

GENERAL CERTIFICATE OF SECONDARY EDUCATION
MATHEMATICS C (GRADUATED ASSESSMENT)
MODULE M4 – SECTION A

B274A

Candidates answer on the Question Paper

OCR Supplied Materials:
None

Other Materials Required:

- Geometrical instruments
- Tracing paper (optional)

Monday 8 March 2010
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 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.

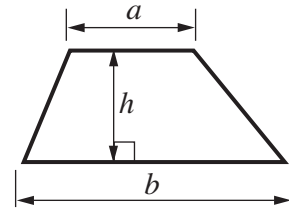
WARNING



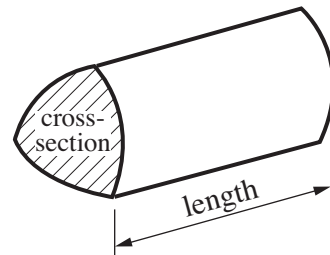
No calculator can be used for Section A of this paper

Formulae Sheet

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



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



PLEASE DO NOT WRITE ON THIS PAGE

- 1 (a) Write these numbers in order, smallest first.

0.43 0.3264 0.403 0.04

..... [2]
smallest

- (b) Write $\frac{1}{5}$ as a percentage.

(b) % [1]

- 2 Work out.

$$147 \times 32$$

You must show your working.

..... [3]

3

- 4
- 5
- 12
- 16
- 20
- 27
- 38

Using numbers from this list, write down

(a) a prime number,

(a) [1]

(b) a factor of 8,

(b) [1]

(c) a multiple of 10.

(c) [1]

4 Choose numbers from this list to complete these conversion statements.

- 2
- 5
- 18
- 22
- 30
- 72



Weight: 10 pounds is about kg



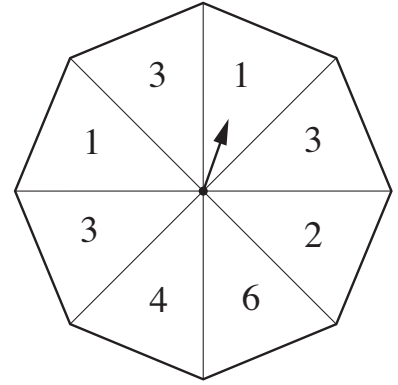
Capacity: 4 gallons is about litres



Distance: 48 kilometres is about miles

[3]

5 Janet uses this fair spinner in a game.



Janet spins the spinner.

Find the probability that it lands on

(a) 2,

(a) [1]

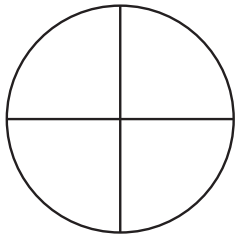
(b) an odd number,

(b) [1]

(c) a factor of 12.

(c) [1]

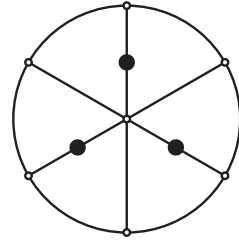
6 Under each shape, write its order of rotation symmetry.



.....



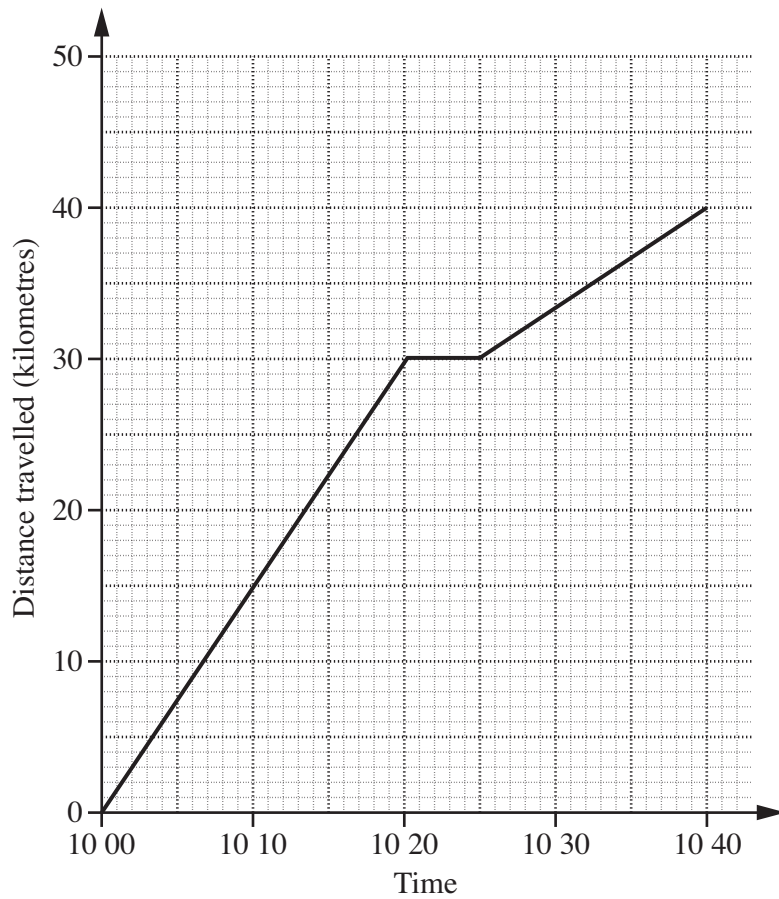
.....



.....

[3]

7 The graph shows the journey of a train.



(a) How far had the train travelled by 10 40?

(a) km [1]

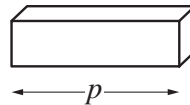
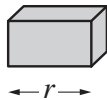
(b) What happened between 10 20 and 10 25?

..... [1]

(c) By what time had the train travelled 12 km?

(c) [1]

8 Here are two types of play-brick for children.

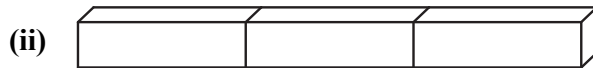


The length of the smaller brick is r and the length of the longer brick is p .

(a) Write down an expression for the length of each of these.



(a)(i) [1]

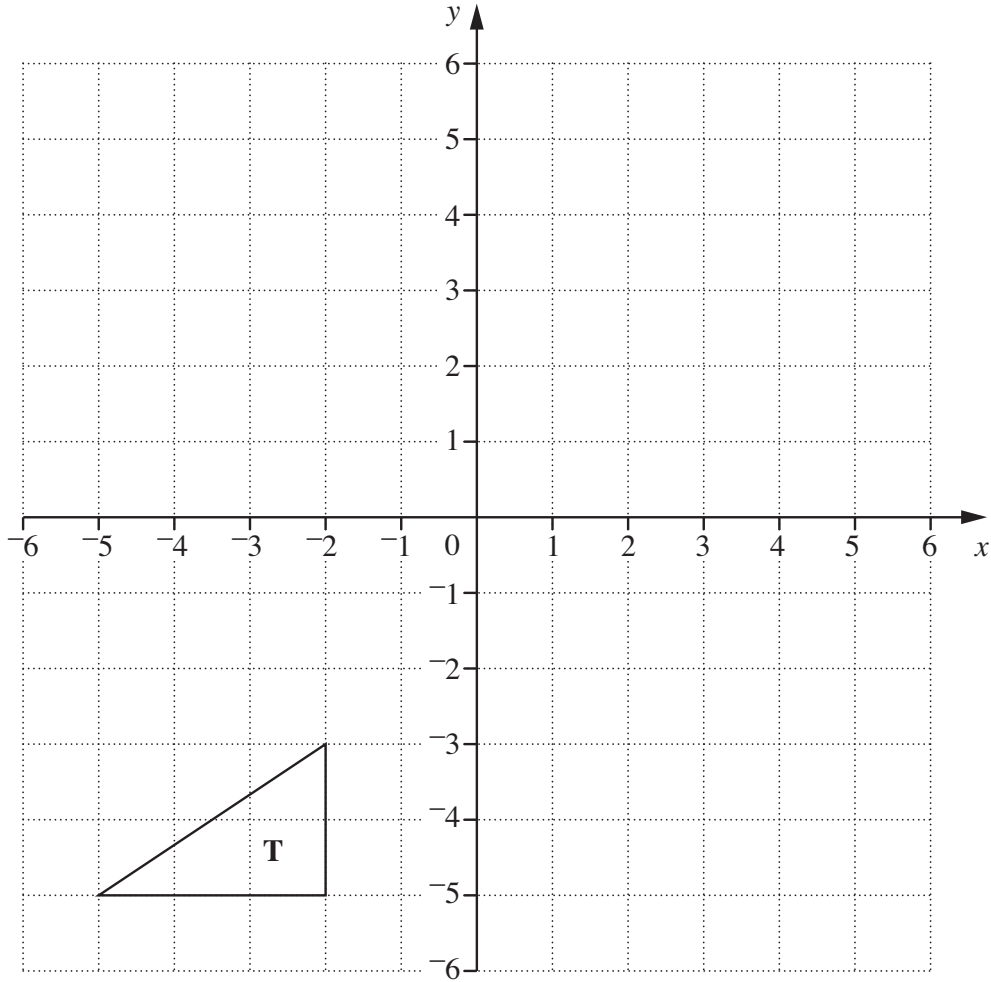


(ii) [1]

(b) Sketch an arrangement of bricks with length $p + 2r$.

[1]

TURN OVER FOR QUESTION 9



Reflect triangle T in the y-axis.

[1]

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