

OXFORD CAMBRIDGE AND RSA EXAMINATIONS
General Certificate of Secondary Education

MATHEMATICS C
(Graduated Assessment)



1966/2333B

MODULE M3 – SECTION B

Wednesday **28 JUNE 2006** Morning 30 minutes

Candidates answer on the question paper.

- Additional materials:
 Geometrical instruments
 Tracing paper (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.
- 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.
- 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 outside the box bordering each page.
- WRITE YOUR ANSWER TO EACH QUESTION IN THE SPACE PROVIDED. ANSWERS WRITTEN ELSEWHERE WILL NOT BE MARKED.

INFORMATION FOR CANDIDATES

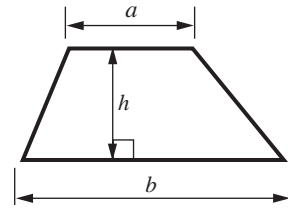
- You are expected to use a calculator in Section B of this paper.
- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this Section is 25.
- Section B starts with question 8.

FOR EXAMINER'S USE	
Section B	

This question paper consists of 9 printed pages and 3 blank pages.

Formula Sheet

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



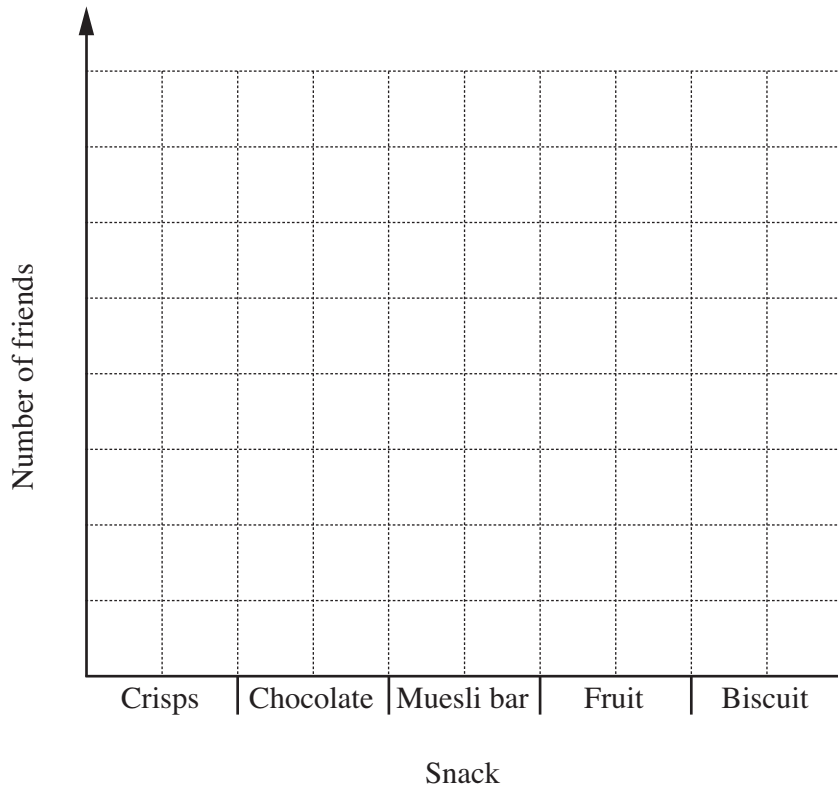
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8 Sachin asks his friends, “What is your favourite snack?”

The results are shown in this table.

Snack	Crisps	Chocolate	Muesli bar	Fruit	Biscuit
Number of friends	5	8	4	3	7

Draw a bar chart to represent this information.



[3]

3

9 Ring the correct answer to complete each sentence.

The distance from London to Birmingham is about 200 mm cm m km.

The length of an Olympic swimming pool is 50 mm cm m km. [2]

2

[Turn over

- 10 A group of campers pick counters from a bag to see which job they do.
In the bag there are eight counters.

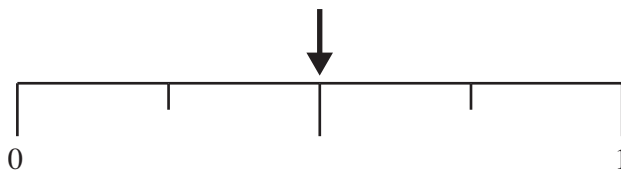


W means do the washing up

C means clean up the tents

T means clear the table

Michelle picks a counter from the bag without looking.



- (a) On the line above there is an arrow.

Does it show the probability of Michelle choosing a counter with a letter **C**?
Explain your answer.



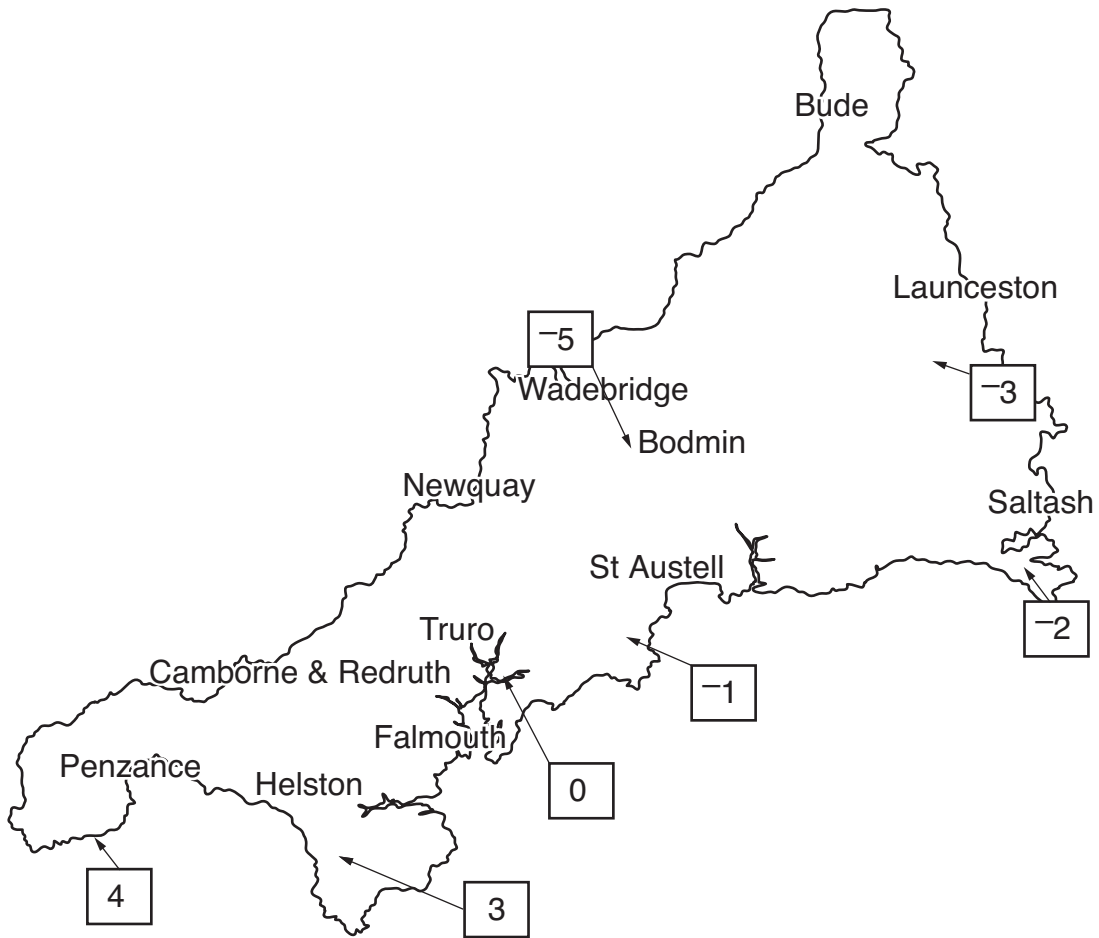
..... because
.....[1]

- (b) On the line above, mark an arrow to show the probability that Michelle picks a counter with the letter **W**.

[1]

2

11 (a) The map of Cornwall shows the temperatures, in °C, one night.



(i) Write the seven temperatures in order, smallest first.

.....,,,,,, [1]
 smallest

(ii) Write down the median of the temperatures.

(a)(ii)°C [1]

(b) During the day the temperatures, in °C, were

6 3 5 7 8 4 7.

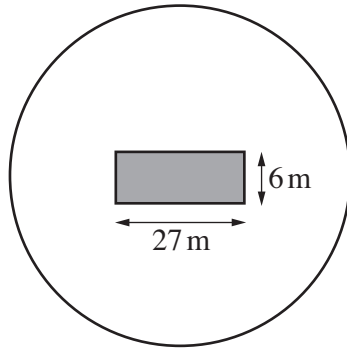
Write down the range of these temperatures.

(b)°C [1]

3

[Turn over

- 12 A boating lake is circular.
There is a rectangular island in the lake.



Not to scale

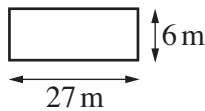
- (a) A fence is put round the lake.
The length of fence needed is given by this formula.

$\text{Length of fence} = 6 \cdot 3 \times \text{distance to the centre}$

Find the length of fence needed when the distance to the centre is 65 m.

(a)m [1]

- (b) (i) Work out the area of this rectangle.



(b)(i)m² [2]

- (ii) The island has a rope around it.
The length of the rope is given by this formula

$\text{Length of rope} = 2L + 2W$

where **L** is the length and **W** is the width.

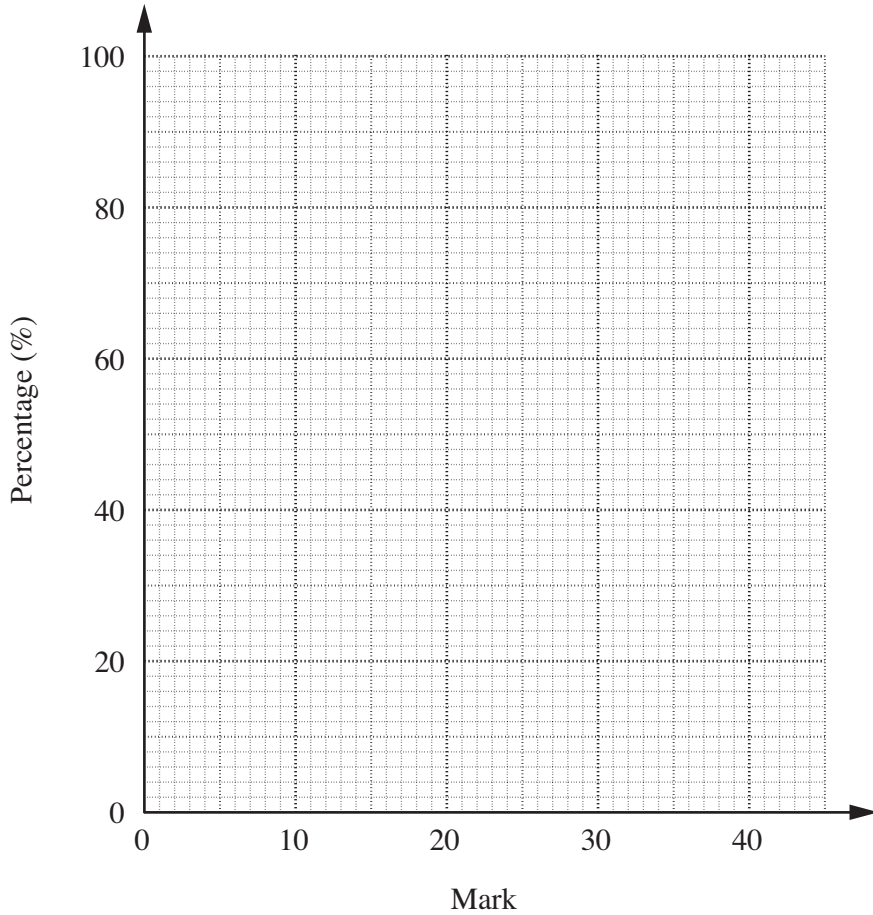
Calculate the length of rope needed when **L** is 27 m and **W** is 6 m.

(ii)m [2]

13 A test is marked out of 40.

(a) A mark of 40 is the same as 100% and a mark of 0 is the same as 0%.

Plot these two points on the grid.
Join your points with a straight line.



[2]

(b) Use your graph to convert

(i) a mark of 24 to a percentage,

(b)(i)% [1]

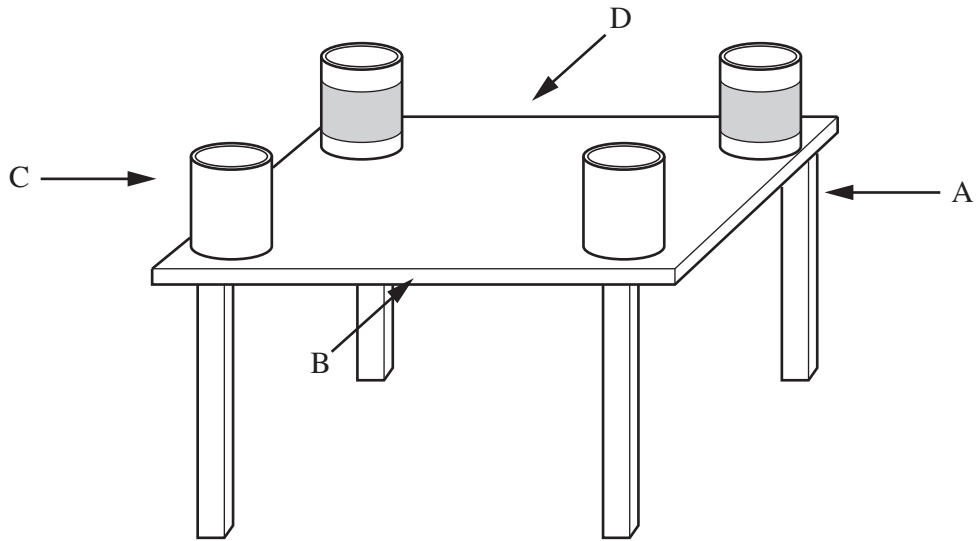
(ii) 90% to a mark out of 40.

(ii) [1]

4

[Turn over

- 14 There are four tins on this table.
Two have labels and two do not.



From which direction is each of these views?
Answer A, B, C or D.



.....

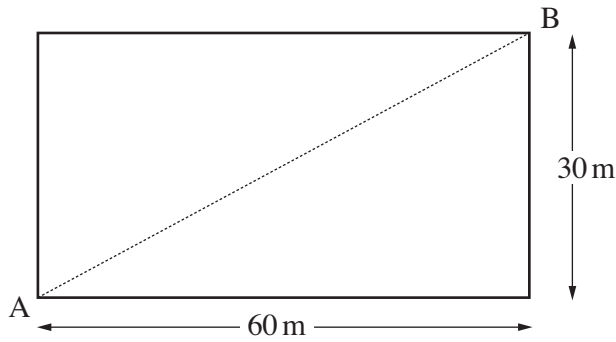


.....

[2]

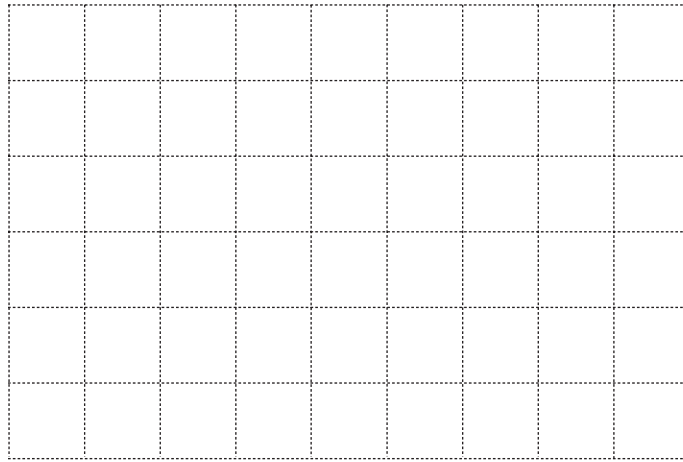
2

15 Gordon needs to cross the rectangular park using path AB.



Not to scale

- (a) Make a scale drawing of the park.
Use a scale of **1cm to represent 10m**.



[2]

- (b) Use your scale diagram to find the **real** length of the path.

(b)m [2]

4

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