



M5

**GENERAL CERTIFICATE OF SECONDARY EDUCATION
MATHEMATICS C (GRADUATED ASSESSMENT)
MODULE M5 – SECTION A**

B275A



Candidates answer on the question paper.

OCR supplied materials:
None

Other materials required:

- Geometrical instruments
- Tracing paper (optional)
- Pie chart scale (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

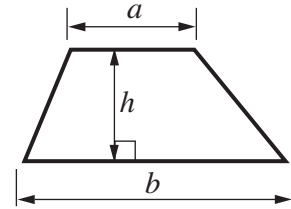
- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this Section is **25**.
- This document consists of **8** pages. Any blank pages are indicated.

WARNING

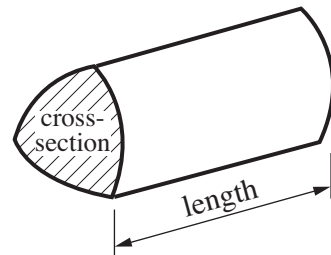
No calculator can be used for Section A of this paper

Formulae Sheet

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

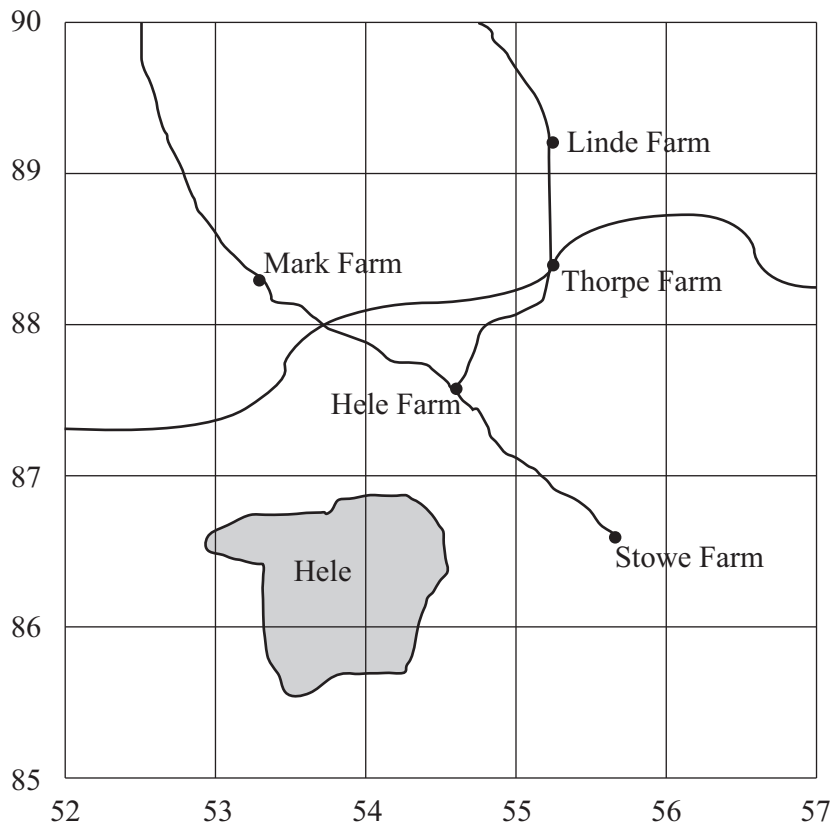


$$\text{Volume of prism} = (\text{area of cross-section}) \times \text{length}$$



PLEASE DO NOT WRITE ON THIS PAGE

1 Here is a map showing farms near Hele.



(a) Which farm has the four-figure grid reference 5588?

(a) [1]

(b) Give the four-figure grid reference of Hele Farm.

(b) [1]

(c) Thorpe Farm to Linde Farm is 800 m.

Estimate the distance from Stowe Farm to Mark Farm.

(c) m [1]

2 Write 37.19 correct to

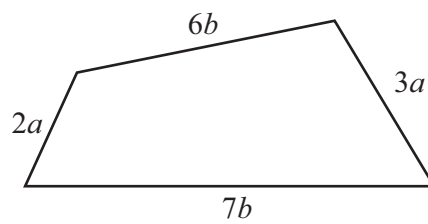
(a) one decimal place,

(a) [1]

(b) one significant figure.

(b) [1]

3 (a) Write an expression, in its simplest form, for the perimeter of this quadrilateral.



Not to scale

(a) [2]

(b) Solve.

(i) $12 = x + 5$

(b)(i) [1]

(ii) $4x + 17 = 5$

(ii) [2]

- 4 (a) Write this expression as a power of 3.

$$3 \times 3 \times 3 \times 3 \times 3$$

(a) [1]

- (b) Work out.

$$4^3 + 3^2$$

(b) [2]

- 5 (a) Write this fraction in its simplest form.

$$\frac{24}{40}$$

(a) [1]

- (b) Work out.

(i) $\frac{3}{5} \times \frac{1}{2}$

(b)(i) [1]

(ii) -3×5

(ii) [1]

- 6 Joe is taking his driving test.
The probability that he passes the test is 0.35.

What is the probability that Joe fails the test?
Give a reason for your answer.

..... because

..... [2]

- 7 The table summarises the marks for a test taken by two classes.

	Mean	Range
11A	53.6	24
11B	45.1	42

- (a) Make two comments comparing the results.

1

.....

2

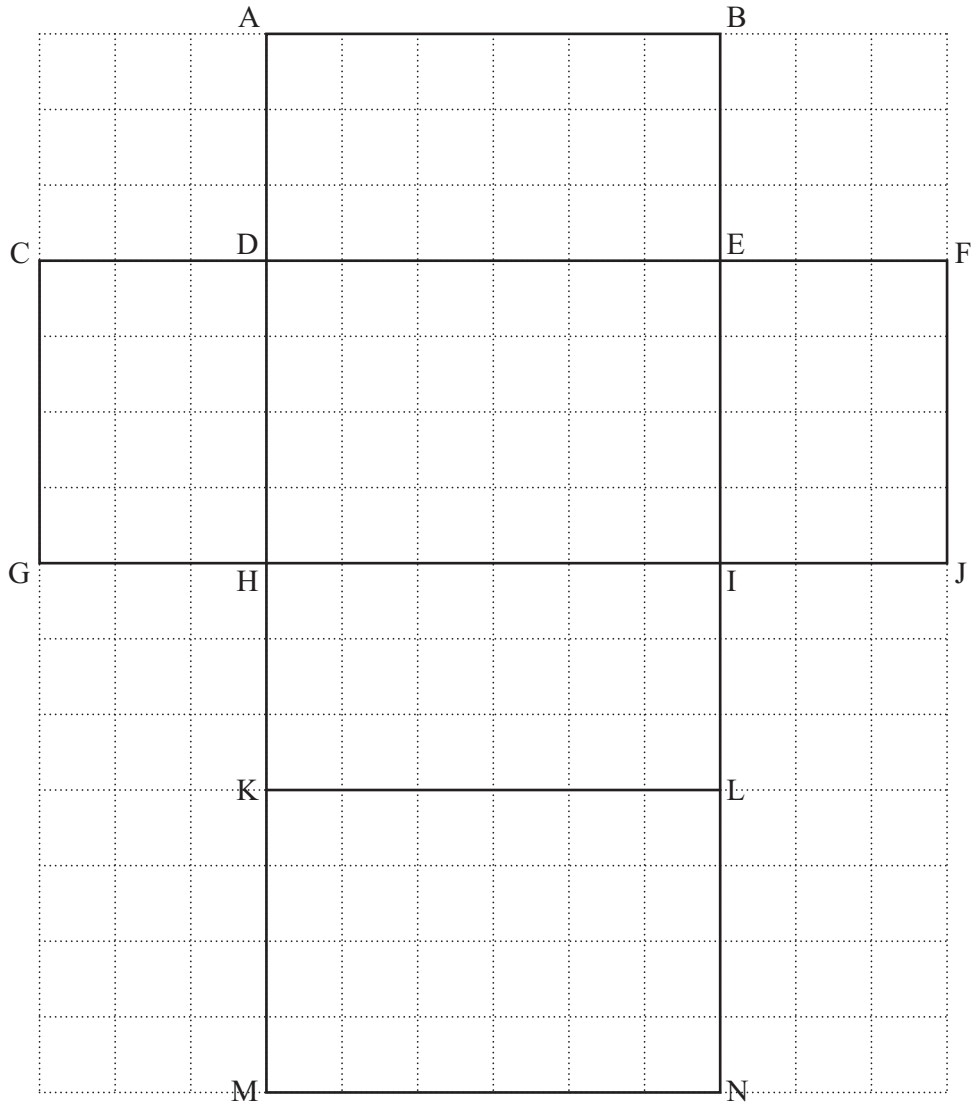
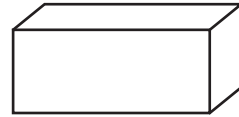
..... [2]

- (b) In class 11A, Samit scored the lowest mark and Gina scored the highest mark.
Samit scored 39.

What was Gina's mark?

(b) [1]

8 Here is a full-size net of a cuboid.



(a) Which corners join to corner A when the net is folded to make the cuboid?

(a) [1]

(b) Work out the volume of the cuboid.
Give the units of your answer.

(b) [3]

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