

**GENERAL CERTIFICATE OF SECONDARY EDUCATION
MATHEMATICS C (GRADUATED ASSESSMENT)**

M5 2335B

MODULE M5 – SECTION B

MONDAY 22 JANUARY 2007

Morning

Time: 30 minutes

Candidates answer on the question paper.
Additional materials: Geometrical instruments
Tracing paper (optional)
Pie chart scale (optional)
Electronic calculator



Candidate
Name

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Centre
Number

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Candidate
Number

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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

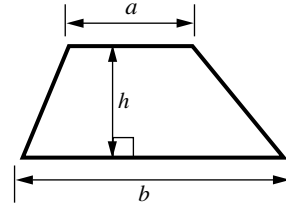
- You are expected to use a calculator in Section B of this paper.
- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this Section is 25.
- Section B starts with question 7.

For Examiner's Use	
Section B	

This document consists of **8** printed pages.

Formula Sheet

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



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7



- (a) A bag contains 500g of sugar.
Simon uses 200g of this sugar.

What fraction of the sugar does he use?
Give your answer in its simplest form.

(a) [2]

- (b) A bag contains 1.5 kg of flour.

Roughly how many pounds is this?

(b)pounds [2]

4	
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8 Simplify.

(a) $2t + 2t + 3t + 4t$

(a)..... [1]

(b) $5a + 2b - 3a + 4b$

(b) [2]

3

9 Here are the first 4 terms of a sequence.

96 48 24 12

(a) Write down the next two terms.

(a) and [2]

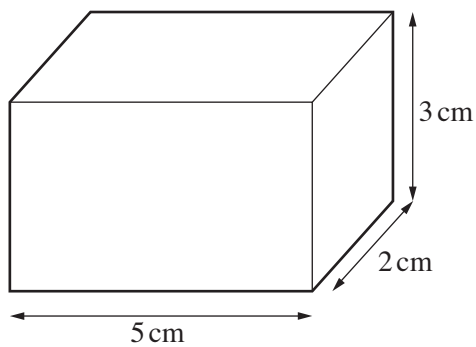
(b) What is the rule to get from one term of the sequence to the next?

..... [1]

3

10

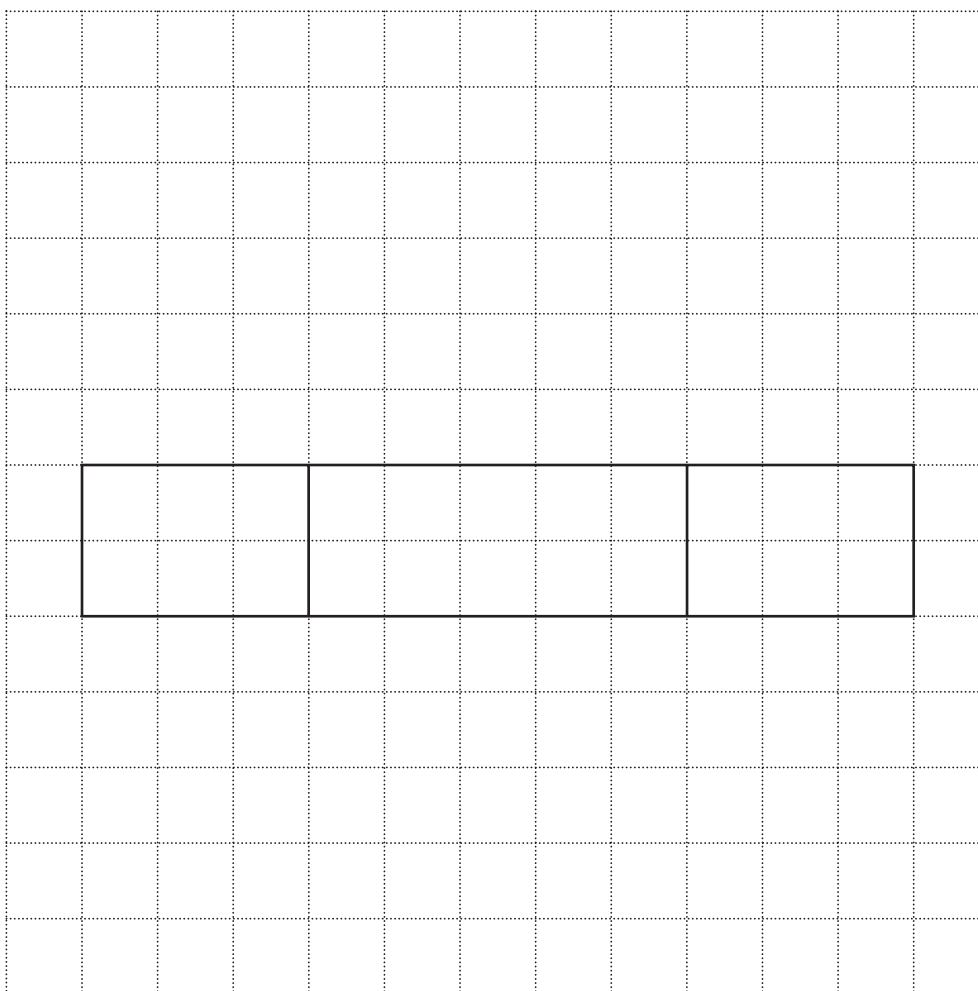
5



(a) Work out the volume of this cuboid.

(a).....cm³ [2]

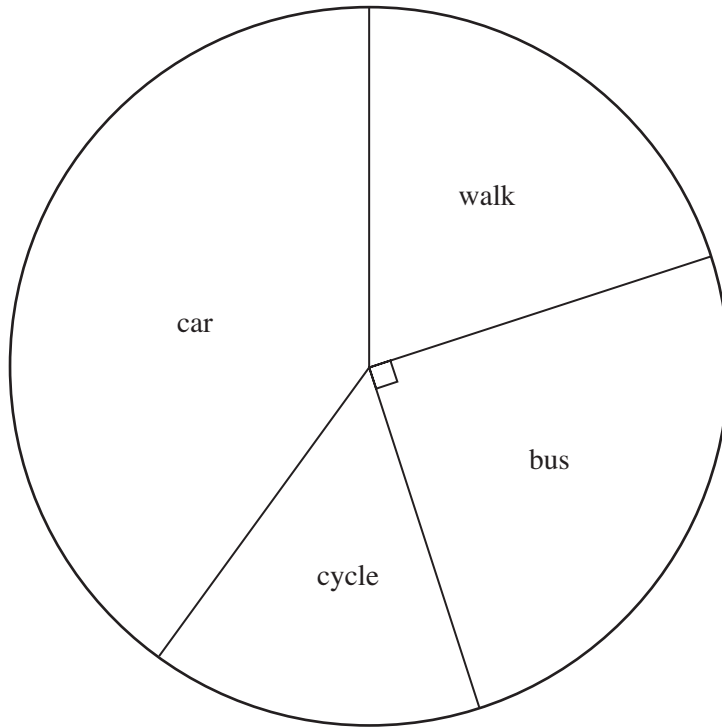
(b) Complete this **full-size** net of the cuboid by drawing the other three faces.



[2]

4

11 (a) This pie chart represents the results of a survey about how pupils travel to school.



(i) What is the most popular way to get to school?

(a)(i) [1]

(ii) What percentage of pupils travel to school by bus?

(ii)% [1]

(iii) 180 pupils took part in the survey.

How many pupils travel by car?

(iii) [3]

(b) The mean distance travelled by the 27 pupils who cycle to school is 2.4 km.

Calculate the total distance travelled by these 27 pupils.

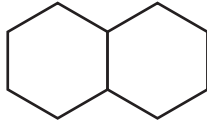
(b) km [2]

7

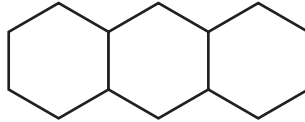
12



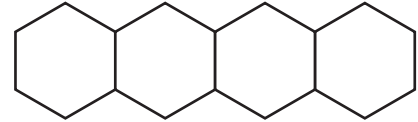
Pattern 1



Pattern 2



Pattern 3



Pattern 4

These patterns are made from sticks.
The table shows the number of sticks needed to make each pattern.

Pattern	1	2	3	4
Number of sticks	6	11	16	21

(a) How many sticks will you need to make Pattern 10?

(a)..... [1]

(b) Janine says that Pattern 20 needs 102 sticks.

Without working it out, explain why she is wrong.

..... [1]

2	
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13 Here are three fractions.

$$\frac{2}{5} \quad \frac{1}{3} \quad \frac{3}{8}$$

Which of these fractions is the largest?
You must show your working.

..... [2]

2	
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