Paper Reference(s)

5534/14

Edexcel GCSE
Mathematics B – 1388
Paper 14 (Non-Calculator)

Foundation Tier

Tuesday 7 June 2005 – Afternoon

Time: 1 hour

Materials required for examination	**Items included with question papers**
Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser. Tracing paper may be used.	Nil

Instructions to Candidates

In the boxes above, write your centre number, candidate number, your surname, initials and signature. Check that you have the correct question paper.
Answer **ALL** the questions in the spaces provided in this question paper.
You must NOT write on the formulae page. Anything you write on the formulae page will gain NO credit.
If you need more space to complete your answer to any question, use additional answer sheets.

Information for Candidates

There are 14 questions in this paper. The total mark for this paper is 62.
The marks for individual questions and the parts of questions are shown in round brackets: e.g. **(2)**.
Calculators must not be used.

Advice to Candidates

Show all stages in any calculations.
Work steadily through the paper. Do not spend too long on one question.
If you cannot answer a question, leave it and attempt the next one.
Return at the end to those you have left out.

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Answer ALL FOURTEEN questions.

Write your answers in the spaces provided.

You must write down all stages in your working.

You must NOT use a calculator.

1. (a) Write the number **seventeen thousand, two hundred and fifty-two** in figures.

....
(1)

    (b) Write the number 5367 correct to the nearest hundred.

....
(1)

    (c) Write down the value of the 4 in the number 274 863

....
(1)

Q1

(Total 3 marks)

2. Some bulbs were planted in October.
The ticks in the table shows the months in which each type of bulb grows into flowers.

		Month					
		Jan	Feb	March	April	May	June
Type of bulb	Allium					✓	✓
	Crocus	✓	✓				
	Daffodil		✓	✓	✓		
	Iris	✓	✓				
	Tulip				✓	✓	

(a) In which months do tulips flower?

....

(1)

(b) Which type of bulb flowers in March?

....

(1)

(c) In which month do most types of bulb flower?

....

(1)

(d) Which type of bulb flowers in the same months as the iris?

....

(1)

(Total 4 marks)

3. Here is a list of 8 numbers.

11   16   18   36   68   69   82   88

(a) Write down **two** numbers from the list with a sum of 87

.... , ...
(1)

(b) Write down a number from the list which is

(i) a multiple of 9,

....

(ii) a square number.

....
(2)

| cube | multiple | factor | product |

(c) Use a word from the box to complete this sentence correctly.

11 is a .... of 88
(1)

Here are the same 8 numbers drawn larger.

11   16   18   36
68   69   82   88

(d) From these numbers, write down a number which has

(i) exactly **one** line of symmetry,

....

(ii) 2 lines of symmetry **and** rotational symmetry of order 2,

....

(iii) rotational symmetry of order 2 but **no** lines of symmetry.

....
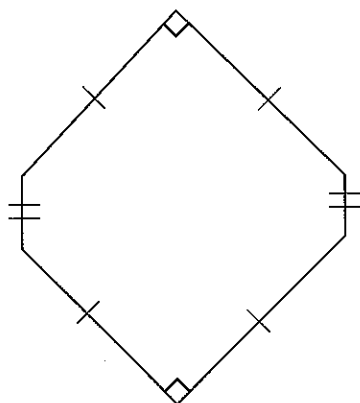**(3)**

Q3

(Total 7 marks)

4.

Diagram **NOT**
accurately drawn

The diagram shows a shape.
The shape is a 6-sided polygon.

(a) Write down the mathematical name for a 6-sided polygon.

....
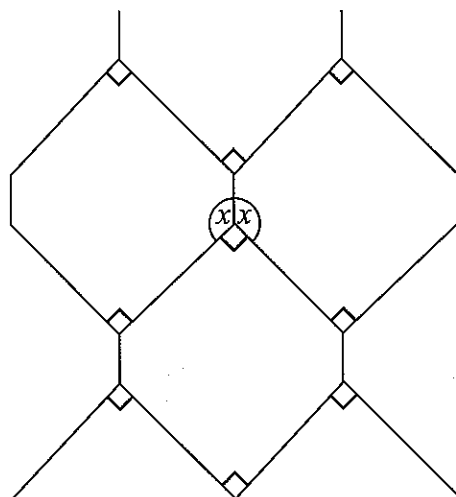
(1)

The diagram below shows how the shape tessellates.

Diagram **NOT**
accurately drawn

The size of each of the angles marked x is 135°.

(b) Give reasons why.

....

....

....

(2)

30 cm

8 cm
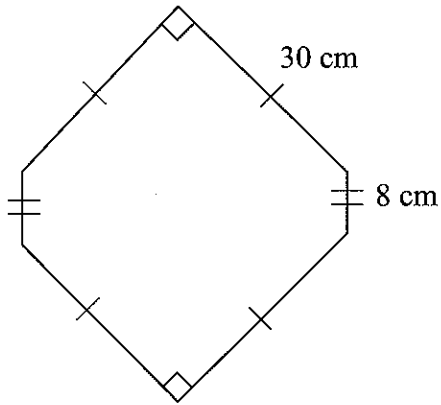
Diagram **NOT**
accurately drawn

The diagram shows the lengths of two of the sides of the shape.

(c) Work out the perimeter of the shape.

.... cm

(2)

(Total 5 marks)

Q4

5. Write these numbers in order of size.
Start with the smallest number.

(a) 76,   103,   13,   130,   67

....
(1)

(b) –3,   5,   0,   –7,   –1

....
(1)

(c) 70%, $\frac{3}{4}$,   0.6, $\frac{2}{3}$

....
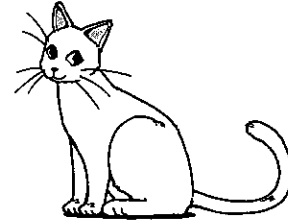**(2)**

(Total 4 marks)

6.

Cat facts

- 40% of people named cats as their favourite pet.

- 98% of women said they would rather go out with someone who liked cats.

- About $7\frac{1}{2}$ million families have a cat.

- $\frac{1}{4}$ of cat owners keep a cat because cats are easy to look after.

(a) Write 40% as a fraction.
     Give your fraction in its simplest form.

     ....…...
                                                                      (2)

(b) Write $7\frac{1}{2}$ million in figures.

     ....…..
                                                                      (1)

(c) What percentage of people did **not** name cats as their favourite pet?

     ....….. %   **Q6**
                                                                      (1)

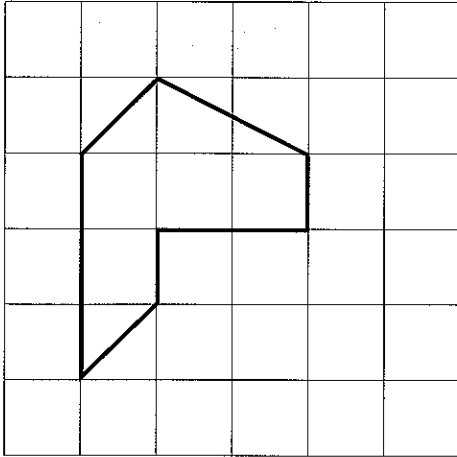   **(Total 4 marks)**

7. A shape has been drawn on a grid of centimetre squares.

Work out the area of the shape.
State the units with your answer.

....

(Total 3 marks)

8. The cost, in pounds, of hiring a car can be worked out using this rule.

> Add 3 to the number of days' hire
>
> Multiply your answer by 10

(a) Work out the cost of hiring a car for 4 days.

£ ....

(2)

Bishen hired a car.
The cost was £120

(b) Work out the number of days for which Bishen hired the car.

....

(2)

The cost of hiring a car for n days is C pounds.

(c) Write down a formula for C in terms of n.

....

(3)

(Total 7 marks)

9. (a) Complete the table of values for $y = 3x + 2$

x	-2	-1	0	1	2
y		-1		5	

(2)

(b) On the grid, draw the graph of $y = 3x + 2$

(2)
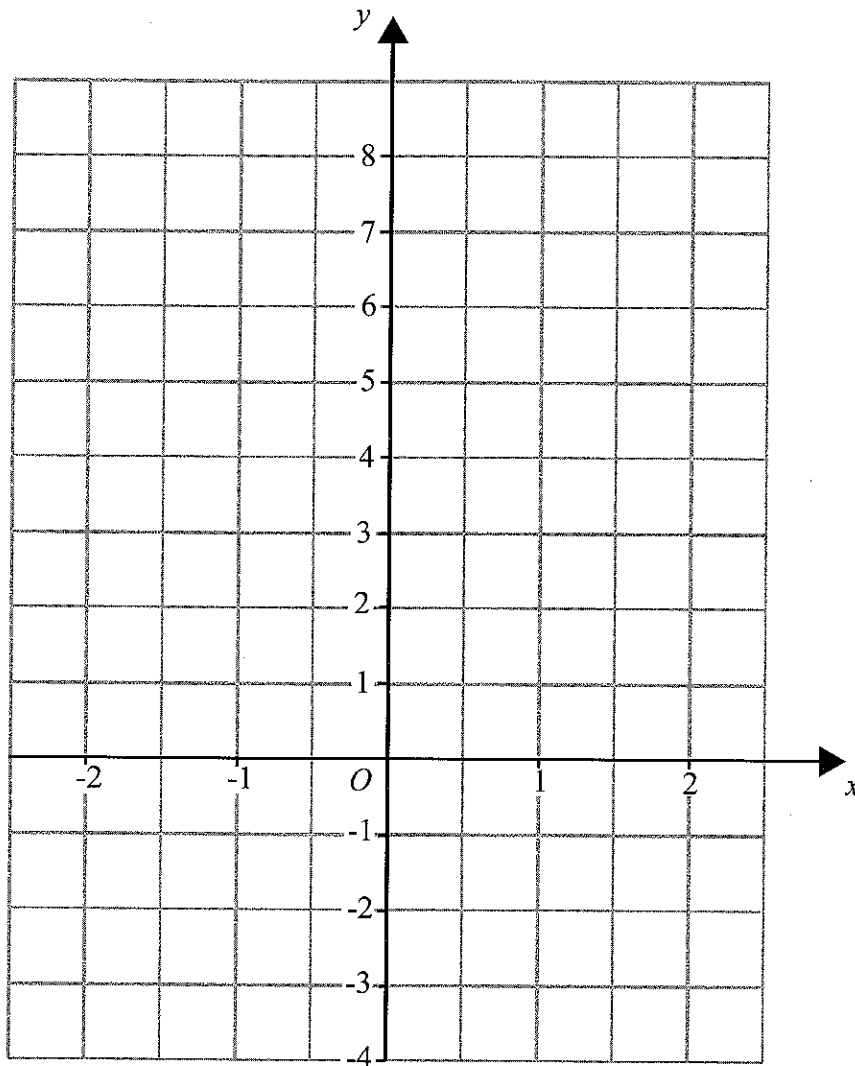
(Total 4 marks)

10. 80 students each study one of three languages.
The two-way table shows some information about these students.

	French	German	Spanish	Total
Female				
Male		17		
Total	31	28		80

39 of the 80 students are female.
15 of the 39 female students study French.

Complete the two-way table.

(Total 4 marks)

11. (a) Work out $60 \times \frac{2}{3}$

....

(2)

(b) Work out the value of $5t^2 - 7$ when $t = 3$

....

(2)

(c) Simplify $4p \times 2q$

....

(1)

(Total 5 marks)

12. Here are the plan, front elevation and side elevation of a 3-D shape.

plan

front elevation

side elevation
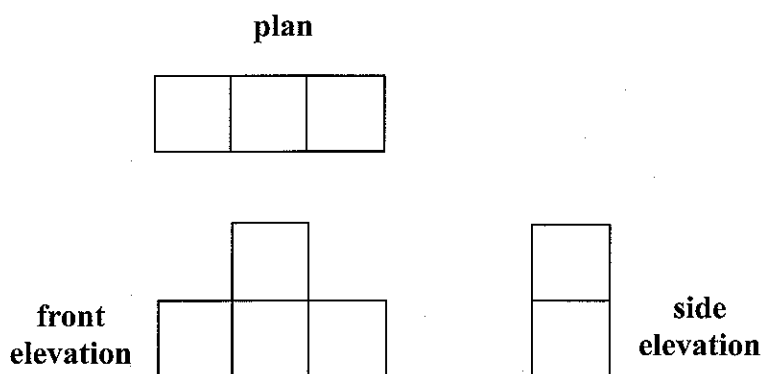
In the space below, draw a sketch of the 3-D shape.

(Total 2 marks)

13. Work out an estimate for the value of $\dfrac{637}{3.2 \times 9.8}$

....

(Total 2 marks)

N 2 1 0 6 0 A 0 1 4 1 6

14. The diagram shows a wall with a door in it.

4 m

1 m

3 m

2 m
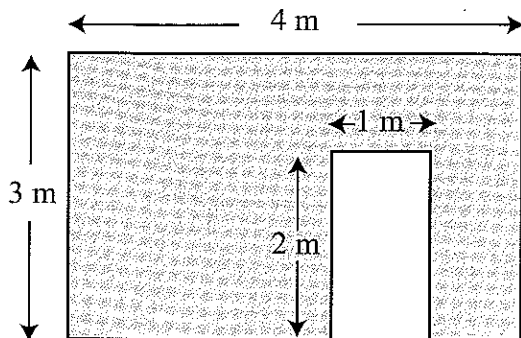
Diagram **NOT** accurately drawn

(a) Work out the shaded area.

.... m²

(3)

Meg can cover the shaded area with 680 tiles.
She buys extra tiles in case she breaks some.
To work out the total number of tiles to buy, Meg increases 680 by 10%.

(b) (i) Increase 680 by 10%.

....

The tiles Meg is going to use are sold in boxes of 50.

(ii) Work out the number of boxes of tiles Meg should buy.

....

(5)

(Total 8 marks)

TOTAL FOR PAPER: 62 MARKS

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