

Candidate forename						Candidate surname					
Centre number						Candidate number					

OXFORD CAMBRIDGE AND RSA EXAMINATIONS
GENERAL CERTIFICATE OF SECONDARY EDUCATION

B273A

MATHEMATICS C
(GRADUATED ASSESSMENT)

MODULE M3 – SECTION A

TUESDAY 1 MARCH 2011: 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

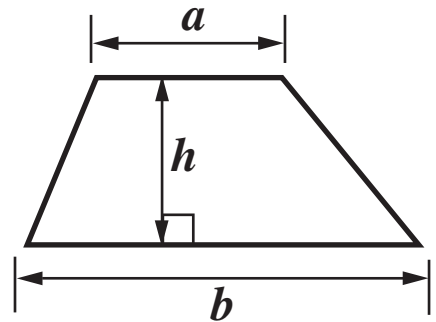
- **Write your name, centre number and candidate number in the boxes on the first page. Please write clearly and in capital letters.**
- **Use black ink. Pencil may be used for graphs and diagrams only.**
- **Read each question carefully. Make sure you know what you have to do before starting your answer.**
- **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).**
- **Show your working. Marks may be given for a correct method even if the answer is incorrect.**
- **Answer ALL the questions.**

INFORMATION FOR CANDIDATES

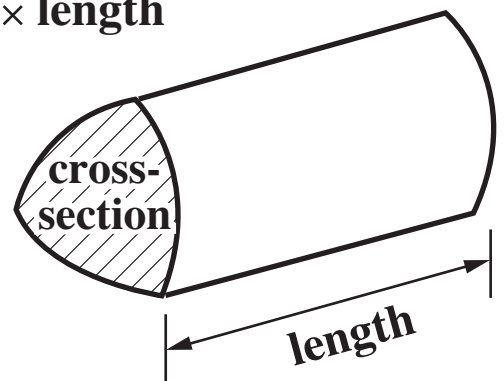
- **The number of marks is given in brackets [] at the end of each question or part question.**
- **The total number of marks for this Section is 25.**

FORMULAE SHEET

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



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



- 1 Select a number from this list below to complete each of the sentences that follow. [2 marks]**

2 6 12 18 25 48 72

..... is a square number.

..... is the square root of 36.

- 2 Here is part of the bus timetable from Tindale to Brentmouth.**

Each bus is timetabled to take the same time for the journey.

Tindale	07 50	09 45	
Brentmouth	09 10		12 40

Complete the timetable. [3 marks]

3 Work out.

(a) $\frac{1}{4}$ of 64

[1 mark]

(a) _____

(b) 1.8×6

[1 mark]

(b) _____

(c) $27.56 \div 10$

[1 mark]

(c) _____

(d) $\frac{3}{4}$ of 24
[2 marks]

(d) _____

(e) 30% of 80
[2 marks]

(e) _____

4 Solve.

**(a) $x - 4 = 11$
[1 mark]**

(a) _____

**(b) $3x = 21$
[1 mark]**

(b) _____

**(c) $x + 6 = 18$
[1 mark]**

(c) _____

5 A charity holds a raffle.

It sells 200 tickets, numbered from 1 to 200.

The winning ticket is picked at random.

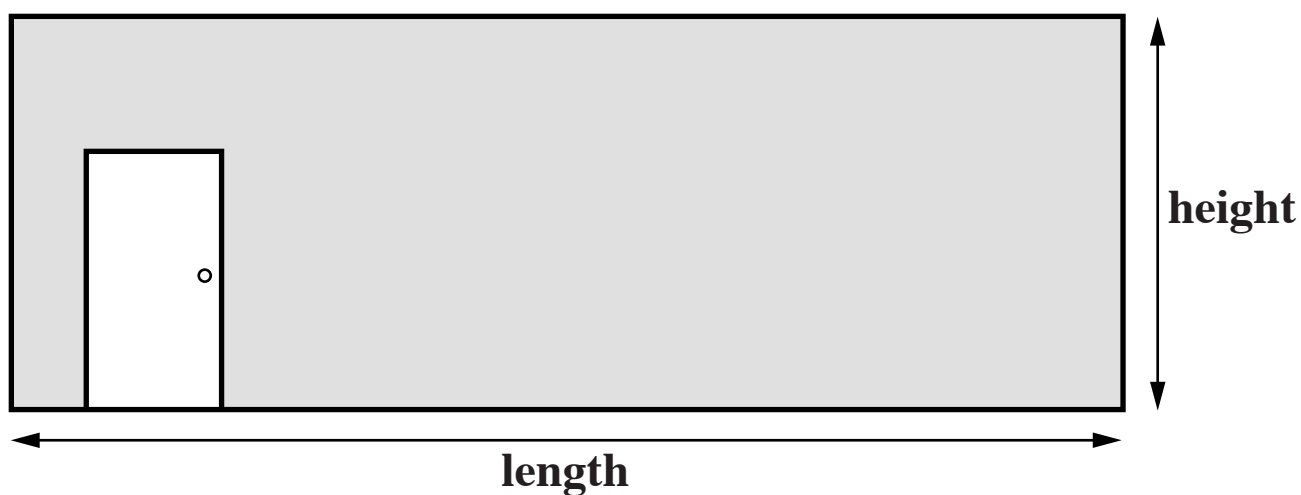
(a) What is the probability that the winning ticket is numbered 173? [1 mark]

(a) _____

(b) What is the probability that the winning ticket is numbered 201? [1 mark]

(b) _____

- 6 This is a scale drawing of a classroom wall, showing the door.**

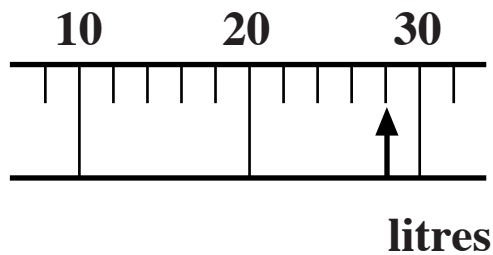


**Estimate the height and length of the classroom wall.
[2 marks]**

height = _____ m

length = _____ m

- 7 (a) Write down the reading on this fuel gauge. [1 mark]



(a) _____ litres

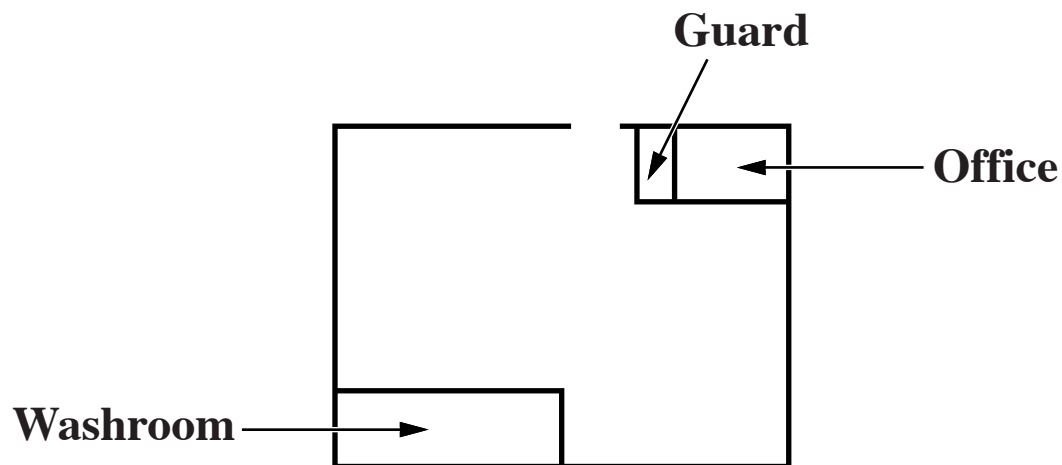
- (b) Asif has 400 ml of fuel in his petrol can.
He needs 0.5 litres for his lawnmower to mow the lawn.

Does he have enough fuel to mow the lawn?
Show how you decide. [2 marks]

(b) _____

8 Here is a scale drawing of the floor plan of a warehouse.

Scale: 1 cm represents 4 m



(a) Find the real length of the washroom. [2 marks]

(a) _____ m

(b) The manager wants to fit a security store in the warehouse.

It will be 6 m long.

How long will the security store be on the scale drawing? [1 mark]

(b) _____ cm

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