

OXFORD CAMBRIDGE AND RSA EXAMINATIONS
General Certificate of Secondary Education

MATHEMATICS C
(Graduated Assessment)



1966/2336A

MODULE M6 – SECTION A

Wednesday **28 JUNE 2006** Morning 30 minutes

Candidates answer on the question paper.

Additional materials:

Geometrical instruments

Tracing paper (optional)

Candidate
Name

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Centre
Number

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Candidate
Number

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TIME 30 minutes

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.

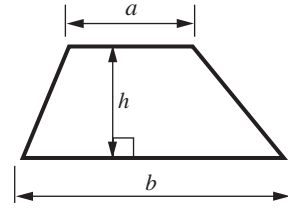
WARNING
 You are not allowed to use a
 calculator in Section A of this paper.

FOR EXAMINER'S USE	
Section A	
Section B	
TOTAL	

This question paper consists of 8 printed pages.

Formula Sheet

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

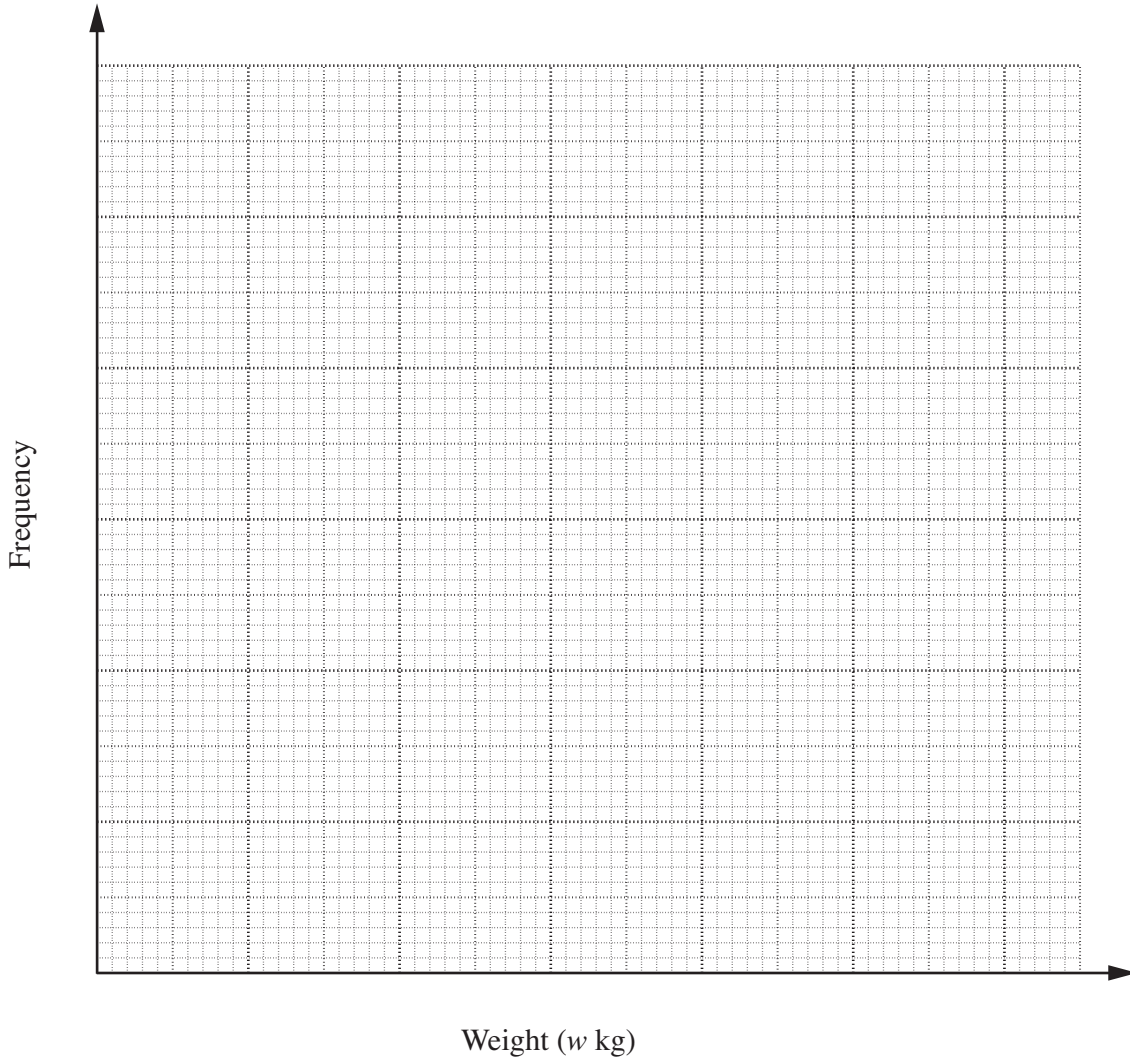


PLEASE DO NOT WRITE ON THIS PAGE

- 1 During one month, 60 babies were born in a Blackburn hospital. Their weights are summarised in the table below.

Weight (w kg)	$1 < w \leq 2$	$2 < w \leq 3$	$3 < w \leq 4$	$4 < w \leq 5$	$5 < w \leq 6$
Frequency	3	12	22	20	3

- (a) Draw a frequency diagram to represent this information.



[3]

- (b) One of these babies was picked at random.

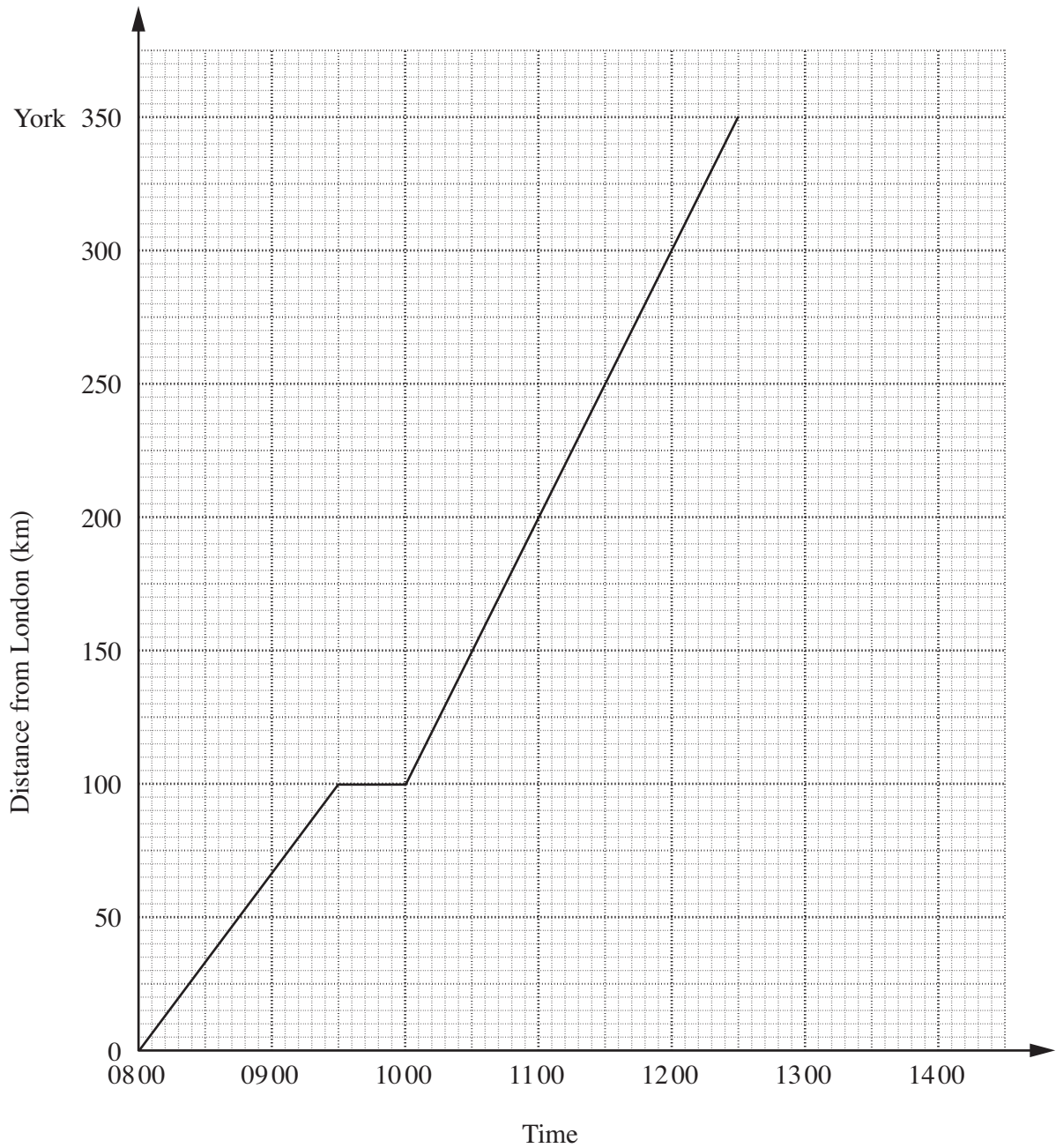
What is the probability that it weighed more than 4 kg?

(b)[2]

5

[Turn over

2 This graph represents the journey of a train from London to York.



(a) Describe what happens at 09 30.

.....[1]

(b) A second train travels non-stop from York to London.

It leaves York at 11 00.

It arrives in London at 13 15.

Add a line to the graph to represent this journey.

[2]

- 3 Paul bought 1.5 kg of apples, 0.5 kg of carrots and 5 kg of potatoes.

The apples cost £1.08 per kilogram.

The carrots cost £1.32 per kilogram.

He spent a total of £4.43.

Calculate the cost of 1 kg of potatoes.

£[4]

4	
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- 4 (a) Find the value of $a^2 + 6a$ when $a = -2$.

(a)[2]

(b) Factorise.

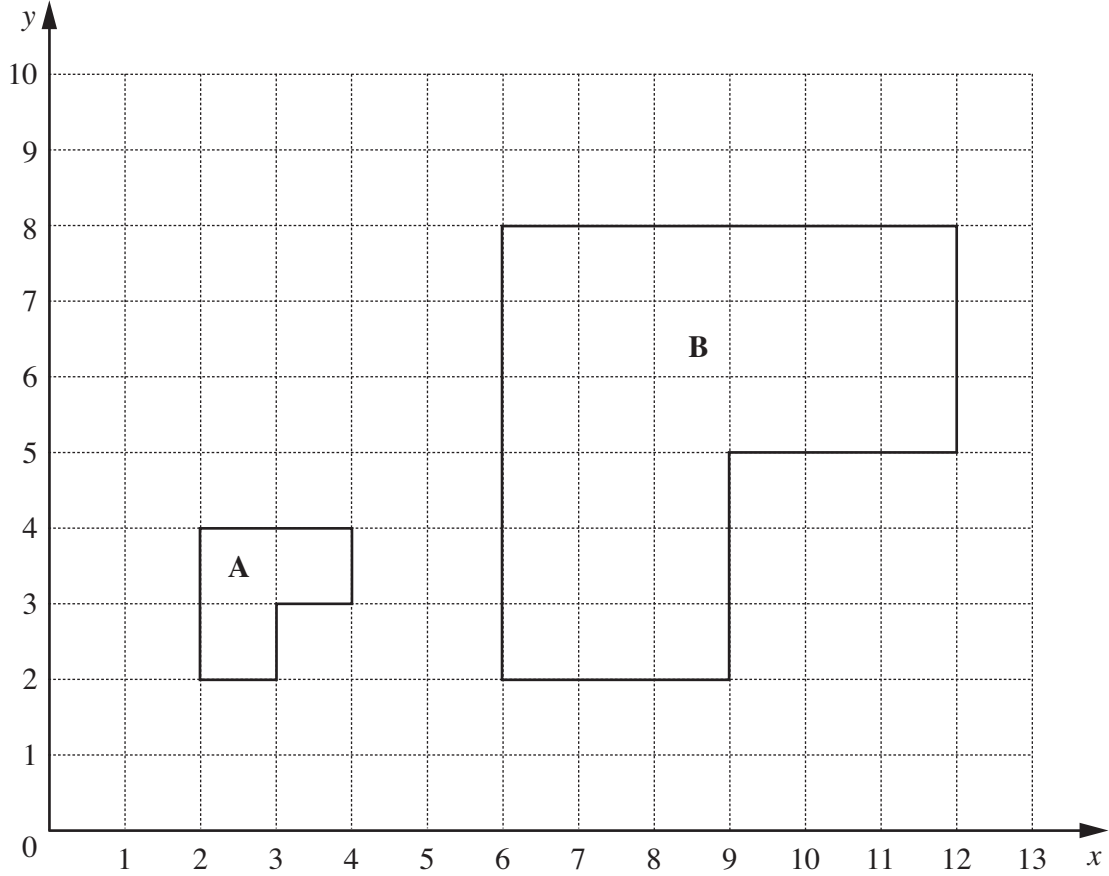
$$a^2 + 6a$$

(b)[1]

3	
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[Turn over

5



Shape **B** is an enlargement of Shape **A**.

Complete these statements for this enlargement.

(a) The scale factor is [1]

(b) The centre of enlargement is (..... ,) [1]

2

6 (a) Work out.

(i) $\frac{3}{5} \times \frac{1}{4}$

(a)(i)[1]

(ii) $\frac{1}{5} \div \frac{1}{4}$

(ii)[1]

(b) Which of the following fractions is closest to 85%?

$\frac{38}{50}$ $\frac{9}{10}$ $\frac{21}{25}$ $\frac{4}{5}$

Show clearly how you decide.

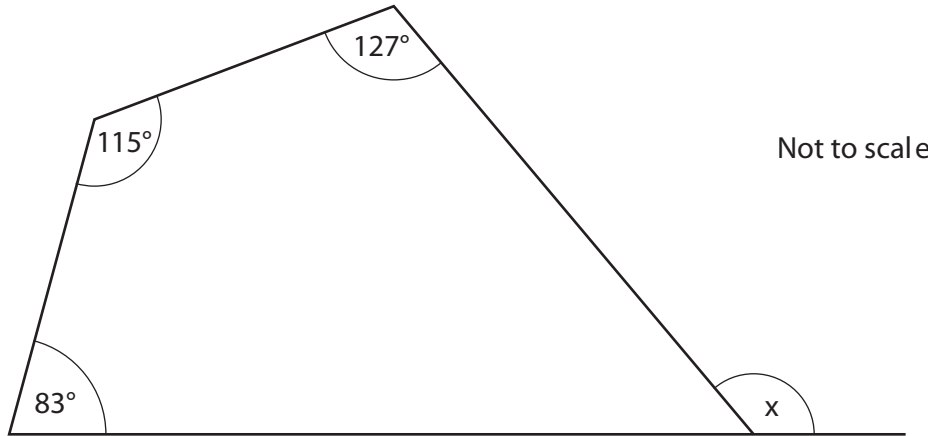
(b)[2]

4

TURN OVER FOR QUESTION 7

7

8



Work out angle x .
Give reasons for your answer.

$x = \dots\dots\dots^\circ$ because $\dots\dots\dots$
 $\dots\dots\dots$
 $\dots\dots\dots$ [4]

4
