

<b>Candidate Forename</b>		<b>Candidate Surname</b>	
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<b>Centre Number</b>						<b>Candidate Number</b>				
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**OXFORD CAMBRIDGE AND RSA EXAMINATIONS  
GENERAL CERTIFICATE OF SECONDARY EDUCATION**

**B275A**

**MATHEMATICS C  
(GRADUATED ASSESSMENT)**

**MODULE M5 – SECTION A**

**TUESDAY 23 JUNE 2009: Morning**

**DURATION: 30 minutes**

**SUITABLE FOR VISUALLY IMPAIRED CANDIDATES**

**Candidates answer on the question paper**

**OCR SUPPLIED MATERIALS:**

**None**

**OTHER MATERIALS REQUIRED:**

**Geometrical instruments**

**Pie chart scale (optional)**

**Tracing paper (optional)**

**WARNING**

**No calculator can be used for  
Section A of this paper.**

**READ INSTRUCTIONS OVERLEAF**

## **INSTRUCTIONS TO CANDIDATES**

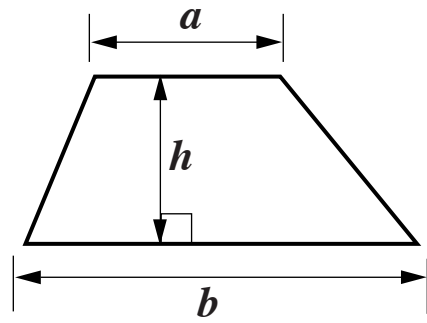
- Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes on the first page.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Show your working. Marks may be given for a correct method even if the answer is incorrect.
- Answer ALL the questions.
- Write your answer to each question in the space provided, however additional paper may be used if necessary.

## **INFORMATION FOR CANDIDATES**

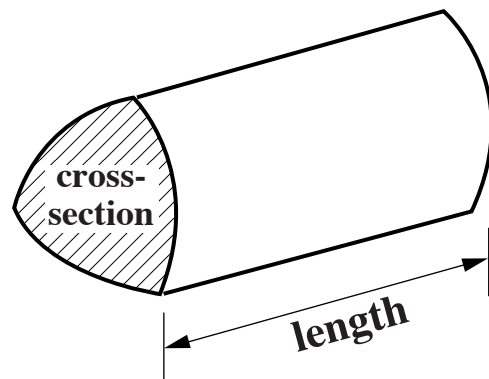
- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this Section is 25.

## FORMULAE SHEET

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

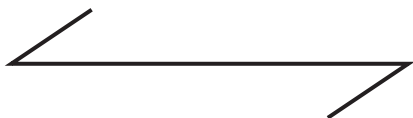


Volume of prism =  
(area of cross-section)  $\times$  length



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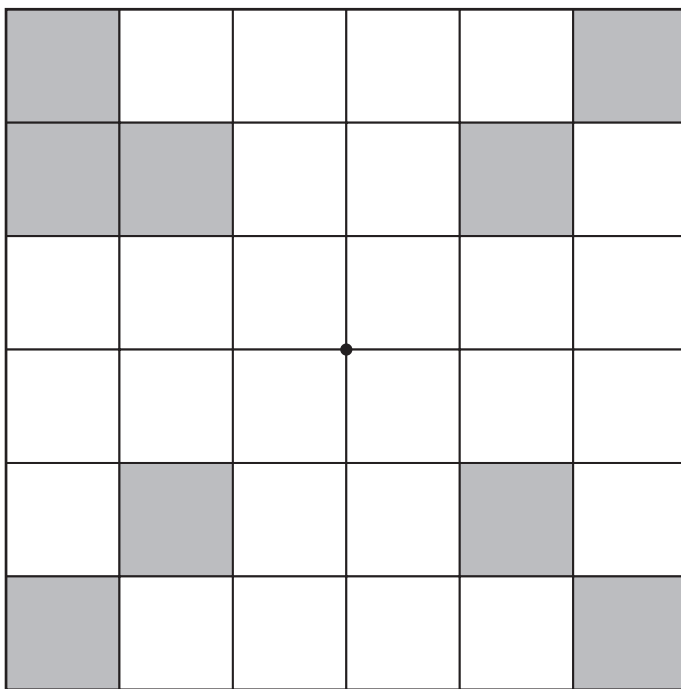
- 1 (a) Write down the order of rotation symmetry of this shape.



[1 mark]

(a) \_\_\_\_\_

- (b) Shade **THREE** more squares in this grid so that it has rotation symmetry of order 4.



[2 marks]

- 2 (a) Find the cube of 3.**  
**[1 mark]**

(a) \_\_\_\_\_

- (b) Write  $2 \times 2 \times 2 \times 2$  using index notation.**  
**[1 mark]**

(b) \_\_\_\_\_

- (c) Write  $\frac{25}{30}$  as a fraction in its simplest terms.**  
**[1 mark]**

(c) \_\_\_\_\_

- (d) Work out.**

$$\frac{3}{7} \times \frac{1}{4}$$

**[1 mark]**

(d) \_\_\_\_\_

**(e) Work out.**

**(i)  $1 + -3$**

**[1 mark]**

**(e)(i)** \_\_\_\_\_

**(ii)  $2 \times -4$**

**[1 mark]**

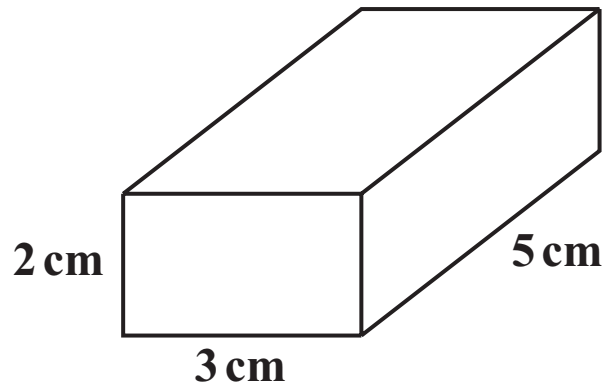
**(ii)** \_\_\_\_\_

**3 (a) Complete this table for a cuboid.**

<b>Number of vertices</b>	<b>8</b>
<b>Number of edges</b>	
<b>Number of faces</b>	

**[2 marks]**

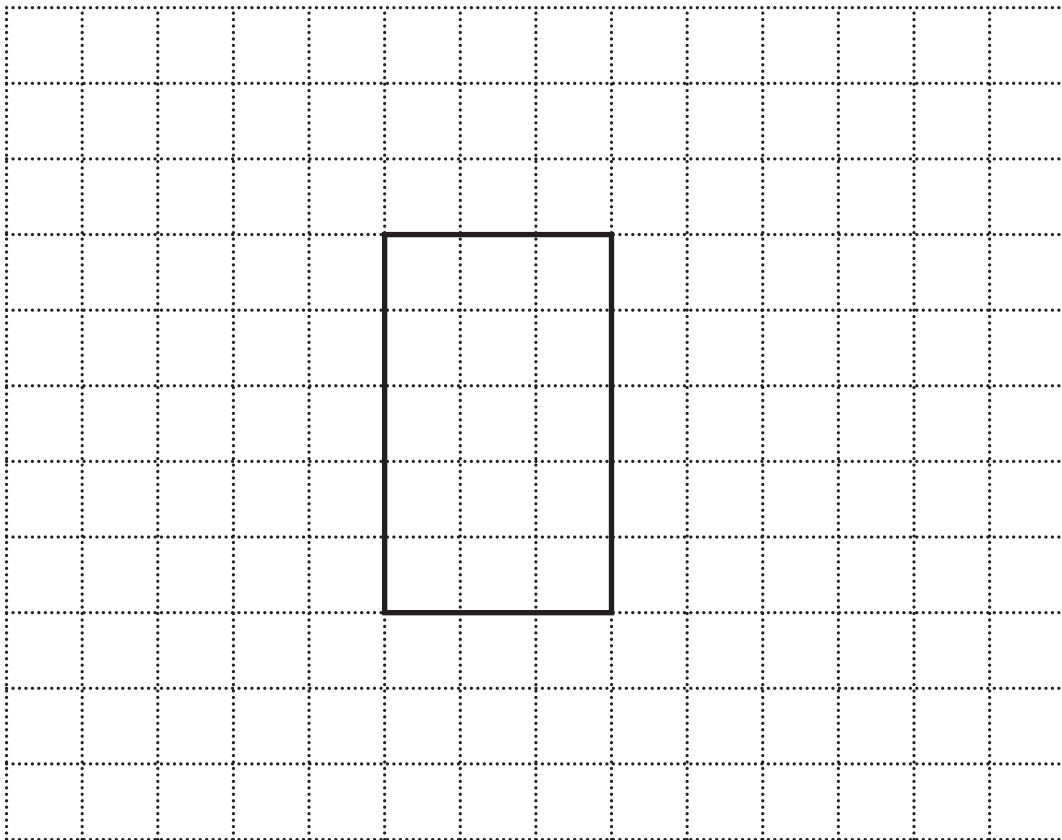
**(b) (i) Calculate the volume of this cuboid.**



**[2 marks]**

**(b)(i)** \_\_\_\_\_  $\text{cm}^3$

**(ii) Complete the full-size net of the cuboid.  
One face has been drawn for you.**

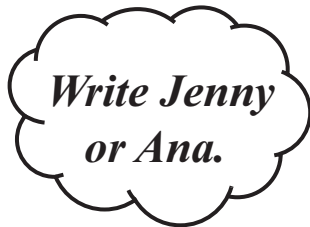


**[3 marks]**

**4 Jenny earns £50.  
She saves 30% of this.**

**Ana earns £40.  
She saves  $\frac{2}{5}$  of this.**

**Work out who saves more and by how much.  
Show how you decide.  
[4 marks]**



\_\_\_\_\_ saves more by £ \_\_\_\_\_



**5 (a) Simplify.**

$$2a + 3c + 7a - c$$

**[2 marks]**

**(a)** \_\_\_\_\_

**(b) Solve.**

**(i)  $12 = x + 8$**

**[1 mark]**

**(b)(i)** \_\_\_\_\_

**(ii)  $2x - 5 = 6$**

**[2 marks]**

**(ii)** \_\_\_\_\_

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