

**GENERAL CERTIFICATE OF SECONDARY EDUCATION  
 MATHEMATICS C (GRADUATED ASSESSMENT)  
 MODULE M3 – SECTION B**

**M3**

**TUESDAY 24 JUNE 2008**

Morning  
 Time: 30 minutes

Candidates answer on the question paper  
**Additional materials (enclosed):** None

**Additional materials (required):**  
 Geometrical instruments  
 Tracing paper (optional)  
 Electronic calculator



\*  
 C  
 U  
 P  
 /  
 T  
 6  
 0  
 6  
 6  
 5  
 \*

Candidate Forename

Candidate Surname

Centre Number

Candidate Number

**INSTRUCTIONS TO CANDIDATES**

- Write your name in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use blue or 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.

**INFORMATION FOR CANDIDATES**

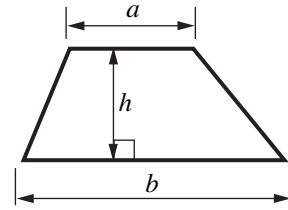
- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this Section is **25**.
- Section B starts with question 8.
- You are expected to use a calculator in Section B of this paper.

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

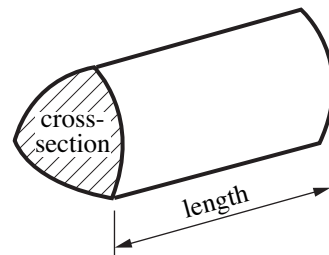
This document consists of **8** printed pages.

## 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**

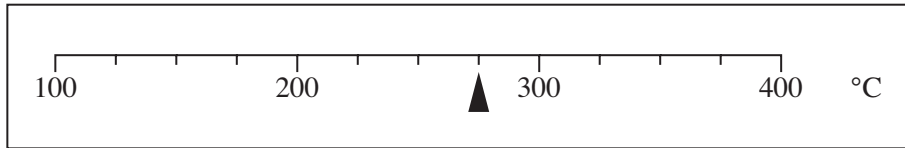
8 (a) Complete each sentence using a sensible **metric** unit.

(i) The distance from London to Manchester is 320 ..... [1]

(ii) When he was born, Joshua weighed 3.5 ..... [1]

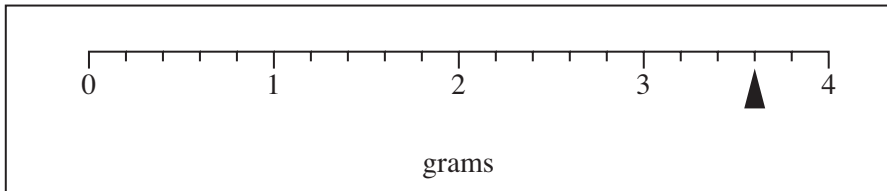
(b) Write down the reading shown on each of these scales.

(i)



(b)(i) .....°C [1]

(ii)



(ii) ..... g [1]

9 (a) Write down a square number less than 20.

(a) ..... [1]

(b) Work out.

(i)  $21^2$

(b)(i) ..... [1]

(ii)  $\sqrt{289}$

(ii) ..... [1]

- 10 (a) Carla uses 0.5 litres of milk to make a milkshake.

Change 0.5 litres to millilitres.

(a) ..... ml [1]

- (b) Jake buys a 2 litre carton of milk.

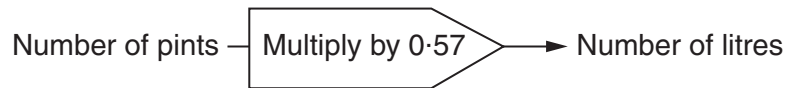
He drinks 450 ml of this.

How much milk is left in the carton?

Give your answer in millilitres.

(b) ..... ml [2]

- (c) This formula can be used to convert roughly between pints and litres.



Use the formula to complete this label.

Whole milk
2 pints
..... litres

[1]

- 11** Kirsten is doing a project about the weather.  
She records the rainfall in millimetres every day for 10 days in June.

Here are her results.

Date	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd
Rainfall (mm)	2	2	2	0	6	22	11	7	14	8

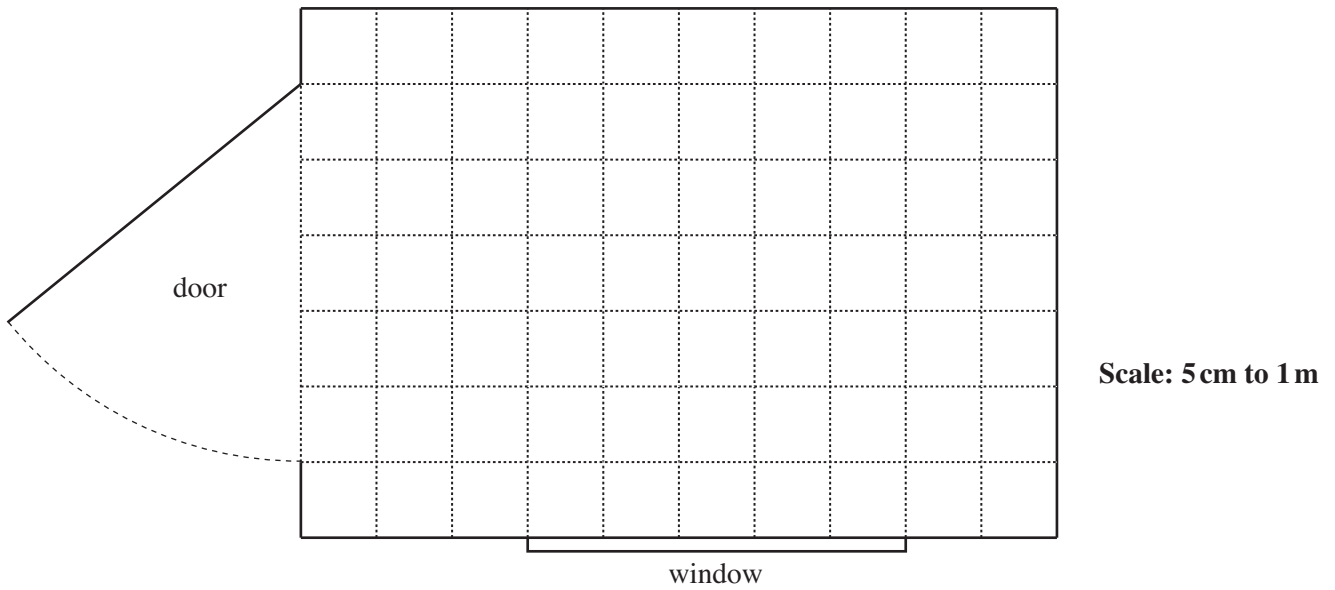
- (a) Work out the mean rainfall.

(a) ..... mm [3]

- (b) Work out the range.

(b) ..... mm [1]

12 This is a plan view of Stuart's shed.



- (a) Stuart's ladder is 2.4 metres long.  
He wants to hang it inside the shed, on the wall under the window.

Can Stuart fit the ladder on this wall?  
Give a reason for your answer.

Write Yes  
or No.

..... because ..... [2]

- (b) Stuart wants to put a workbench into the shed.  
The workbench is 1 metre long and 0.8 metres wide.

Draw a possible position for it on the plan view.  
Use a scale of **5 centimetres to 1 metre**.

[2]

13 *Greenford Computers* use this formula to work out the cost of a computer repair.

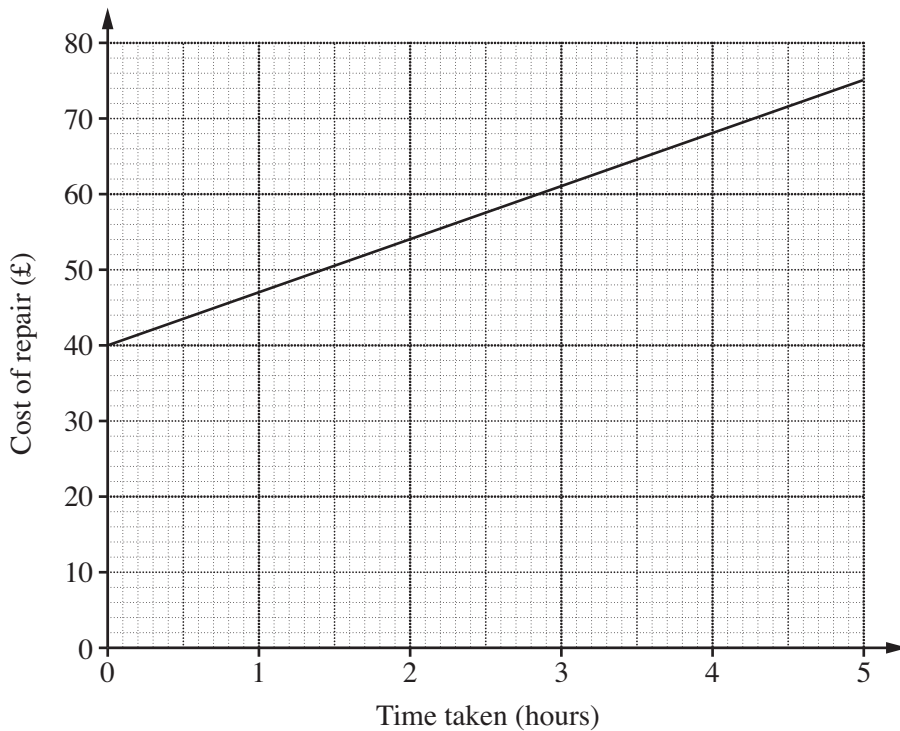
$$C = 25 + 12h$$

$C$  is the cost of the repair in pounds.  
 $h$  is the length of time taken in hours.

(a) What is the cost of a repair that takes 3 hours?

(a) £..... [2]

*Townhead Repairs* use this graph to work out the cost of a computer repair.



(b) How much do *Townhead Repairs* charge for a repair that takes 2 hours?

(b) £ ..... [1]

(c) Which company is cheaper for a repair that takes 4 hours?  
 How much cheaper is it?

(c) ..... is cheaper by £..... [3]

**PLEASE DO NOT WRITE ON THIS PAGE**

---

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (OCR) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

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.