

**GENERAL CERTIFICATE OF SECONDARY EDUCATION
MATHEMATICS C (GRADUATED ASSESSMENT)
MODULE M4 – SECTION B**

B274B

Candidates answer on the Question Paper

OCR Supplied Materials:
None

- Other Materials Required:**
- Geometrical instruments
 - Tracing paper (optional)
 - Electronic calculator

**Monday 8 March 2010
Morning**

Duration: 30 minutes



Candidate Forename		Candidate Surname	
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Centre Number						Candidate Number				
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INSTRUCTIONS TO CANDIDATES

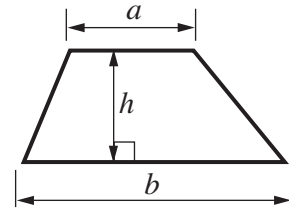
- Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Show your working. 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, however additional paper may be used if necessary.

INFORMATION FOR CANDIDATES

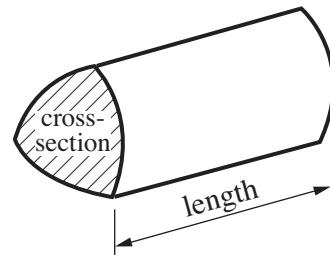
- The number of marks is given in brackets [] at the end of each question or part question.
- Section B starts with question 10.
- You are expected to use a calculator in Section B of this paper.
- The total number of marks for this Section is **25**.
- This document consists of **8** pages. Any blank pages are indicated.

Formulae Sheet

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

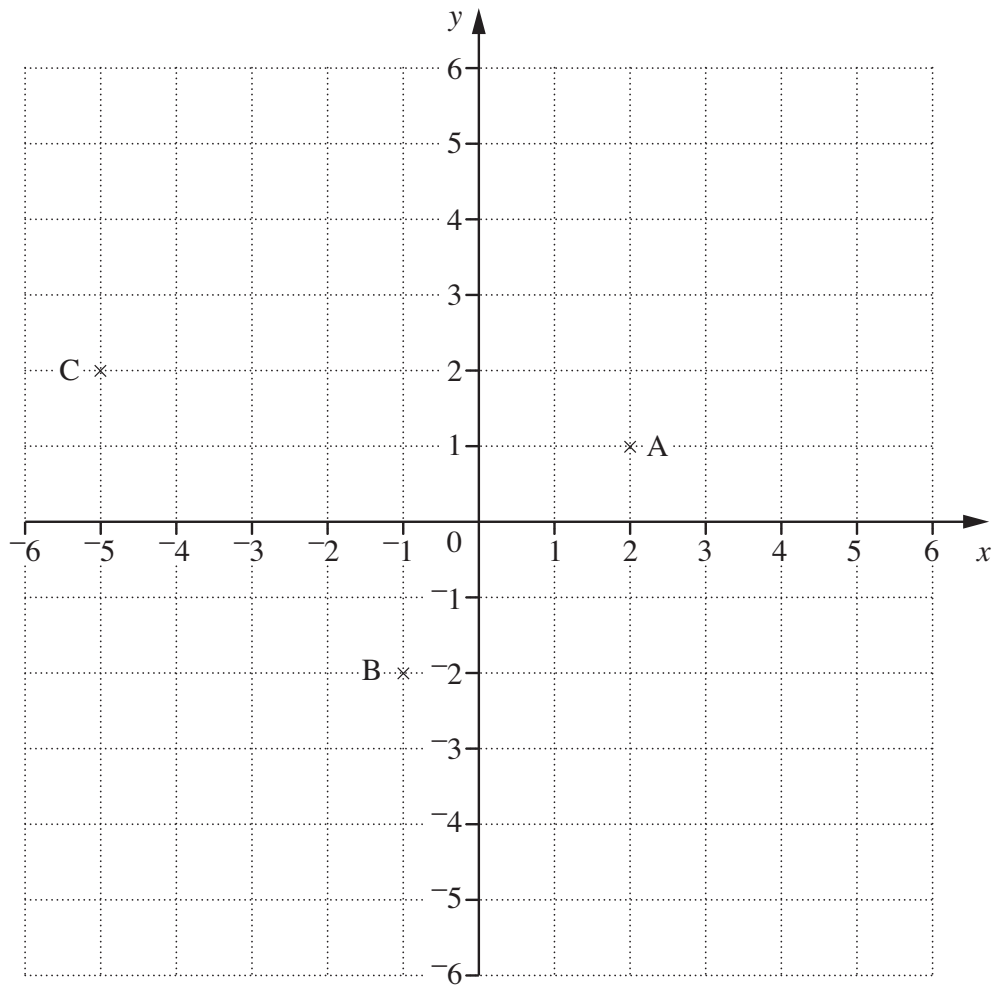


Volume of prism = (area of cross-section) \times length



PLEASE DO NOT WRITE ON THIS PAGE

10 Points A, B and C are shown on the grid below.



ABCD is a rectangle.

(a) Mark D on the grid with a cross (\times).

[1]

(b) Write down the coordinates of point D.

(b) (..... ,) [1]

11 Here are the rules to find two whole numbers.

- They are both factors of 60.
- They have a difference of 11.

(a) Jared says that the numbers could be 5 and 16.

Explain why Jared is wrong.

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

(b) Find two numbers that satisfy the rules.

(b) and [2]

12 Here are the first four terms of a sequence.

6 10 14 18

(a) What is the next number in the sequence?

(a) [1]

(b) Explain how you found your answer.

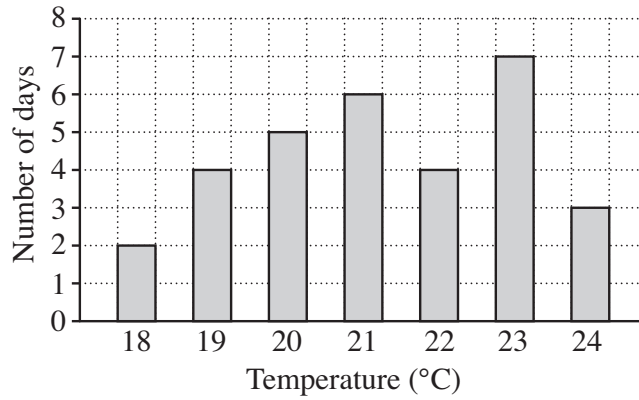
..... [1]

(c) Sam says that 67 is in the sequence.

Explain why he is wrong.

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

- 13 (a) Stephanie records the maximum temperature, in °C, each day during August. Her results are summarised in the bar chart.



For these temperatures, write down

- (i) the mode,

(a)(i) °C [1]

- (ii) the range.

(ii) °C [1]

- (b) She records the minimum temperature, in °C, each night for the first week in July and the first week in August. Here are her results for August.

8 12 14 9 11 7 9

- (i) Calculate the mean of these temperatures. Write your result in the table below.

Minimum Temperatures (°C)		
	Mean	Range
July	14	4
August		7

[3]

- (ii) Write one comment comparing the minimum temperatures in the first weeks of July and August.

.....

[1]

Turn over

- 14 (a) Jenny shops for potatoes and carrots.
Her bill is shown below.

Complete her bill by filling in the three missing amounts.
Show all your working.

Goods	Quantity	Price (£)	Total (£)
Potatoes	25 kg	0.47 per kg
Carrots	8 kg per kg
Total (£)			17.19

[4]

- (b) Here are the ingredients for casseroled potatoes.

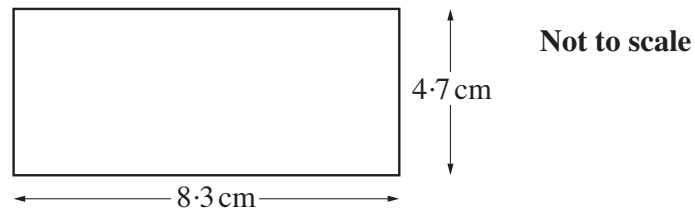
<u>Casseroled Potatoes</u>	
<i>makes 4 servings</i>	
700 g	potatoes
25 g	butter
300 ml	milk
1	teaspoon of salt and pepper

Jenny has only 900 ml of milk but plenty of the other ingredients.

How many servings can she make with 900 ml of milk?

..... [2]

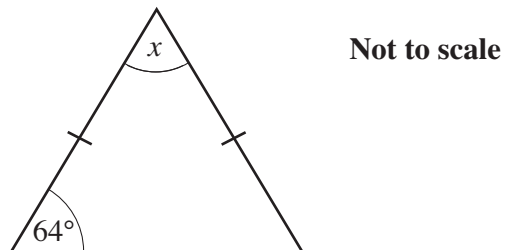
15



Calculate the area of this rectangle.
Give the units of your answer.

..... [3]

16 This is an isosceles triangle.



Work out angle x .

..... ° [2]

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