

**Monday 16 January 2012 – Morning**

**GCSE MATHEMATICS C (GRADUATED ASSESSMENT)**

**B271A MODULE M1 – 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	
--------------------	--	-------------------	--

Centre number							Candidate number				
---------------	--	--	--	--	--	--	------------------	--	--	--	--

**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 **12** pages. Any blank pages are indicated.

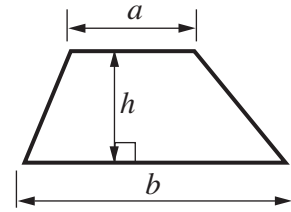
**WARNING**

**No calculator can be used for Section A of this paper**

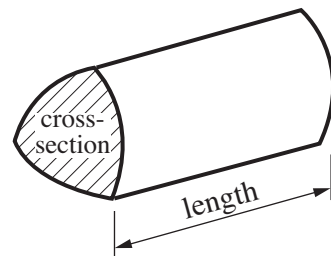
This paper has been pre modified for carrier language

## Formulae Sheet

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

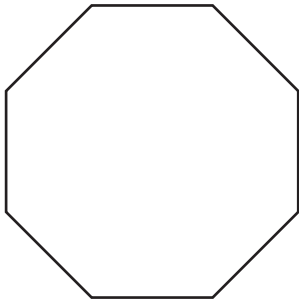


**Volume of prism** = (area of cross-section)  $\times$  length



**PLEASE DO NOT WRITE ON THIS PAGE**

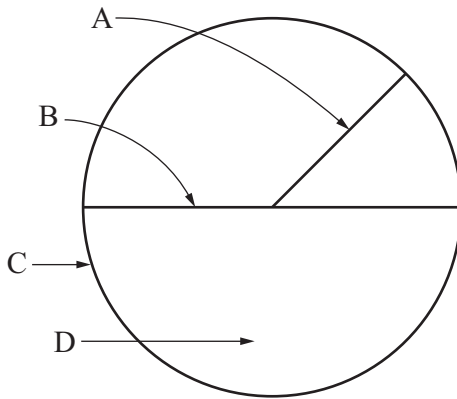
- 1 (a) Look at this shape.



Circle the correct name for the shape.

Hexagon    Rectangle    Triangle    Octagon    Pentagon    [1]

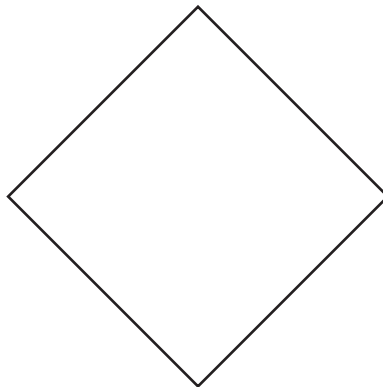
- (b) Look at this circle.



Complete the sentence below with the correct letter.

Arrow ..... shows the circumference of the circle. [1]

- (c) Shade one quarter of the shape below.



[1]

2 Work out.

(a)  $7 \times 6$

(a) ..... [1]

(b)  $84 - 35$

(b) ..... [1]

(c)  $\frac{1}{2}$  of 18

(c) ..... [1]

(d)  $\frac{1}{4}$  of 24

(d) ..... [1]

3 Sam and Hok are playing a ‘think of a number’ game.

(a) Sam says:

I am thinking of an **odd** number that is greater than 15 and less than 25.

Write down one number that Sam could be thinking of.

(a) ..... [1]

(b) Hok says:

I am thinking of a number in the five times table that is greater than 28 and less than 40.

Write down one number that Hok could be thinking of.

(b) ..... [1]

4 Lola is selling tickets for a concert.  
She has 97 tickets in total.

She sells 45 tickets before the day of the concert.  
On the day of the concert she sells another 38 tickets.

How many tickets does Lola have left?

..... [3]

- 5 (a) Lisa did a survey to find out what type of cookie people prefer. This pictogram shows some of her results.

Chocolate	● ● ● ● ● ●
Raisin	
Nut	● ◐
Don't know	● ●

Key	● = 2 people
-----	--------------

- (i) Lisa says:

**The pictogram shows that 3 people chose Nut.**

Explain why Lisa is correct.

.....

..... [1]

- (ii) 8 people chose Raisin.  
Complete the pictogram by filling in the row for Raisin. [1]

- (iii) How many people did Lisa ask altogether?

(a)(iii) ..... [1]

(b) Lisa puts 10 cookies on a plate.

3 are raisin cookies  
5 are chocolate cookies  
2 are nut cookies

Kay takes one of these cookies without looking.

likely	evens	impossible
	certain	unlikely
raisin	chocolate	nut

Choose the best words to complete these sentences.

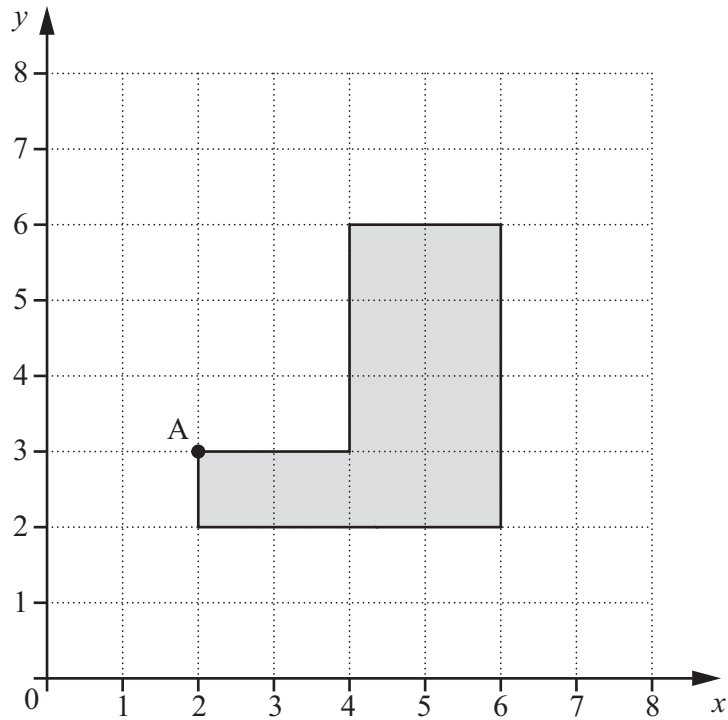
It is ..... that Kay takes a nut cookie.

It is ..... that Kay takes a chocolate cookie.

It is more likely that Kay takes a ..... cookie than  
a ..... cookie.

[3]

6 This shape is drawn on a centimetre square grid.



(a) Write down the coordinates of point A.

(a) (....., .....) [1]

(b) Point B is at (0, 7).

Plot point B on the grid.

[1]

(c) Draw a straight line from point A to point B.

Measure the line AB.

Give the units of your answer.

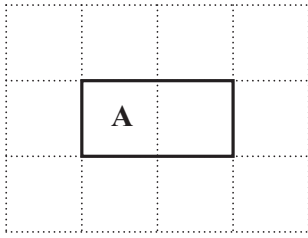
(c) ..... [2]

(d) Find the area of the shaded shape.

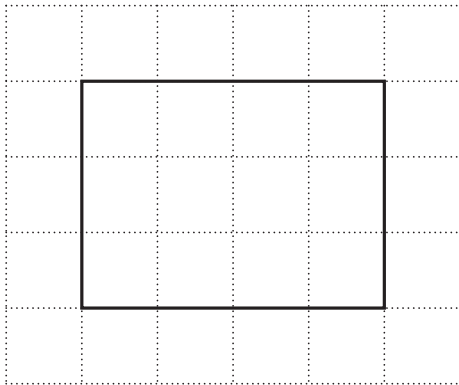
(d) ..... square centimetres [1]



7 Rectangle **A** is drawn on the grid below.



- (a) Kyle was asked to draw a two times enlargement of rectangle **A**. Here is his answer.

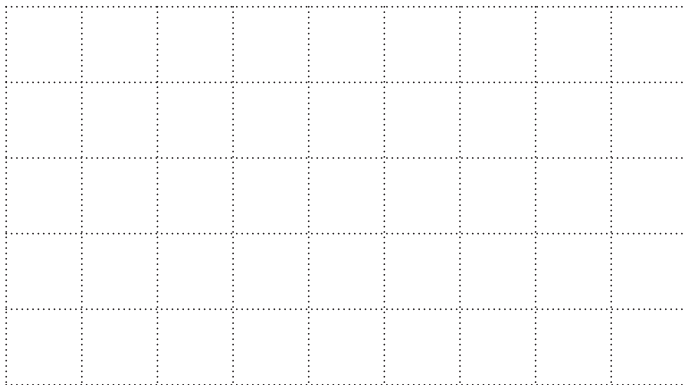


Explain why Kyle's answer is wrong.

.....

..... [1]

- (b) Draw a correct two times enlargement of rectangle **A** on the grid below.



[1]

**PLEASE DO NOT WRITE ON THIS PAGE**

**PLEASE DO NOT WRITE ON THIS PAGE**

**PLEASE DO NOT WRITE ON THIS PAGE**



**Copyright Information**

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website ([www.ocr.org.uk](http://www.ocr.org.uk)) after the live examination series. If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact the Copyright Team, First Floor, 9 Hills Road, Cambridge CB2 1GE.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.