Candidate Forename		Candidate Surname	
Centre Number		**Candidate Number**	

OXFORD CAMBRIDGE AND RSA EXAMINATIONS
GENERAL CERTIFICATE OF SECONDARY EDUCATION

B272A

MATHEMATICS C
(GRADUATED ASSESSMENT)

MODULE M2 – SECTION A

TUESDAY 23 JUNE 2009: Morning
DURATION: 30 minutes

SUITABLE FOR VISUALLY IMPAIRED CANDIDATES

Candidates answer on the question paper

OCR SUPPLIED MATERIALS:

None

OTHER MATERIALS REQUIRED:

Geometrical instruments
Tracing paper (optional)

WARNING
No calculator can be used for Section A of this paper.

READ INSTRUCTIONS OVERLEAF

## INSTRUCTIONS TO CANDIDATES

- **Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes on the first page.**

- **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 <u>ALL</u> the questions.**

- **Write your answer to each question in the space provided, however additional paper may be used if necessary.**
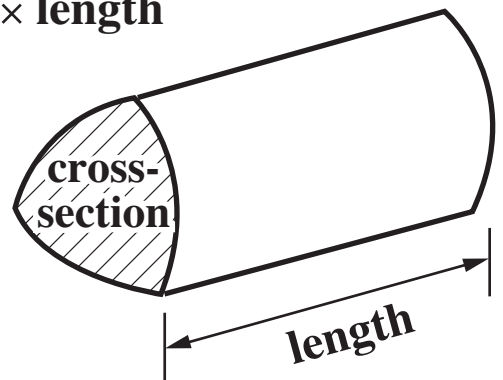
INFORMATION FOR CANDIDATES

- **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 <u>25</u>.**

FORMULAE SHEET

Area of trapezium $= \frac{1}{2}(a + b)h$
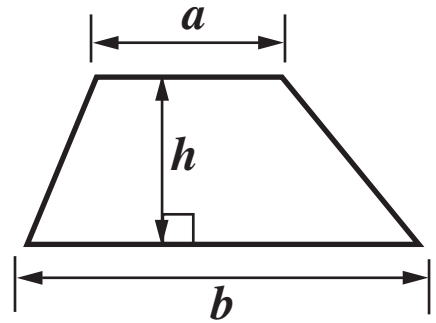
Volume of prism = (area of cross-section) × length

1 **Severn Supplies have a sale.**

   (a) Jamil buys a book in the sale.

       The book was £6·20.
       Now there is 25% off.

      (i) Work out 25% of £6·20.

                                             (a)(i) £ _____

     [2 marks]

      (ii) How much does Jamil pay for the book in the sale?
          [2 marks]

                                              (ii) £ _____

(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.
[4 marks]

(b) £ _____

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

(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 mark]

(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 marks]

(c) Find the median of these ages.

71   73   27   58   40   36   42

(c) _____

[2 marks]

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

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

   (i) **How much did the music of the two of them earn <u>ALTOGETHER</u> in 2006?**
      [2 marks]

(d)(i) £ _____ million

  (ii) **How much <u>MORE</u> did John Lennon's music earn than George Harrison's music in 2006?**
      [2 marks]

(ii) £ _____ million

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3   The list below shows some of the lowest January temperatures:

Oban   –8°C
Edinburgh   –8°C
Belfast   –13°C
York   –14°C
Aberystwyth   –11°C
Cardiff   –17°C
Birmingham   –12°C
London   –10°C
Plymouth   –9°C

(a) The coldest of these temperatures is in

_____
[1 mark]

The lowest temperature in Oban is _____

degrees warmer than the lowest temperature in

York.
[2 marks]

(b) **The box below shows the position of these towns**

Oban

Edinburgh

Belfast

• York

Aberystwyth

Birmingham

Cardiff

London

Plymouth
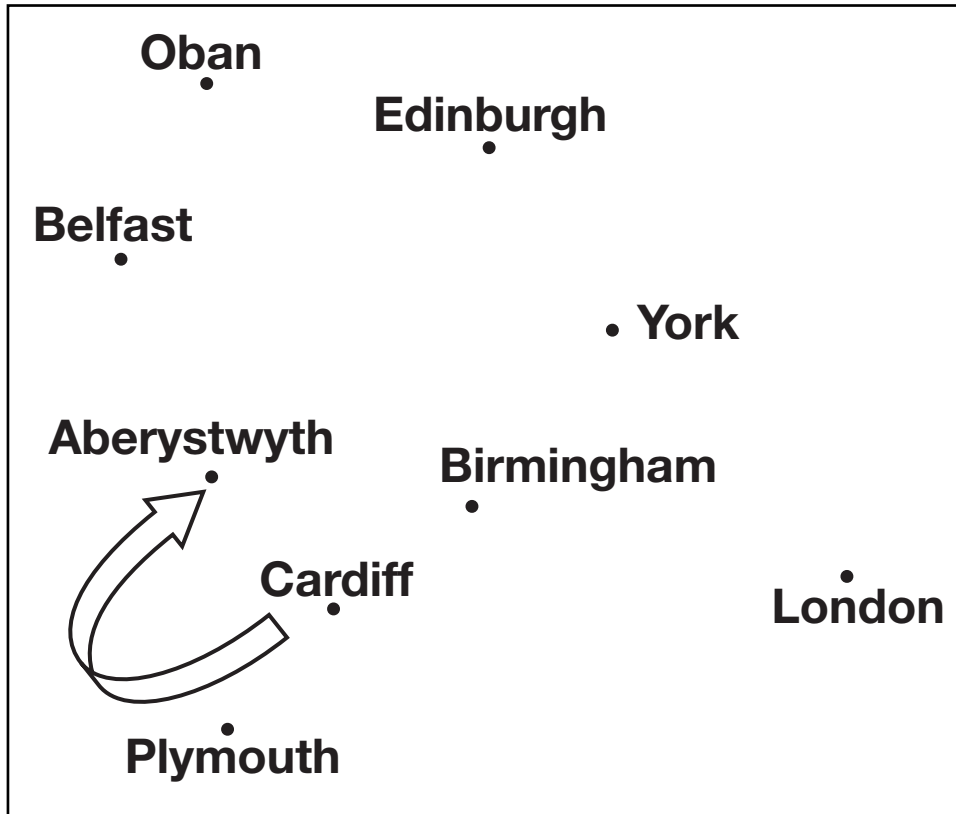
Use the information to complete this sentence:

_____ is due east of Cardiff.

[1 mark]

A storm moves from Cardiff to Aberystwyth.
The arrow shows the direction.

Is it moving clockwise or anticlockwise?
Put a ring around your answer.

clockwise   anticlockwise

[1 mark]

(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?
[2 marks]

(c) _____