

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

B271B

Candidates answer on the question paper

OCR Supplied Materials:
None

Other Materials Required:

- Geometrical instruments
- Tracing paper (optional)
- Electronic calculator

**Tuesday 23 June 2009
Morning**

Duration: 30 minutes



Candidate Forename		Candidate Surname	
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Centre Number							Candidate Number				
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MODIFIED LANGUAGE

INSTRUCTIONS TO CANDIDATES

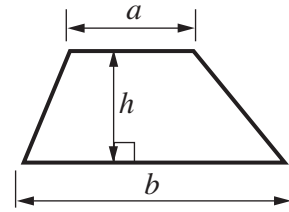
- Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Show your working.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

INFORMATION FOR CANDIDATES

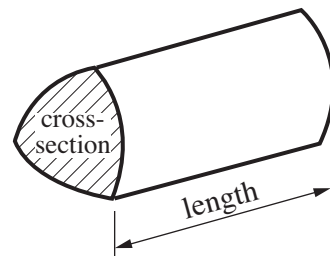
- The number of marks is given in brackets [] at the end of each question or part question.
- Section B starts with question 6.
- You are expected to use a calculator in Section B of this paper.
- The total number of marks for this Section is **25**.
- This document consists of **12** pages. Any blank pages are indicated.

Formulae Sheet

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

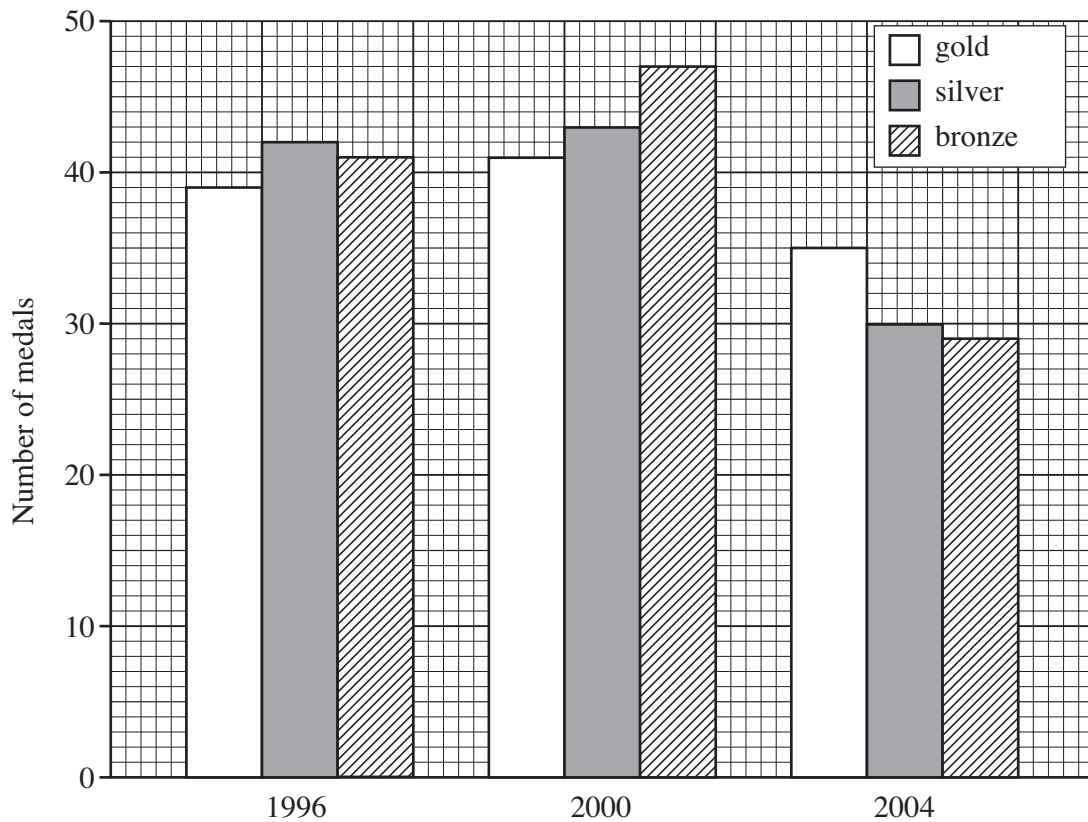


Volume of prism = (area of cross-section) \times length



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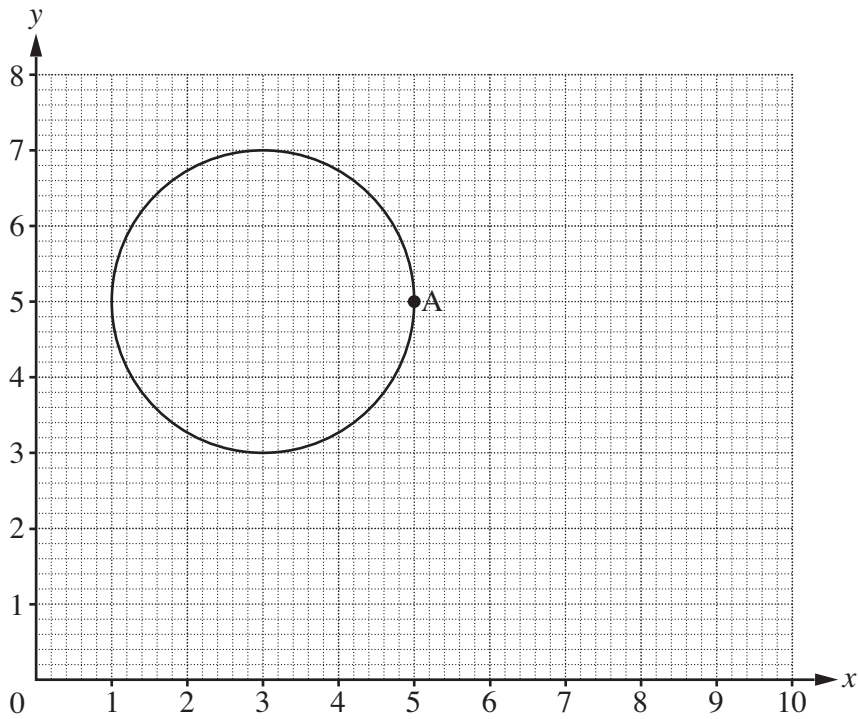
- 6 This bar chart shows the numbers of gold, silver and bronze medals won by the UK in the 1996, 2000 and 2004 paralympics.



Use the bar chart to complete these sentences.

- (a) In 1996 the UK won gold medals. [1]
- (b) The most silver medals were won in the year [1]
- (c) In 2004 the **total** number of medals won (gold, silver and bronze) was [1]

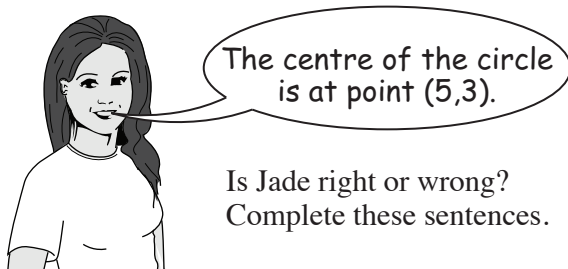
7 This is a circle drawn on a grid.



(a) Write down the coordinates of the point A.

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

(b) Jade says:



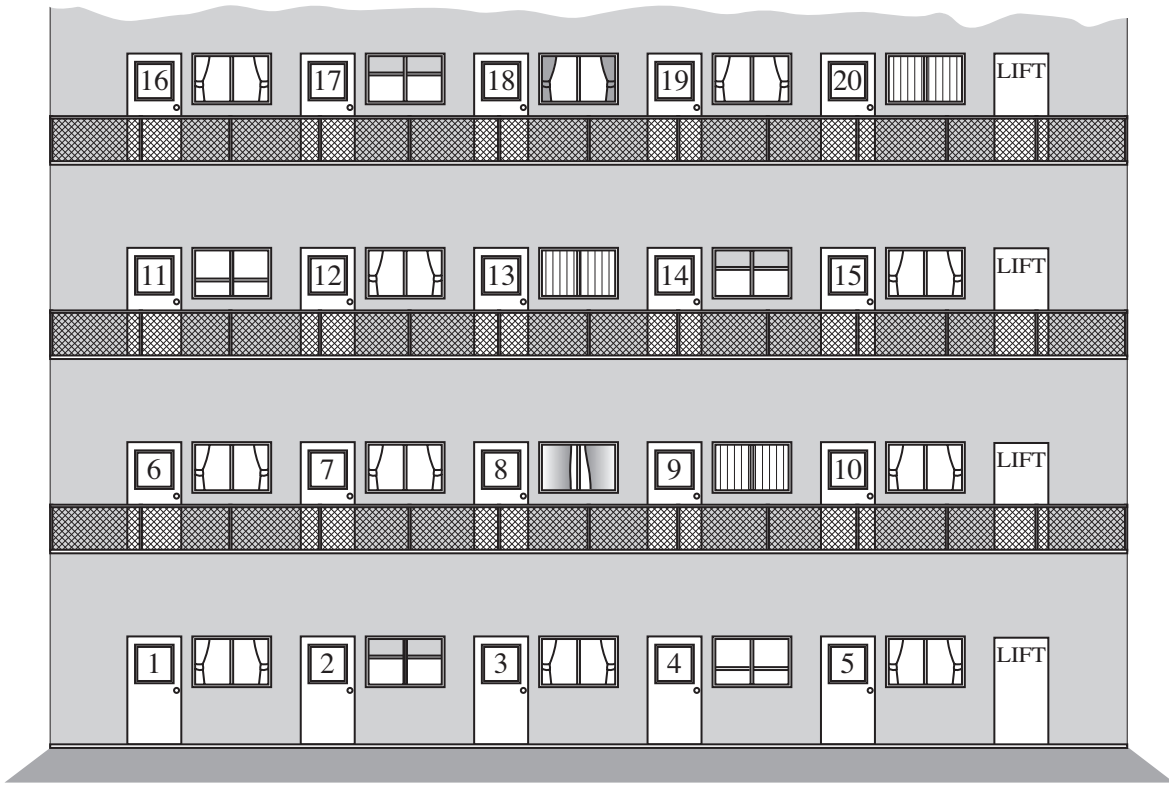
Jade is

The coordinates of the centre of the circle are (..... ,). [1]

(c) Measure the diameter of the circle.
Give the units of your answer.

(c) [2]

8 Josh and Lee live in a tower block.

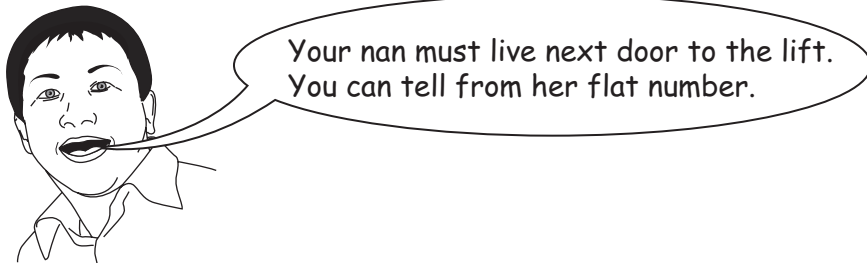


- (a) Josh lives in flat 16.
Lee lives on the next floor.
His flat is directly above Josh's flat.

What number is Lee's flat?

(a) [1]

- (b) Josh's nan lives in the same tower block.
She lives in flat 45.
Lee says:



Lee worked out that flat 45 must be next to the lift by using the flat number. Explain how.

.....

..... [2]

- 9 Some students are listing all the different 3-digit numbers they can make from these number cards.



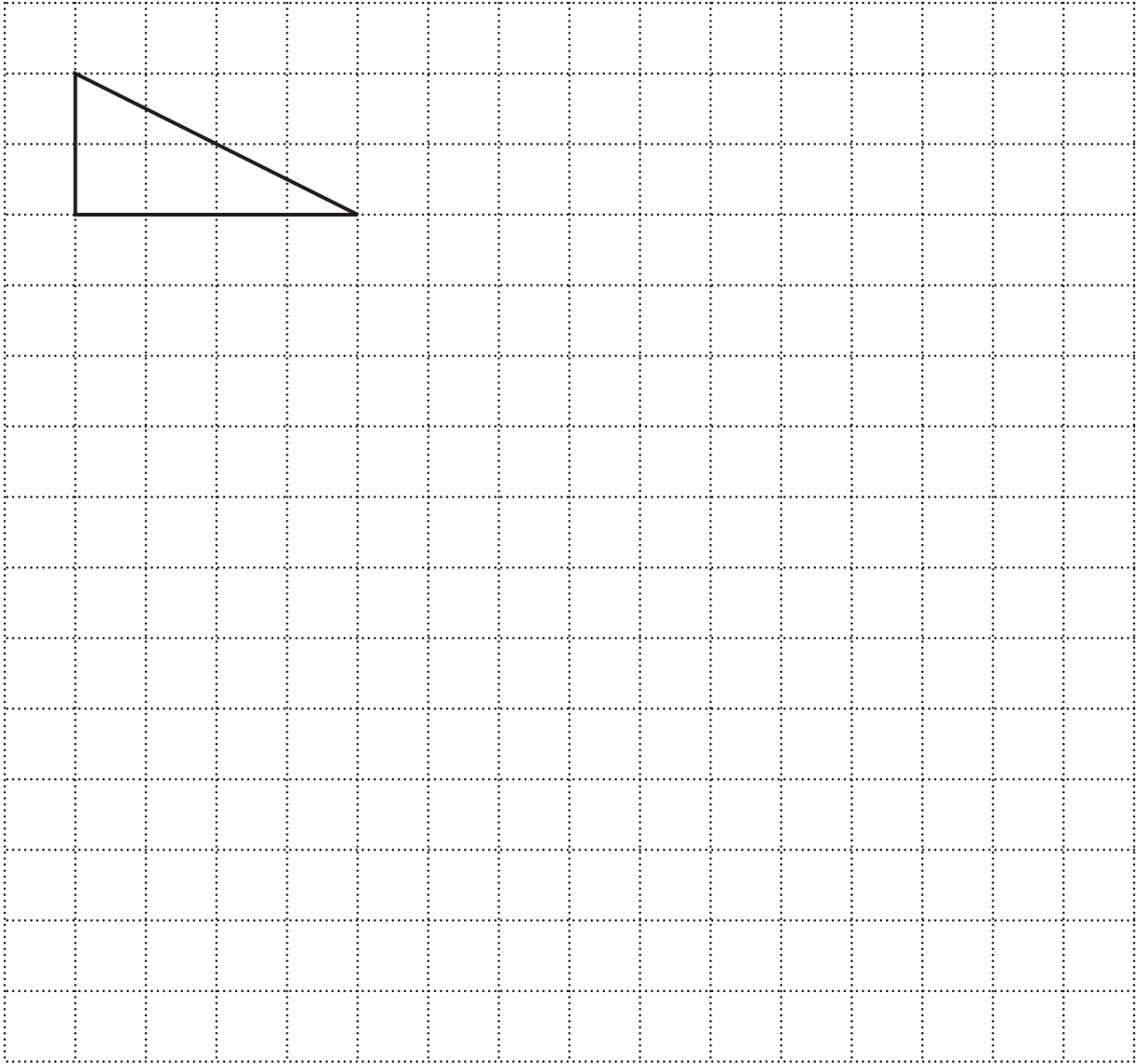
Complete their list.
Two have already been done for you.

1	2	3
1	3	2

*You may not need to use
all the rows.*

[2]

- 10 Draw an enlargement of this shape.
Make each line twice as long.



[2]

- 11 (a) Write down any odd number which is divisible by 5.

(a) [1]

- (b) Write down any even number which is divisible by 5.

(b) [1]

12 Complete these calculations.

(a) $6 + \square = 20$

[1]

(b) $\square \times 3 = 18$

[1]

13 Amy has some black marbles and some white marbles.
She puts either one or two marbles underneath each of four plastic cups.



Bala picks one of the cups without looking.

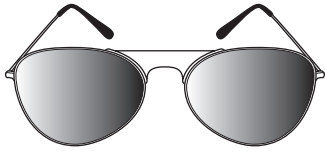
Match each outcome with the correct probability word.
One has been done for you.

Two marbles	Certain
At least one marble	Evens
A black and a white marble	Likely
Five marbles	Unlikely
One marble	Impossible

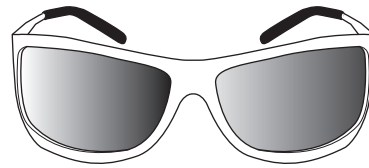
A line connects the 'Five marbles' box to the 'Impossible' box.

[4]

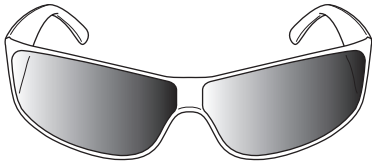
- 14 Misha wants to buy a pair of sunglasses.
She cannot decide which pair of sunglasses to buy.



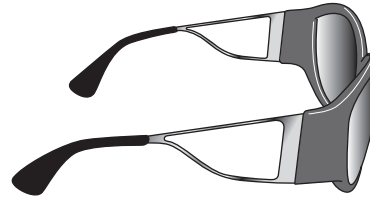
£28.80



£21.75



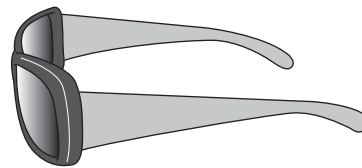
£19.99



£11.99



£13.75



£24.45

How much would she save by buying the cheapest rather than the most expensive sunglasses?

£ [3]

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