

Surname						Other Names					
Centre Number						Candidate Number					
Candidate Signature											

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General Certificate of Secondary Education
June 2006



**MATHEMATICS (MODULAR) (SPECIFICATION B)
Module 1 Intermediate Tier Section A**

33001/IA

Monday 19 June 2006 1.30 pm to 1.55 pm

<p>For this paper you must have:</p> <ul style="list-style-type: none"> • a calculator • mathematical instruments • a treasury tag 	
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For Examiner's Use			
Section A		Section B	
Number	Mark	Number	Mark
1		6	
2		7	
3		8	
4		9	
5			
Total Section A			
Total Section B			
TOTAL			
Examiner's Initials			

Time allowed for Section A: 25 minutes

Instructions

- Use blue or black ink or ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- Answer the questions in the spaces provided.
- Use a calculator where appropriate.
- Do all rough work in this book.
- This paper is divided into two sections: Section A and Section B.
- After the 25 minutes allowed for Section A, you must put your calculator on the floor under your seat. You will then be given Section B.
- When you have answered Section B you may work again on Section A but you may **not** use your calculator. It must remain on the floor under your seat.
- At the end of the examination tag Section A and Section B together with Section A on top.

Information

- The maximum mark for Section A is 20.
- The marks for questions are shown in brackets.
- You may ask for more answer paper and graph paper. These must be tagged securely to this answer book.

Advice

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

Answer **all** questions in the spaces provided.

1 Martin spent £720 last month.

The table shows how he spent this money.

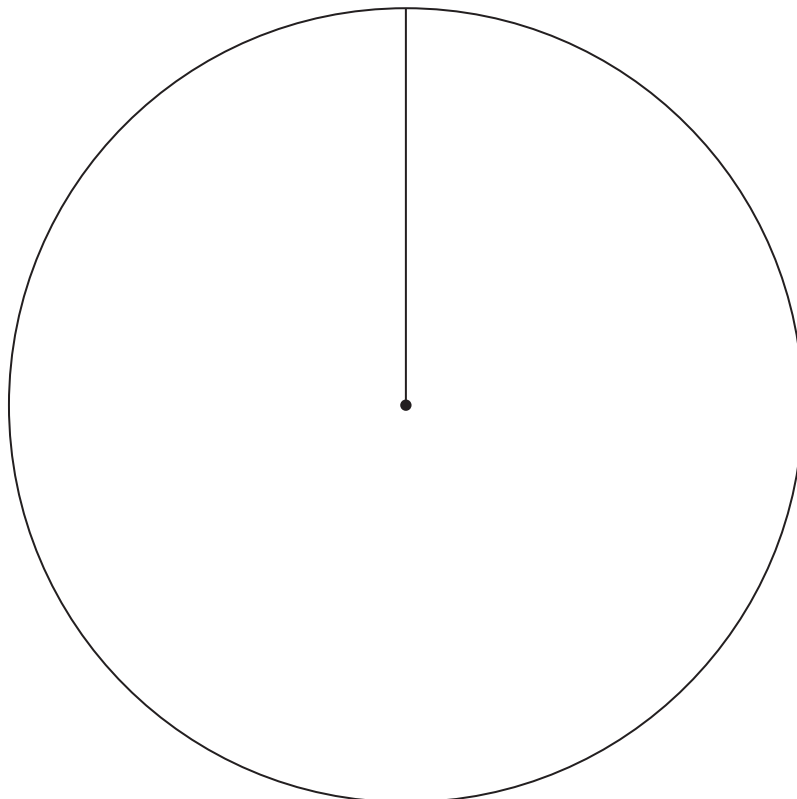
	Amount spent (£)
Rent	280
Food	170
Leisure	120
Clothes	90
Other	60

Draw and label a pie chart to show this information.

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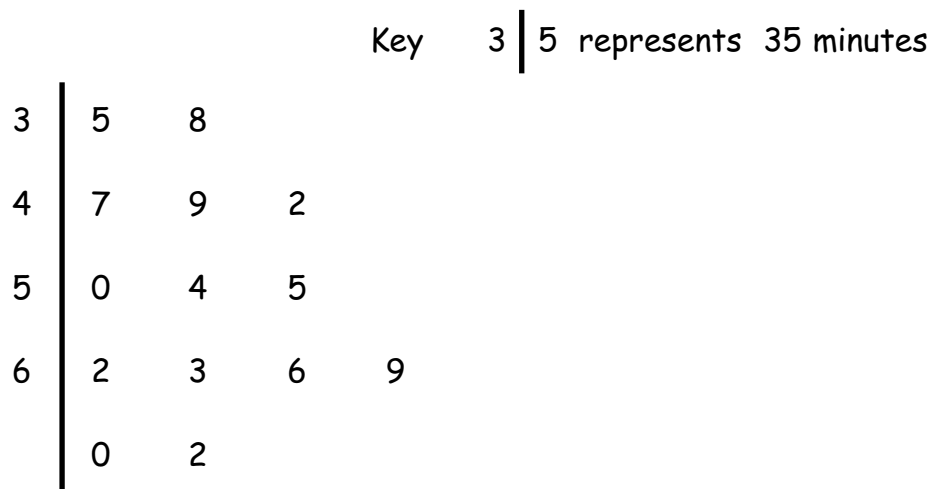


(4 marks)

- 2 Beth records the time, in minutes, she spends doing homework each school night for three weeks.

47	35	54	50	63
38	49	72	66	62
55	69	69	42	70

Beth attempts to draw an ordered stem-and-leaf diagram to show these amounts.
This is her diagram.



Beth has made **three** mistakes in her diagram.

Write down the mistakes she has made.

Answer

- 1
- 2
- 3

(3 marks)

- 3 The number of magazines sold each day by a village shop is recorded for one month.

Number of magazines	Frequency	
0	6	
1	7	
2	9	
3	4	
4	3	
5	1	
Total	30	

- (a) Calculate the mean number of magazines sold each day.

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Answer magazines (3 marks)

- (b) One day is chosen at random.

Write down the probability that no magazines are sold on that day.

Answer (1 mark)

4 There are 475 girls in a school.
The probability that a girl studies French is 0.6

(a) How many girls study French?

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.....

Answer (2 marks)

(b) Altogether there are 900 pupils in the school.
Every pupil studies either French or German.
There are no pupils who study both.
The probability that a boy studies German is 0.52

Calculate the total number of pupils who study French.

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.....
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Answer (3 marks)

5

Turn over for the next question

Turn over 

- 5 A three-sided spinner has sections numbered 1, 2 and 3.
It is spun 20 times.
The results are shown below.

2 1 1 3 1 2 3 3 2 3
1 2 3 2 2 3 2 3 1 3

.....

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- (a) Use these results to calculate the relative frequency of each number.

Number	1	2	3
Relative frequency			

(2 marks)

- (b) The following table shows the relative frequency of each number after 100 spins.

Number	1	2	3
Relative frequency	0.14	0.45	0.41

Which table gives the best estimate for the probability of spinning the number 1?
Give a reason for your answer.

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(2 marks)

END OF SECTION A

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There are no questions printed on this page