

OXFORD CAMBRIDGE AND RSA EXAMINATIONS
General Certificate of Secondary Education

MATHEMATICS C
(Graduated Assessment)



1966/2336B

MODULE M6 – SECTION B

Wednesday **29 JUNE 2005** Morning 30 minutes

Candidates answer on the question paper.

Additional materials:

- Geometrical instruments
- Tracing paper (optional)
- Scientific or graphical calculator

Candidate
Name

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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

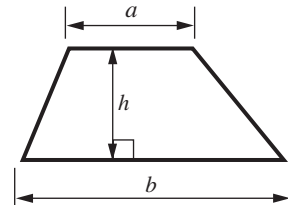
- You are expected to use a calculator in Section B of this paper.
- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this Section is 25.
- Section B starts with question 7.
- Use the π button on your calculator or take π to be 3.142 unless the question says otherwise.

FOR EXAMINER'S USE	
Section B	

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

Formula Sheet

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



7



Apple-white paint is made by mixing white paint and green paint in the ratio 7 : 1.

How much green paint is needed to make 1000 millilitres of apple-white paint?

.....ml [2]

2	
---	--

8 Calculate.

(a) $3 \cdot 2^2 - \sqrt{2 \cdot 56}$

(a)[1]

(b) $\frac{13 \cdot 2 - 2 \cdot 1}{3 \cdot 9}$

Give your answer correct to 2 decimal places.

(b)[2]

3	
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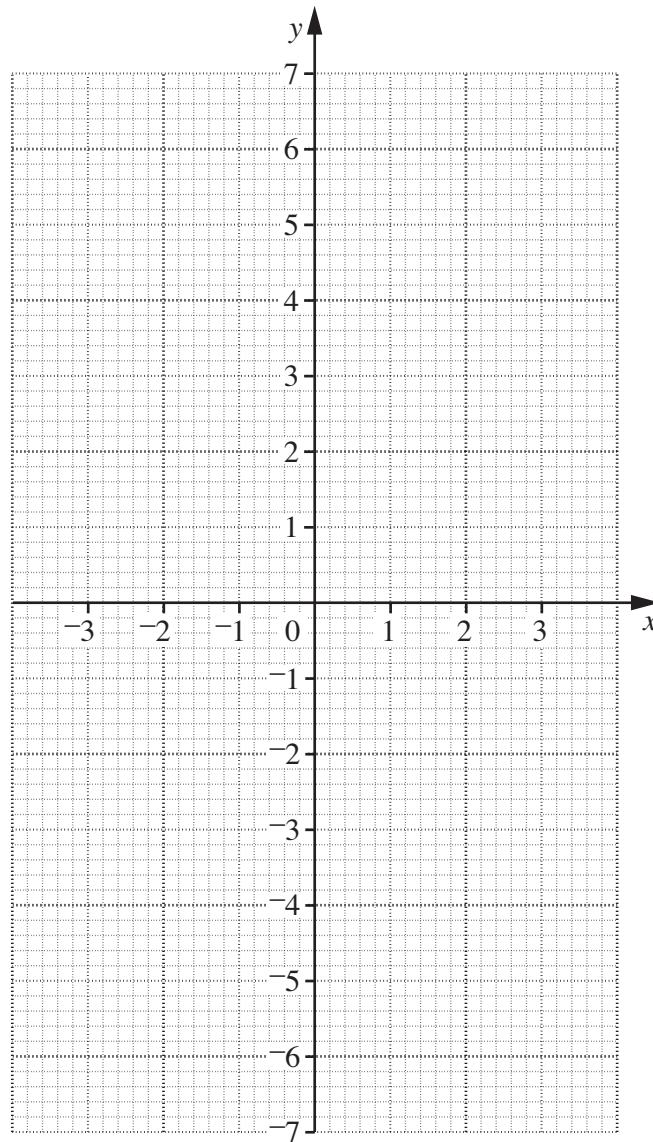
[Turn over

- 9 (a) Complete the table of values for $y = 2x - 1$.

x	-3	0	3
y	-7		

[1]

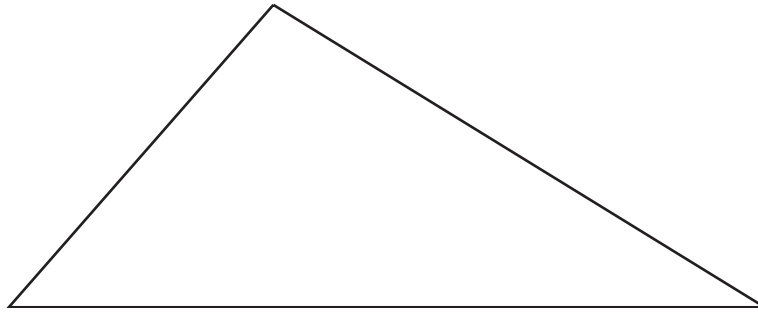
- (b) On the axes below draw the graph of $y = 2x - 1$.



[2]

3

10 This triangle is drawn **accurately**.

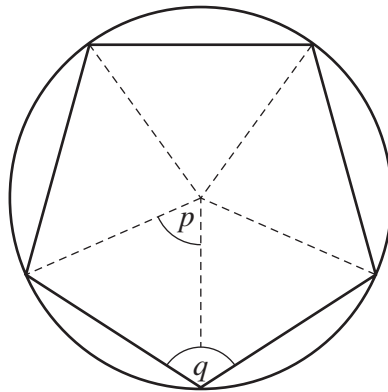


Use measurements from the diagram to calculate the area of the triangle in square centimetres. Show clearly the measurements you use.

.....cm² [3]

3	
---	--

11



Not to scale

The diagram shows a regular pentagon drawn inside a circle.

Calculate

(a) the angle at the centre, p ,

(a)° [1]

(b) the interior angle, q .

(b)° [2]

3	
---	--

[Turn over

12



The rear wheel of Jane’s bicycle has a diameter of 0.63 m.

(a) (i) Calculate the circumference of the rear wheel.

(a)(i)m [2]

(ii) Jane cycles 3 km to school.

Show that the rear wheel makes more than 1500 complete turns during her journey.

.....

.....

.....

.....[2]

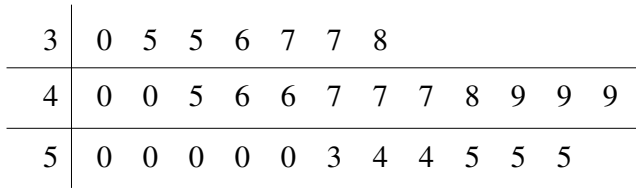
(b) It takes Jane 15 minutes to cycle the 3 km to school.

Calculate her average speed in kilometres per hour.

(b)km/h [2]

6

13 This stem and leaf diagram shows the speeds, in miles per hour, of thirty cars travelling along a road.



Key

3 | 5 represents 35

(a) Find

(i) the median,

(a)(i)mph [1]

(ii) the range.

(ii)mph [1]

(b) The speed limit on the road is 50 mph.
Drivers travelling at **more than** 50 mph will be fined.

What percentage of the thirty drivers will be fined?

(b)% [3]

5
