

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.

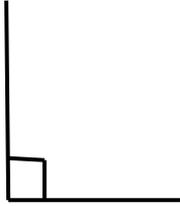
Ans: _____

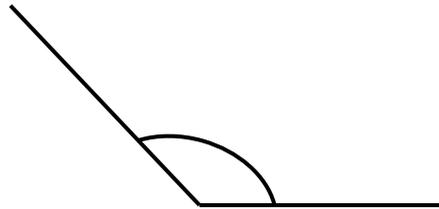
(8 marks)

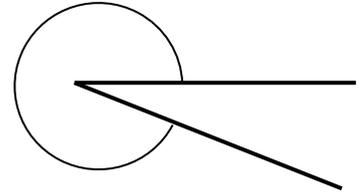
4. a)

Acute Obtuse Reflex Right angle

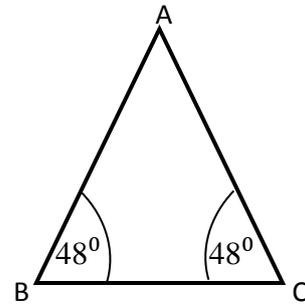
Write the appropriate names of the angles, choosing from the words in the box.







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

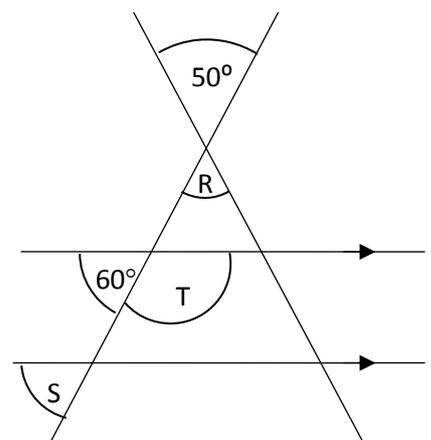


Ans: _____⁰

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

i) Angle R = _____⁰ (reason: _____)

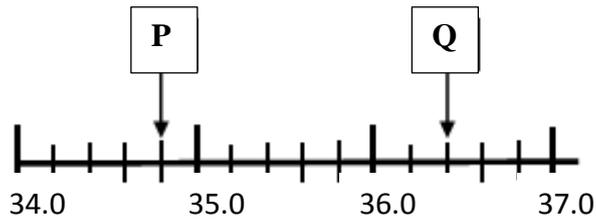
ii) Angle S = _____⁰ (reason: _____)



iii) Angle T = _____⁰ (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.

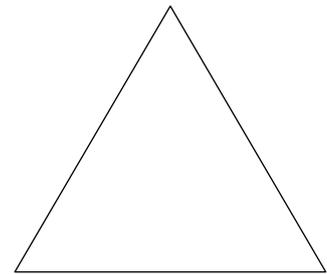
Ans: _____

(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° .	



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. _____

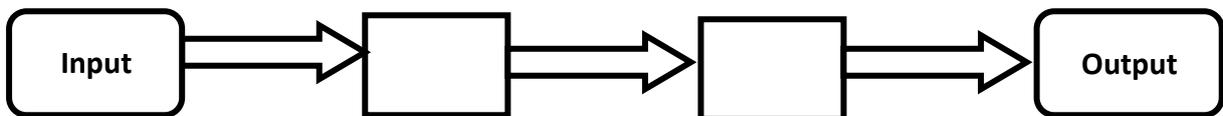
(7 marks)

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)



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

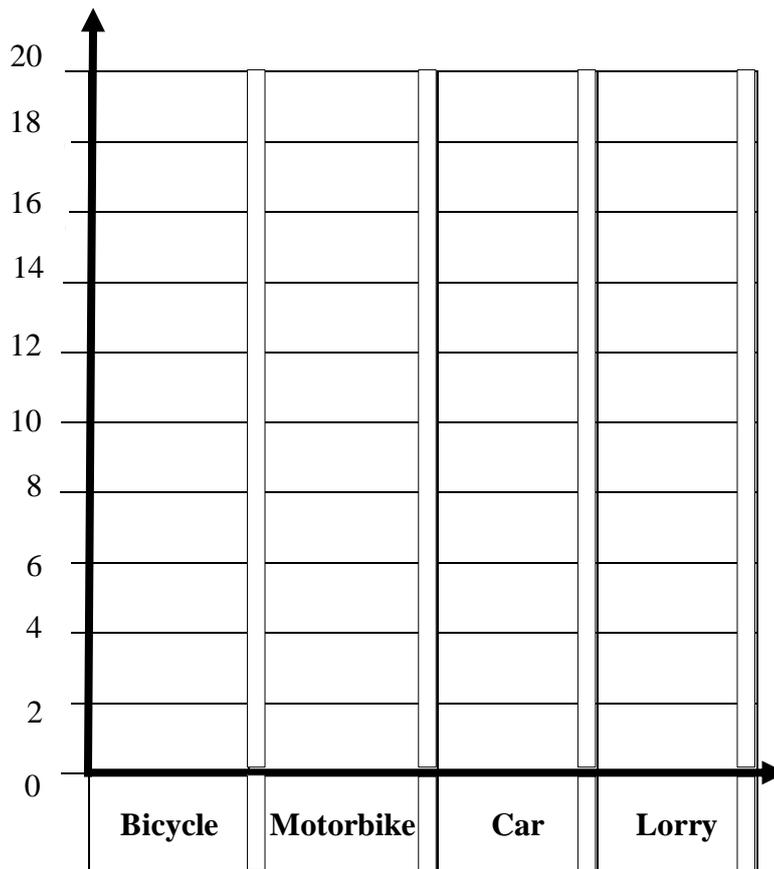
- a) How many vehicles pass the school gate **altogether**?

Ans: _____

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

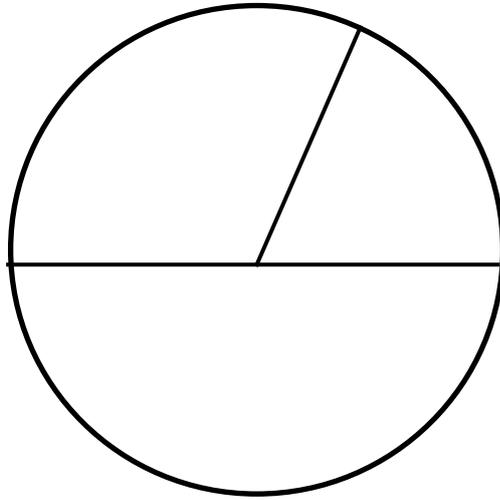
Ans: _____

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



(5 marks)

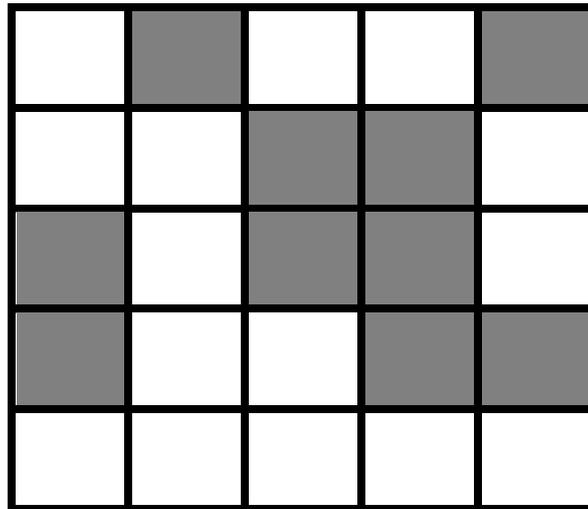
12. a) On this circle label (i) the **diameter** and
(ii) the **circumference**.



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

(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**?

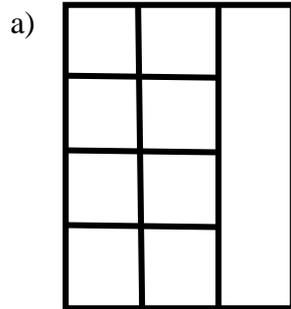
Ans: _____

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

Ans: _____%

(5 marks)

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



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