

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

M1

TUESDAY 24 JUNE 2008

Morning
 Time: 30 minutes

Candidates answer on the question paper
Additional materials (enclosed): None

Additional materials (required):
 Geometrical instruments
 Tracing paper (optional)
 Electronic calculator



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Candidate Forename

Candidate Surname

Centre Number

Candidate Number

INSTRUCTIONS TO CANDIDATES

- Write your name in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use blue or 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.

INFORMATION FOR CANDIDATES

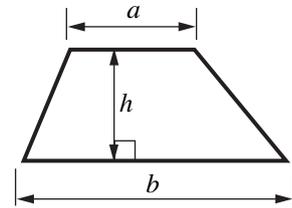
- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this Section is **25**.
- Section B starts with question 8.
- You are expected to use a calculator in Section B of this paper.

FOR EXAMINER'S USE	
SECTION B	

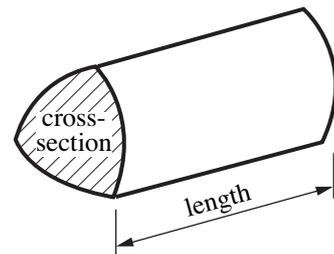
This document consists of **8** printed pages.

Formulae Sheet

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



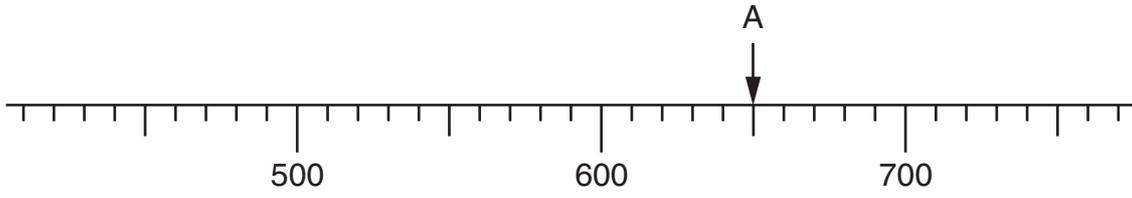
Volume of prism = (area of cross-section) \times length



PLEASE DO NOT WRITE ON THIS PAGE

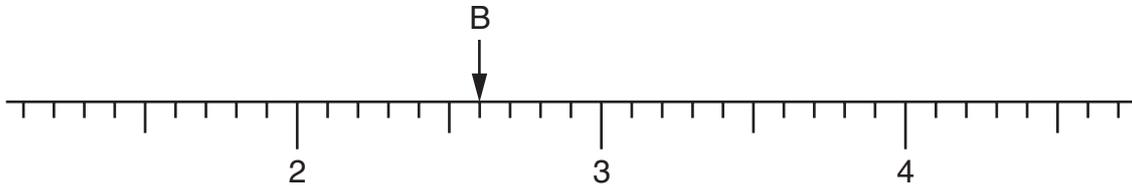
8 (a) What number does each arrow point to?

(i)



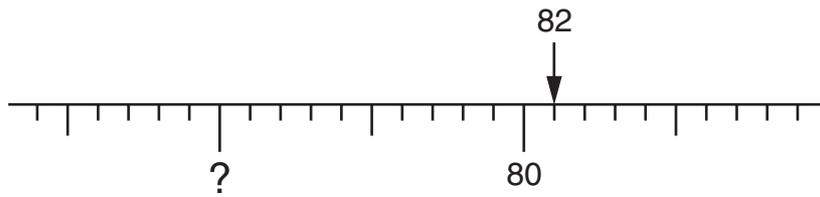
(a)(i) [1]

(ii)



(ii) [1]

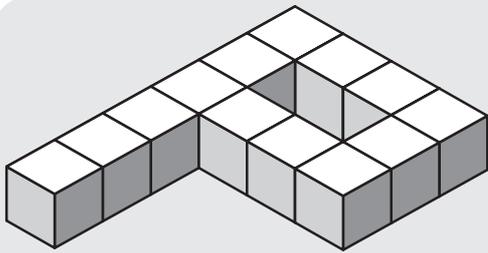
(b) What is the missing number on this scale?



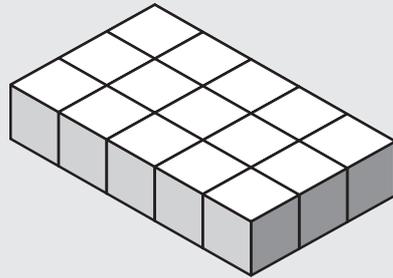
(b) ? = [1]

9 Phil and Lou are making solids from cubes.

(a) First they each make a solid and place it on a table.



Phil's solid



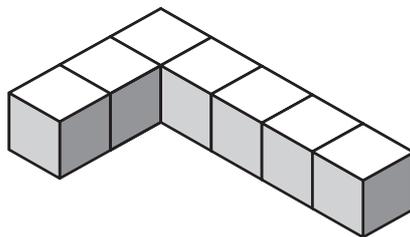
Lou's solid

Who used more cubes?
Show how you decide.

Write *Phil*
or *Lou*.

(a) used more cubes because
..... [2]

(b) They start to make a solid together.
Here is the first layer.

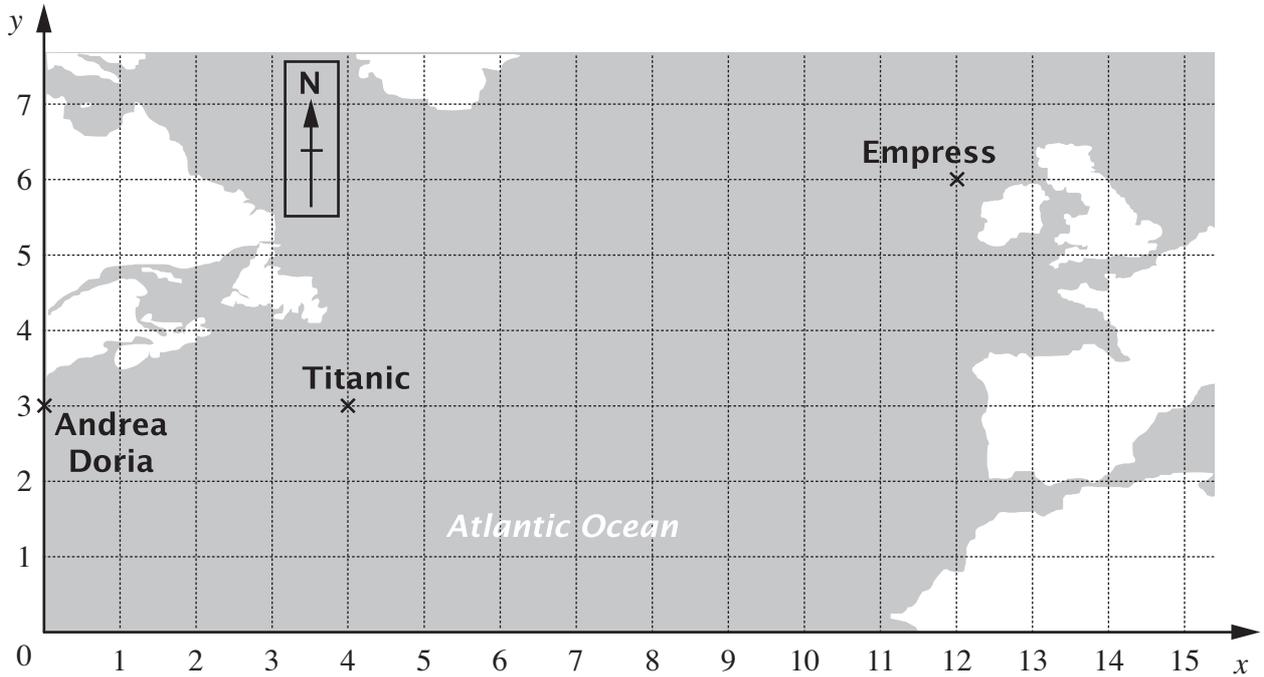


They make it 4 layers tall.

How many cubes will there be in the finished solid?

(b) [1]

- 11 This is a map of part of the Atlantic Ocean. It shows where some famous ships sank.



- (a) Write down the coordinates of the place where the Titanic sank.

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

- (b) The Lusitania sank at (12.5, 5).

Mark a cross on the map to show (12.5, 5).

[1]

- (c) Put a ring around the correct word to complete this sentence.

The Titanic sank East
North
South
West of the Andrea Doria

[1]

- (d) This shows the number of people on board each ship when it sank.

Lusitania 1959	Titanic 2228	Empress 1492	Andrea Doria 1706
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Write the numbers in order, smallest first.

.....
smallest

[1]

- (e) The Empress had 1492 people on board.

Write 1492 in words.

..... [1]

- (f) The Lusitania was used for 2797 days.
The Empress was used for **93 more** days than the Lusitania.

For how many days was the Empress used?

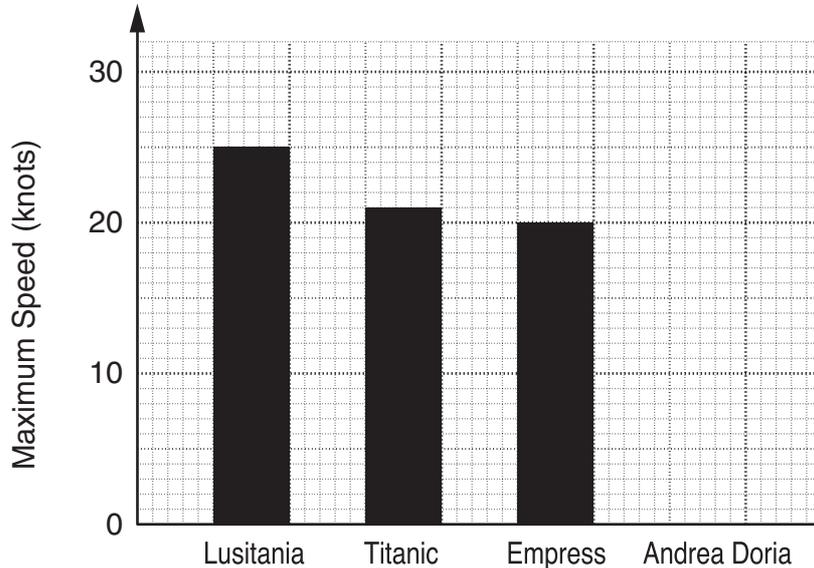
(f) [2]

- (g) The Lusitania sank to 295 feet.
The Titanic sank to 12460 feet.

How much deeper did the Titanic sink?

(g) feet [2]

- (h) This bar chart shows the maximum speed of some of the ships.



- (i) What was the maximum speed of the Titanic?

(h)(i) knots [1]

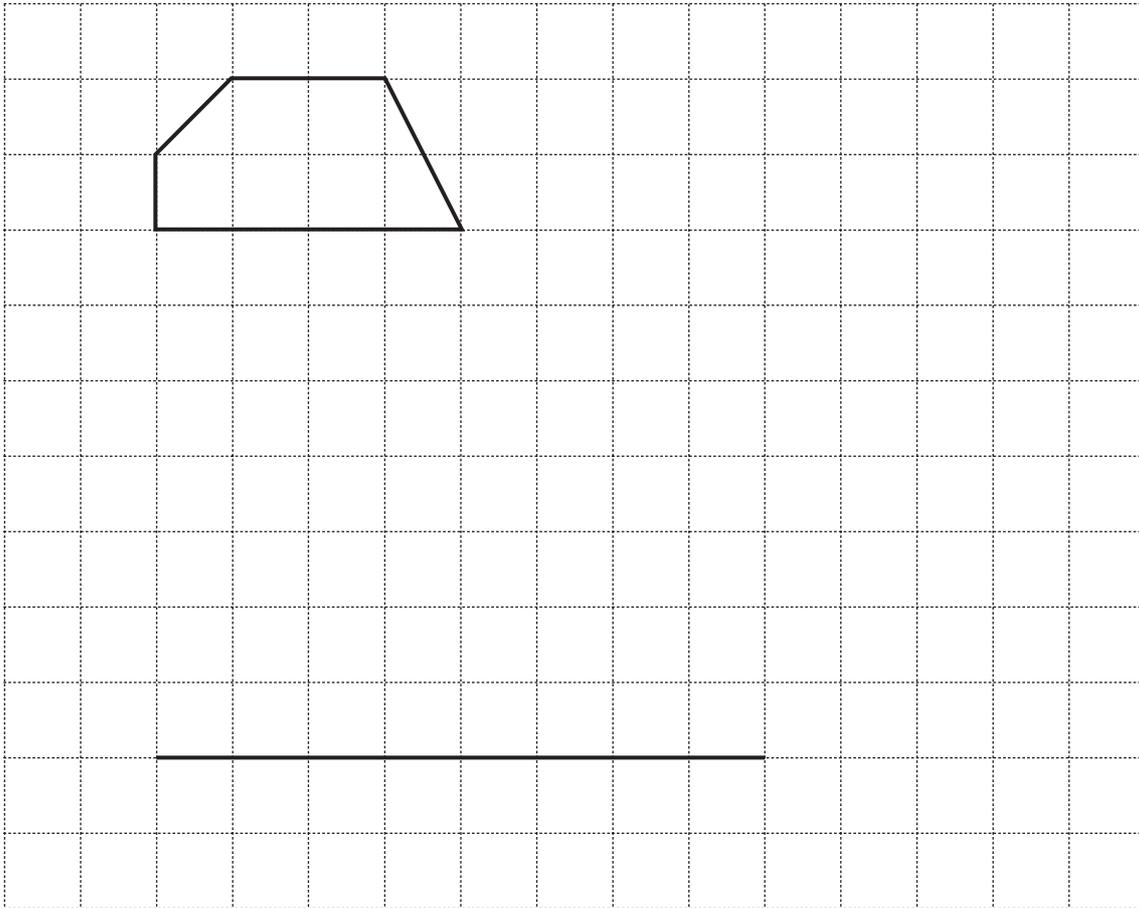
- (ii) The maximum speed of the Andrea Doria was 23 knots.

Show this on the bar chart.

[1]

TURN OVER FOR QUESTION 12

- 12 Draw a **2 times** enlargement of this shape.
One line has been drawn for you.



[3]

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