OCR
RECOGNISING ACHIEVEMENT

GENERAL CERTIFICATE OF SECONDARY EDUCATION
MATHEMATICS C (GRADUATED ASSESSMENT)

MODULE M5 – SECTION A

MONDAY 22 JANUARY 2007

M5 **2335A**

Morning

Time: 30 minutes

Candidates answer on the question paper.
Additional materials: Geometrical instruments
Tracing paper (optional)
Pie chart scale (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.
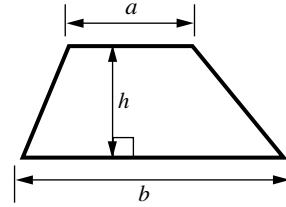- The total number of marks for this Section is 25.

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.

Formula Sheet

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

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1

(a) The attendance at a football match was 22 634.

Write 22 634

   (i) correct to the nearest thousand,

                            (a)(i)................................. [1]

   (ii) correct to one significant figure.

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

(b) Mohibur organises a coach to take fans to another match.
42 fans have to pay £11·25 each to travel on the coach.

   (i) Write down a calculation Mohibur could do in his head to
       estimate the total amount paid for the coach.

       .... × .... = £.. [2]

   (ii) Is your estimate bigger or smaller than the exact amount?
       Explain how you decide.

       .... because ....

       ....

       ....[1]

                                                       5

[Turn over

2 Solve.

    (a) $11 = x + 3$

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

    (b) $5x = 60$

                                          (b) .... [1]

    (c) $3x - 2 = 10$

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

4

3
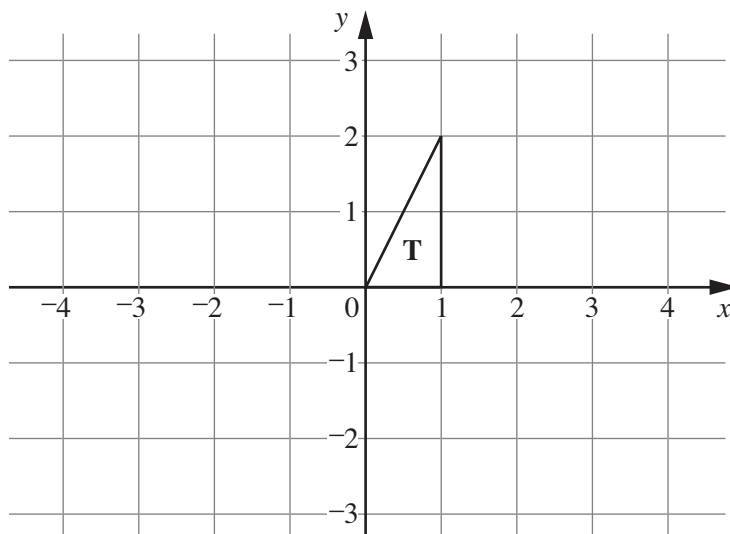
    (a) Rotate triangle **T** by 90° clockwise about the origin.
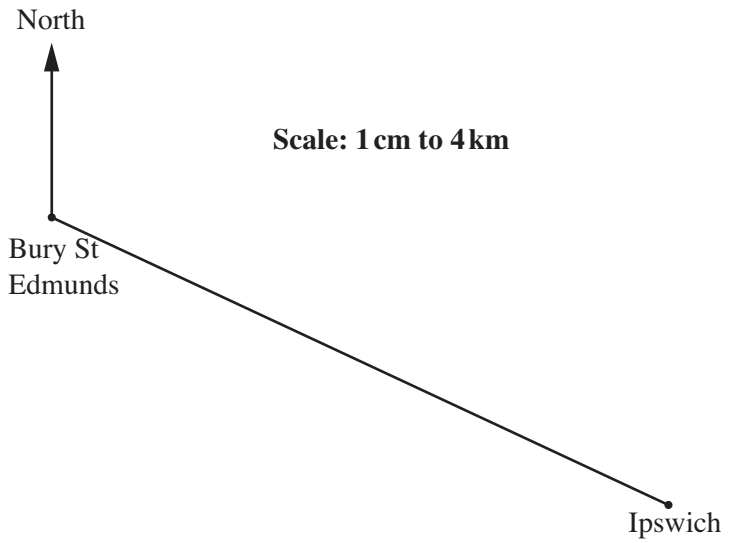   Label your image **A**.   [2]

    (b) Translate triangle **T** by 3 squares to the left and 1 square down.
         Label your image **B**.   [1]

3

4 The scale drawing shows the position of two towns, Bury St Edmunds and Ipswich.

North

Scale: 1 cm to 4 km

Bury St
Edmunds

Ipswich

(a) **(i)** Measure the bearing of Ipswich from Bury St Edmunds.

(a)(i) .... ° [1]

(ii) Find the distance, in kilometres, between Ipswich
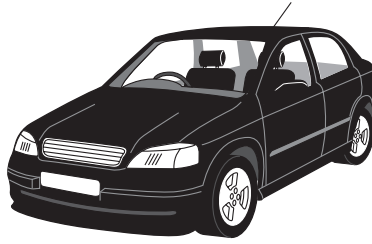and Bury St Edmunds.

(ii) .... km [2]

(b) Newmarket is 22 km due West of Bury St Edmunds.

On the diagram above, mark and label the position of Newmarket. [2]

5

[Turn over

5

Street Cars have 50 cars.
60% of them are black.

Hasty Cabs have 44 cars.
$\frac{3}{4}$ of them are black.

Which firm has more black cars?
You must show clearly how you decide.

....has more black cars because ....

....

....

....

.... [4]

6 **(a)** Write down the value of the following.

(i) 6^2

(a)(i).................................. [1]

(ii) $\sqrt{49}$

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

(b) Work out.

$$5^2 - 2^3$$

(b) .... [2]

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