B275B

GENERAL CERTIFICATE OF SECONDARY EDUCATION

MATHEMATICS C (GRADUATED ASSESSMENT)

MODULE M5 – SECTION B

M5

TUESDAY 11 MARCH 2008

Morning
Time: 30 minutes

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

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

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 7.
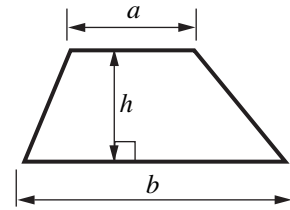- You are expected to use a calculator in Section B of this paper.
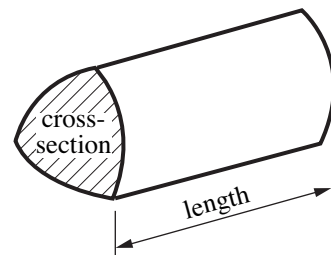
FOR EXAMINER'S USE

SECTION B	

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

[Turn over

Formulae Sheet

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

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

PLEASE DO NOT WRITE ON THIS PAGE

7 This is part of the full-sized net of a cuboid.
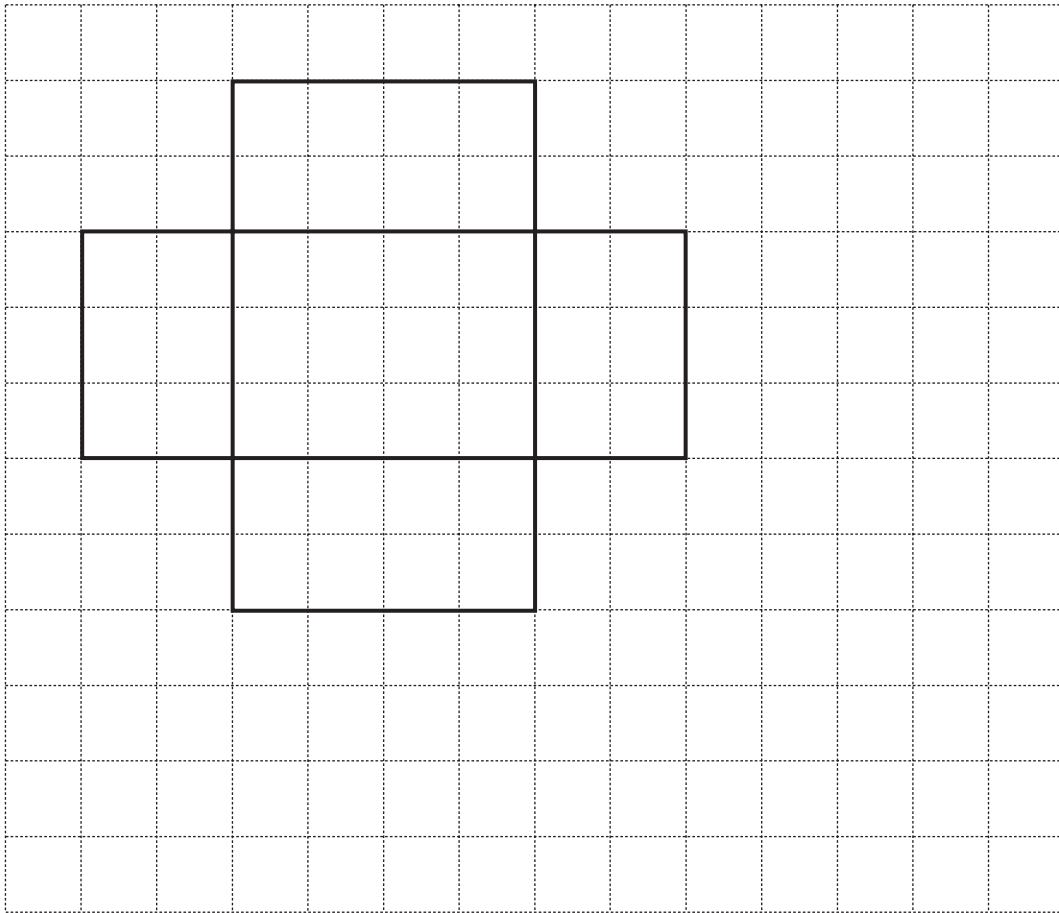
(a) One rectangle is missing from the net.

Draw in the missing rectangle. [1]

(b) The net is folded to make the cuboid.

Complete the following.

The cuboid measures .... cm by .... cm by .... cm. [1]

(c) Find the volume of the cuboid.
Give the units of your answer.

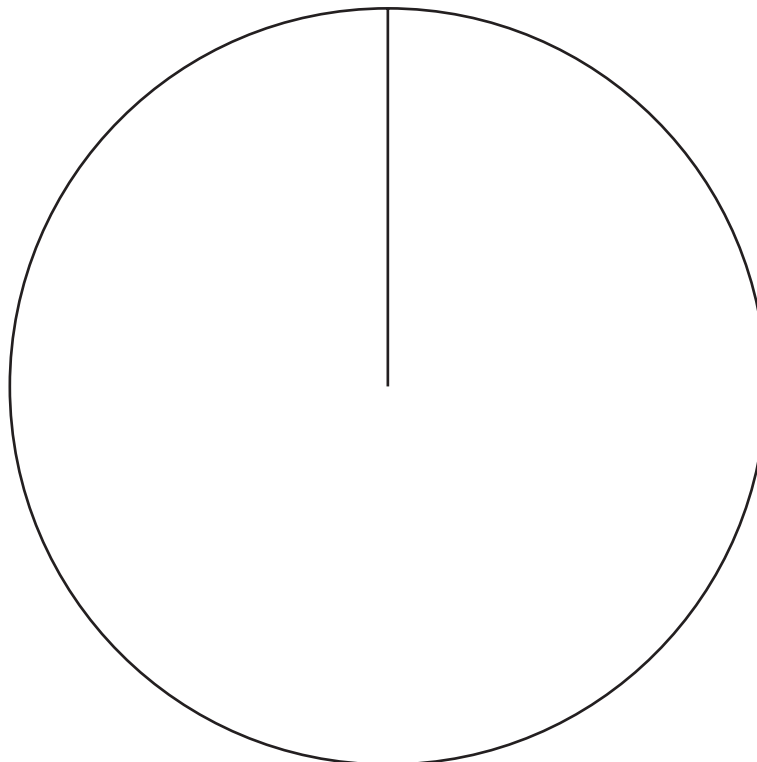**(c)** .... [3]

[Turn over

8 The manager of Springbank Club wants to improve the services for members.

(a) He asked 60 club members for their opinion of the services.
The table summarises the results.

Opinion	Number of members
Excellent	6
Good	12
Satisfactory	27
Poor	15

Draw a pie chart to illustrate the data.

[4]

(b) The club has 480 members.
The manager held a vote to decide which events he should organise.
$\frac{2}{5}$ of the members voted for a darts competition.
35% of the members voted for a karaoke night.

How many **more** members voted for a darts competition than a karaoke night?

(b) .... [4]

9 Work out.

(a) 18^2

(a) .... [1]

(b) 15^3

(b) .... [1]

10 (a) Complete this table for $y = 2x + 3$.

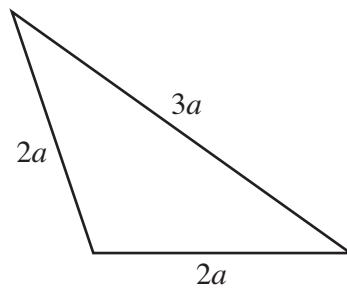| x	0	2	4
y			11

[1]

(b) Draw the graph of $y = 2x + 3$.
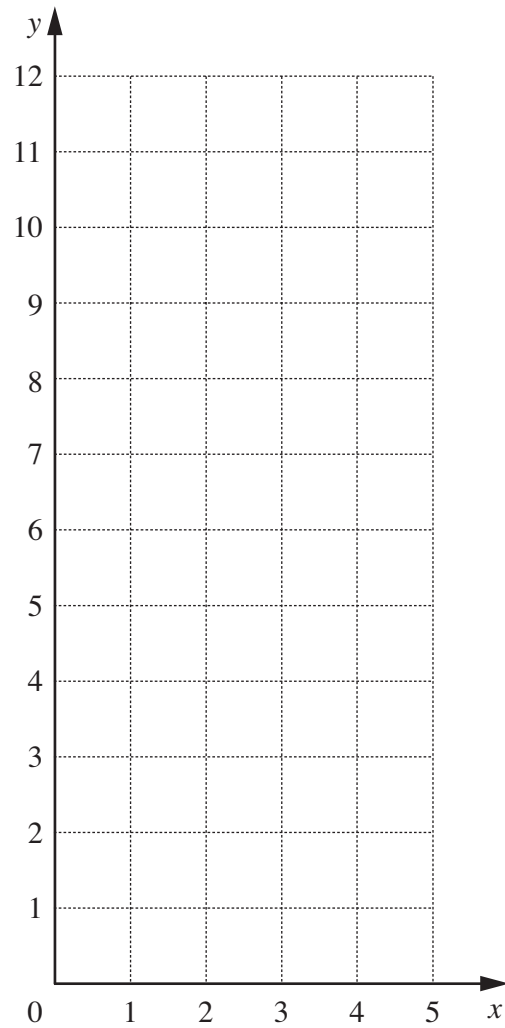
[2]

11 (a)

Not to scale

Write down, as simply as possible, an expression for the perimeter of this triangle.

(a) .... [1]

(b)
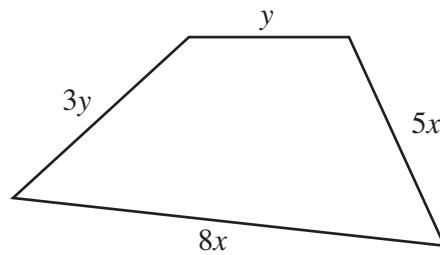
Not to scale

Write down, as simply as possible, an expression for the perimeter of this quadrilateral.

(b) .... [2]

(c) The perimeter of another quadrilateral is $3a + 2b$.

Find its perimeter when $a = 4$ cm and $b = 5$ cm.

(c) .... cm [2]

TURN OVER FOR QUESTION 12

12 One season, a cricket coach records the number of runs scored in each game by each of his players.

The results for three players are summarised in this table.

	Mark	Dean	Sajid
Mean	13·6	25·2	18·4
Range	27	15	10

(a) Who scored most runs on average?
Give a reason for your answer.

.... because ....

.... [1]

(b) Who was most consistent?
Give a reason for your answer.

.... because ....

.... [1]