

GENERAL CERTIFICATE OF SECONDARY EDUCATION
MATHEMATICS C (GRADUATED ASSESSMENT)
MODULE M2 – SECTION A

B272A

Candidates answer on the question paper

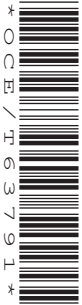
OCR Supplied Materials:
None

Other Materials Required:

- Geometrical instruments
- Tracing paper (optional)

Tuesday 23 June 2009
Morning

Duration: 30 minutes



Candidate Forename		Candidate Surname	
--------------------	--	-------------------	--

Centre Number						Candidate Number				
---------------	--	--	--	--	--	------------------	--	--	--	--


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.
- The total number of marks for this Section is **25**.
- This document consists of **8** pages. Any blank pages are indicated.

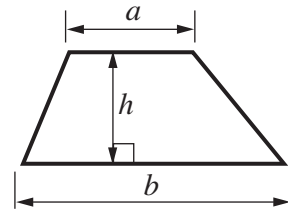
WARNING



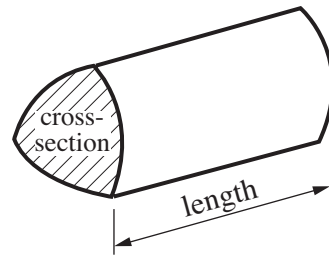
No calculator can be used for Section A of this paper

Formulae Sheet

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



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

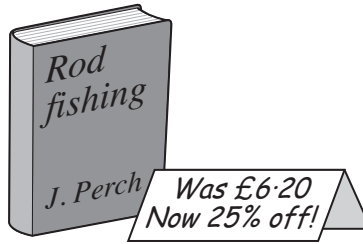


PLEASE DO NOT WRITE ON THIS PAGE

1 Severn Supplies have a sale.

(a) Jamil buys this book in the sale.

The book was £6.20.
Now there is 25% off.



(i) Work out 25% of £6.20.

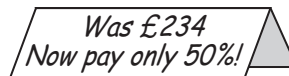
(a)(i) £ [2]

(ii) How much does Jamil pay for the book in the sale?

(ii) £ [2]

(b) Five friends buy a fishing rod in the sale.
They share the cost equally.

The rod was £234.
Now it costs 50% of £234.



Work out how much each friend must pay.

(b) £ [4]

- 2 This table shows information about some pop stars.
Earnings from their music have continued since they died.

Pop star	Estimated earnings in 2006	Date of birth	Age at death
Johnny Cash	£4.2 million	6 February 1932	71
Ray Charles	£5.3 million	23 September 1930	73
Kurt Cobain	£26.3 million	27 February 1967	27
George Harrison	£3.7 million	25 February 1943	58
John Lennon	£12.6 million	9 October 1940	40
Bob Marley	£3.7 million	6 February 1945	36
	million		42

- (a) Use this information to complete the last row of the table.

Elvis Presley was born on 8 January 1945 and died at age 42.
His music earned about £22.1 million in 2006.

[1]

- (b) Use the table to complete each sentence with names of pop stars.

..... was born in 1943.

..... died at age 73.

..... earned the most money in 2006.

[3]

- (c) Find the median of these ages.

71 73 27 58 40 36 42

(c) [2]

(d) George Harrison and John Lennon were both in The Beatles.

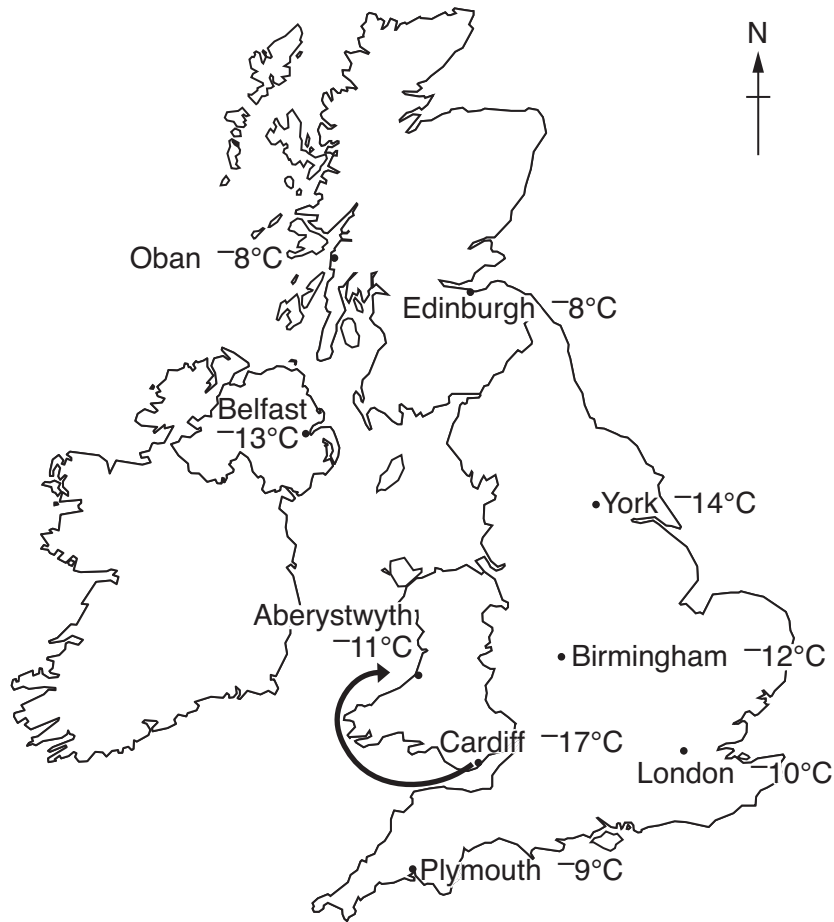
(i) How much did the music of the two of them earn **altogether** in 2006?

(d)(i) £million [2]

(ii) How much **more** did John Lennon's music earn than George Harrison's music in 2006?

(ii) £million [2]

- 3 This map shows the lowest ever January temperatures in some places.



- (a) Use information from the map to help you complete these sentences.

..... is due East of Cardiff. [1]

The coldest of these temperatures is in [1]

The lowest temperature in Oban is degrees warmer than the lowest temperature in York. [2]

- (b) A storm moves around the coast from Cardiff to Aberystwyth. The arrow shows the direction.

Is it moving clockwise or anticlockwise?

Put a ring around your answer.

clockwise anticlockwise [1]

(c) Steve uses weather records to make these statements.

*Cardiff will have 18 rainy days in January.
Each rainy day will have 6 millimetres of rain.*

How many millimetres of rain is this altogether?

(c) [2]

PLEASE DO NOT WRITE ON THIS PAGE



Copyright Information

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations, is given to all schools that receive assessment material and is freely available to download from our public website (www.ocr.org.uk) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact the Copyright Team, First Floor, 9 Hills Road, Cambridge CB2 1PB.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.