

GENERAL CERTIFICATE OF SECONDARY EDUCATION MATHEMATICS C (GRADUATED ASSESSMENT)

M5^{B245A}

MODULE M5 - SECTION A

TUESDAY 13 MARCH 2007

Morning

Time: 30 minutes

Candidates answer on the question paper.

Additional materials: Geometrical instruments

Tracing paper (optional)
Pie chart scale (optional)

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Candidate Name					
Centre Number			Candidate Number		

INSTRUCTIONS TO CANDIDATES

- Write your name, Centre Number and Candidate Number in the boxes above.
- Answer all the questions.
- Use blue or black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure you know what you have to do before starting your answer.
- In many questions marks will be given for a correct method even if the answer is incorrect.
- Do not write in the bar code.
- Do not write outside the box bordering each page.
- WRITE YOUR ANSWER TO EACH QUESTION IN THE SPACE PROVIDED. ANSWERS WRITTEN ELSEWHERE WILL NOT BE MARKED.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this Section is 25.

WARNING
You are not allowed to use a calculator in Section A of this paper.

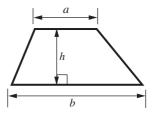
For Examiner's Use		
Section A		
Section B		
Total		

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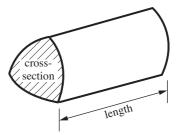
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Formulae Sheet

Area of trapezium = $\frac{1}{2}(a+b)h$



Volume of prism = (area of cross-section) \times length



PLEASE DO NOT WRITE ON THIS PAGE

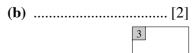
1	(a)	Ring the fraction which is not equivalent to $\frac{3}{5}$.
1	(a)	King the fraction which is not equivalent to $\frac{1}{5}$.

6	15	20	21
10	$\overline{25}$	30	$\frac{21}{35}$

[1]

(b) Abbey Hotel has 7 single bedrooms and 21 double bedrooms.

What fraction of these rooms are double bedrooms? Write your answer in its simplest form.



- Work out.
 - (a) -2 + -5

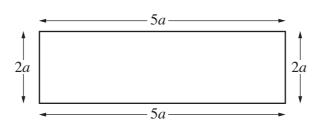


(b) -2 - -5



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3 (a)



Write an expression for the perimeter of this rectangle. Give your answer in its simplest form.

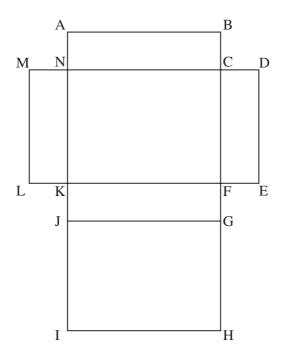
(a)	[2
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(b) Simplify.

$$3b + 5c + 4b - 2c$$

(b)	 [2
	4

4 This is a net of a cuboid.

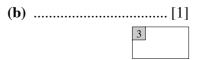


The net is folded to make the cuboid.

(a) Which points meet with B?

(a)	 [2]
` '	

(b) How many edges does the cuboid have?



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(a)
$$11 = x - 7$$

(a)		[1]
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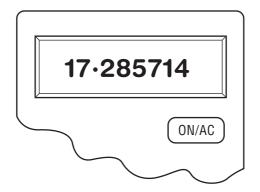
(b)
$$4x - 3 = 7$$

(b)	[2	2]
	3	

6 Write these in order of size, starting with the smallest. Show your working.

$$5^2 \sqrt{100} 3^3 4^2$$

7 (a) Ted works out the average price of a ticket to watch his local football team. This is what his calculator shows.



(i) Write 17·285714 correct to two decimal places.

/ \ /•\	г 1	٦
(9)(1)	ı	- 1
(a)(1)	 ı	.

(ii) Write 17.285714 correct to one significant figure.

(ii)	 [1]

(b) Chris is sitting in the North Stand.

The North Stand has 29 rows with 37 seats in each row.

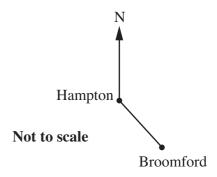
Write down a calculation Chris could do in his head to **estimate** the total number of seats in the North Stand. Give the answer to your calculation.

TURN OVER FOR QUESTION 8

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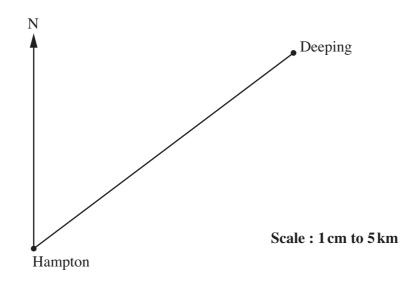
8 (a) Broomford is South East of Hampton.

Write down the bearing of Broomford from Hampton.



(a)° [1]

(b) Raveena cycles from Hampton to Deeping.



(i) **Measure** the bearing of Deeping from Hampton.

(b)(i)° [1]

(ii) Work out the **real** distance from Hampton to Deeping.

(ii)km [2]

4

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