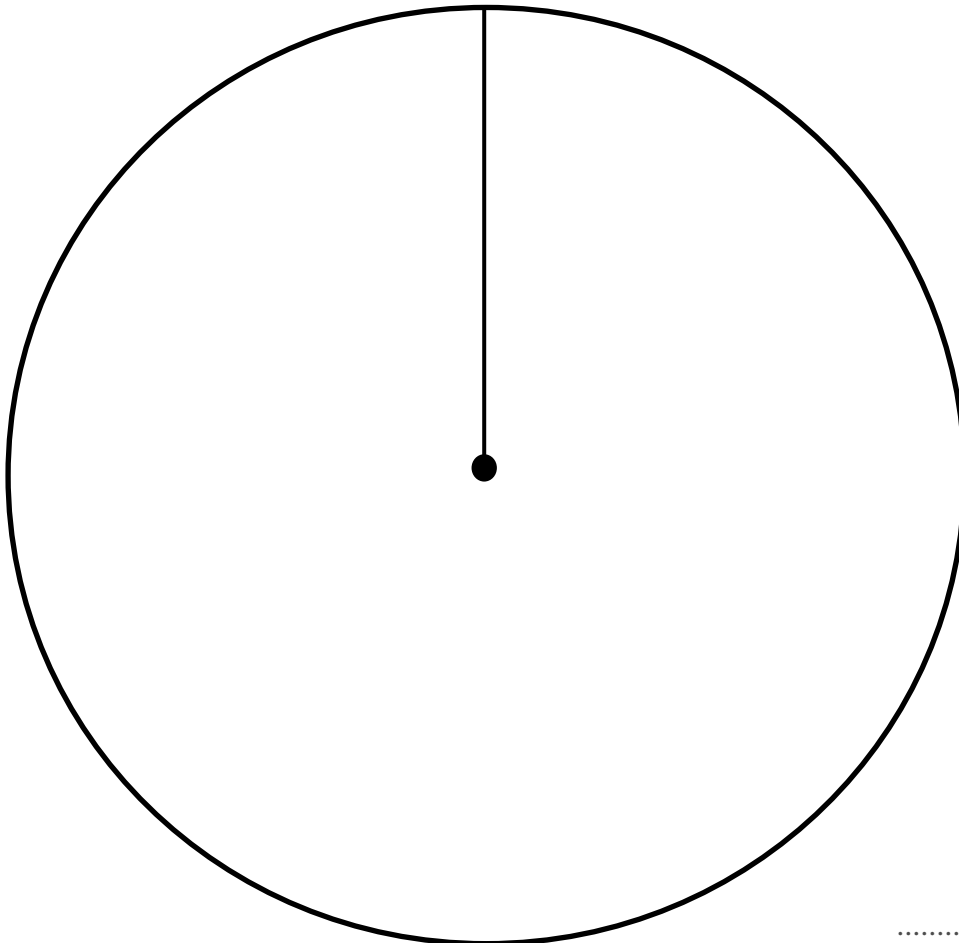
8 The table below shows the number of students in Year 10 that play sports after school.

Sport	Number of Students
Cricket	34
Football	25
Basketball	13

- (a) A student is chosen at random.
Find the probability that the student plays football after school.

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(2)

- (b) Draw a pie chart to represent the information given in the table.



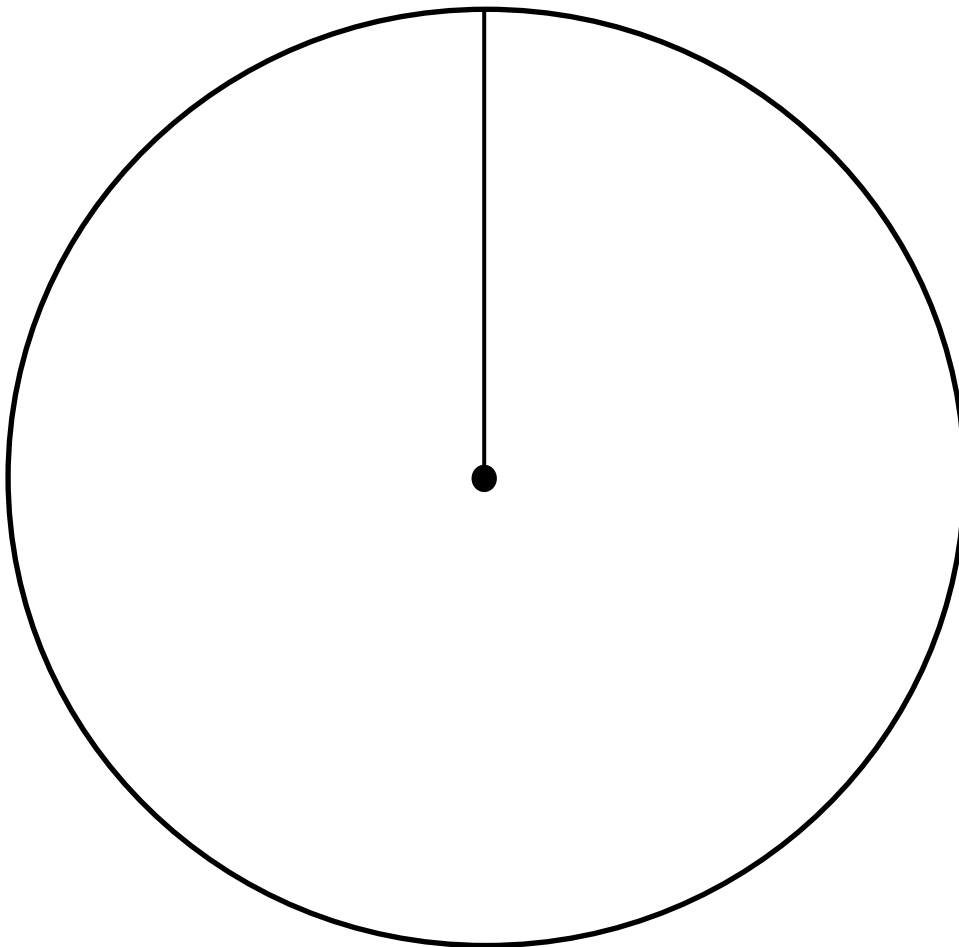
.....
(3)

(Total for question 8 is 5 marks)

9 The table below gives information about number of students absent from the school in a particular week.

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Number of Students	12	3	4	0	9

Draw a pie chart to represent the information given in the table.

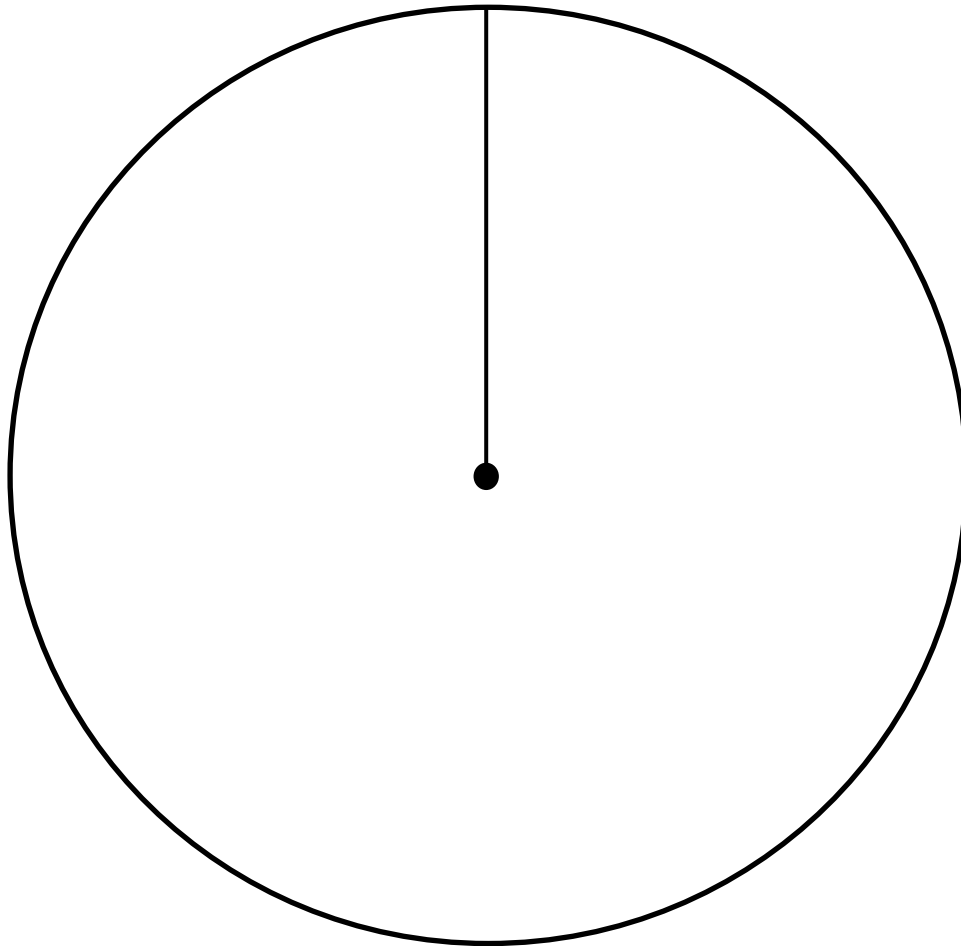


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(Total for question 9 is 4 marks)

10 A survey was conducted to find the favorite social media site of 300 people. The table below gives the results.

Flower	Number Sold
Facebook	37
Twitter	43
Instagram	78
Snapchat	43
Reddit	99

(a) Draw a pie chart to represent the information given in the table. (3)



(b) What proportion of people liked Reddit the most?

.....
(1)

(Total for question 10 is 4 marks)

- 11** Sara carries out a survey of the colors of cars in a car park.
She draws a pie chart to represent her results.

There are 7 red cars.

The angle representing the red cars is 40° .

Calculate the total number of cars in the car park.

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(Total for question 11 is 2 marks)

- 12** Dan draws a pie chart representing the number of employees in each department of a company.
Given that 32 of the 589 employees work in the HR department, find the angle of the sector representing the HR department.

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(Total for question 12 is 2 marks)

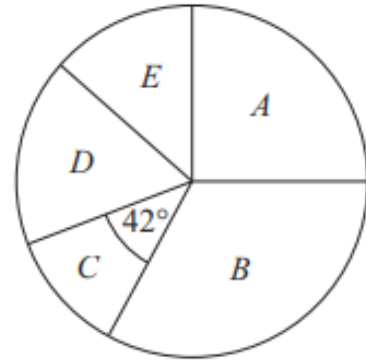
13 Some boys were put into five groups, A, B, C, D and E, based on the times they took to run 100 metres.
The pie chart shows the proportion of boys in each group.

Group A contains 14 of the boys.

Group B contains 35% of the boys.

Group C is represented by a sector with an angle of 42° .

Group D contains 9 boys.



(a) Find the fraction of boys in group C. Give your answer in its lowest terms.

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(1)

(b) Given that the number of boys in group B is 21, find the total number of boys who ran the 100 metres.

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(2)

(c) Calculate the number of boys in group E.

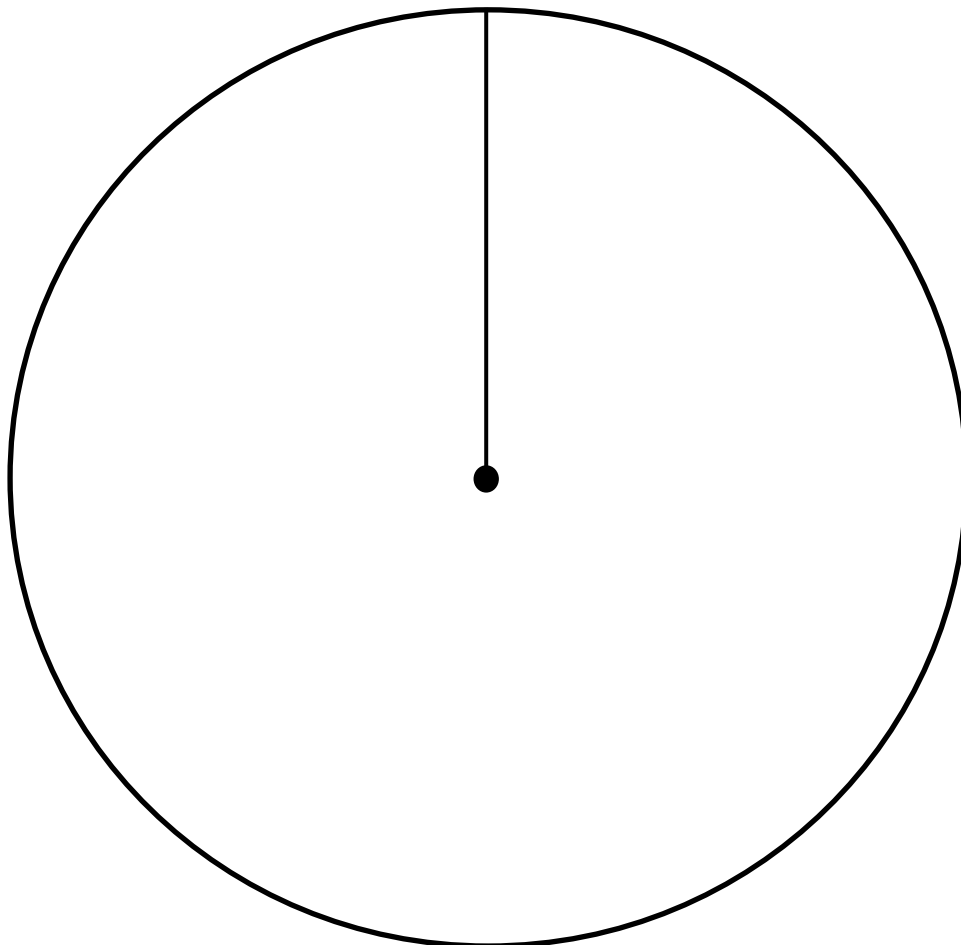
.....
(2)

(Total for question 13 is 5 marks)

14 The table below gives the ages of children in a birthday party.

Age	Frequency
13	5
14	11
15	14
16	13

Draw a pie chart to represent the information given in the table.

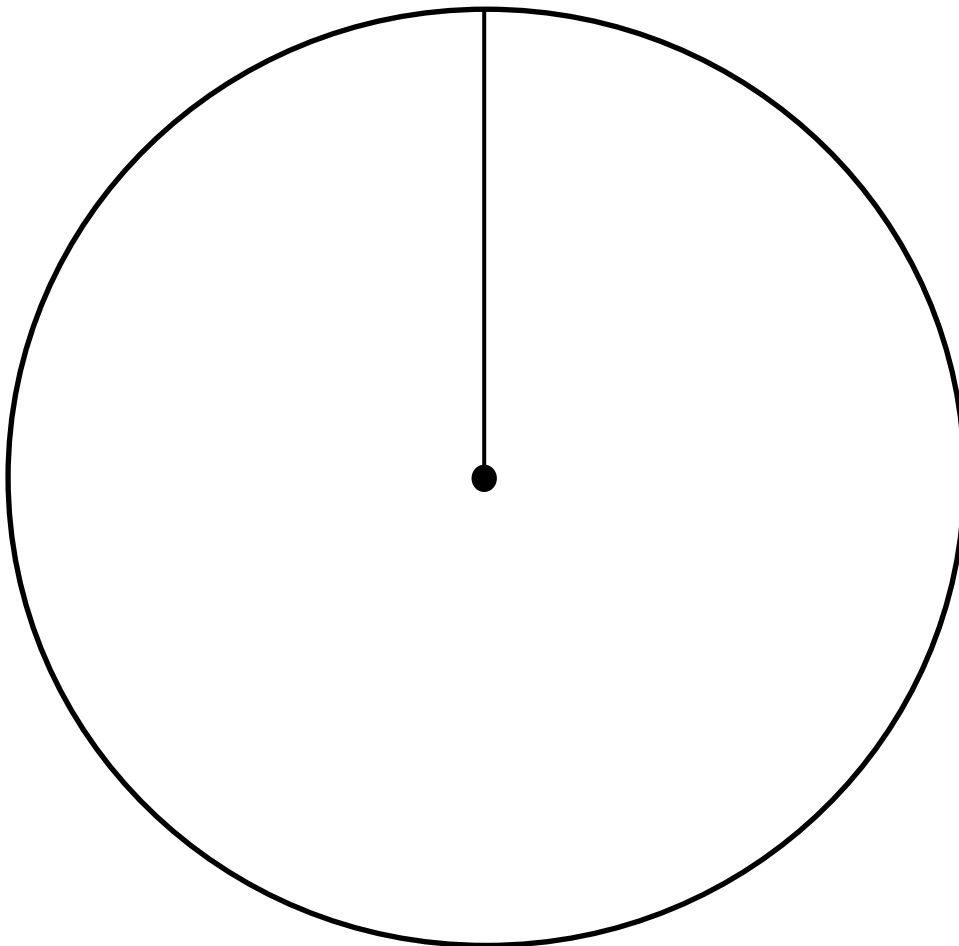


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(Total for question 14 is 4 marks)

15 The table below gives information about nationalities of people in a BTS concert.

Nationality	Number of people (in thousands)
England	1.2
USA	5.8
South Korea	3.5

Draw a pie chart to represent the information given in the table.

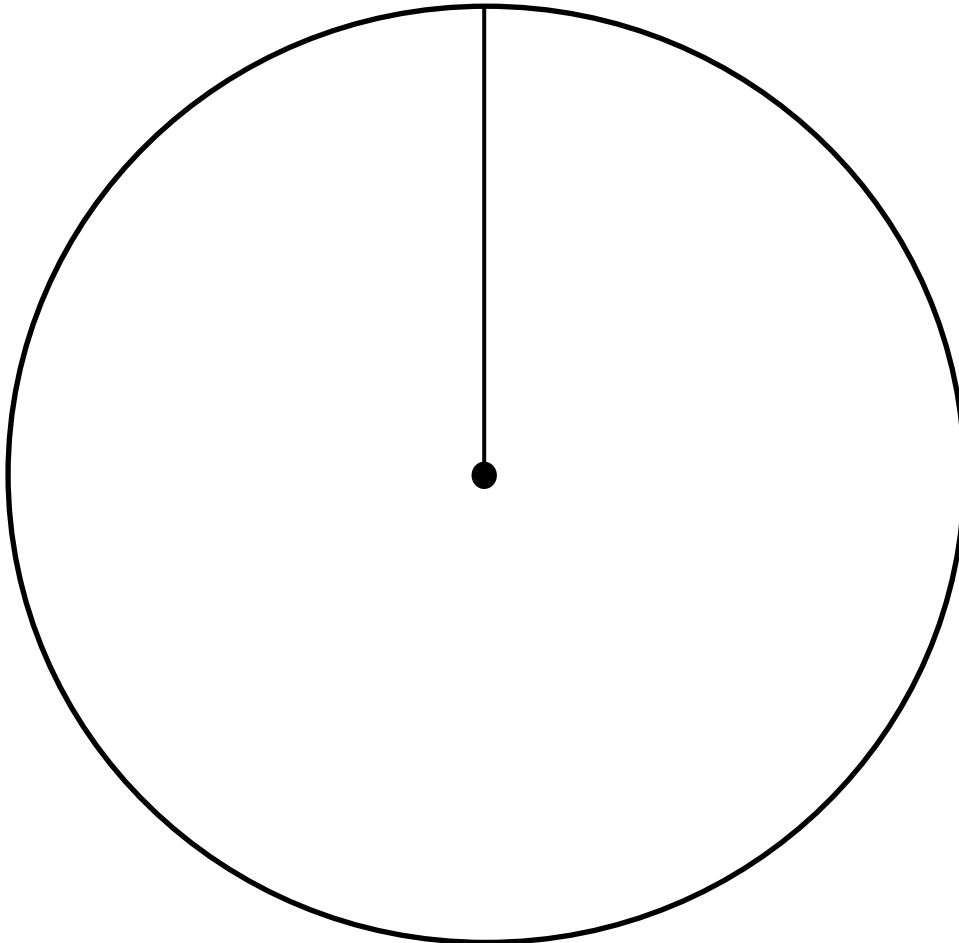


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 (Total for question 15 is 3 marks)

16 The table below gives information about different flowers in a bouquet.

Flower	Frequency
Sunflower	5
Daisy	12
Tulip	9

Draw a pie chart to represent the information given in the table.

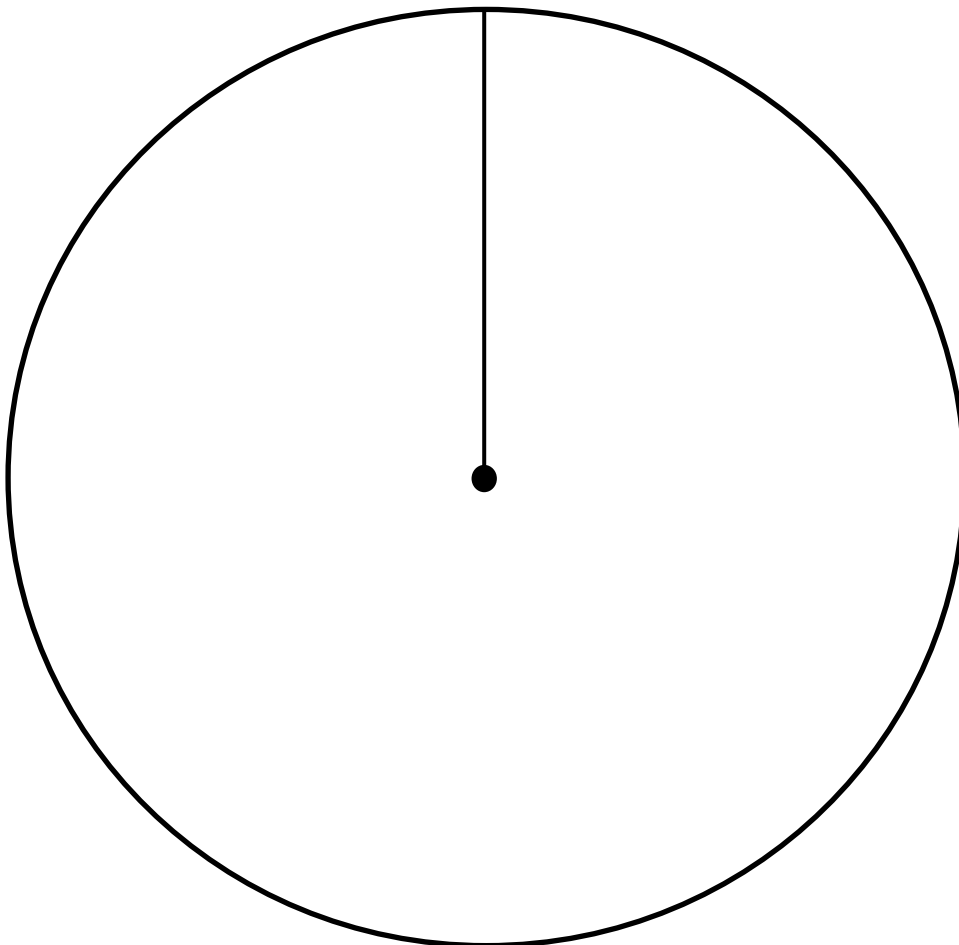


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(Total for question 16 is 5 marks)

17 The table below gives information about fruit flavored candies sold in a flower shop.

Flavor	Number Sold
Apple	34
Peach	57
Watermelon	154
Banana	32
Strawberry	18

Draw a pie chart to represent the information given in the table.

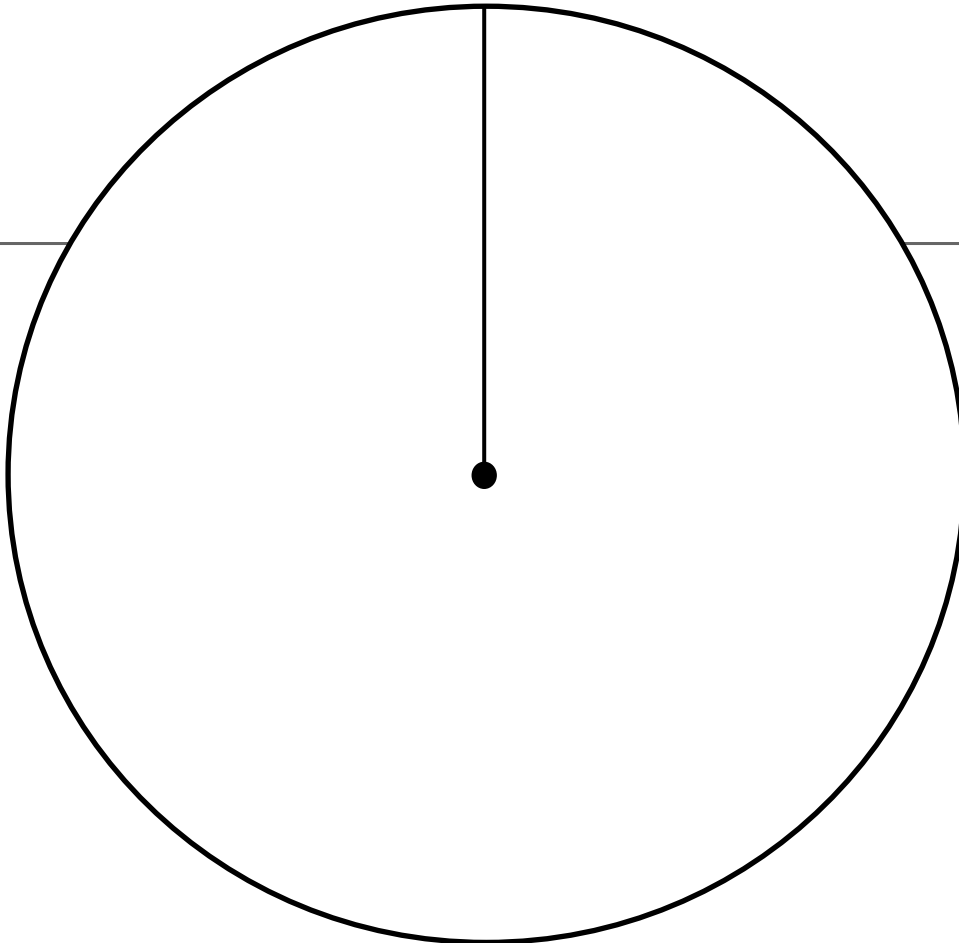


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(Total for question 17 is 4 marks)

18 The table below gives information about holiday destinations of families in a neighborhood.

Destination	Families
Venice	34
Lahore	57
Paris	29

Draw a pie chart to represent the information given in the table.

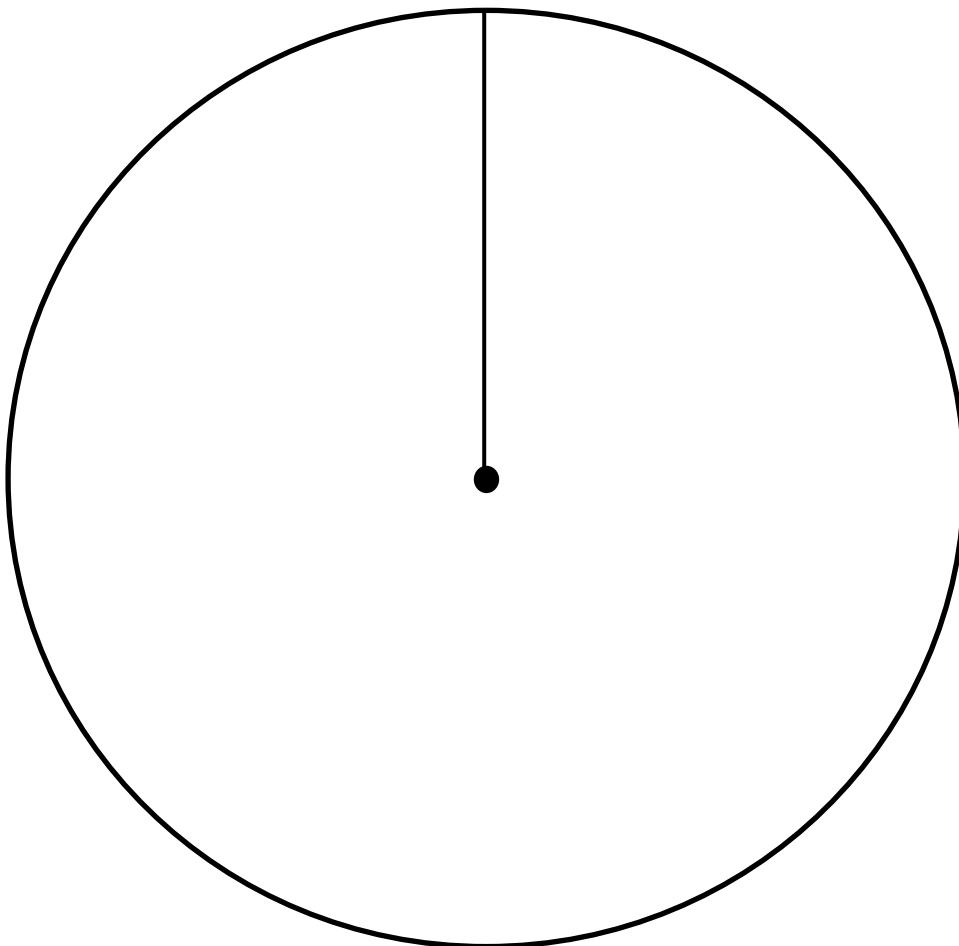


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(Total for question 18 is 4 marks)

19 The table below gives information about percentages of students that chose each subject as their favorite.

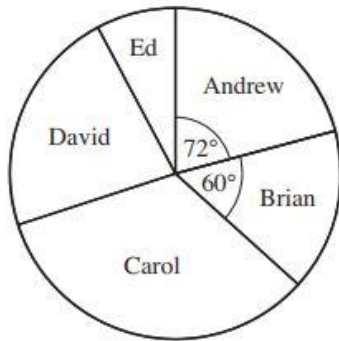
Subject	Percentage	Angle in Pie Chart
Math	68	
Biology	12	
Language		72°

Complete the table and draw a pie chart to represent the information given in the table.



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(Total for question 19 is 5 marks)

20 The pie chart, not drawn accurately, represents the weekly income of the five employees in a small British company in 2009.



Andrew's weekly income is represented by a sector with an angle of 72° .
 Brian's weekly income is represented by a sector with an angle of 60° .

- (a) Andrew's weekly income was £270.
 Find the total weekly income of the five employees.

£.....
 (1)

- (b) Calculate Brian's weekly income.

.....
 (2)

- (c) Carol's weekly income was £405.
 Calculate the angle of the sector representing Carol's weekly income.

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 (2)

(Total for question 20 is 5 marks)