

**GENERAL CERTIFICATE OF SECONDARY EDUCATION  
MATHEMATICS C (GRADUATED ASSESSMENT)  
MODULE M5 – SECTION B**

**M5**

**TUESDAY 24 JUNE 2008**

Morning  
Time: 30 minutes

Candidates answer on the question paper  
**Additional materials (enclosed):** None

**Additional materials (required):**  
Geometrical instruments  
Tracing paper (optional)  
Pie chart scale (optional)  
Electronic calculator



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Forename

Candidate  
Surname

Centre  
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Candidate  
Number

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**INSTRUCTIONS TO CANDIDATES**

- Write your name in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use blue or 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.
- Do **not** write in the bar codes.
- Write your answer to each question in the space provided.

**INFORMATION FOR CANDIDATES**

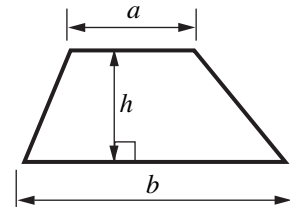
- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this Section is **25**.
- Section B starts with question 7.
- You are expected to use a calculator in Section B of this paper.

FOR EXAMINER'S USE	
SECTION B	
TOTAL	

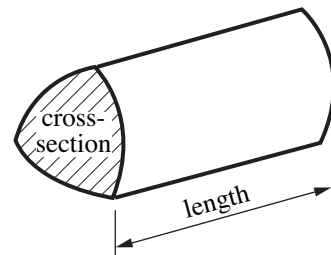
This document consists of **8** printed pages.

## Formulae Sheet

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

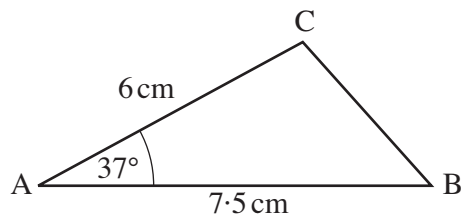


**Volume of prism** = (area of cross-section)  $\times$  length



**PLEASE DO NOT WRITE ON THIS PAGE**

7 Here is a sketch of a triangle.



Not to scale

- (a) Draw triangle ABC accurately below.  
The base, AB, has been drawn for you.



[2]

- (b) Measure the length BC.

(b) ..... cm [1]

8 (a) Here is a formula.

$$w = 4z - 3$$

Calculate the value of  $w$  when  $z = 7$ .

(a) ..... [2]

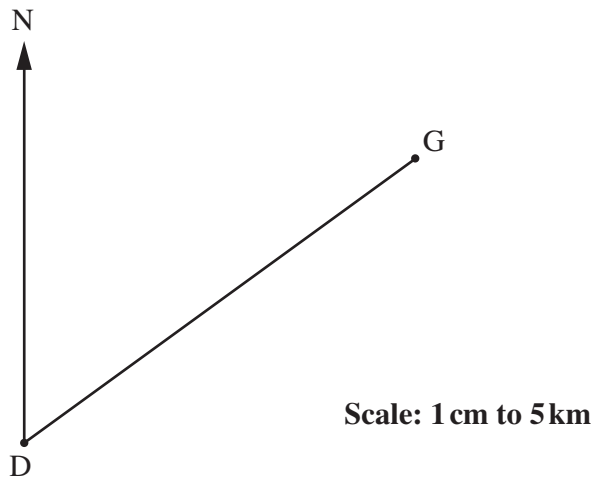
(b) Here is another formula.

$$P = 5s + 3t$$

Calculate the value of  $P$  when  $s = 17$  and  $t = 14$ .

(b) ..... [2]

9 The scale diagram shows the position of two towns, Doddington (D) and Goulding (G).



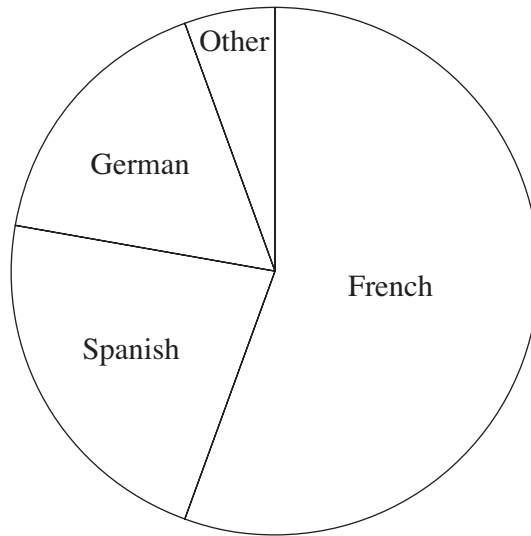
(a) Measure the bearing of Goulding from Doddington.

(a) .....° [1]

(b) Find the real distance from Doddington to Goulding.

(b) ..... km [2]

- 10 Abi asked 90 people which foreign language they would like to learn. Her results are shown in the pie chart below.



- (a) 50 people chose French.

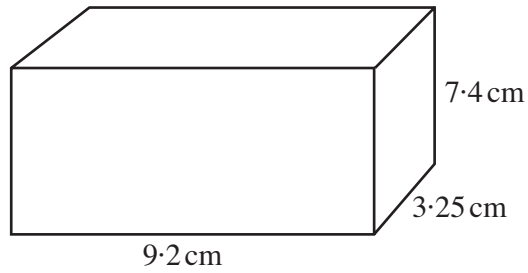
Explain why the angle for French is  $200^\circ$ .

.....  
..... [2]

- (b) Find how many people chose Spanish.

(b) ..... [2]

11 Calculate the volume of this cuboid.



.....cm<sup>3</sup> [2]

12 The contestants for a TV show must go through two selection rounds.

There are 600 contestants in Round 1.

45% of these go on to Round 2. The rest go home.

$\frac{1}{5}$  of those in Round 2 go on the TV show. The rest go home.

How many of these 600 contestants go on the TV show?

Show all your working.

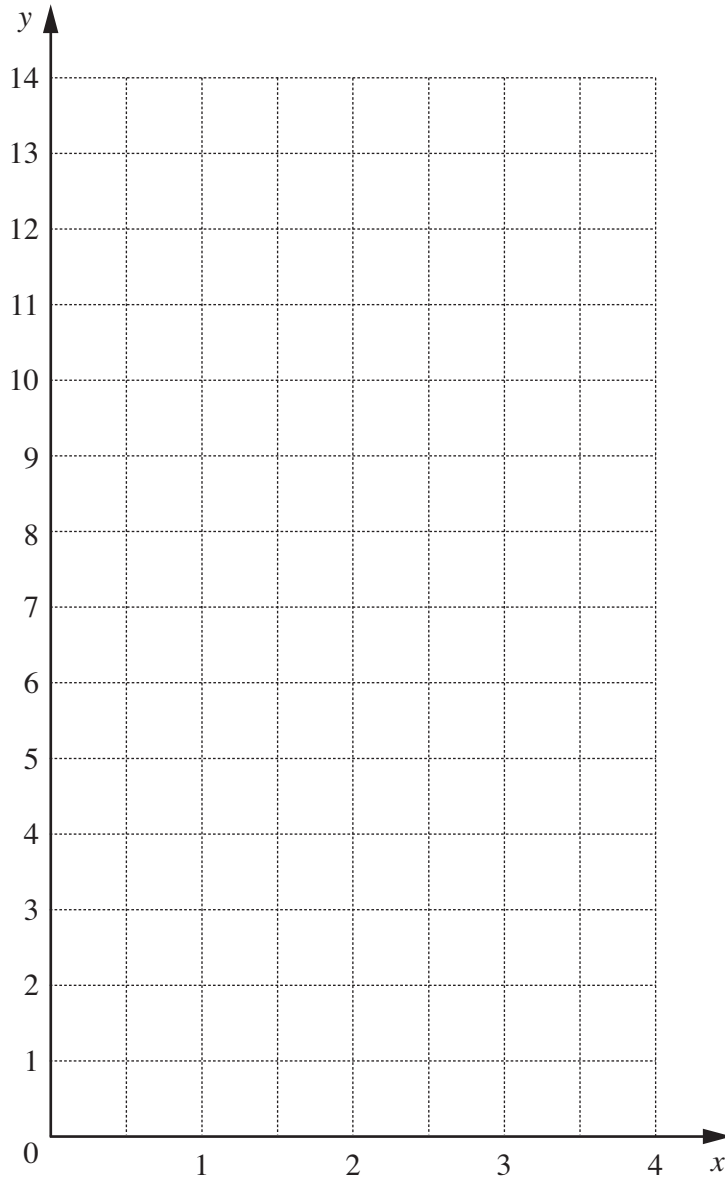
..... [3]

13 (a) Complete this table of values for  $y = 3x + 2$ .

$x$	0	1	2	3	4
$y$	2	5			14

[1]

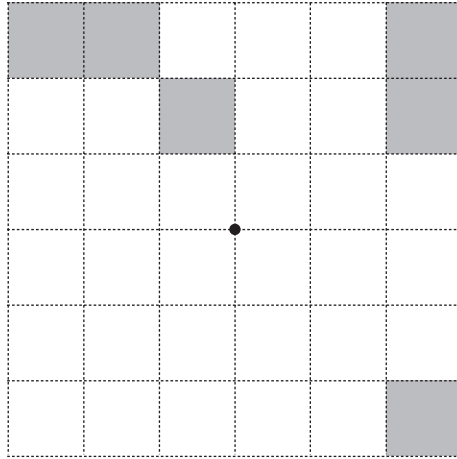
(b) Plot these points on the grid and draw the graph of  $y = 3x + 2$ .



[2]

**TURN OVER FOR QUESTION 14**

14



Complete the above pattern by shading 6 more squares so that the pattern has rotation symmetry of order 4.

[3]