OCR
RECOGNISING ACHIEVEMENT

GENERAL CERTIFICATE OF SECONDARY EDUCATION

MATHEMATICS C (Graduated Assessment)

M4 2334A

MODULE M4 – SECTION A

MONDAY 22 JANUARY 2007

Morning

Time: 30 minutes

Candidates answer on the question paper.
Additional materials: Geometrical instruments
Tracing paper (optional)

Candidate Name

Centre Number

Candidate Number

INSTRUCTIONS TO CANDIDATES

- Write your name, Centre Number and Candidate Number in the boxes above.
- Answer **all** the questions.
- Use blue or black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure you know what you have to do before starting your answer.
- In many questions marks will be given for a correct method even if the answer is incorrect.
- Do **not** write in the bar code.
- Do **not** write outside the box bordering each page.
- WRITE YOUR ANSWER TO EACH QUESTION IN THE SPACE PROVIDED. ANSWERS WRITTEN ELSEWHERE WILL NOT BE MARKED.

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.

WARNING
You are not allowed to use a calculator in Section A of this paper.

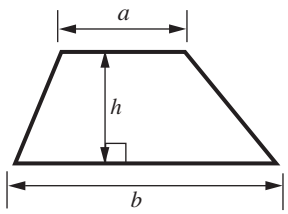
For Examiner's Use	
Section A	
Section B	
Total	

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

[Turn over

Formula Sheet

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



PLEASE DO NOT WRITE ON THIS PAGE

1 **(a)** Write down all the factors of 21.

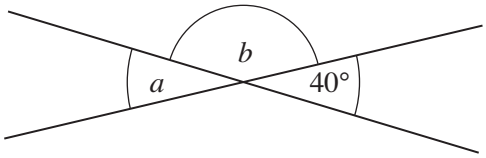
(a)..... [2]

(b) Complete this sentence.

The common factors of 21 and 28 are 1 and ..... . [1]

3

2



Not to scale

The diagram shows two straight lines.

(a) Complete.

$a = 40°$ because .....

..... [1]

(b) Work out angle b.

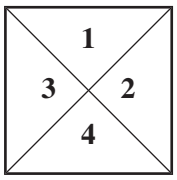
Give a reason for your answer.

$b =$ ..... ° because .....

..... [2]

3

3 Randeep makes a spinner numbered from 1 to 4.



To test the spinner, he spins it 200 times.
Here are his results.

Number	1	2	3	4
Frequency	49	77	22	52

(a) Is the spinner fair?
Explain your answer.

..... because .....

..... [1]

(b) Write down the experimental probability of getting

(i) 2,

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

(ii) an odd number.

(ii) ..... [2]

4

4 Work out.

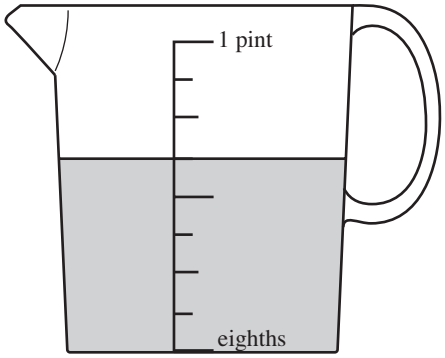
481×32

You must show your working.

..... [3]

3

5 Martin pours some milk into a measuring jug.



(a) How much milk is in the jug?
Give your answer as a fraction.

(a) ..... pint [1]

(b) He pours $\frac{1}{4}$ pint of the milk from the jug into a glass.

How much milk is left in the jug?

(b) ..... pint [2]

3

6 **(a)** Kelly takes part in the long jump at an athletics meeting.

She takes four jumps.

Here are the lengths of her jumps, in metres.

6·58 7·4 7·25 7·02

Write these lengths in order, starting with the **longest**.

.... [2]
longest

(b) In the javelin competition Steve's longest throw was 75·21 m.
The winning throw was 83·62 m.

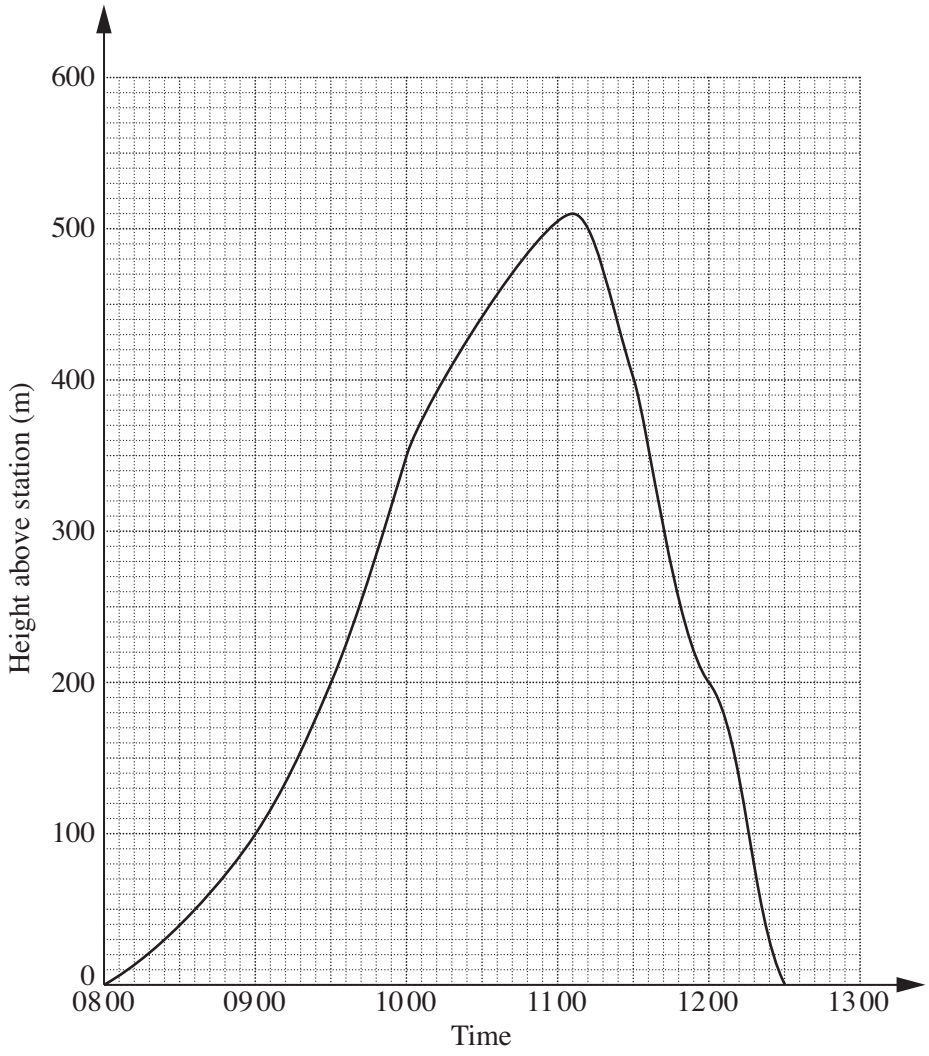
How much longer was the winning throw than Steve's throw?

(b) ..... m [2]

4

7 Fraser climbed to the top of Allalin mountain from the railway station.

The graph shows his height above the station during the climb.



(a) At what height above the station was he at 0900?

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

(b) At what **two** times was he 200 m above the station?

(b) .....

..... [2]

(c) The railway station is 3500 m above sea level.

What was Fraser's greatest height **above sea level**?

(c) ..... m [2]

5

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