

GENERAL CERTIFICATE OF SECONDARY EDUCATION
MATHEMATICS C (GRADUATED ASSESSMENT)
MODULE M2 (SECTION B)

B272B

Candidates answer on the Question Paper

OCR Supplied Materials:
None

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

Monday 21 June 2010
Afternoon

Duration: 30 minutes



Candidate Forename		Candidate Surname	
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Centre Number						Candidate Number				
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INSTRUCTIONS TO CANDIDATES

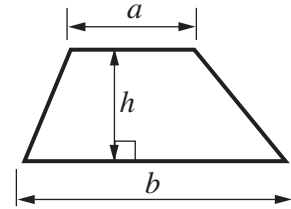
- Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Show your working.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

INFORMATION FOR CANDIDATES

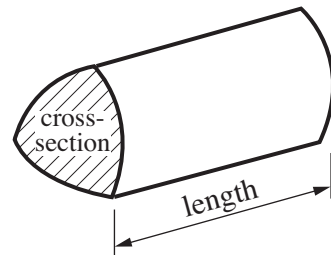
- The number of marks is given in brackets [] at the end of each question or part question.
- Section B starts with question 4.
- You are expected to use a calculator in Section B of this paper.
- The total number of marks for this Section is **25**.
- This document consists of **8** pages. Any blank pages are indicated.

Formulae Sheet

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

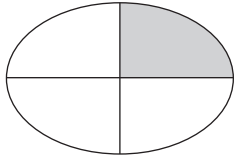


$$\text{Volume of prism} = (\text{area of cross-section}) \times \text{length}$$

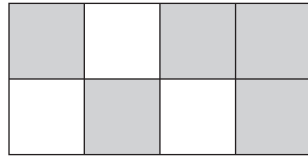


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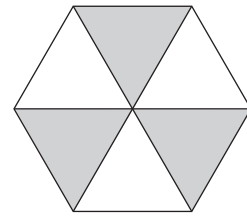
4 (a) Write down the fraction of each shape that has been shaded.



.....



.....



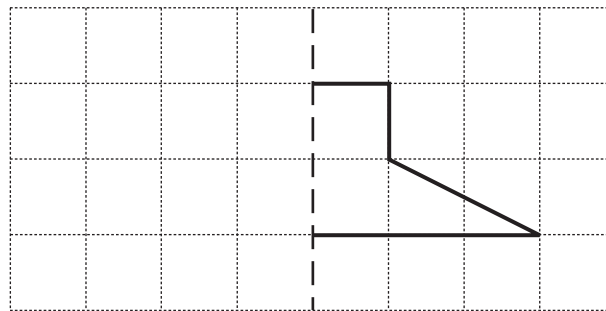
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[3]

(b) Write $\frac{3}{4}$ as a decimal.

(b) [1]

5 Draw the reflection of this shape in the mirror line.



mirror
line

[2]

6 Here are the names of some solids.

Cylinder

Cone

Cuboid

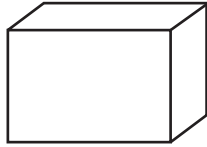
Cube

Sphere

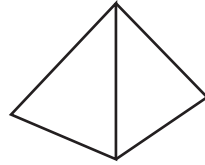
Pyramid

Triangular-based prism

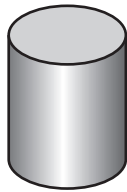
Write the correct name under each solid.



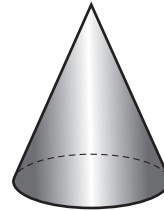
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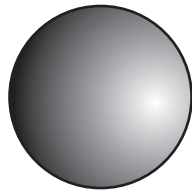
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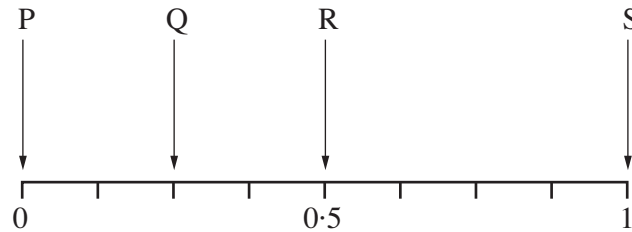
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[3]

7 Pierre has 8 cartons of drink in his fridge.

- 2 orange
- 1 lemon
- 4 apple
- 1 cherry

He takes one of these drinks without looking.



Which arrow shows the probability that Pierre chooses

(a) apple,

(a) [1]

(b) blackcurrant,

(b) [1]

(c) orange?

(c) [1]

8

<u>Friendly Fisheries</u>	
Fish Supper	£3.80
Meat Pie	£1.80
Burger	£1.20
Sausage	£1.00

Claire has £20.

What is the greatest number of **Fish Suppers** she can buy?

..... [2]

9 This table shows the temperatures in six cities one day in March.

City	Temperature (°C)
Churchill	-7
Denver	8
Hong Kong	27
Murmansk	-4
Oslo	3
Yellowknife	-15

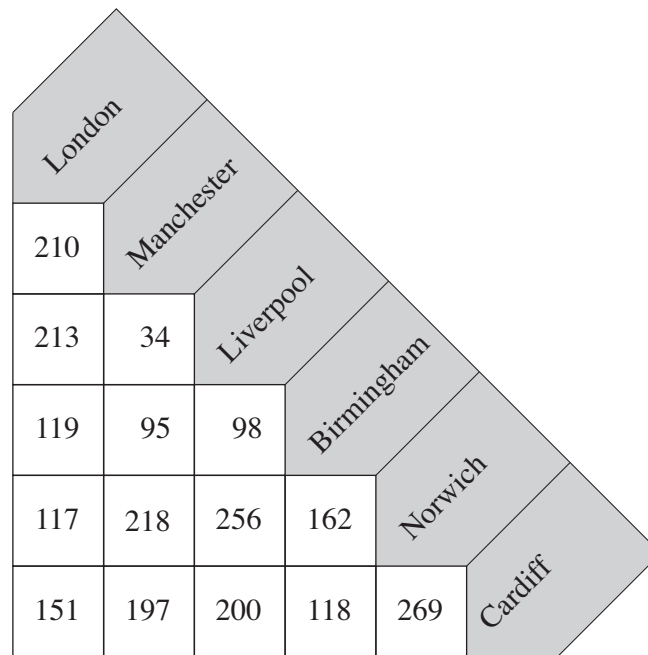
(a) Which city was the coldest?

(a) [1]

(b) What was the difference in temperature between the warmest city and the coldest city?
Show your working.

(b) °C [2]

10 This chart shows the distances in miles between six cities in Great Britain.



(a) How many miles is it between Manchester and Birmingham?

(a) [1]

(b) Andrew drives from London to Liverpool.
He then drives from Liverpool to Norwich.

How many miles does he drive altogether?

(b) [2]

(c) Julie drives from Cardiff to Birmingham.
She stops after driving 50% of the distance.

How many miles does she travel before she stops?

(c) [2]

TURN OVER FOR QUESTION 11

11 This word formula can be used to change between miles and kilometres.

$$\text{Distance in kilometres} = \text{Distance in miles} \times 1.6$$

Use the formula to change

(a) 40 miles into kilometres,

(a) km [1]

(b) 72 kilometres into miles.

(b)miles [2]



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