OCR
RECOGNISING ACHIEVEMENT

GENERAL CERTIFICATE OF SECONDARY EDUCATION
MATHEMATICS C (GRADUATED ASSESSMENT)

M6 B246B

MODULE M6 – SECTION B

MONDAY 22 JANUARY 2007 Morning

Time: 30 minutes

Candidates answer on the question paper.
Additional materials: Geometrical instruments
Tracing paper (optional)
Scientific or graphical calculator

Candidate Name

Centre Number

Candidate Number

INSTRUCTIONS TO CANDIDATES

- Write your name, Centre Number and Candidate Number in the boxes above.
- Answer **all** the questions.
- Use blue or black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure you know what you have to do before starting your answer.
- In many questions marks will be given for a correct method even if the answer is incorrect.
- Do **not** write in the bar code.
- Do **not** write outside the box bordering each page.
- WRITE YOUR ANSWER TO EACH QUESTION IN THE SPACE PROVIDED. ANSWERS WRITTEN ELSEWHERE WILL NOT BE MARKED.

INFORMATION FOR CANDIDATES

- You are expected to use a calculator in Section B of this paper.
- 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 7.
- Use the π button on your calculator or take π to be 3·142 unless the question says otherwise.

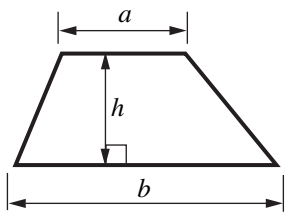
For Examiner's Use	
Section B	

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

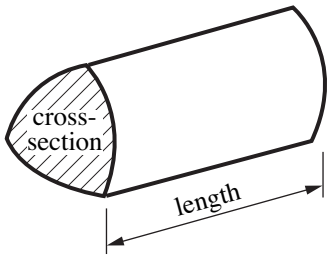
[Turn over

Formulae Sheet

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



Volume of prism = (area of cross-section) × length



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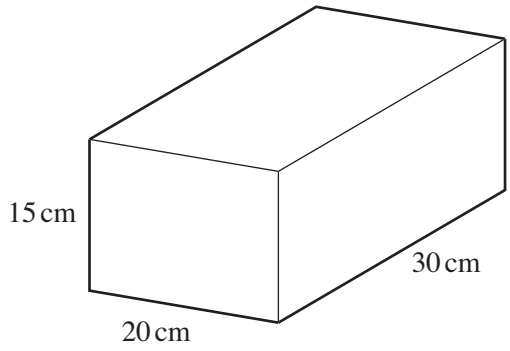
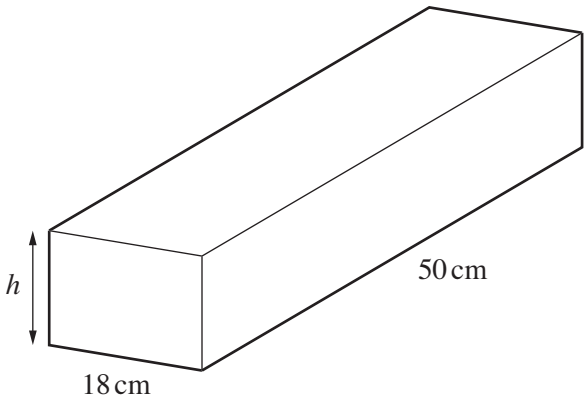
7 **(a)** Calculate the volume of this cuboid.



(a).....cm^3 [2]

(b) The cuboid below has the same volume as the cuboid in **(a)**.



Work out the height, h.

(b) ..... cm [2]

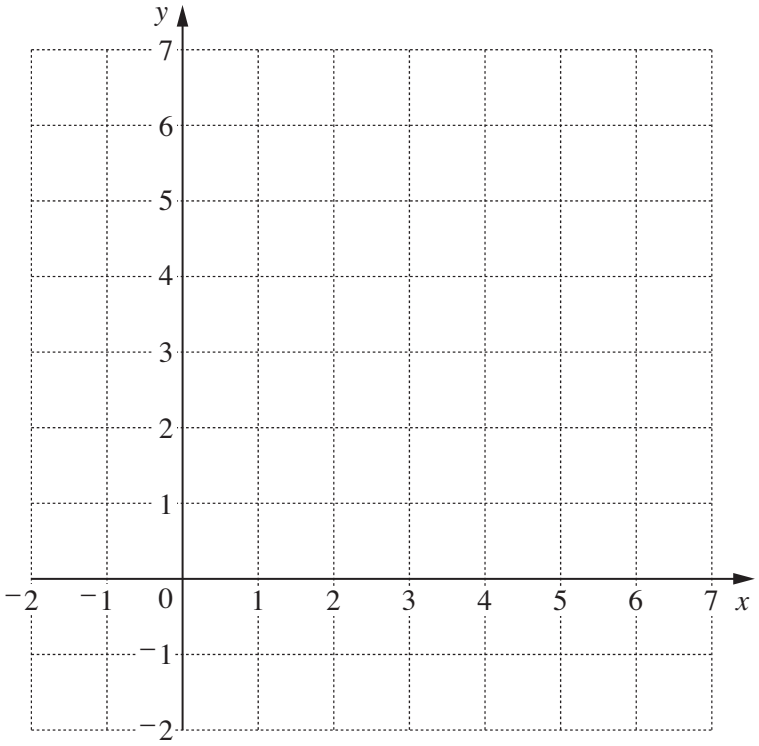
4

8 **(a)** Complete the table of values for $x + y = 6$.

x	0	2	4	6
y			2	

[1]

(b) Draw the graph of $x + y = 6$.



[2]

3

9 Calculate.

(a) $48{\cdot}3 - 6{\cdot}7 \times 4{\cdot}8$

(a)..... [1]

(b) $\dfrac{7{\cdot}5}{15 - 3{\cdot}4}$

Give your answer correct to 2 decimal places.

(b) ..... [2]

3

10 Solve.

(a) $8x + 11 = 3x + 21$

(a)..... [3]

(b) $2(2x - 3) = 8$

(b) ..... [3]

6

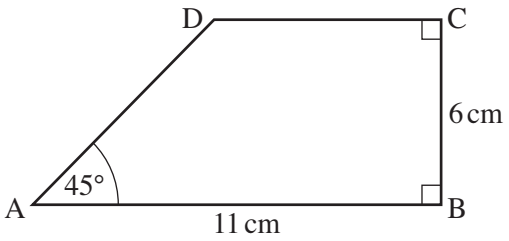
11 Dave changed £65 into euros.
He received €91.
At the same time, Graham changed £75 into euros.

How many euros did Graham receive?

€ ..... [3]

3

12 This is a sketch of the trapezium ABCD.



Not to scale

(a) Draw accurately the trapezium ABCD.
The side AB has been drawn for you.

A 11 cm B

[3]

(b) (i) Measure the length DC on your diagram.

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

(ii) Work out the area of the trapezium ABCD.

(ii) .....cm^2 [2]

6

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