

**Monday 16 January 2012 – Morning**

**GCSE MATHEMATICS C (GRADUATED ASSESSMENT)**

**B272A** MODULE M2 – SECTION A

Candidates answer on the Question Paper.

**OCR supplied materials:**  
None

**Other materials required:**

- Geometrical instruments
- Tracing paper (optional)

**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, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions.
- Read each question carefully. Make sure 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.
- Write your answer to each question in the space provided. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Do **not** write in the bar codes.

**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**.
- This document consists of **8** pages. Any blank pages are indicated.

**WARNING**

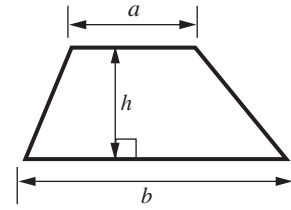


No calculator can be used for Section A of this paper

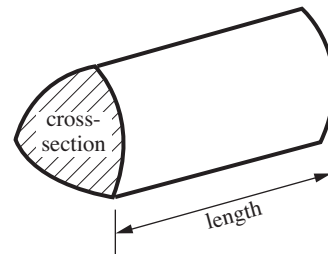
This paper has been pre modified for carrier language

## 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**

- 1 Josh records the outside temperature, in  $^{\circ}\text{C}$ , at 10 pm every evening.

Here are some of his results.

Monday	Tuesday	Wednesday	Thursday	Friday
$-1^{\circ}\text{C}$	$0^{\circ}\text{C}$	$-5^{\circ}\text{C}$	$3^{\circ}\text{C}$	$-2^{\circ}\text{C}$

- (a) Which evening was coldest?

(a) ..... [1]

- (b) Which evening was  $1^{\circ}\text{C}$  colder than Monday evening?

(b) ..... [1]

- (c) On Saturday evening the temperature was 3 degrees warmer than on Friday evening.

What was the temperature on Saturday evening?

(c) .....  $^{\circ}\text{C}$  [1]

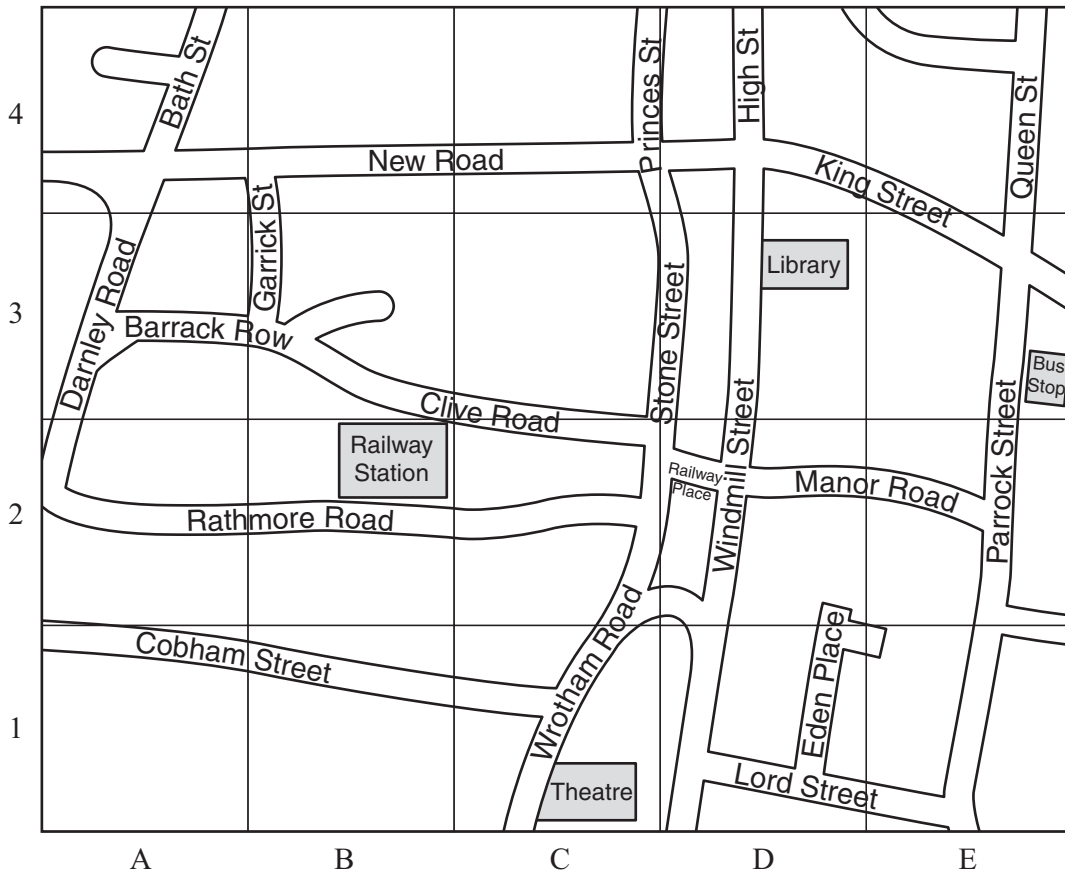
- 2 Fill in the missing number in each of these number patterns.

(a) 5      8      11      14      .....

(b) 34      30      .....      22      18

(c) 64      32      16      .....      4 [3]

3 (a) Here is a map of Gravesend town centre.



(i) In which square is the Railway Station?

(a)(i) ..... [1]

(ii) Tim turns right out of the Theatre and walks along Wrotham Road. He takes the third turning on his left.

Which road is he in now?

(ii) ..... [1]

(iii) Complete these instructions to get from the Library to the Bus Stop.

Turn right out of the Library into ..... Street.

Take the first ..... into King Street.

Take the first right into .....

The bus stop is on your left.

[2]

(b) Here is part of the timetable at the bus stop.

After 09:00 buses leave at these minutes past the hour				
14	29	44	59	

Maryam arrives at the bus stop at 15:35.

How long should she have to wait until the next bus leaves?

(b) ..... minutes [1]

4 Alex has a bag containing 12 sweets.

- 6 are strawberry
- 4 are blackcurrant
- 2 are lime

Alex takes one sweet from the bag at random.

(a) Which flavour is Alex **least** likely to take?

(a) ..... [1]

(b) Use arrows to mark the following on the probability line below.

(i) The probability that Alex takes a strawberry sweet.  
Label this arrow S. [1]

(ii) The probability that Alex takes a lime sweet.  
Label this arrow L. [1]



- 5 (a) Naomi buys a magazine for £2.70 and a drink for £1.20.  
She pays with a £5 note.

How much change does she get?

(a) £ ..... [2]

- (b) Sonam has a piece of ribbon 64 cm long.  
She cuts it into four equal pieces.

How long is each piece?

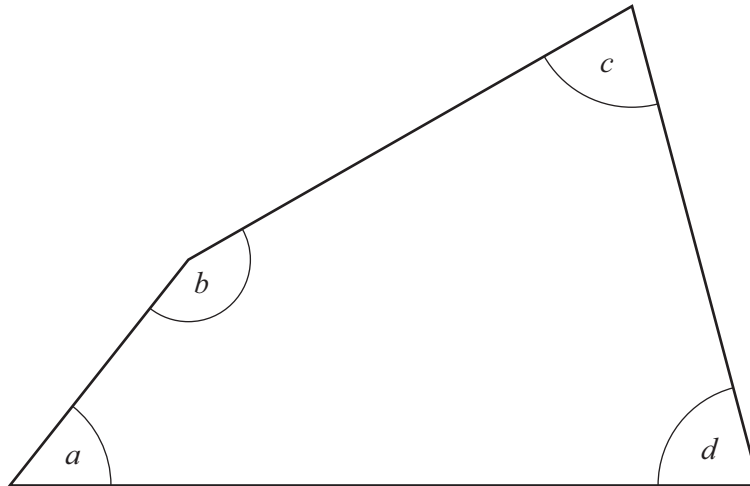
(b) ..... cm [2]

- (c) A bag contains 1 kg of sugar.  
Lewis uses 200 g of the sugar.

How much sugar is left in the bag?  
Give your answer in grams.

(c) ..... g [2]

6 Look at this shape.



(a) Complete this sentence with the correct letter.

Angle ..... is an obtuse angle. [1]

(b) Measure the size of angle *d*.

(b) .....° [1]

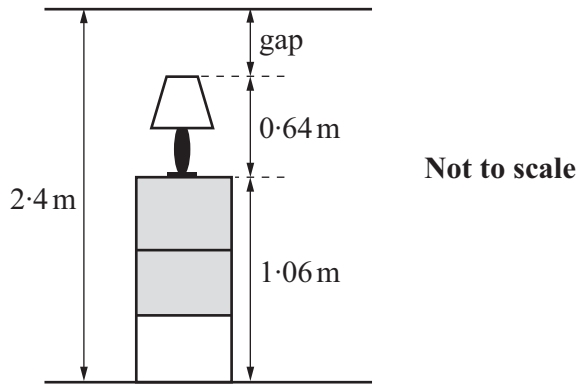
**TURN OVER FOR QUESTION 7**

- 7 A lamp is placed on top of a bookcase.

The bookcase is 1.06 metres high.

The lamp is 0.64 metres high.

The height of the room is 2.4 metres.



Work out the size of the gap between the top of the lamp and the top of the room.

..... m [3]

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