HALF-YEARLY EXAMINATIONS – FEBRUARY 2014

FORM 1   **MATHEMATICS**   **TIME: 30mins**

Levels 6-7

NON CALCULATOR PAPER

| Question	1	2	3	4	5	6	7	8	9	10	11	Main	NC	Global Mark
Max. Mark	2	1	3	2	4	2	1	2	3	2	3	75	25	100
Mark														

DO NOT WRITE ABOVE THIS LINE

NAME AND SURNAME: _____   **CLASS:**_____

INSTRUCTIONS TO CANDIDATES:

Read all the questions carefully before you start answering.

- Answer all questions.

- This paper carries 25 marks.

- **Calculators, protractors** and other mathematical instruments are **NOT ALLOWED.**

- On your desk you should have nothing except for **pen, pencil, ruler** and the **examination paper**.
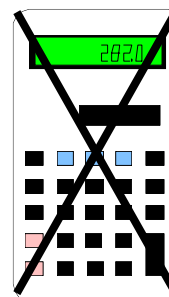
1. Work out:

    $34.5 \times 7 =$

    Ans:_____
    (1 mark)

2. The size of this angle is about: 90°, 230° or 45° ?

    Ans:_____°
    (1 mark)

3. Write in order of size, **smallest first**:

    two million, 10^3,   one hundred thousand.

    _____   _____   _____
    (1 mark)

4. Put one symbol from **+, − , × , ÷** in each of the circles to make the statements true.

    a) 45 ◯ 6 = 270

    b) 938 ◯ 462 = 14 × 100

    c) 1.55 ◯ 5 = 0.31

    d) 20% ◯ 15% = 5%

    (4 marks)

5. Round each number to the nearest 100:

    a) 678 ⟶ _____

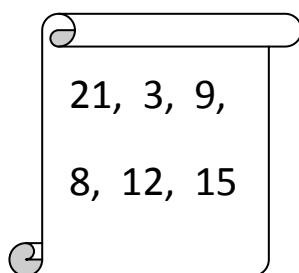   b) 1346 ⟶ _____
    (2 marks)

6. Work out:

    $\dfrac{2}{8} + \dfrac{3}{8}$

    Ans:_____
    (1 mark)

7. Special numbers were put on these scrolls. In each case there is **one** number which is misplaced. (i) Write the number which should **not** be on the scroll. (ii) Give reason.
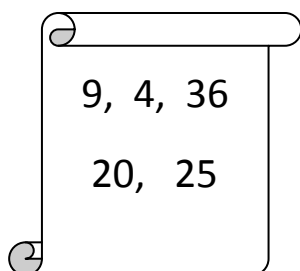
a)

21, 3, 9,

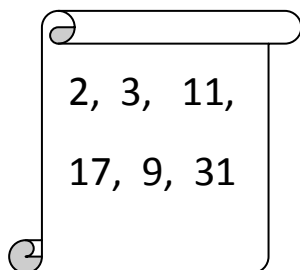8, 12, 15

Ans: (i) Number is _____

(ii) Reason: _____

b)

9, 4, 36

20, 25

Ans: (i) Number is _____

(ii) Reason: _____
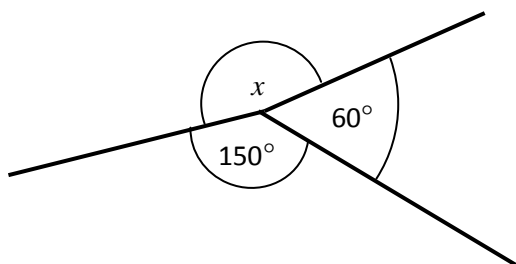
c)

2, 3, 11,

17, 9, 31

Ans: (i) Number is _____

(ii) Reason: _____

(6 marks)

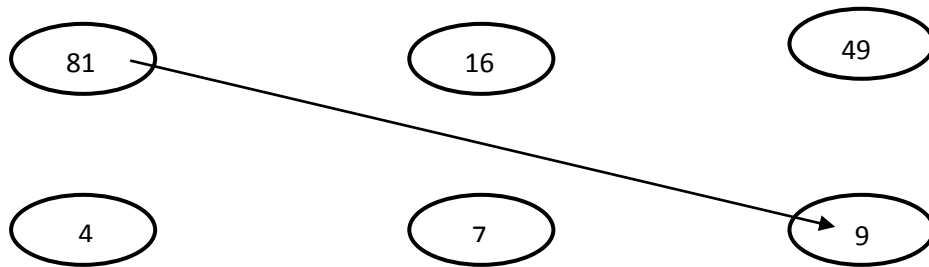8. Work out the value of angle x.

x

60°

150°

Ans: $x =$_____°

(2 marks)

9. There are 68 pages in a workbook. The workbook is printed for 19 children. **Estimate** how many pages were printed.
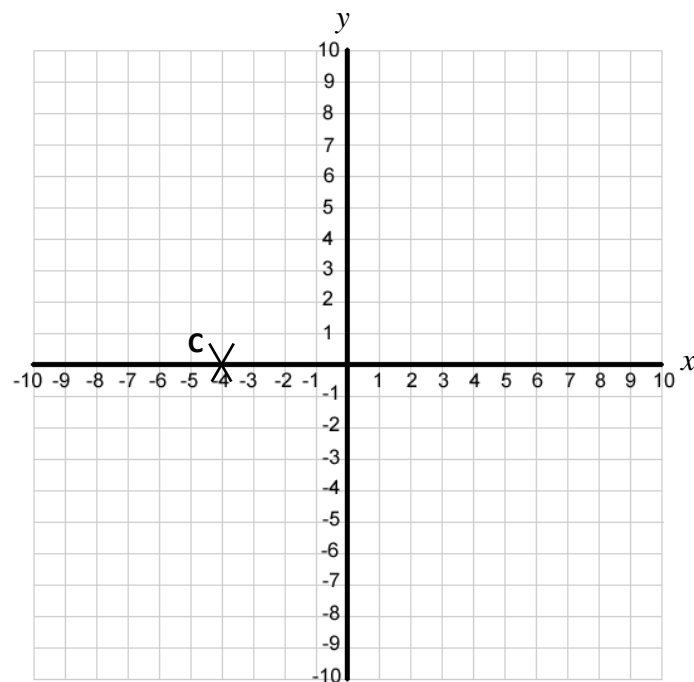
Ans:_____

(2 marks)

10. Join each number to its **square root**, with an arrow as shown.

81   16   49

4   7   9

(2 marks)

11. a) On the grid below mark the two points: A = (2, 5) and B = (-5, 4)

y

x
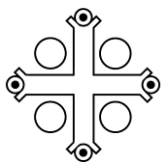
C

b) Write the coordinates of point C shown on grid.

Ans: C = (   )

(3 marks)

End of Paper

KULLEĠĠ SAN BENEDITTU

Boys Secondary School, Kirkop

HALF-YEARLY EXAMINATIONS – FEBRUARY 2014

FORM 1	**MATHEMATICS**	TIME: 1 h 30mins
	Levels 6-7	

Main Paper

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Main	NC	Global Mark
Max. Mark	3	6	7	10	5	8	6	3	4	4	5	3	5	6	75	25	100
Mark																	

DO NOT WRITE ABOVE THIS LINE

NAME AND SURNAME: _____ CLASS:_____

INSTRUCTIONS TO CANDIDATES:

Read all the questions carefully before you start answering.

- Answer all questions.
- This paper carries 75 marks.
- Calculators and mathematical instruments are allowed but all necessary working must be shown.

1. a) Write *eight thousand and four* in figures.

    Ans: _____

    b) Express 1,000,000 as a power of ten.

    Ans: _____

    c) Work out:

    64000 ÷ 400   Ans: _____

                                                                    (3 marks)

2. Put these in order from **largest** to smallest.

    a)

3^2	3.01	$\sqrt{16}$	5^3

    _____   _____   _____   _____

    b)

0.5	30%	⅛	3.5

    _____   _____   _____   _____

                                                                    (6 marks)

3. From the table, list:

23	45	109
44	48	76
21	107	140

    a) The numbers which are **multiples** of **5**.

        Ans: _____   _____

    b) The **odd** numbers greater than 100.

        Ans: _____   _____

    c) All the **prime** numbers.

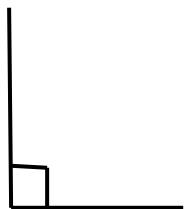   Ans: _____   _____   _____

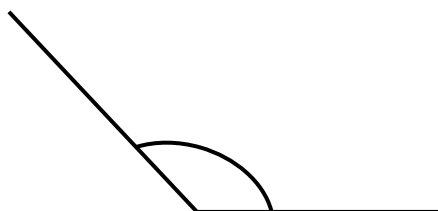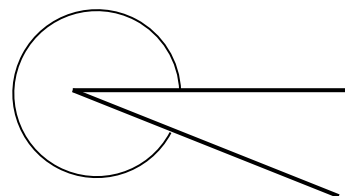   d) The factor of 90.

        Ans: _____

                                                                    (8 marks)

4. a)

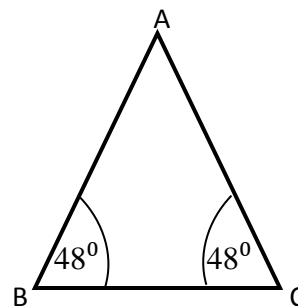| **Acute** | **Obtuse** | **Reflex** | **Right angle** |

Write the appropriate names of the angles, choosing from the words in the box.

_____   _____   _____

b) ABC is an isosceles triangle.
   Angle B and Angle C are each 48^0.
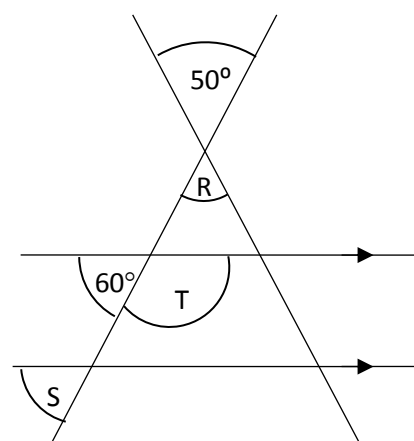   Work out the size of angle A.

Ans: _____ ^{0}

c) Look at the diagram on the right and calculate, giving reasons:

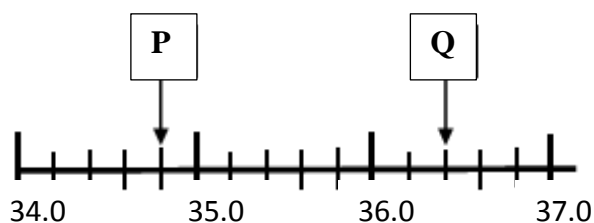i)   Angle R = _____ ° (reason:_____)

ii) Angle S = _____ ° (reason:_____)

iii) Angle T = _____ ° (reason: angles on a straight line)

(10 marks)

5. a) What are the **values** of **P** and **Q** on the number line below?

34.0   35.0   36.0   37.0
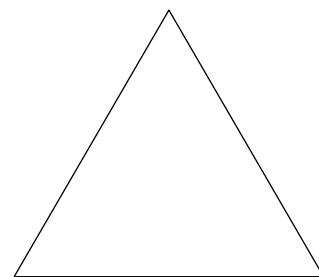
Ans: P = _____   Q = _____

b) Find the L.C.M. of 6 and 8.

Ans: _____

(5 marks)

6. a) Look at this triangle.

Mark with (✓) the correct answers.

i) It is an equilateral triangle.	
ii) It has only 2 lines of symmetry.	
iii) It is a regular shape.	
iv) Each angle is 60^0.	

b) State whether **True** or **False**.

i)   The rhombus is a quadrilateral.   _____

ii)   A parallelogram has two pairs of parallel lines.   _____

iii) The sides of a kite are all equal.   _____

iv) A trapezium has one pair of parallel sides.   _____
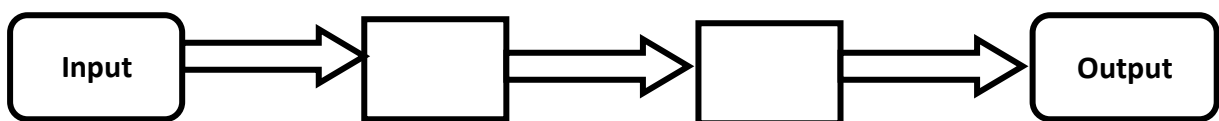
(7 marks)

7. Helen and Sam are playing a number game.

The rule is:

- **Think of a number**
- **Then double it**
- **Then add 4.**

a) Use these instructions to fill in this number machine.

```
┌─────────┐        ┌─────────┐        ┌─────────┐        ┌─────────┐
│  Input  │ ═════> │         │ ═════> │         │ ═════> │ Output  │
└─────────┘        └─────────┘        └─────────┘        └─────────┘
```

b) Helen thinks of the number 8. What is the output?

Ans: _____

c) Sam gets an output of 10. What number did he think of?

Ans: _____

(6 marks)

8. Write down the next three terms for these sequences.

a) 18 , 24 , 30 , _____, _____ , _____.

b) 16 , 13 , 10 , _____, _____ , _____.

c) 3 , 5 , 7 , 11 , _____, _____ , _____.

(3 marks)

9. The ages of the children in a swimming pool are:

   3, 10, 8, 10, 11, 8, 12, 9, 10

   a) Work out the **mean** age.

   Ans: _____

   b) What is the **mode** of their ages?

   Ans: _____

   c) What is the **range** of their ages?

   Ans: _____

   (5 marks)

10. A jacket costs €40. The shopkeeper decides to sell the jacket at a discount of 10%.

   a) What is the **discount** on the jacket in Euros?

   €40

   Ans: €_____

   b) Change $\frac{3}{4}$ into a decimal.

   Ans: _____

   (3 marks)

11. Kyle and Rachel do a survey of the types of vehicle passing the school gate during the break. They produce this frequency table:

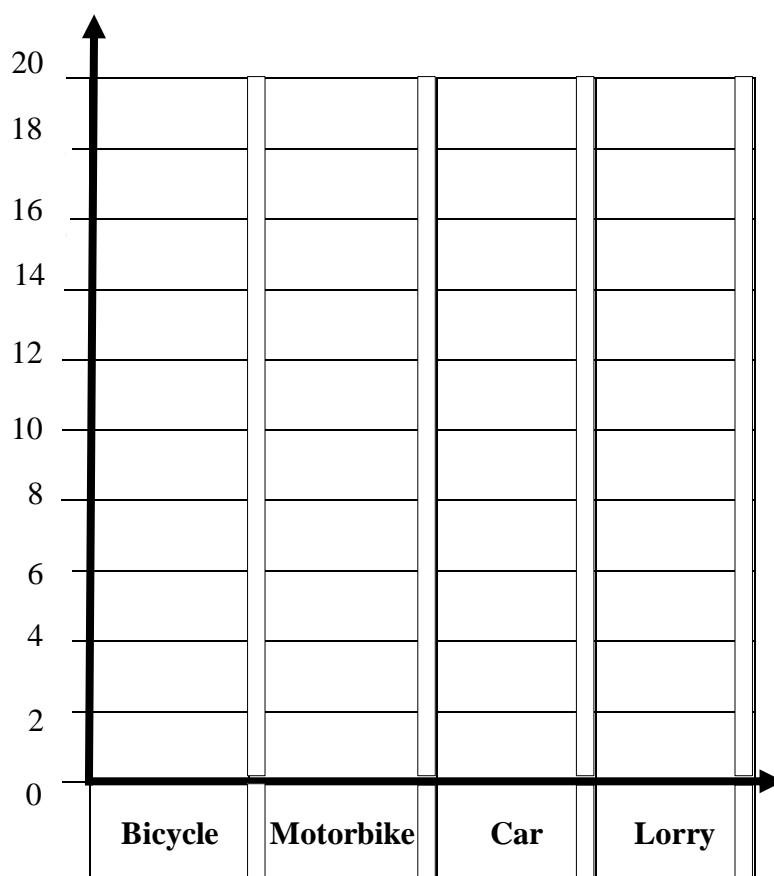| Type of vehicle	Bicycle	Motorbike	Car	Lorry
Frequency	4	10	19	16

a) How many vehicles pass the school gate **altogether**?

Ans: _____
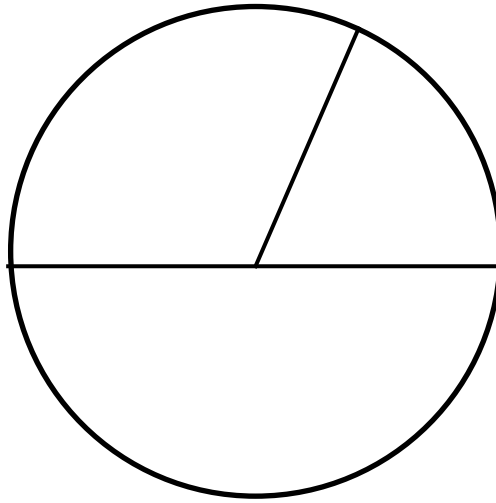
b) Which is the **most common** type of vehicle?

Ans: _____

c) Draw a bar chart to show the information.

(5 marks)
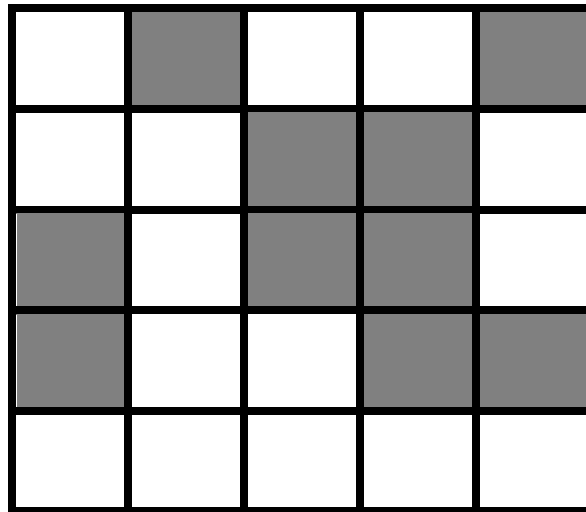
12. a) On this circle label (i) the **diameter** and
(ii) the **circumference**.

b) Draw another circle of **radius** 4 cm using compasses.

(3 marks)

13. The diagram below shows a grid of squares. Some squares are shaded.

a) What **fraction** of the whole grid is **shaded**?

Ans: _____

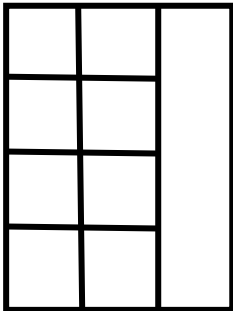b) What **fraction**, in its **simplest form**, is **not shaded**?

Ans: _____

c) What **percentage** of the **whole grid** is **shaded**?

Ans: _____%

(5 marks)

14. Shade $\frac{2}{3}$ of this shape.

a)

b) Mary divides a cake in 6 equal parts. She gives Jonathan and Tara 2 parts **each**. What fraction of the cake is **left**? Simplify your answer.

Ans: _____

c) Write the ratio **150 g : 1 kg** in its simplest form.

Ans: _____

(6 marks)

THE END