

OXFORD CAMBRIDGE AND RSA EXAMINATIONS
General Certificate of Secondary Education

MATHEMATICS C
(Graduated Assessment)



1966/2335B

MODULE M5 – SECTION B

Monday **23 JANUARY 2006** Morning 30 minutes

Candidates answer on the question paper.

Additional materials:

- Geometrical instruments
- Tracing paper (optional)
- Pie chart scale (optional)
- Electronic calculator

Candidate Name

Centre Number

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Candidate Number

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TIME 30 minutes

INSTRUCTIONS TO CANDIDATES

- Write your name, Centre number and candidate number in the boxes above.
- Answer **all** the questions.
- Write your answers on the dotted lines unless the question says otherwise.
- 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.
- There is a space after most questions. Use it to do your working. 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 in the grey area between the pages.
- **DO NOT WRITE IN THE AREA OUTSIDE THE BOX BORDERING EACH PAGE. ANY WRITING IN THIS AREA WILL NOT BE MARKED.**

INFORMATION FOR CANDIDATES

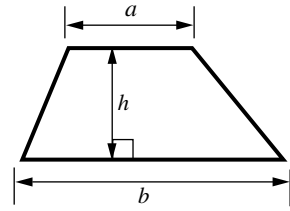
- You are expected to use a calculator in Section B of this paper.
- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this Section is 25.
- Section B starts with question 8.

FOR EXAMINER'S USE	
Section B	

This question paper consists of 7 printed pages and 1 blank page.

Formula Sheet

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



8 Complete these sentences using percentages.

(a) 'Africa covers roughly one fifth of the earth's total land area.'

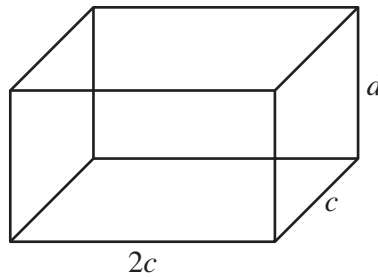
'Africa covers roughly% of the earth's total land area.' [1]

(b) 'One third of the earth's surface is covered by the Pacific Ocean.'

'.....% of the earth's surface is covered by the Pacific Ocean.' [1]

2	
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9 This cuboid is a framework made from rods.



There are four rods of length c , four of length $2c$ and four of length d .

Write down an expression for the **total** length of the twelve rods.
Give your answer in its simplest form.

.....[2]

2	
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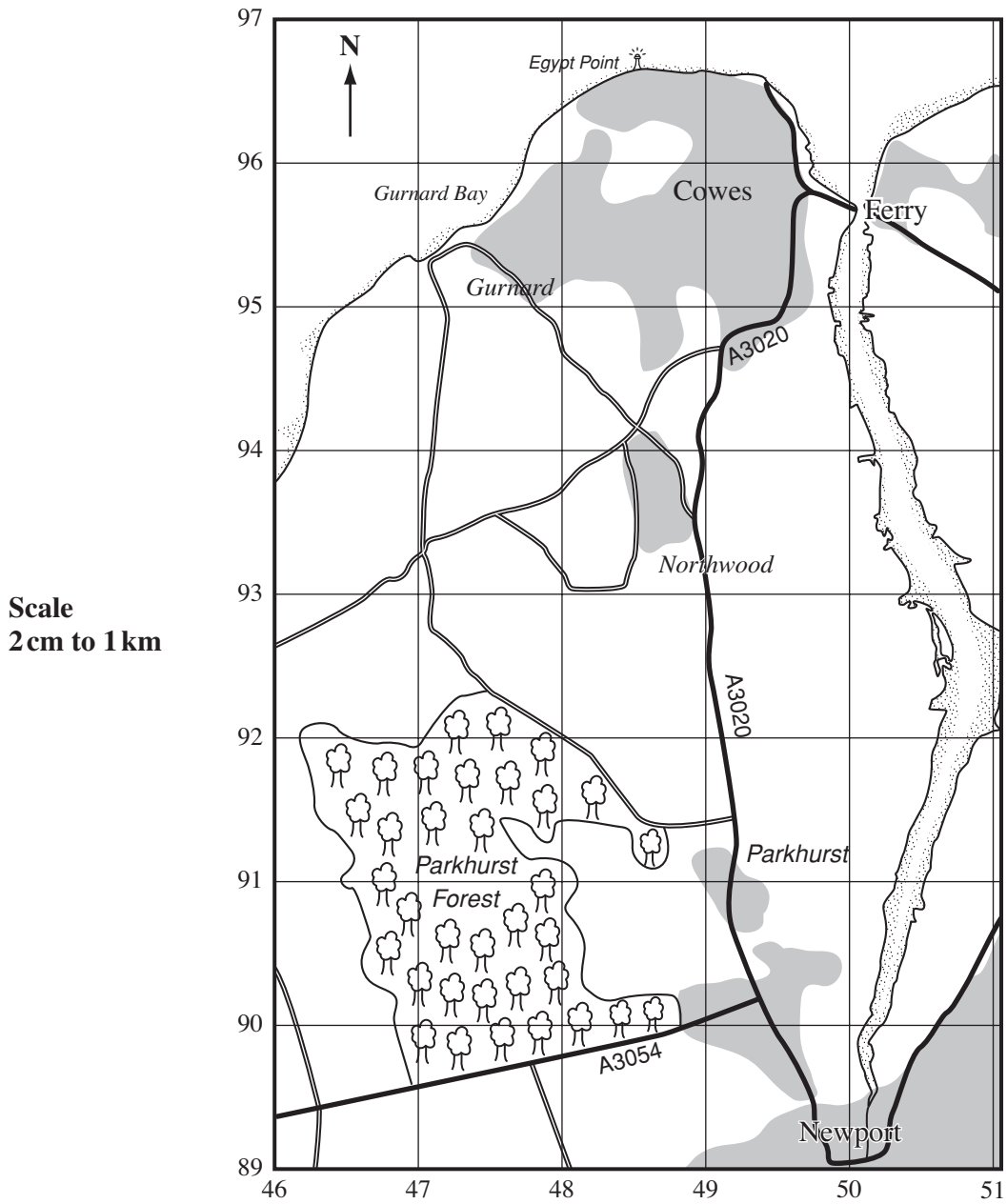
10 The n th term of a number sequence is given by $6n - 1$.

Write down the first three terms of the sequence.

.....,, [2]

2	
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- 11 This is a map of part of the Isle of Wight.
It is drawn to a scale 2 cm to 1 km.



- (a) Jon cycles from the ferry (square 5095), along the A3020 and the A3054 roads to the crossroads in square 4689.

(i) Mark with crosses (×) the start and finish of his journey. [1]


(ii) **Estimate** the distance he cycles from the ferry to the crossroads.

(a)(ii) km [2]

(b) (i) Jon thinks that the area of 1 square on the map is 1 km².

Explain why he is correct.

.....
.....[1]

(ii) Parkhurst Forest is shown () on the map.

Estimate the actual area of Parkhurst Forest.

(b)(ii) km² [1]

5

12 Work out.

$$\frac{3}{8} + \frac{1}{4}$$

.....[2]

2

13 Solve.

(a) $\frac{x}{5} = 12$

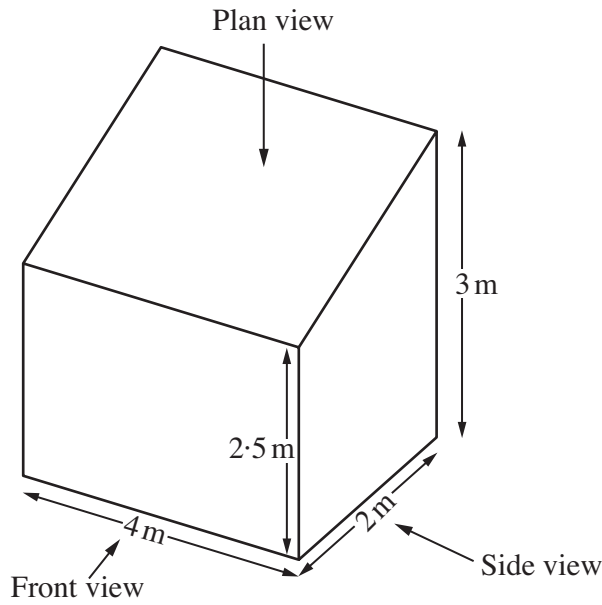
(a)[1]

(b) $2x + 7 = 19$

(b)[2]

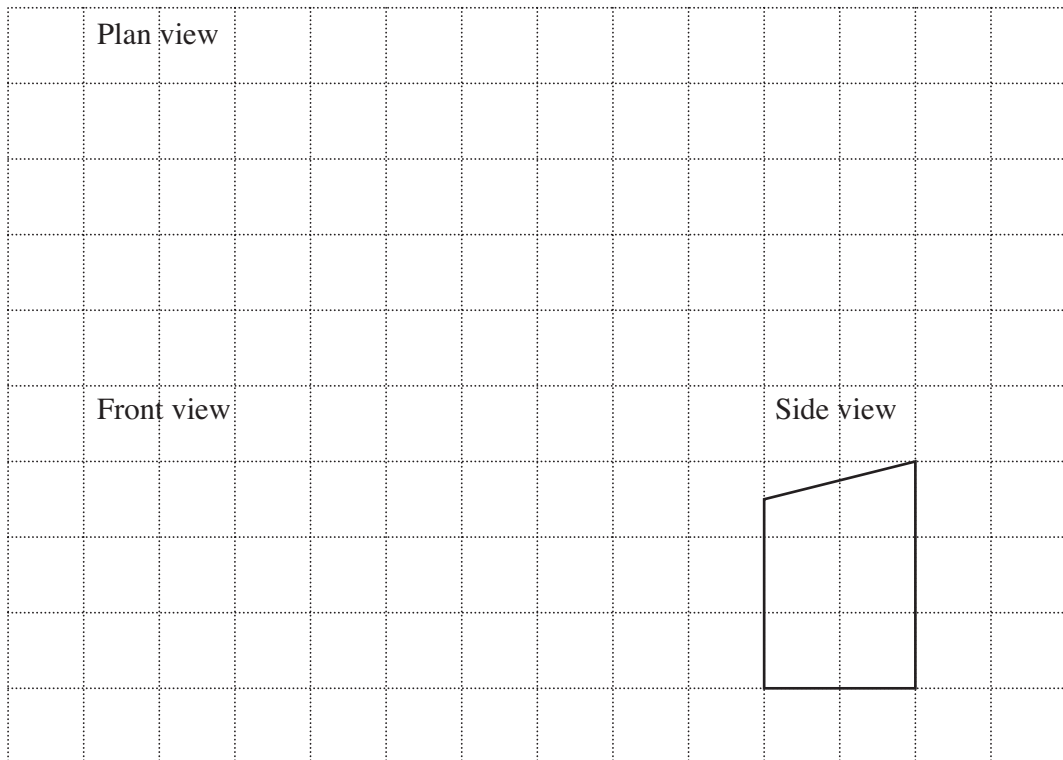
3

- 14 This is a sketch of a lean-to conservatory.
The floor is rectangular.



- (a) The side view is drawn on the grid below to a scale of 1 cm to 1 m.

On the grid, draw the plan view and the front view of the conservatory.
Use a scale of 1 cm to 1 m.



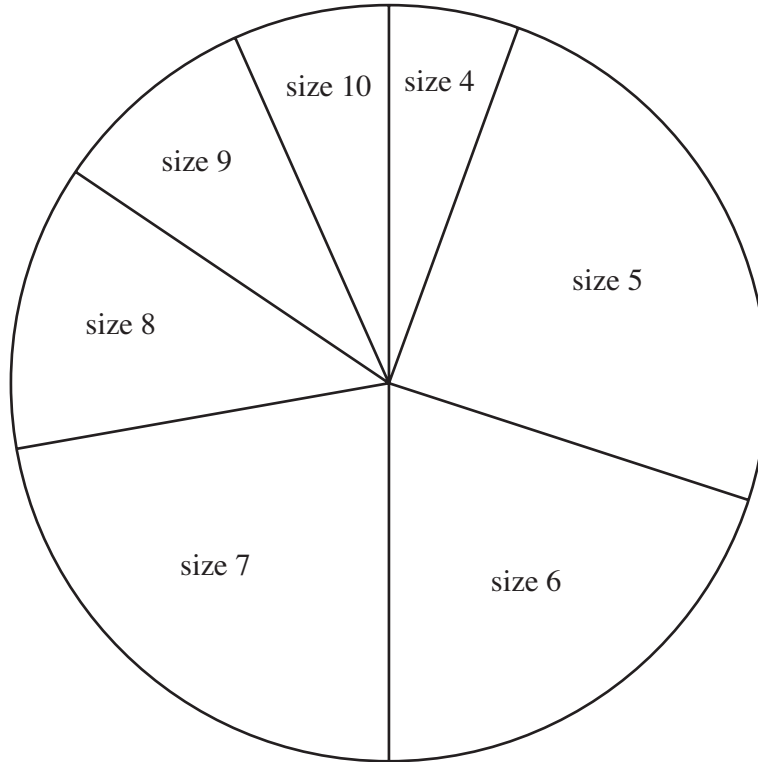
[3]

- (b) What is the area of the floor of the conservatory?
Give the units of your answer.

(b)[2]

5

15 (a) This pie chart shows the distribution of shoe sizes for 90 students.



Work out how many of these students wear size 6 shoes.

(a)[3]

(b) Jamie has worked out the mean, median and range of the heights of some boys and some girls.

	Heights	
	boys	girls
mean	166.4 cm	159.7 cm
median	166 cm	160.5 cm
range	29 cm	37 cm

Complete this sentence comparing the boys' and girls' heights.
Give a reason using data from the table.

The are generally taller. I know this because

.....[1]

