

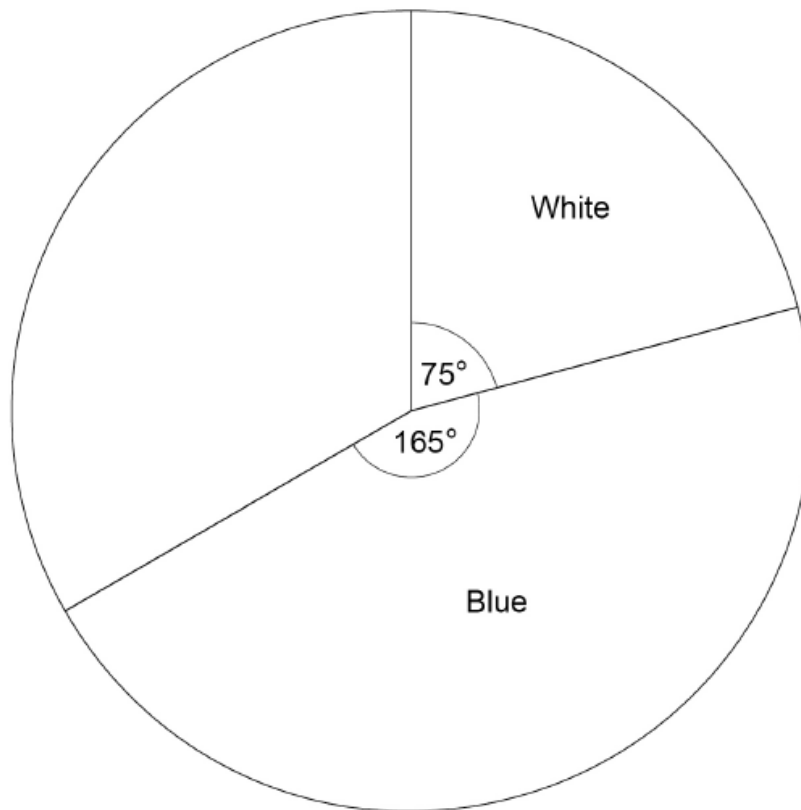
**AQA – Statistics – GCSE Mathematics Paper-3****1. May/2020/Paper\_3F/No.12**

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 marks]**

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(b) There were 600 players altogether.

How many players answered White?

[2 marks]

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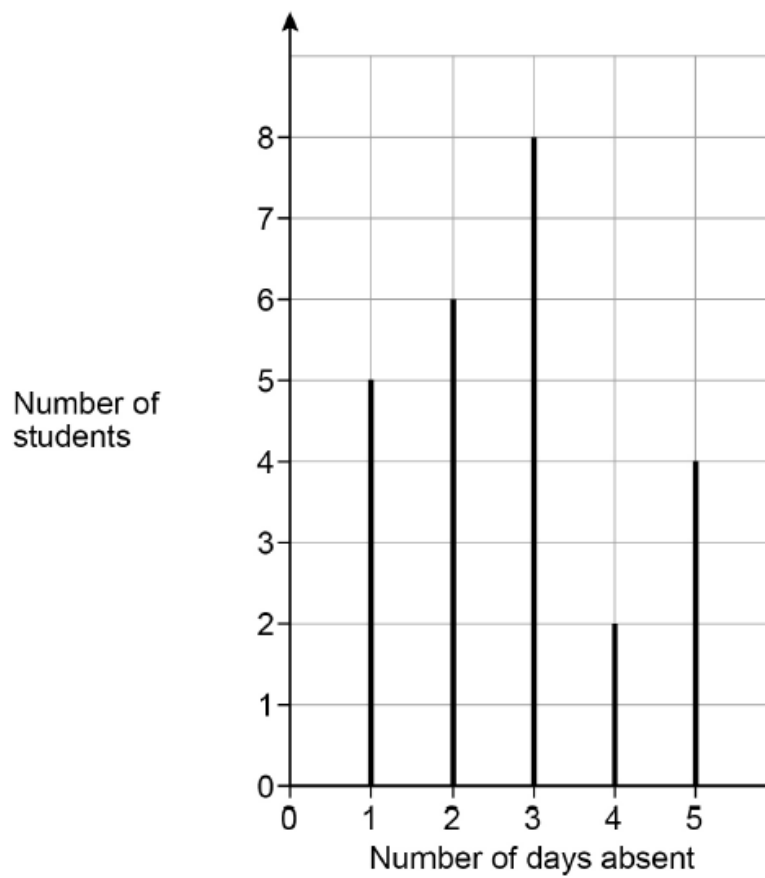
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Answer \_\_\_\_\_

2. **May/2020/Paper\_3F/No.17**

A record was kept of the number of days that 25 students were absent one term.

The chart represents the results.



(a) Work out the mean number of days absent.

[3 marks]

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Answer \_\_\_\_\_

(b) One of the students is chosen at random.

Work out the probability that the student was absent for **less than** 4 days.

[2 marks]

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Answer \_\_\_\_\_

## 3. May/2020/Paper\_3F/No.28

Here is some information about 26 houses.

$a$ ,  $b$  and  $c$  are all **different** numbers.

Number of bedrooms	Number of houses
1	7
2	$a$
3	$b$
4	$c$
5	8

The median number of bedrooms is 3.5

Work out a possible set of values for  $a$ ,  $b$  and  $c$ .

[3 marks]

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$$a = \underline{\hspace{10cm}}$$

$$b = \underline{\hspace{10cm}}$$

$$c = \underline{\hspace{10cm}}$$

## 4. May/2020/Paper\_3H/No.16

The number of goals scored by 20 players in a season is shown.

Number of goals	Frequency	Midpoint	
0 to 4	6		
5 to 9	11		
10 to 14	3		
	Total = 20		

Work out an estimate of the mean number of goals per player.

Give your answer as a decimal.

[3 marks]

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Answer \_\_\_\_\_

## 5. May/2020/Paper\_3H/No.20

Amari and Ben each play a game.

(a) Here is some information about Amari's scores.

Lowest 12

Highest 20

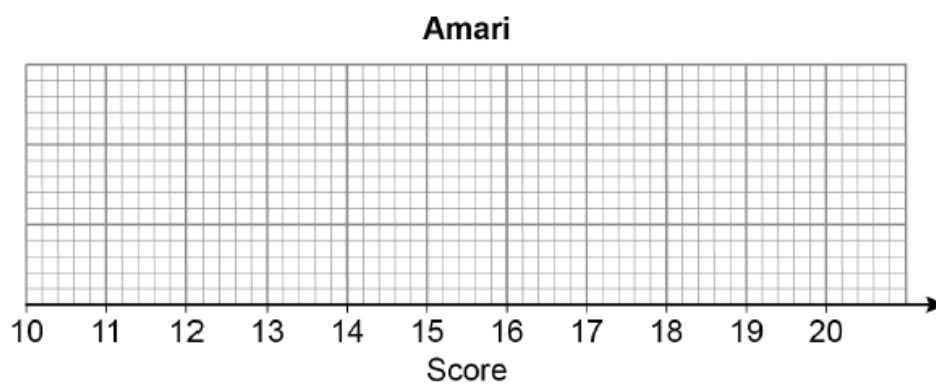
Lower quartile 13

Upper quartile 19

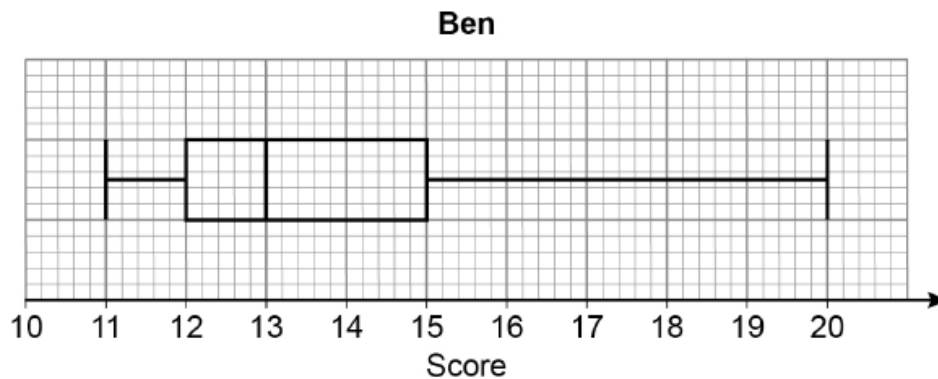
Median 17

Draw a box plot to represent his scores.

[2 marks]



(b) This box plot represents Ben's scores.



Who had more consistent scores, Amari or Ben?

Work out the interquartile ranges to support your answer.

[2 marks]

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**6. June/2019/Paper\_3F/No.17**

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.

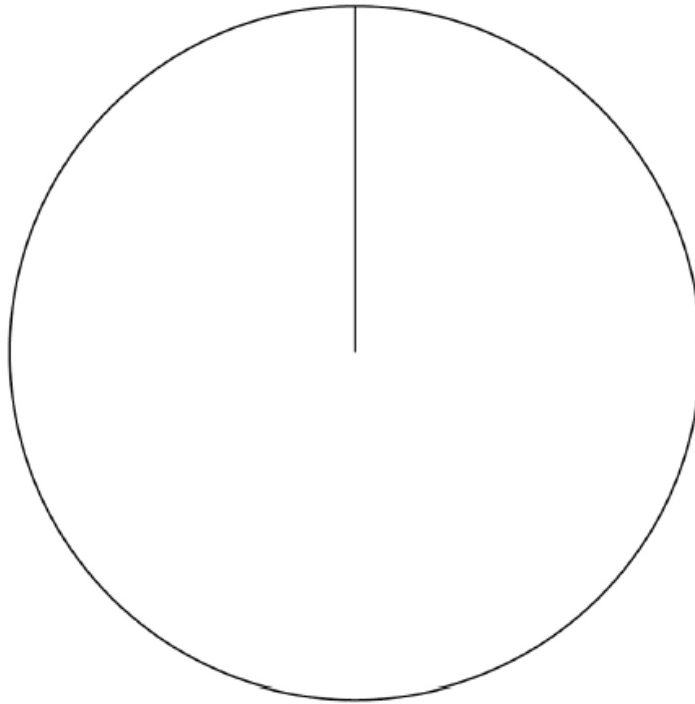
**[2 marks]**

- (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 marks]



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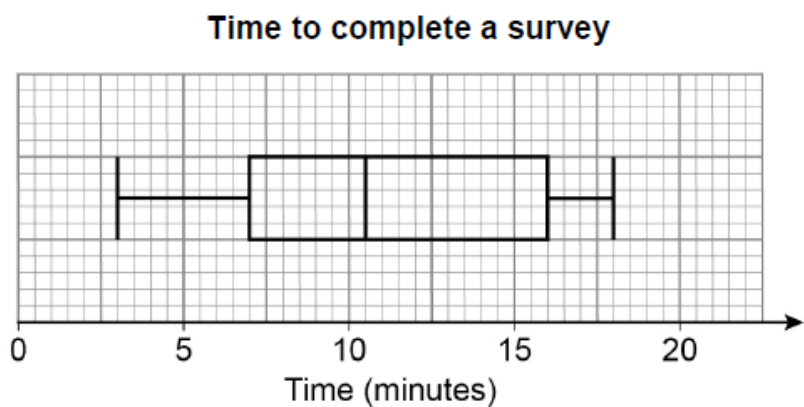
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## 7. June/2019/Paper\_3H/No.19

Here is some information about the times people took to complete a survey.

Fastest time	3 minutes
Slowest time	18 minutes
Median	11 minutes
Lower quartile	7 minutes
Interquartile range	8 minutes

Ben draws this box plot to show the information.



Make **two** criticisms of his box plot.

[2 marks]

Criticism 1 \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Criticism 2 \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

8. Nov/2019/Paper\_3F/No.17

The table shows the number of films watched one week by 30 people.

Number of films	Frequency	
0	5	
1	9	
2	8	
3	6	
4	2	

Total = 30

(a) Write down the modal number of films watched.

[1 mark]

Answer \_\_\_\_\_

(b) Work out the mean number of films watched per person.

[3 marks]

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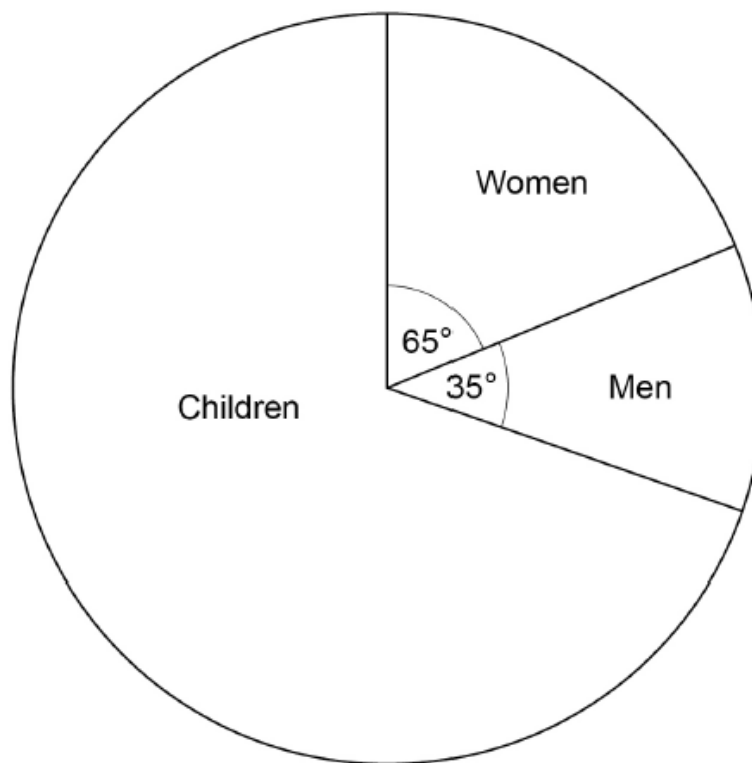
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Answer \_\_\_\_\_

9. Nov/2019/Paper\_3F/No.28

The pie chart shows information about people at a theme park.



Not drawn accurately

There were 450 **more** women than men.

Work out the number of children.

[3 marks]

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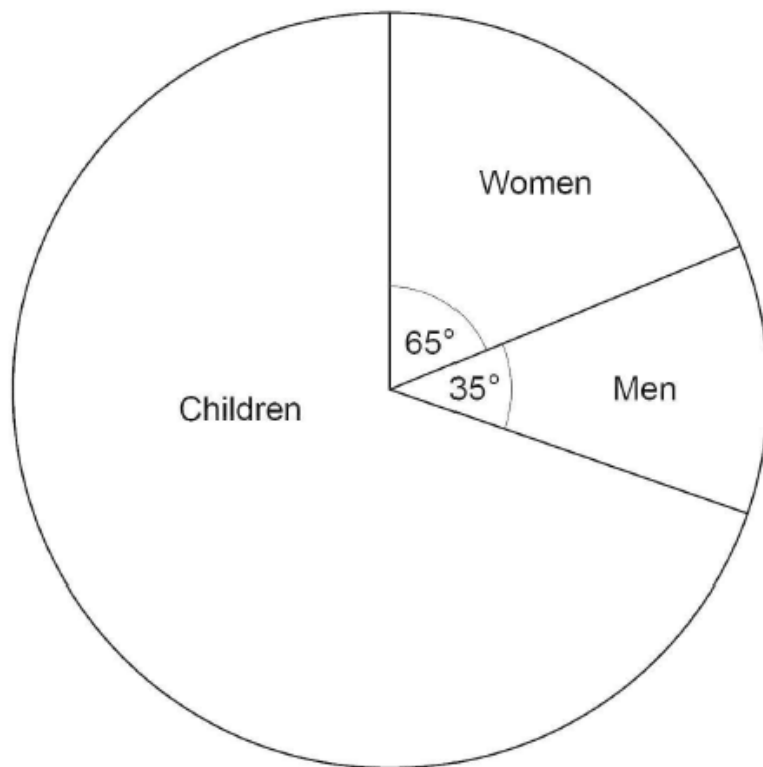
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Answer \_\_\_\_\_

## 10. Nov/2019/Paper\_3H/No.9

The pie chart shows information about people at a theme park.



There were 450 more women than men.

Work out the number of children.

[3 marks]

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Answer \_\_\_\_\_

11. Nov/2019/Paper\_3H/No.13

Naga states a hypothesis.

“Most people read more than 100 books a year.”

She asks a sample of five people in a book club how many books they read last month.

The table shows the results.

	Lynn	Ali	Paul	Chen	Ruth
Number of books	10	11	8	10	13

(a) Show how Naga could use the data to support her hypothesis.

[2 marks]

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(b) Give two reasons why this sample should **not** be used to support her hypothesis.

[2 marks]

Reason 1 \_\_\_\_\_

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Reason 2 \_\_\_\_\_

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