

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

## B272B

Candidates answer on the question paper

**OCR Supplied Materials:**

None

**Other Materials Required:**

- Geometrical instruments
- Tracing paper (optional)
- Electronic calculator

**Monday 9 March 2009**  
**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.

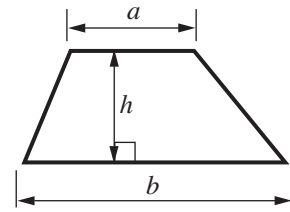
**INFORMATION FOR CANDIDATES**

- The number of marks is given in brackets [ ] at the end of each question or part question.
- 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.

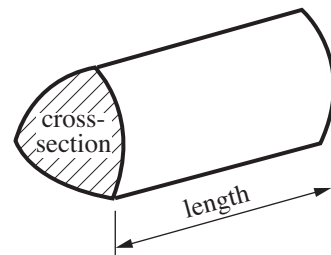
<b>FOR EXAMINER'S USE</b>	
<b>SECTION B</b>	

## 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**

8 Here are the numbers of fish caught by some anglers.

2 0 9 2 1 5 1 0 1 2 9 6 1

(a) Find the mode.

(a) ..... [1]

(b) Find the median.

(b) ..... [2]

9 Here are the first four terms in a number pattern.

5 8 11 14

(a) Write down the next number in the pattern.

(a) ..... [1]

(b) Explain how you worked out your answer.

..... [1]

- 10 There are 32 students in Mr Brown's class.  
The students are asked:

How do you usually travel to school?

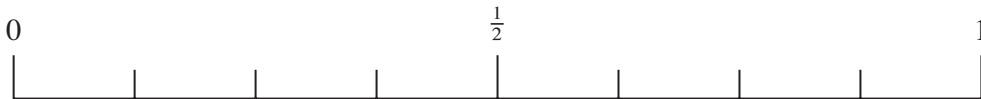
Here are the results.

Walk 9      Bus 16      Train 4      Car 3

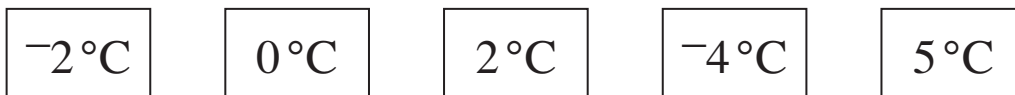
Mr Brown chooses a student at random.

Use arrows to mark the following on the probability line below.

- (a) The probability that he chooses a student who travels by bus.  
Label this arrow **B**. [1]
- (b) The probability that he chooses a student who travels by train.  
Label this arrow **T**. [1]

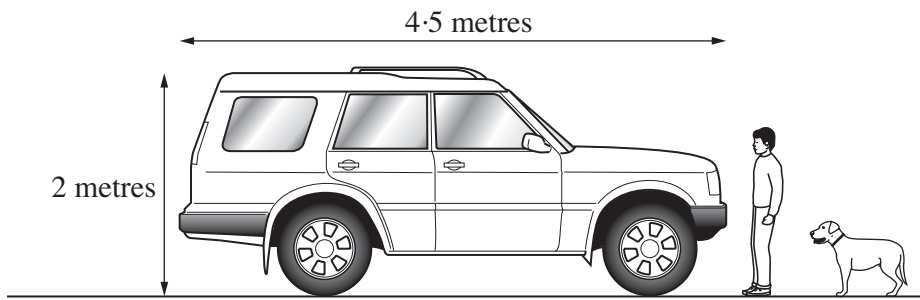


- 11 Here are some temperatures.



- (a) Write down the warmest of these temperatures.  
(a) .....  $^{\circ}\text{C}$  [1]
- (b) Write down the coldest of these temperatures.  
(b) .....  $^{\circ}\text{C}$  [1]

12 This car is 4.5 metres long and 2 metres high.



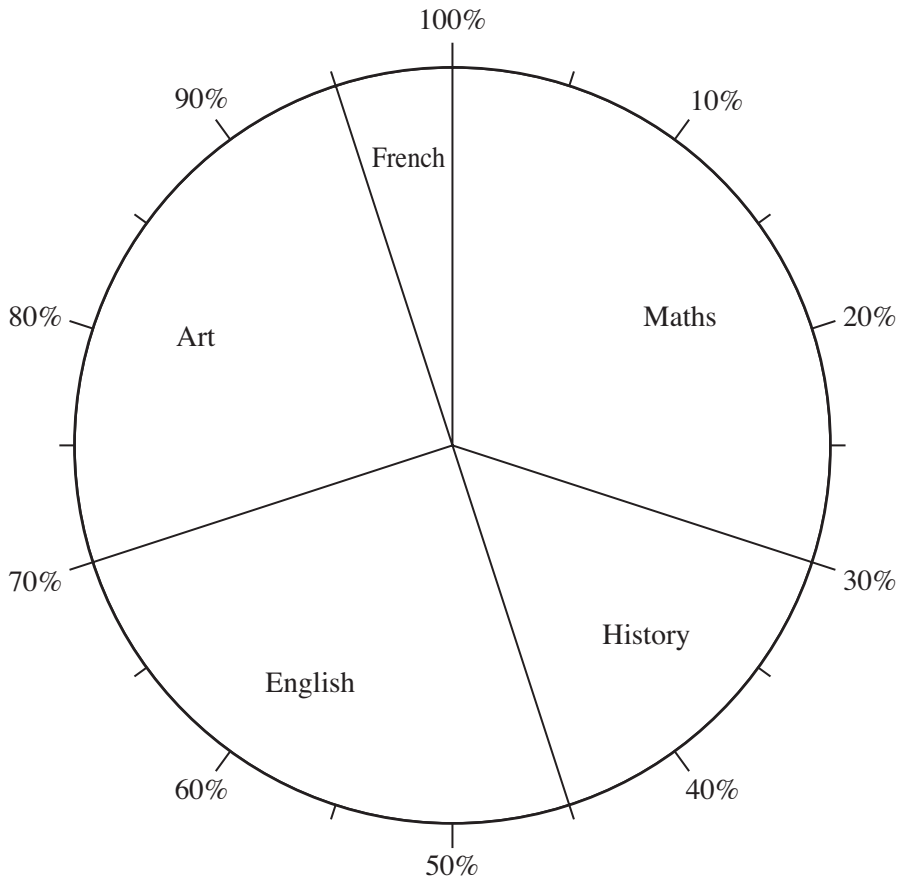
(a) Estimate the height of the boy.

(a) ..... m [1]

(b) Estimate the length of the dog.

(b) ..... m [1]

- 13 Henry asked 60 students to choose their favourite subject. This pie chart shows his results.



- (a) Which subject was chosen the most?

(a) ..... [1]

- (b) What percentage of the students chose Art?

(b) .....% [1]

- (c) Complete the sentence below.

Three times as many students chose ..... as French. [1]

- (d) Henry says:

Exactly half the students chose Maths or English.

Explain why he is wrong.

.....  
 ..... [1]

14

Reflex

Acute

Right angle

Obtuse

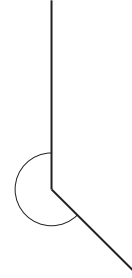
(a) Choose from the boxes to describe the angles below.



.....



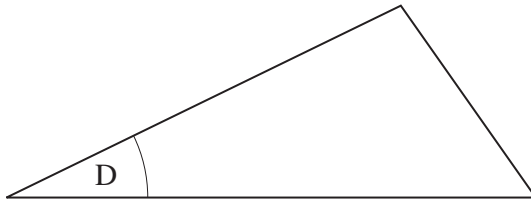
.....



.....

[3]

(b) Measure the size of angle D.



(b) .....° [1]

**TURN OVER FOR QUESTIONS 15 AND 16**

15 Haseena buys a 1 kg bag of flour.  
She uses 600 g of the flour.

How much flour is left in the bag?  
Give the units of your answer.

..... [3]

16 Bill needs 150 tiles.  
Tiles are sold in packs of 35.

(a) How many packs does he need to buy?

(a) ..... [2]

(b) How many tiles does he have left over?

(b) ..... [1]



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