

**Paper Reference 1ST0/1H**  
**Pearson Edexcel**  
**Level 1/Level 2 GCSE (9–1)**

**Statistics**  
**Paper 1**  
**(Calculator)**  
**Higher Tier**

**Thursday 13 June 2019 – Afternoon**

**Data Book**

**In the boxes below, write your name,  
centre number and candidate number.**

<b>Surname</b>										
<b>Other names</b>										
<b>Centre Number</b>										
<b>Candidate Number</b>										

## INSTRUCTIONS

There may be spare copies of some data sheets in case you need them.

**THIS DATA BOOK MUST BE  
RETURNED WITH THE QUESTION  
PAPER AT THE END OF THE  
EXAMINATION.**

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Question 1

Key:

Number of children

9 or more

6 – 8

3 – 5

0 – 2

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Question 1

Key:

Number of children

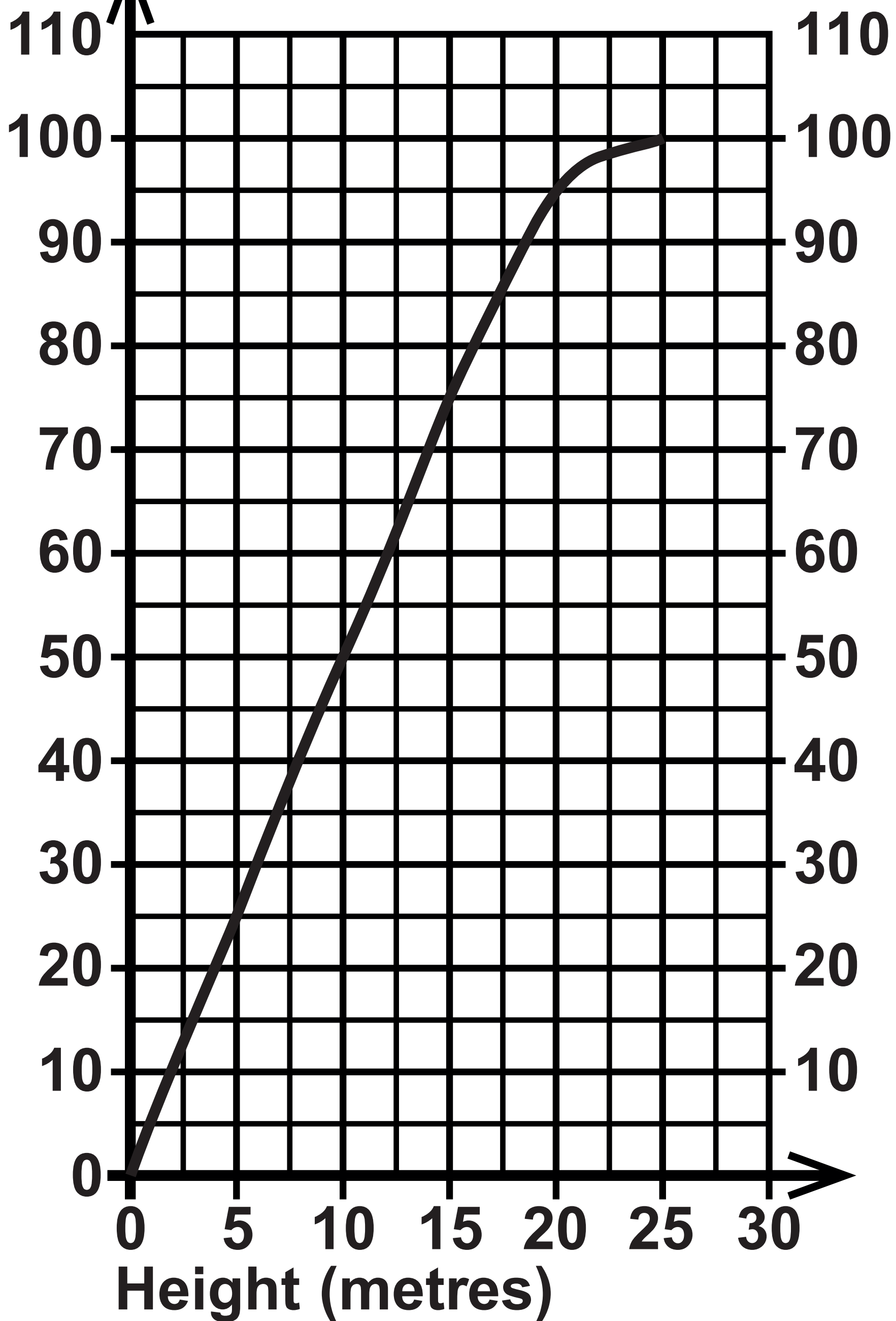
9 or more

6 – 8

3 – 5

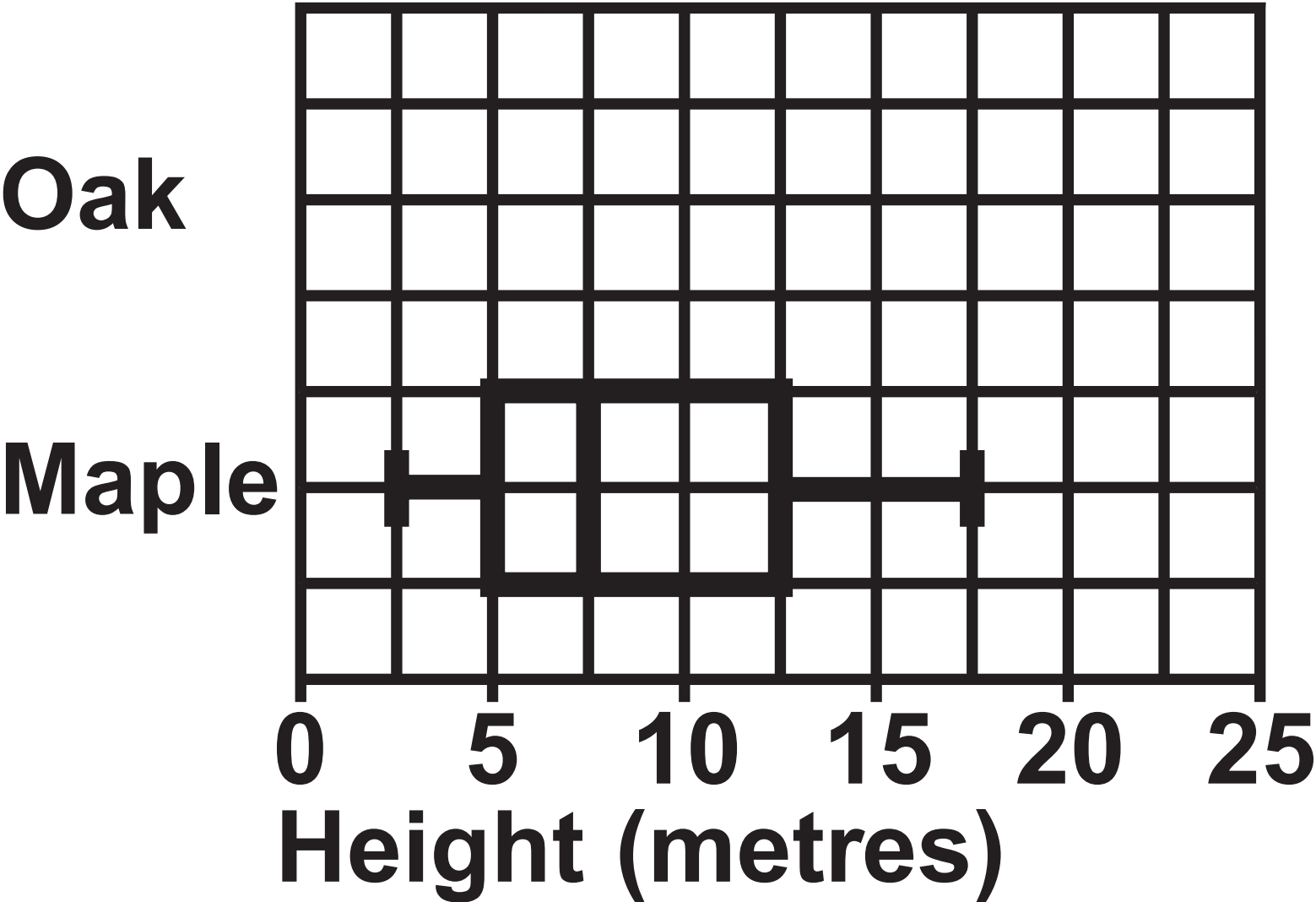
0 – 2

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**Cumulative frequency**

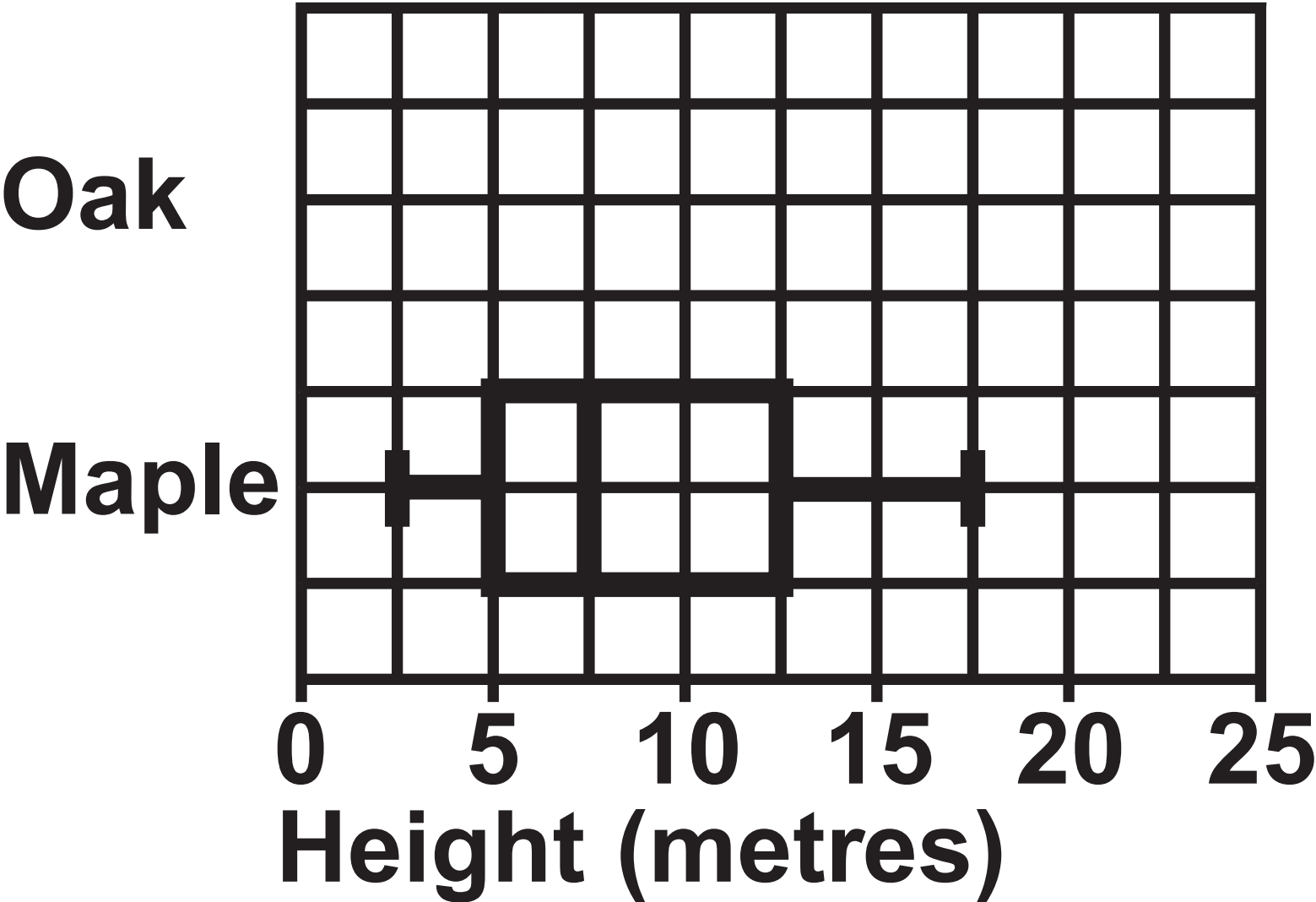
(Adapted from: [opendata.camden.gov.uk](https://opendata.camden.gov.uk))

Question 2(b)





Question 2(b)



Type of school	Applications in 2016		
	Gender		Total
	Male	Female	
Maintained	3674	2899	6573
Independent	1510	1268	2778
Other and Overseas	300	312	612
Total	5484	4479	9963

(Source: [www.cam.ac.uk](http://www.cam.ac.uk))

Type of variable			
Variable	Explanatory	Response	Extraneous
Age			
Left/Right handedness			
Gender			
Number of objects remembered			

Type of variable			
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Age			
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Number of objects remembered			

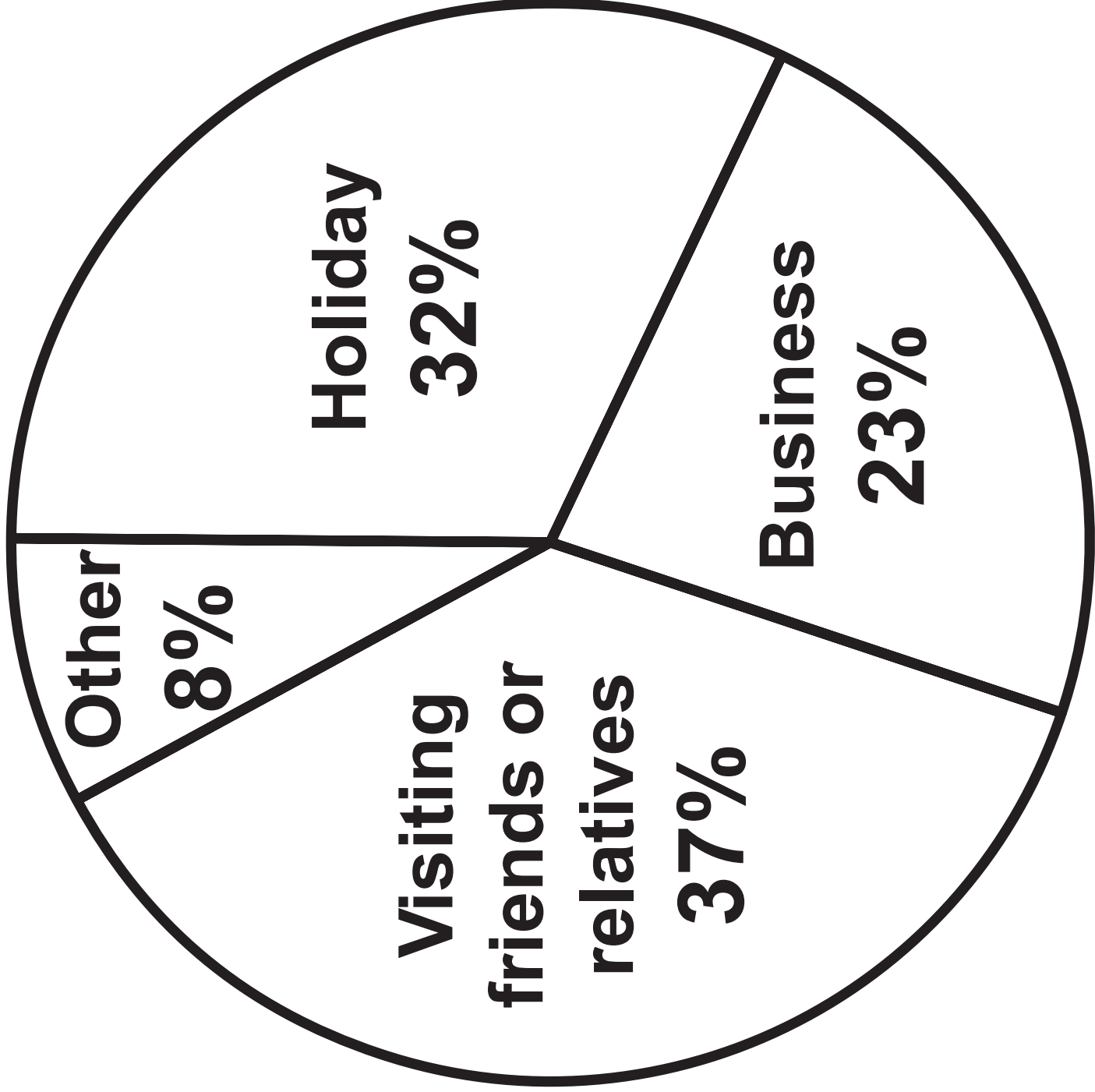
Caribbean island	Crude birth rate	Crude death rate
Barbados	11·995	10·661
Saint Lucia	12·239	7·472

(Source: [www.data.worldbank.org](http://www.data.worldbank.org))

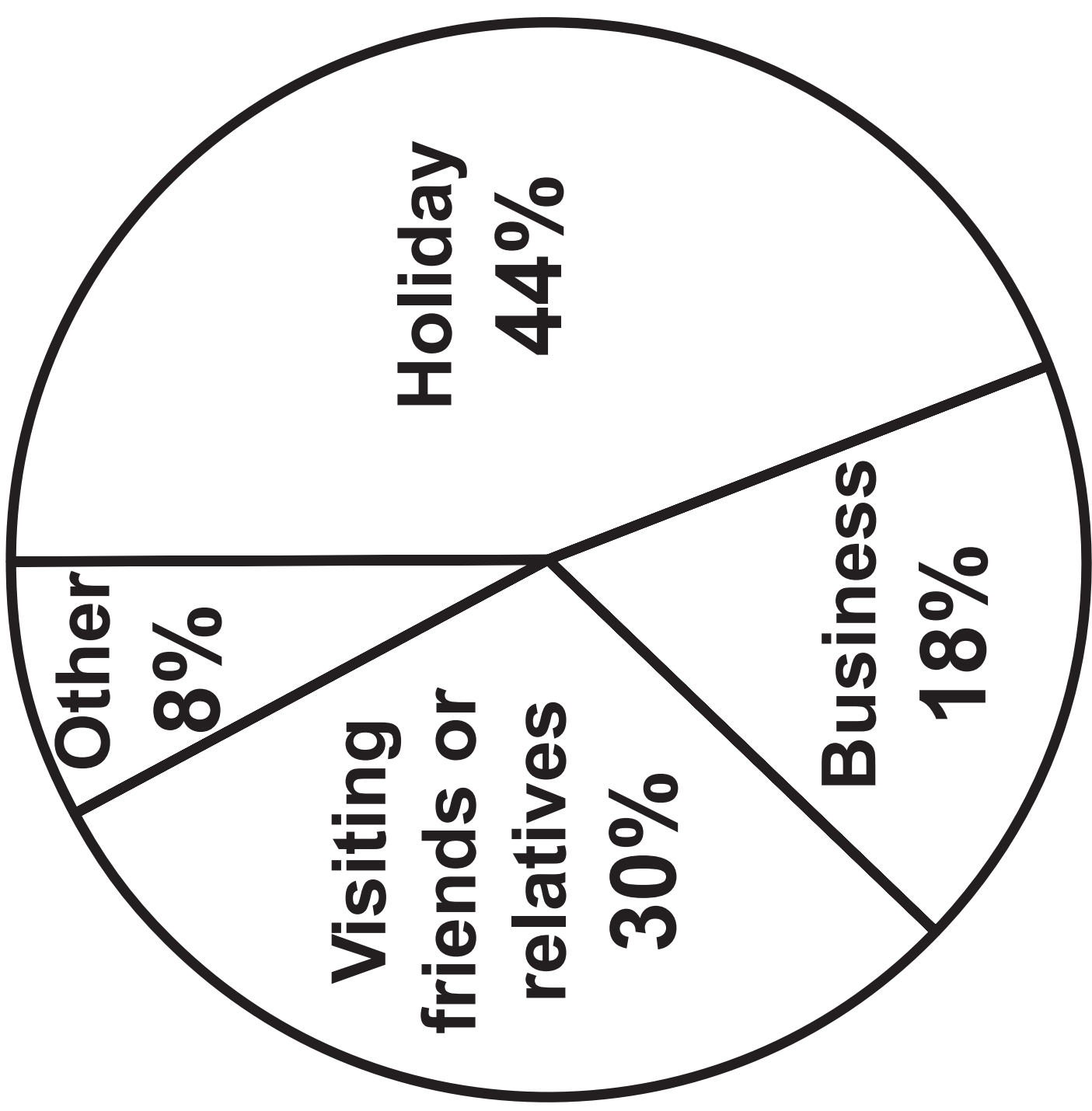
Table 2

	Standard population	
Age Group	Barbados	Saint Lucia
60 to 69	103	64
70 to 79	61	39
80 and over	34	22

January 2017



July 2017



(Source: [www.ons.gov.uk](http://www.ons.gov.uk))

Month	Total number of visitors (thousands)
January 2017	2931
July 2017	4020

Weight (kg) for Boys (B) and Girls (G)									
Age (months)	Percentile								
	9th		25th		50th		91st		
	B	G	B	G	B	G	B	G	
3	5·45	4·9	5·9	5·4	6·2	5·85	7·35	6·9	
4	6·1	5·45	6·5	5·9	7	6·4	8·15	7·6	
5	6·5	5·9	7	6·4	7·5	6·9	8·7	8·25	
6	6·8	6·2	7·4	6·7	7·9	7·5	9·2	8·6	

(Source adapted from: [www.rcpch.ac.uk](http://www.rcpch.ac.uk))



**Giovani goes to the region of Ontario, captures a sample of 250 reindeer, attaches a tag to each reindeer and then releases the 250 reindeer back into the same region of Ontario.**

**Three days later, Giovani returns to the same region of Ontario and catches a sample of 98 reindeer.**

**He finds that 5 of these reindeer are tagged.**

**Giovani concludes that this information can be used to verify the estimate of 5000**

## Question 10

<b>Time spent on social media (t minutes)</b>	<b>Frequency</b>
<b><math>0 \leq t &lt; 50</math></b>	<b>1</b>
<b><math>50 \leq t &lt; 100</math></b>	<b>4</b>
<b><math>100 \leq t &lt; 150</math></b>	<b>8</b>
<b><math>150 \leq t &lt; 200</math></b>	<b>17</b>
<b><math>200 \leq t &lt; 300</math></b>	<b>16</b>

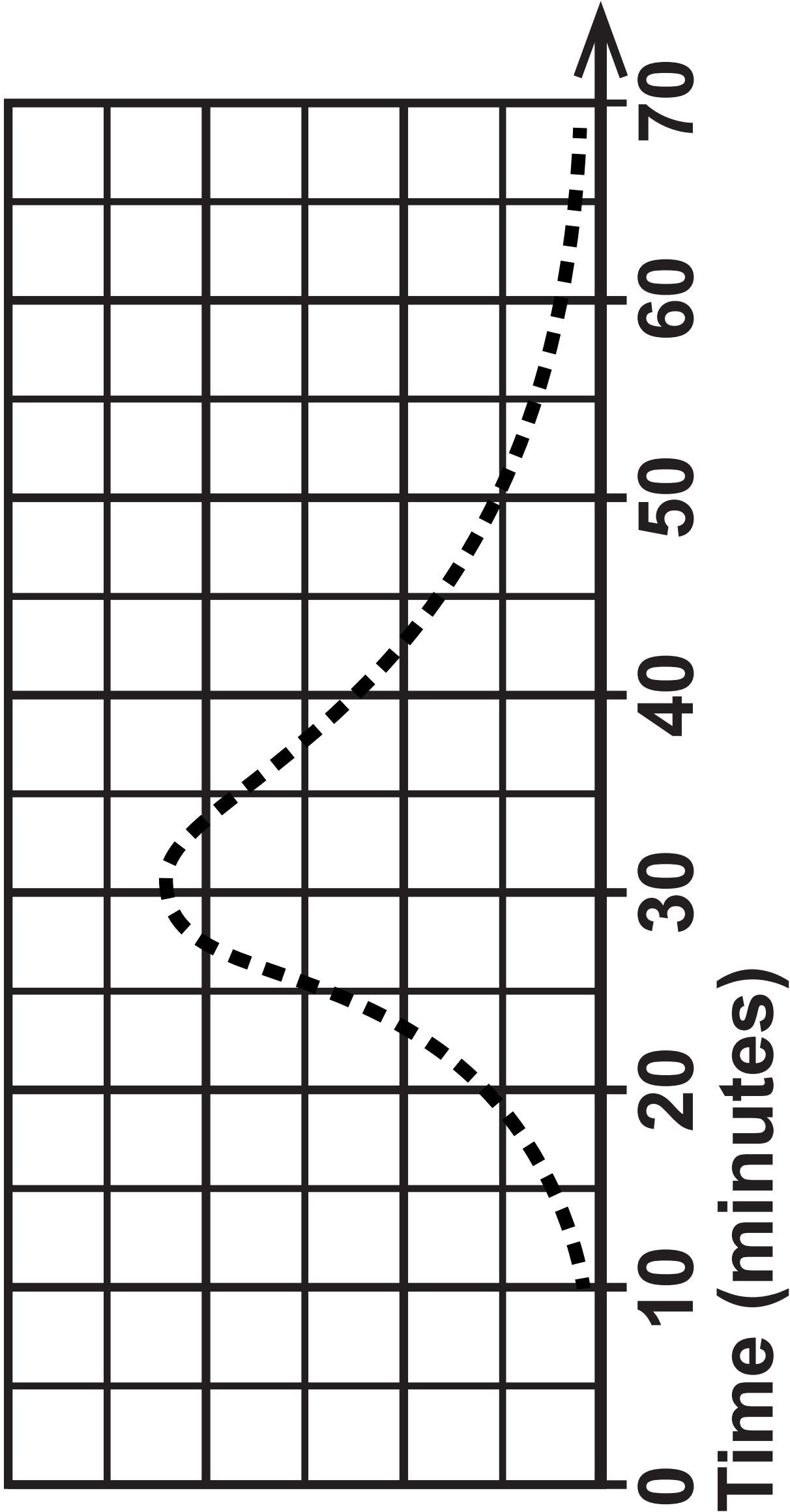
Question 10(b)

Mean (minutes)	Standard deviation (minutes)	Median (minutes)
125	25	130

Question 11(b)

Key:

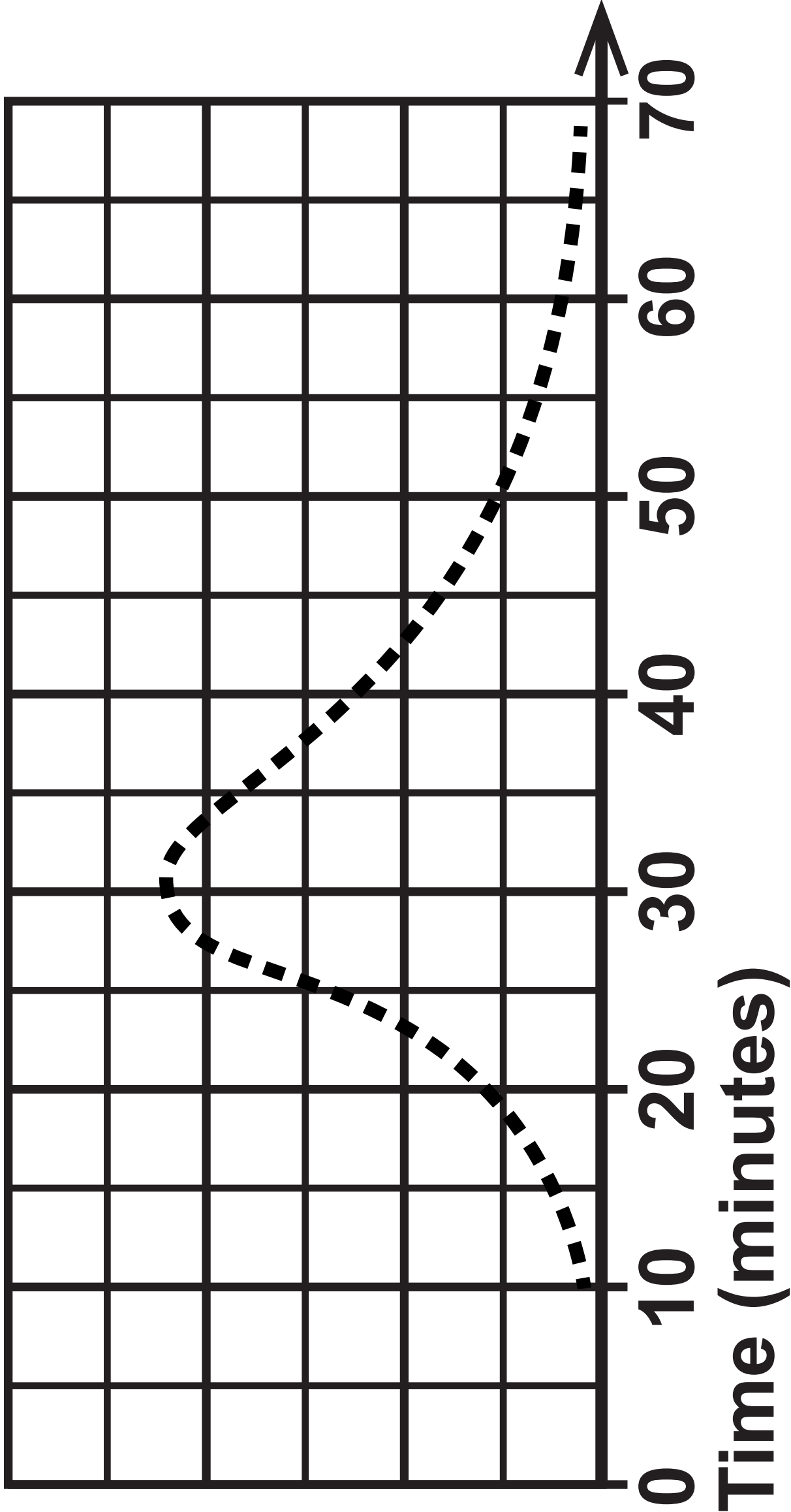
--- bus



Question 11(b)

Key:

--- bus



<b>Class</b>	<b>Number of students in the class</b>	<b>Class mean mark</b>
<b>A</b>	<b>28</b>	<b>63</b>
<b>B</b>	<b>32</b>	<b>72</b>
<b>C</b>	<b>n</b>	<b>55</b>

## Question 12(c)

**The three classes have also taken a mathematics test.**

**Mr Singh thinks that there is a relationship between the science marks and the mathematics marks.**

**He draws a scatter diagram for each of the three classes.**

**For each diagram, he used the science mark,  $X$ , for each student in the class as the explanatory variable and the corresponding mathematics mark,  $m$ , as the response variable.**

**Mr Singh then used statistical software to find the equation of the regression line for the data in each scatter diagram.**

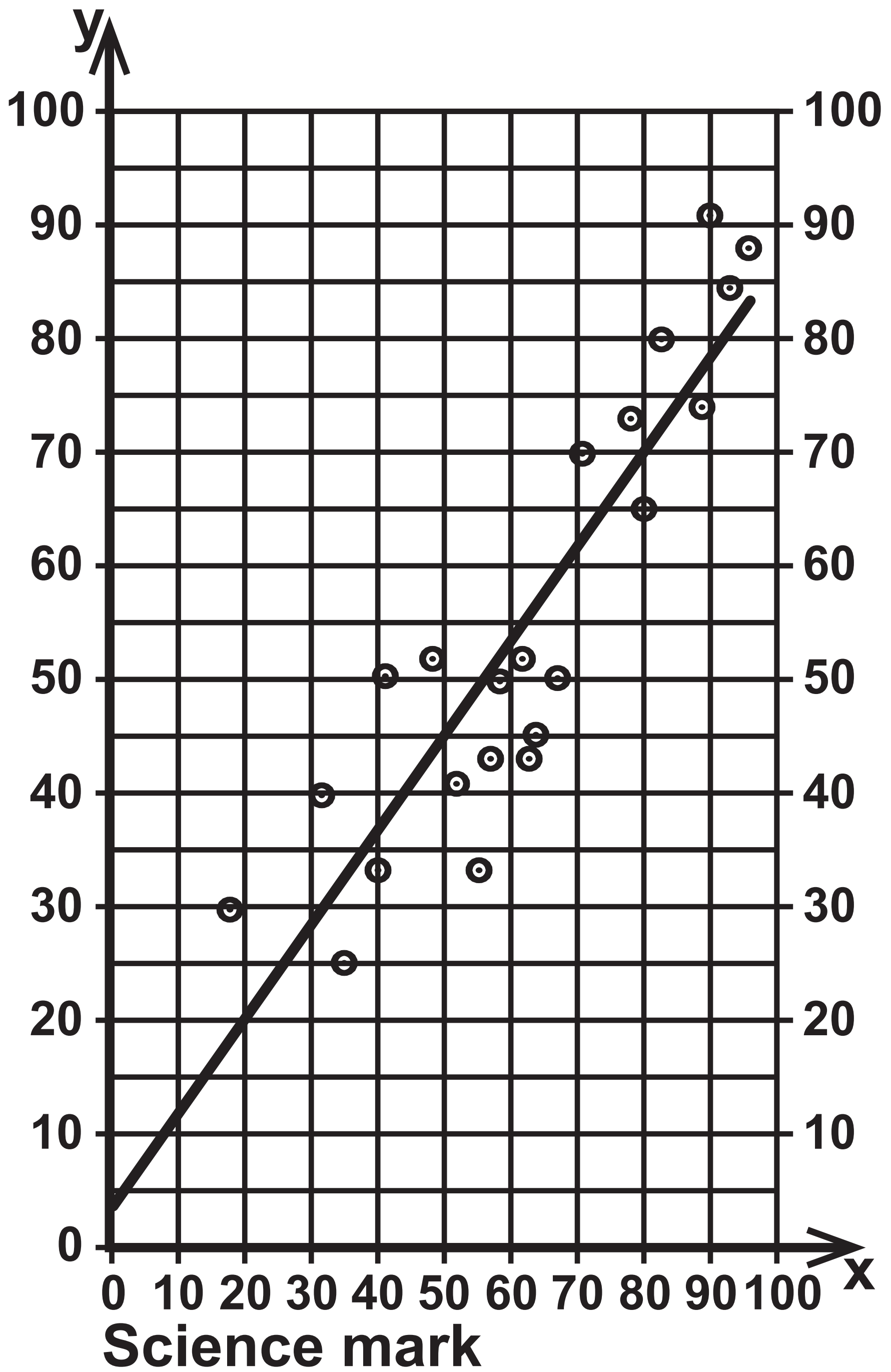
**(continued on the next page)**

Question 12(c) continued.

Here are the equations.

Class	Equation of regression line
A	$m = 1.4x - 1$
B	$m = 1.2x + 5$
C	$m = -1.3x + 4$



**History mark**

## Question 13

**Roll a fair dice.**

**If you get 1, 2, 3 or 4 tick box A**

**If you get 5 or 6 answer this question.**

**Have you ever taken a sick day off work  
when you weren't really sick?**

**If yes, tick box A**

**If no, tick box B**

**A**

☐

**B**

☐