

<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**

**B274A**

**MATHEMATICS C  
(GRADUATED ASSESSMENT)**

**MODULE M4 – 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**

**Tracing paper (optional)**

**WARNING**

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

**READ INSTRUCTIONS OVERLEAF**

## **INSTRUCTIONS TO CANDIDATES**

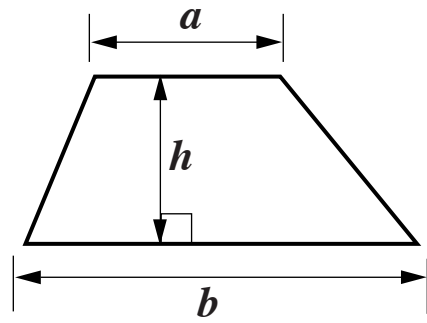
- **Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes on the first page.**
- **Use black ink. Pencil may be used for graphs and diagrams only.**
- **Show your working. Marks may be given for a correct method even if the answer is incorrect.**
- **Read each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

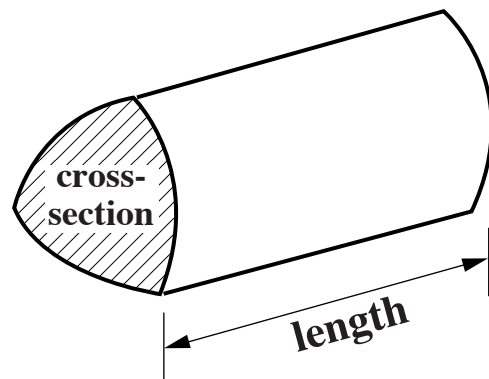
- **The number of marks is given in brackets [ ] at the end of each question or part question.**
- **The total number of marks for this Section is 25.**

## FORMULAE SHEET

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



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



**PLEASE DO NOT WRITE ON THIS PAGE**

**1 (a) Work out.**

**(i)  $14.26 + 3.58$**

**[1 mark]**

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

**(ii)  $1.32 \times 6$**

**[1 mark]**

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

**(b) Here are some decimals.**

**0.405**

**0.45**

**0.54**

**0.054**

**0.504**

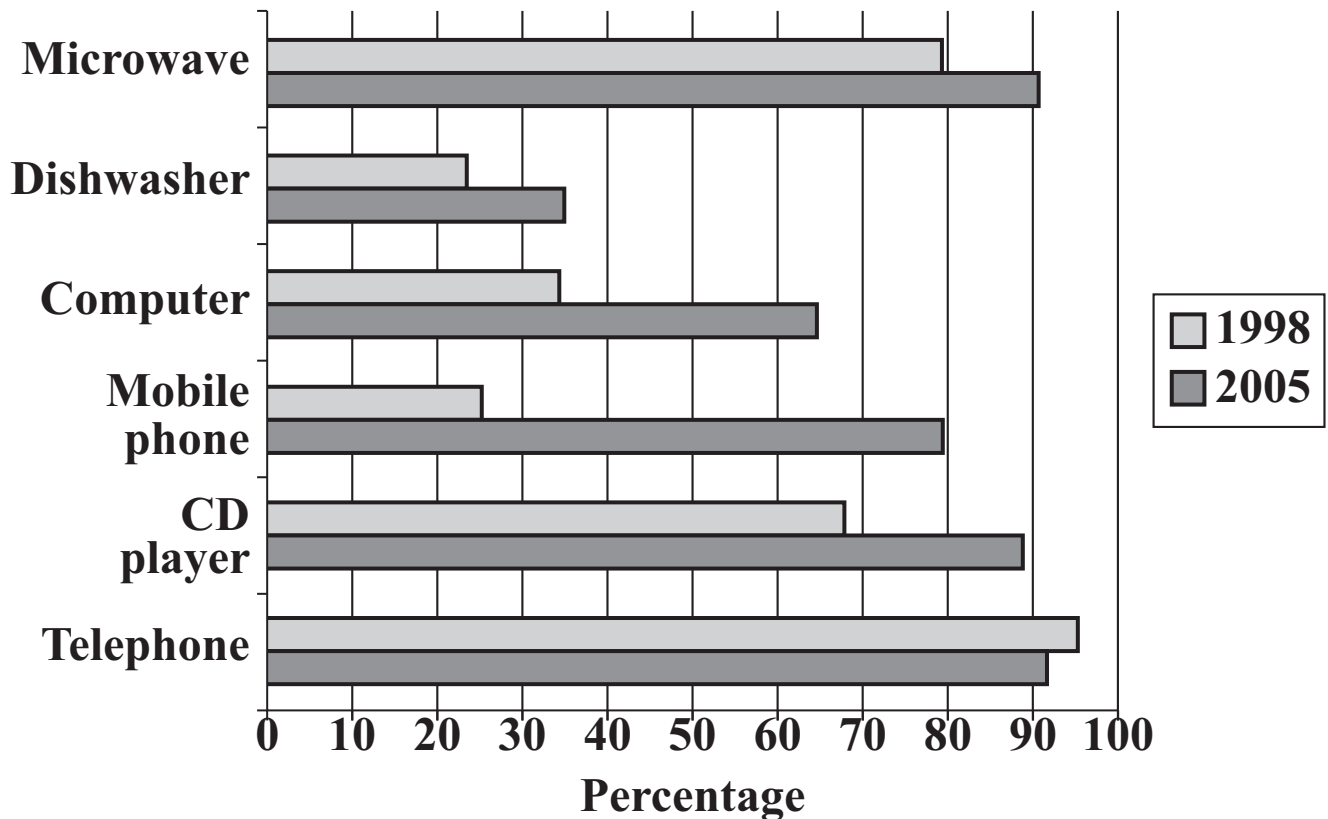
**(i) Which is the largest of these decimals?  
[1 mark]**

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

**(ii) Which is the smallest of these decimals?  
[1 mark]**

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

2 This graph shows the percentages of households owning certain items in 1998 and 2005.



(a) Use the graph to complete these sentences.

In 2005 less than 50% of households owned a

\_\_\_\_\_

[1 mark]

The percentage of households owning a

\_\_\_\_\_ went down between  
1998 and 2005.

[1 mark]

- (b) The percentage of households owning computers approximately doubled between 1998 and 2005.**

**Explain how the graph shows this.**

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**[1 mark]**

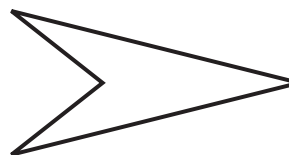
- 3 (a) Write the order of rotation symmetry under each of these quadrilaterals.



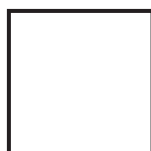
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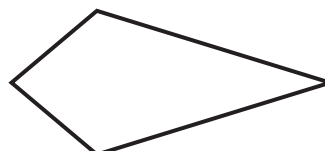
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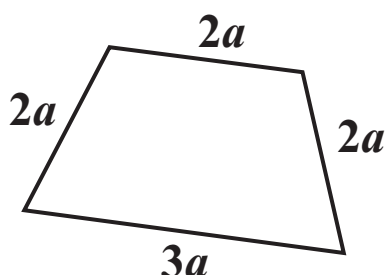
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[3 marks]

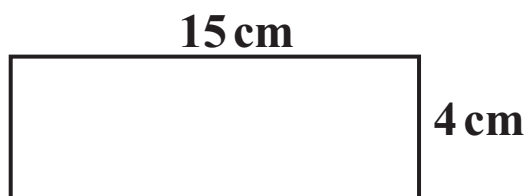
- (b) Write a formula for the perimeter,  $P$ , of this quadrilateral.



[2 marks]

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

- (c) Work out the area of this rectangle.



Not to scale

[2 marks]

(c) \_\_\_\_\_  $\text{cm}^2$



4 These patterns are made from sticks.

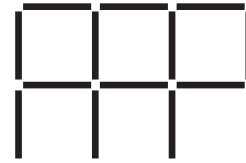
Pattern 1



Pattern 2



Pattern 3



(a) This table shows the number of sticks used in each pattern.

Complete the table.

Pattern	1	2	3	4	5
Number of sticks	5	9			

[2 marks]

(b) Another pattern in the sequence is made from 33 sticks.

Which pattern is made from 33 sticks?

[1 mark]

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

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- 5 (a) Write down TWO common factors of 20 and 30.  
[1 mark]**

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

- (b) Write down one prime number that lies between 20 and 30.  
[1 mark]**

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

- (c) Ray says:**

**All multiples of 5 are odd.**

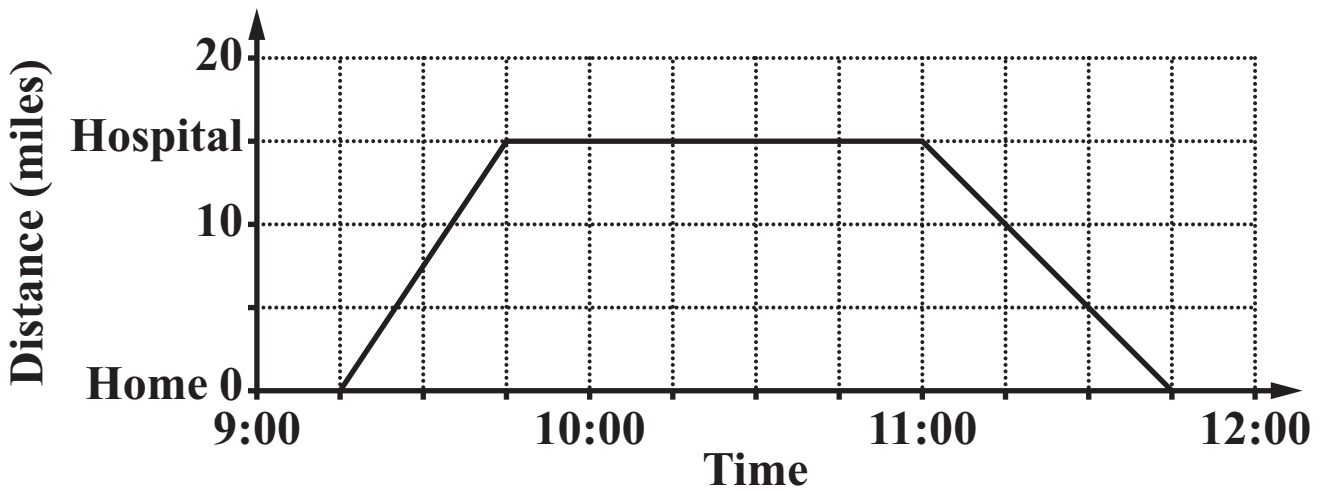
**He is wrong.**

**Give an example to show that he is wrong.  
[1 mark]**

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- 6 Ella drove from home to the hospital and back.  
The graph shows her journey.**



- (a) (i) How far is the hospital from Ella's home?  
[1 mark]**

**(a)(i) \_\_\_\_\_ miles**

- (ii) Work out Ella's speed, in miles per hour, driving  
from home to the hospital.  
[2 marks]**

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

- (b) How long did Ella spend at the hospital?  
Give your answer in hours and minutes.  
[1 mark]**

**(b) \_\_\_\_\_ hour \_\_\_\_\_ minutes**

**(c) At what time did Ella arrive home?  
[1 mark]**

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

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