



**M1**

**GENERAL CERTIFICATE OF SECONDARY EDUCATION  
 MATHEMATICS C (GRADUATED ASSESSMENT)  
 MODULE M1 – SECTION A**

**B271A**



Candidates answer on the question paper.

**OCR supplied materials:**  
None

**Other materials required:**

- Geometrical instruments
- Tracing paper (optional)

**Thursday 20 January 2011  
 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, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. Pencil may be used for graphs and diagrams only.
- 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).
- Answer **all** the questions.
- Do **not** write in the bar codes.

**INFORMATION FOR CANDIDATES**

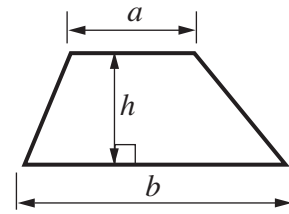
- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this Section is **25**.
- This document consists of **12** pages. Any blank pages are indicated.

**WARNING**

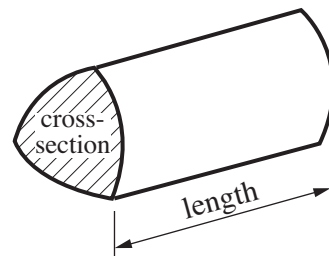
No calculator can be used for Section A of this paper

## 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 Work out.

(a)  $47 + 35 = \dots\dots\dots$

[1]

(b)  $72 - 19 = \dots\dots\dots$

[1]

2

2 mm

2 m

20 mm

0.2 m

20 m

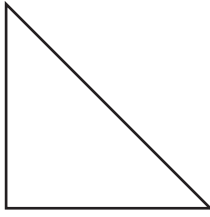
Choose a length from the list to complete each sentence.

2 centimetres is the same as .....

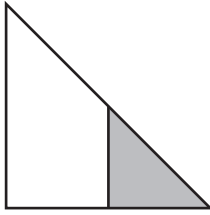
200 centimetres is the same as .....

[2]

- 3 (a) Grace was asked to shade in one half of this shape.



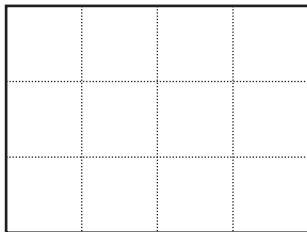
This is Grace's answer.



Explain how you know that Grace's answer is wrong.

..... [1]

- (b) Shade  $\frac{3}{4}$  of the shape below.



[1]

- (c) Work out  $\frac{1}{4}$  of 20.

(c)..... [1]

- 4 In rugby union points are scored for tries, conversions, penalties and drop goals. The points scored for each are shown below.

Tries	5 points each
Conversions	2 points each
Penalties	3 points each
Drop goals	3 points each

- (a) In one match, Kings Hill score 5 tries.

How many points are scored for 5 tries?

(a)..... [1]

- (b) In this match, they also score 3 conversions.

How many points are scored for 3 conversions?

(b) ..... [1]

- (c) In another match, Cannon Heath score

4 tries,  
3 conversions,  
5 penalties.

Work out their total points score.

(c)..... [3]

- 5 (a) Lara has these three number cards.



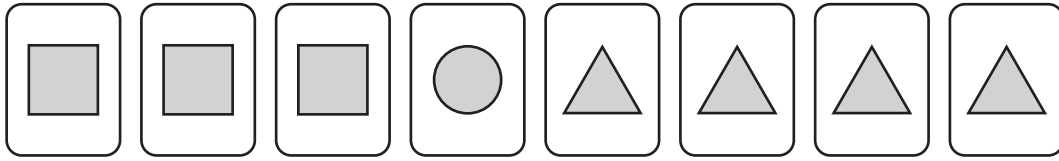
Write down all the different ways she can arrange these cards in a row.  
The first one has been done for you.

4	7	9

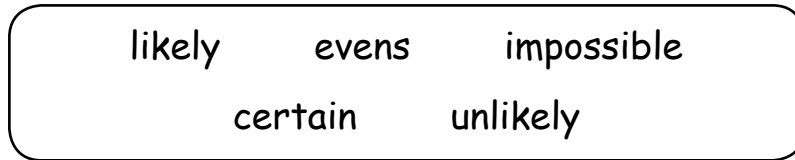
*You may  
not need all  
the rows.*

[2]

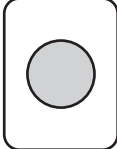
(b) Jayden has these shape cards.

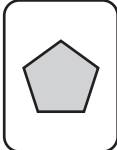


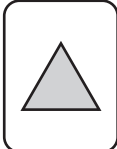
He takes one card without looking.



Choose the best word from this list to complete each of these sentences.

It is ..... that he takes a  card.

It is ..... that he takes a  card.

It is ..... that he takes a  card.

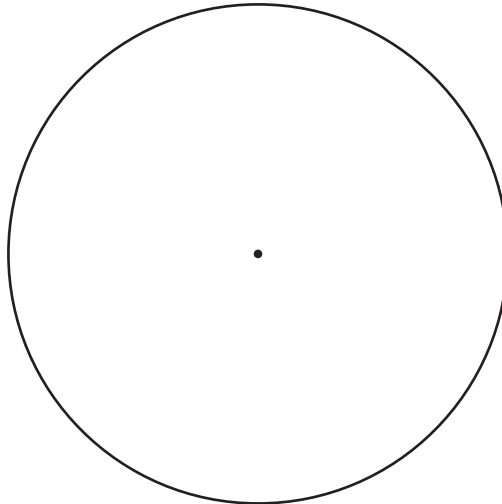
[3]

6 Fill in the missing numbers.

(a)  $24 \longrightarrow \boxed{\div 6} \longrightarrow \dots\dots\dots$  [1]

(b)  $19 \longrightarrow \boxed{- \dots\dots\dots} \longrightarrow 11$  [1]

7 The centre of this circle is marked.



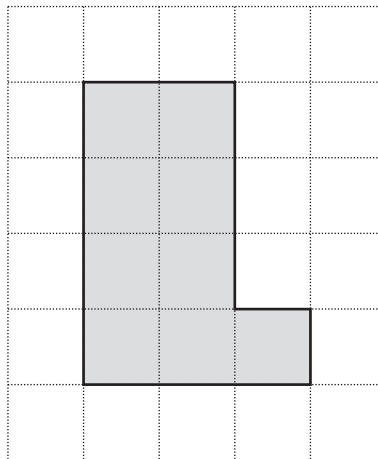
(a) Draw a radius on the circle. [1]

(b) Measure the radius of the circle.  
Give your answer in centimetres.

(b) ..... cm [1]



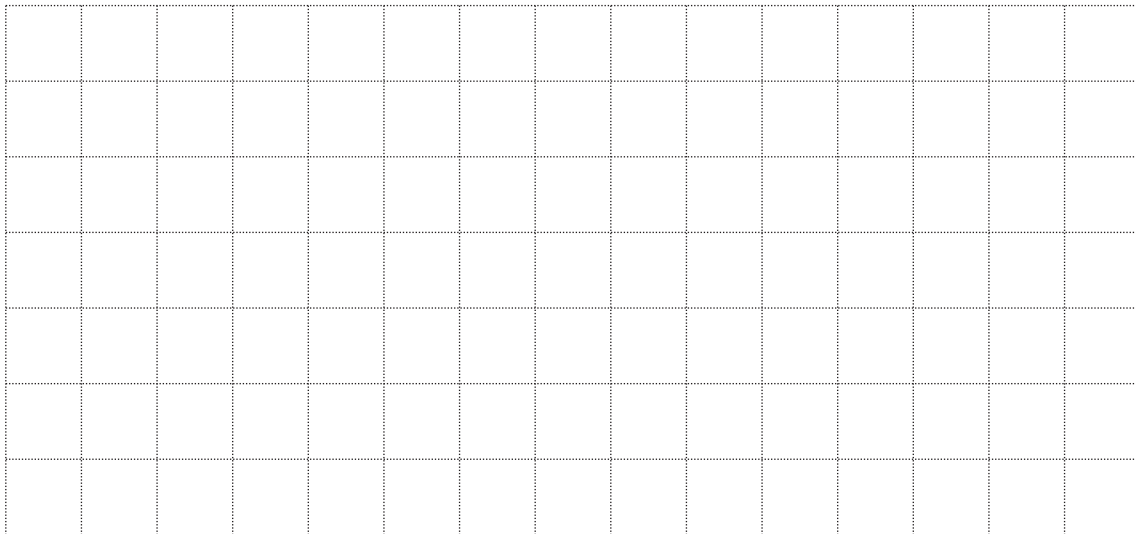
8 This L-shape is drawn on a centimetre grid.



(a) Find the perimeter of the L-shape.

(a)..... cm [1]

(b) On the grid below, draw a rectangle with the same perimeter as the L-shape.



[1]

(c) Which shape has the bigger area?  
Show how you decide.

*Write L-shape  
or Rectangle.*

..... because .....

..... [2]

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