

**Monday 16 January 2012 – Morning**

**GCSE MATHEMATICS C (GRADUATED ASSESSMENT)**

**B275B MODULE M5 – SECTION B**

Candidates answer on the Question Paper.

**OCR supplied materials:**  
None

- Other materials required:**
- Geometrical instruments
  - Tracing paper (optional)
  - Pie chart scale (optional)
  - Electronic calculator

**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.

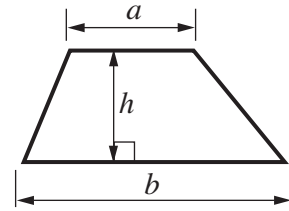
**INFORMATION FOR CANDIDATES**

- The number of marks is given in brackets [ ] at the end of each question or part question.
- Section B starts with question 8.
- 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.

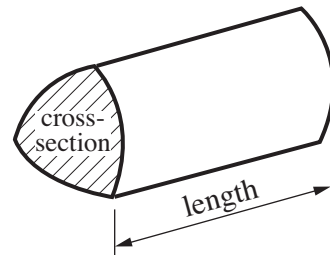
This paper has been pre modified for carrier language

## Formulae Sheet

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



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



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- 8 (a) Calculate the value of this expression when  $x = 17.4$ .

$$5(x + 3.2)$$

(a) ..... [2]

- (b) Calculate the value of this expression when  $a = 6.5$  and  $b = 15$ .

$$12a - 3.2b$$

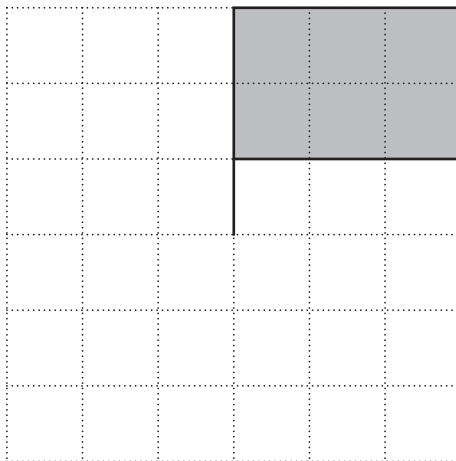
(b) ..... [2]

- (c) Simplify this expression.

$$6m + 14n + 3m - 2n$$

(c) ..... [2]

- 9 Complete the pattern below so that it has rotation symmetry order 4.



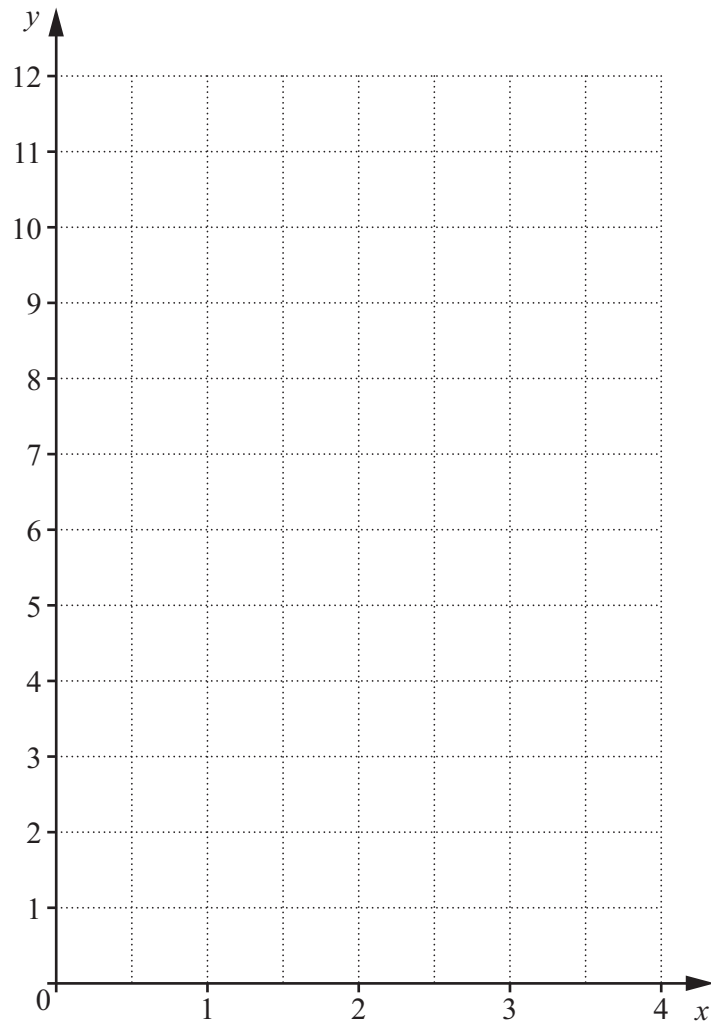
[2]

10 (a) Complete this table of values for  $y = 2x + 3$ .

$x$	0	1	2	3	4
$y$	3	5			11

[1]

(b) Plot these points on the grid and draw the graph of  $y = 2x + 3$ .



[2]

11 Here is a list of quadrilaterals.

rectangle

square

parallelogram

rhombus

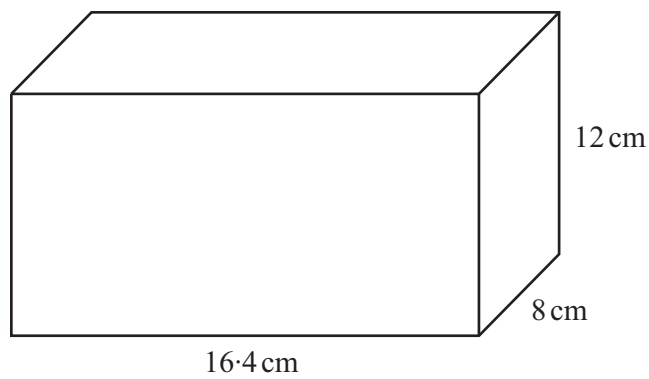
trapezium

kite

Circle **all** the quadrilaterals whose diagonals **always** cross at right-angles.

[2]

12



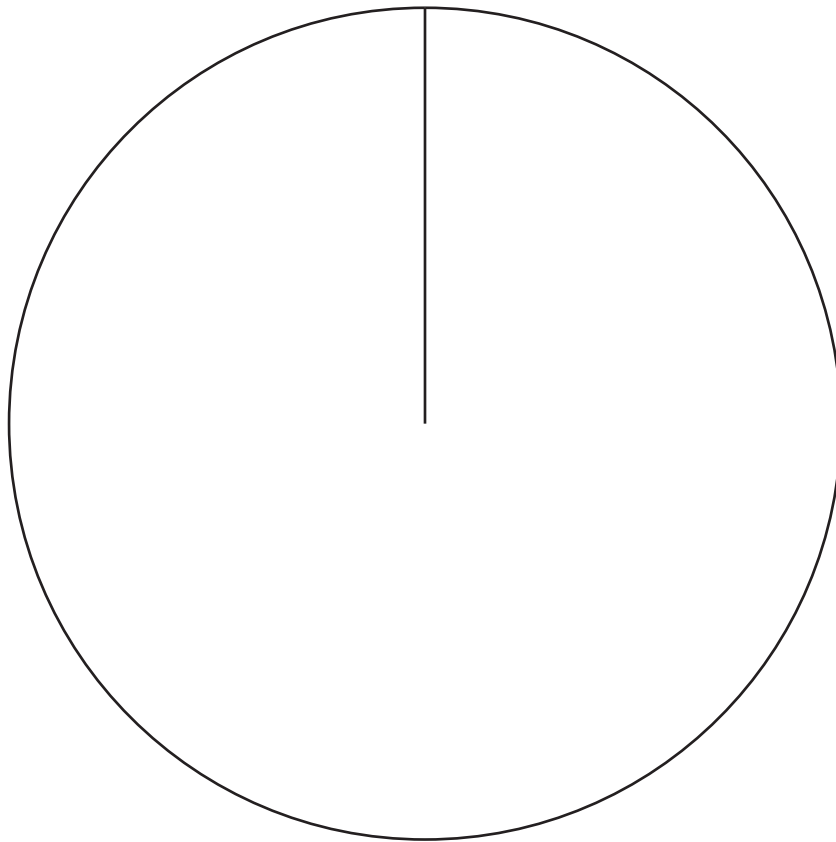
Calculate the volume of this cuboid.

..... cm<sup>3</sup> [2]

- 13 Penny conducts a survey of 40 people to find out which job sector they work in. Her results are summarised in this table.

Sector	Frequency
Finance	5
Public Services	9
Retail	14
Other	12

Draw a labelled pie chart to represent this information.



[4]

- 14 The weather forecast states that the probability that it is going to be wet tomorrow is 0.08.

Work out the probability that it is **not** going to be wet tomorrow.

..... [2]

- 15 Warmfit Windows makes a profit of 40% on sales.  
The salesman is paid  $\frac{1}{5}$  of this profit as commission.  
One month the sales are £12 800.

Calculate the amount of the commission paid to the salesman.

£ ..... [4]

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