

**KULLEĠĠ SAN BENEDITTU**

**Boys Secondary School, Kirkop**

**Levels**

**6-7**

**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:

$$64000 \div 400$$

Ans: \_\_\_\_\_

(3 marks)

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

- a)

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

- b)

0.5	30%	$\frac{1}{8}$	3.5
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\_\_\_\_\_

(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.

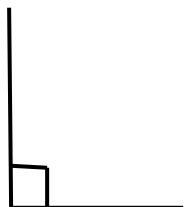
Ans: \_\_\_\_\_

(8 marks)

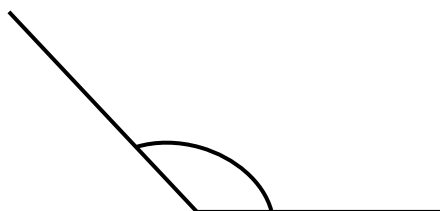
4. a)

Acute	Obtuse	Reflex	Right angle
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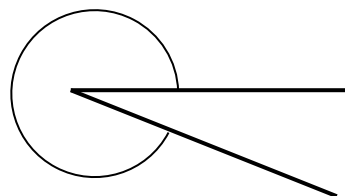
Write the appropriate names of the angles, choosing from the words in the box.



\_\_\_\_\_

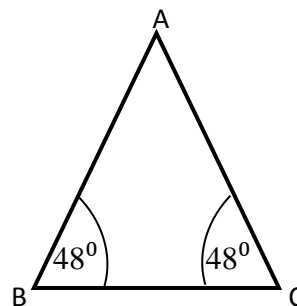


\_\_\_\_\_



\_\_\_\_\_

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



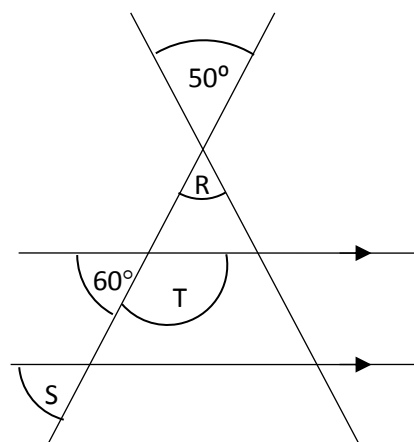
Ans: \_\_\_\_\_<sup>0</sup>

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

i) Angle R = \_\_\_\_\_<sup>0</sup> (reason: \_\_\_\_\_)

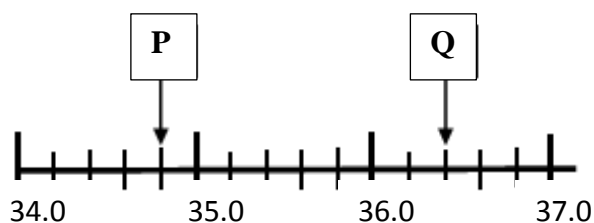
ii) Angle S = \_\_\_\_\_<sup>0</sup> (reason: \_\_\_\_\_)

iii) Angle T = \_\_\_\_\_<sup>0</sup> (reason: angles on a straight line)



(10 marks)

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



Ans: P = \_\_\_\_\_ Q = \_\_\_\_\_

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

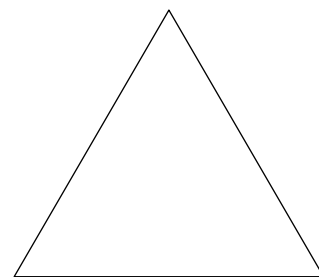
Ans: \_\_\_\_\_

(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 $60^\circ$ .	



- 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. \_\_\_\_\_

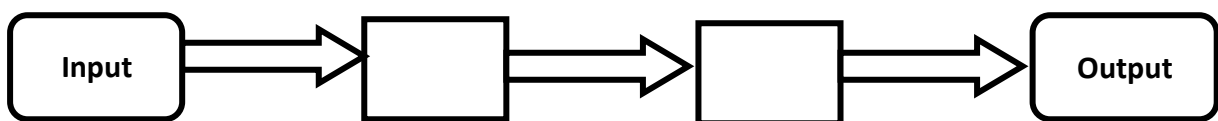
(7 marks)

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.



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)

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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?



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

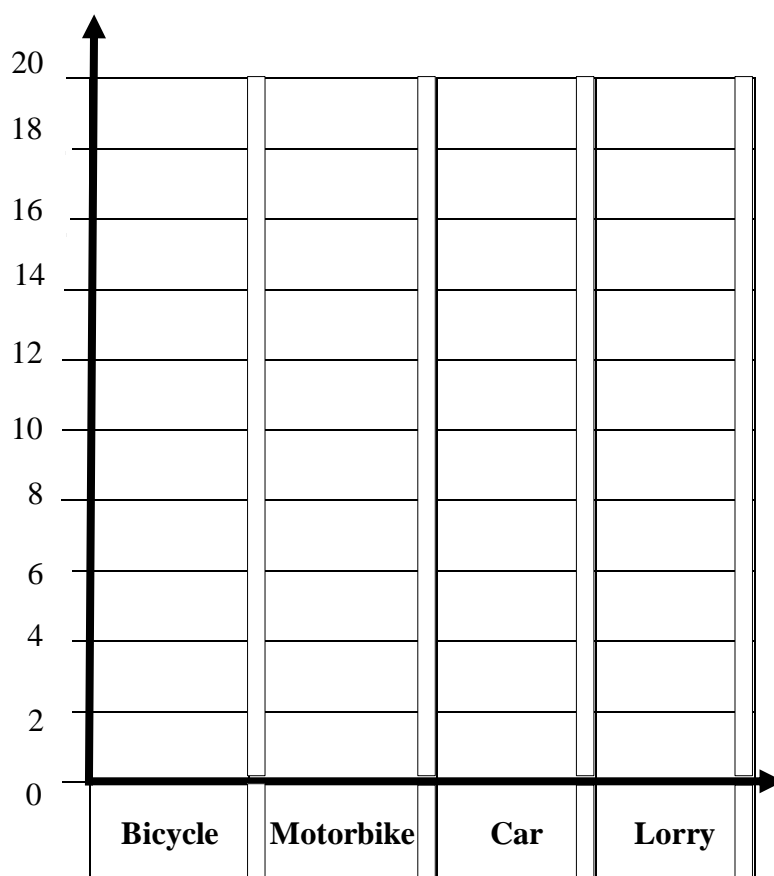
- a) How many vehicles pass the school gate **altogether**?

Ans: \_\_\_\_\_

- b) Which is the **most common** type of vehicle?

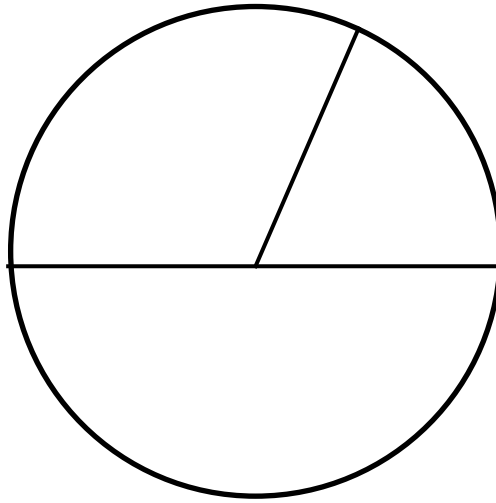
Ans: \_\_\_\_\_

- c) Draw a bar chart to show the information.



(5 marks)

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



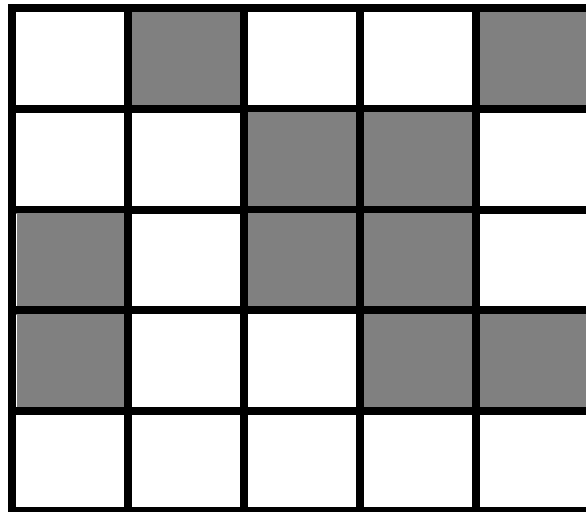
- b) Draw another circle of **radius** 4 cm using compasses.

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(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**?

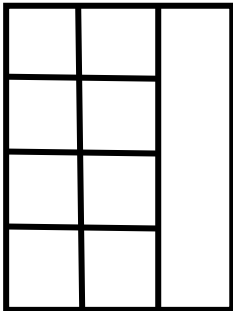
Ans: \_\_\_\_\_%

(5 marks)

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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)

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**THE END**