

Monday 16 January 2012 – Morning

GCSE MATHEMATICS C (GRADUATED ASSESSMENT)

B271B MODULE M1 – SECTION B

Candidates answer on the Question Paper.

OCR supplied materials:
None

- Other materials required:**
- Geometrical instruments
 - Tracing paper (optional)
 - Electronic calculator

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. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions.
- 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).
- Do **not** write in the bar codes.

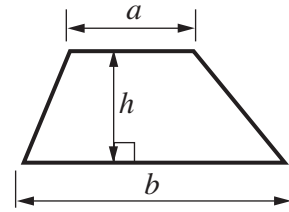
INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [] at the end of each question or part question.
- Section B starts with question 8.
- 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 **8** pages. Any blank pages are indicated.

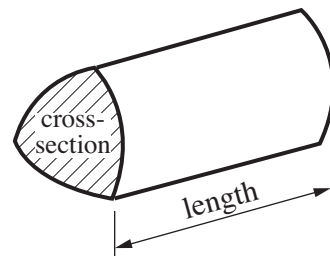
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Formulae Sheet

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



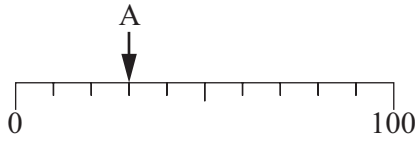
Volume of prism = (area of cross-section) \times length



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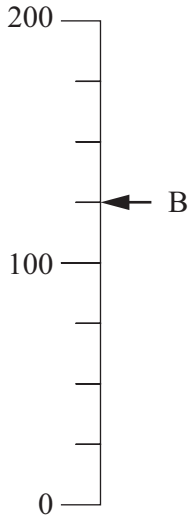
8 (a) Write down the number shown by each arrow.

(i)



(a)(i) [1]

(ii)



(ii) [1]

(b) Complete these sentences.

300 centimetres is the same as metres.

4 centimetres is the same as millimetres. [2]

- 9 (a) Here are the heights, in metres, of some of the world's tallest volcanoes.

Damavand 5610	Ojos del Salado 6893	Kilimanjaro 5895
Mount Giluwe 4368	Elbrus 5642	

Write the heights in order, starting with the **highest**.

..... [2]
highest

- (b) Mount Vesuvius in Italy is 4203 feet high.

Write 4203 in words.

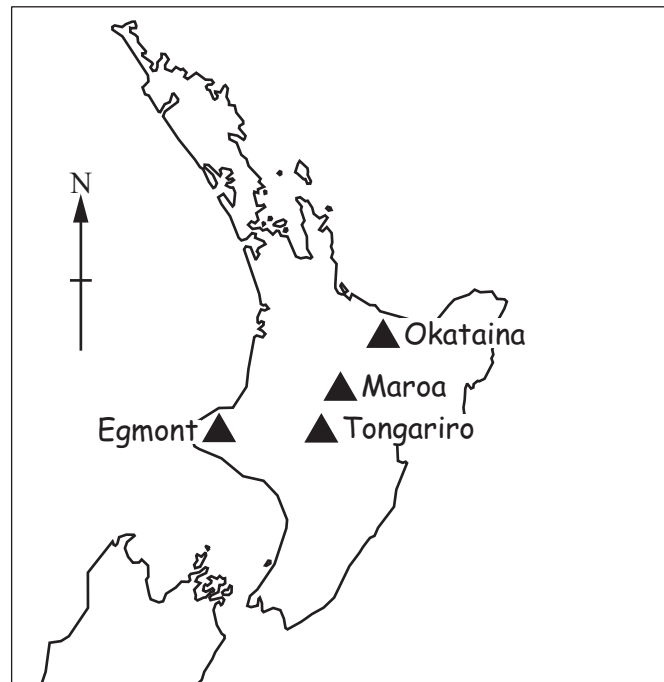
..... [1]

- (c) The highest volcano in Antarctica is Mount Sidley.
It is 4285 m high.

Write 4285 correct to the nearest hundred.

(c) [1]

(d) The map shows some volcanoes on New Zealand North Island.



Complete each sentence with the correct compass direction.

Egmont is of Tongariro.

Okataina is of Maroa. [2]

10 Work out the missing numbers.

(a) $* + 7 = 12$

(a) $* = \dots\dots\dots [1]$

(b) $26 - \blacklozenge = 16$

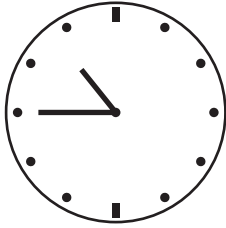
(b) $\blacklozenge = \dots\dots\dots [1]$

(c) $9 \times \blacksquare = 54$

(c) $\blacksquare = \dots\dots\dots [1]$

11 Maddy gets the bus to the city centre to go shopping.

(a) (i) She looks at her watch when she gets on the bus.



What time does she get on the bus?

(a)(i) [1]

(ii) The journey takes 25 minutes.

What time does Maddy arrive in the city centre?

(ii) [1]

(b) Maddy buys a single ticket on the bus to the city centre.
She buys another single ticket on the way back home.

Single fare	85p
-------------	-----

How much does she pay altogether for the two journeys?
Give your answer in pounds.

(b) £ [2]

- (c) One shop has a special offer.

SPECIAL OFFER

Buy two T-shirts
Get the cheaper one for half price

Maddy buys two T-shirts.
One costs £14.00 and the other costs £12.50.

How much does she pay altogether using the special offer?

(c) £..... [3]

- 12 Here are the first four terms of a number pattern.

65 61 57 53

- (a) What is the next number in the pattern?

(a) [1]

- (b) Explain how you worked out your answer.

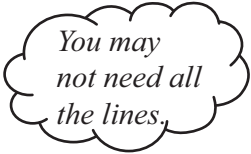
..... [1]

TURN OVER FOR QUESTION 13

13 When Nathan goes to the gym, he jogs (J), rows (R) and cycles (C).

He could jog first, row second and cycle third.
This order is shown in the table below.

(a) Complete the table to show all the possible orders he could do these activities.



First	Second	Third
J	R	C

[2]

(b) Nathan likes to cycle third.

How many different orders are there when he cycles third?

(b) [1]

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