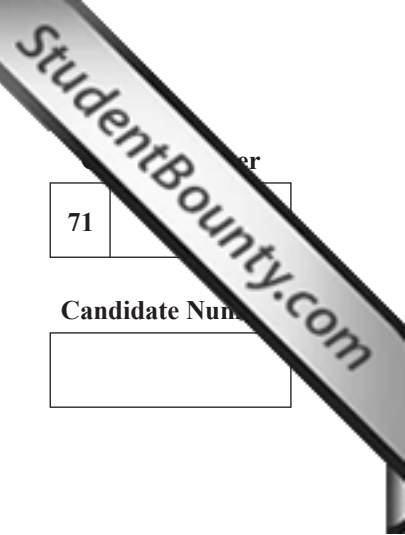![cea logo] **cea**

Rewarding Learning

General Certificate of Secondary Education
January 2011

Mathematics

Module N1 Paper 2
(With calculator)
Foundation Tier

[GMN12]

GMN12

TUESDAY 11 JANUARY
10.30 am – 11.15 am

For Examiner's use only	
Question Number	**Marks**
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
Total Marks	

TIME

45 minutes.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces
provided at the top of this page.
Write your answers in the spaces provided in this question paper.
Answer **all thirteen** questions.
Any working should be clearly shown in the spaces provided since
marks may be awarded for partially correct solutions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 44.
Figures in brackets printed down the right-hand side of pages indicate
the marks awarded to each question or part question.
You should have a calculator, ruler, compasses, set-square and
protractor.

6521

1 Below is part of a customer's gas bill. Complete it to find the number of units of gas used and the total cost.

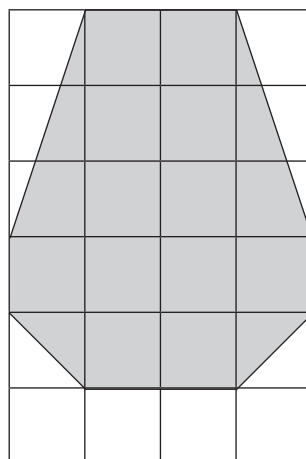| Present reading	66908 units
Previous reading	65112 units
Number of units used	_____
Price per unit	16.5p
Total cost for units	£ _____

[4]

2 **(a)** What metric unit is used for measuring

(i) the capacity of a bottle of perfume, Answer _____ [1]

(ii) the weight of a calculator? Answer _____ [1]

(b) The shaded shape is drawn on a 1 cm grid.

Work out the area of the shaded shape.

Answer _____ cm^2 [2]

3 Forty pupils were asked to write down an odd number less than 10

Here are the results

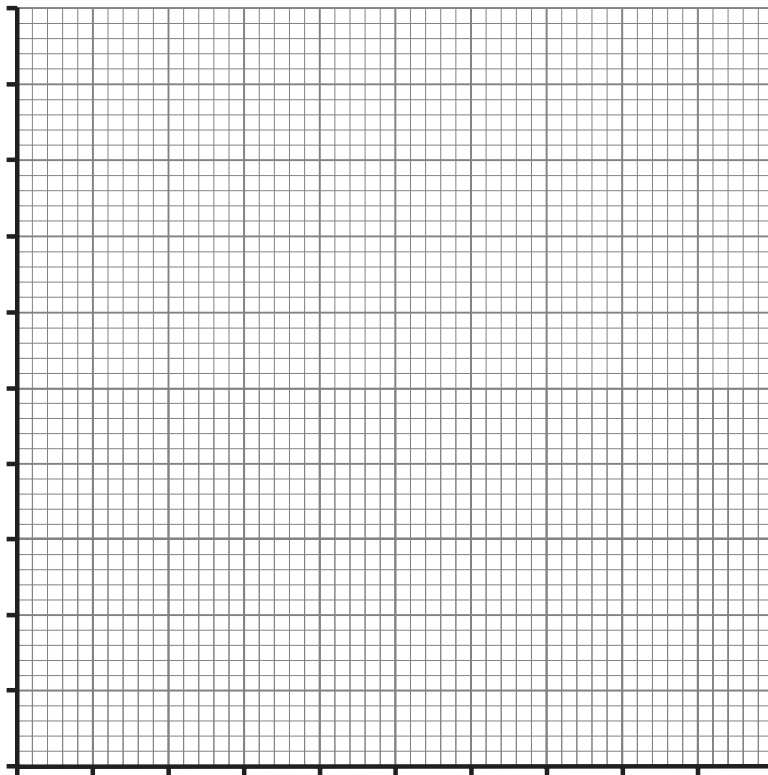| 1 | 5 | 9 | 3 | 1 | 7 | 9 | 5 | 5 | 5 |
3	3	9	7	7	7	5	1	3	7
9	5	1	1	3	7	9	5	3	9
3	3	7	7	1	1	9	3	5	7

(a) Complete the following frequency table.

Odd Number	Tally (if required)	Frequency
1 3 5 7 9		

[2]

(b) Draw a clearly labelled bar chart to show this information on the grid below.

[3]

[Turn over

4 (a) Write down in figures the number four thousand and nineteen.

Answer _____ [1]

(b) Write down all the multiples of 7 which are less than 25

Answer _____ [2]

5

(a) Write down the coordinates of the point labelled A in the diagram.

Answer (_____ , _____) [1]

(b) Plot and label the point B at (–2, 0). [1]

6521

6 (a) The display on a fridge/freezer shows the temperature in each compartment as follows

FRIDGE: 5°C	−18°C: FREEZER

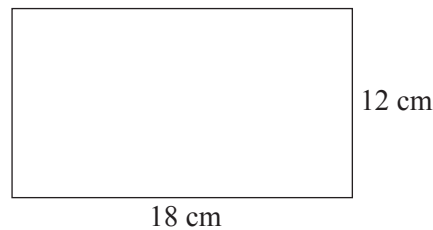**(i)** How much colder is the freezer than the fridge?

Answer _____ °C [1]

(ii) The door of the freezer was not closed properly and as a result the temperature in the freezer rose by 5°C.

What temperature should now be showing on the display for the freezer?

Answer _____ °C [1]

(b)

12 cm

18 cm

Linda has 80 one-centimetre square tiles. She places all of them on an 18 cm by 12 cm tray to form a rectangle.

This can be done in two different ways to produce two different-sized rectangles.

For each one state the length and breadth of the rectangle.

length = _____cm,   breadth = _____cm   [1]

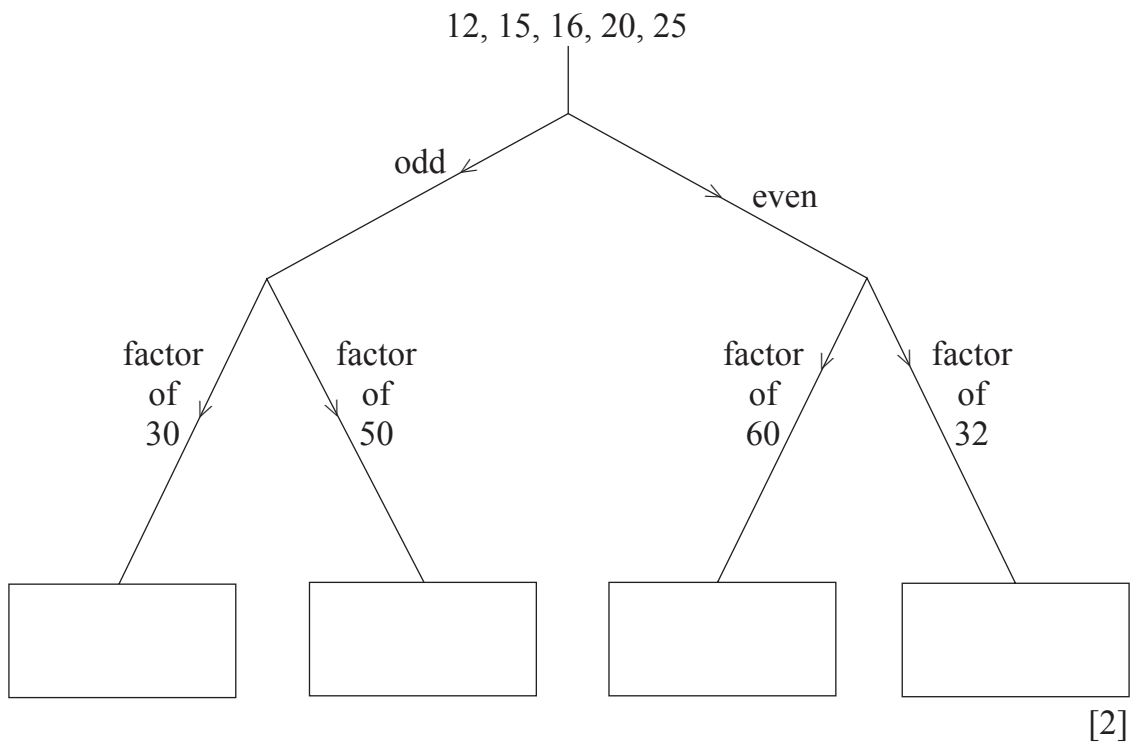length = _____cm,   breadth = _____cm   [1]

[Turn over

7 Complete each of the following:

(a) A man was facing North.

He turned 135° anticlockwise.

He then faced _____ [1]

(b) A man now faces West.

He originally faced North West.

He turned _____° clockwise. [1]

---

8 The ages of 10 people leaving a chemist shop were recorded

23   57   61   28   33   48   19   48   35   12

(a) Calculate the mean age.

Answer _____ [3]

(b) Find the median age.

Answer _____ [2]

9 **(a)** A teacher has 16 boxes of sweets.

Each box contains 25 sweets.

The teacher shares as many sweets as possible equally among 23 pupils.

(i) How many sweets does each pupil receive?

Answer _____ sweets [1]

(ii) How many sweets are left over?

Answer _____ sweets [1]

(b)

> VANZ-TO-GO
>
> Van hire charges
>
> £52 per day
>
> plus
>
> 19p per mile

Bob hires a van for two days.

When he returns it the total hire charge is £137.06

How many miles did he drive it for?

Answer _____ miles [3]

[Turn over

10 Simplify $10 - 3a + 2 - 5a$

Answer _____ [2]

---

11 Using the decision tree, sort these numbers into the correct boxes.

12, 15, 16, 20, 25

odd

even

factor
of
30

factor
of
50

factor
of
60

factor
of
32

[2]

12 (a) A right-angled triangle has sides of 3 cm, 4 cm and 5 cm.

4 cm   5 cm

3 cm
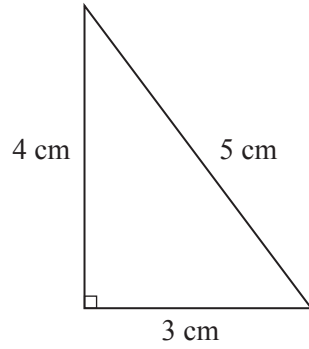
On the grid below show how two of these triangles can be put together to make a parallelogram.
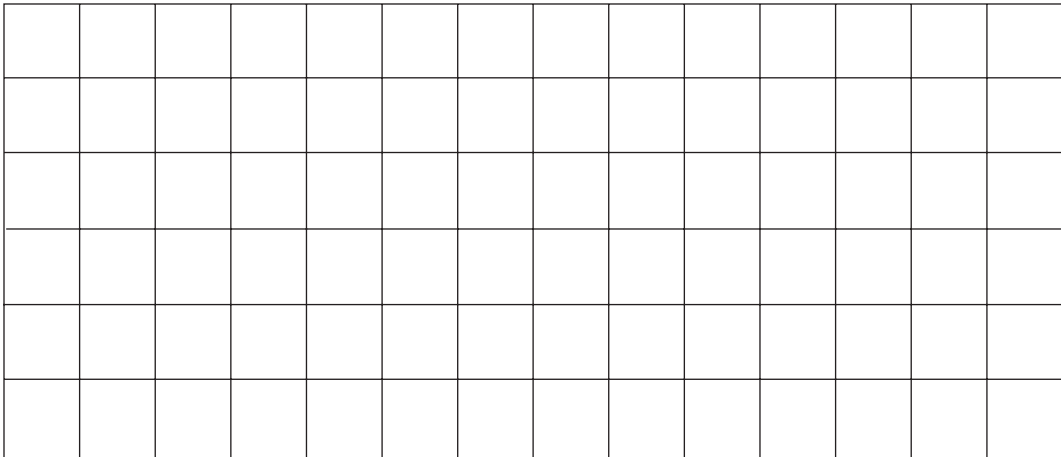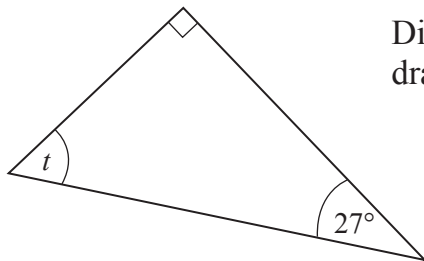
[2]

(b) Calculate angle t in the triangle below.

Diagram not
drawn accurately.

t

27°

Answer _____ ° [2]

6521

13 The stem and leaf diagram shows a list of temperatures.

```
2 | 2   3   6   8   9
3 | 0   2   4   5   6   7
4 | 1   1
```

Key   4 | 1 = 41 °C

Write down

(a) the range,

Answer _____ °C [1]

(b) the median.

Answer _____ °C [1]

THIS IS THE END OF THE QUESTION PAPER

111516