

KULLEĠĠ SAN BENEDITTU
Boys Secondary School, Kirkop

Levels
5-7

HALF-YEARLY EXAMINATIONS – FEBRUARY 2014

FORM 3

MATHEMATICS Levels 5-7

TIME: 1hr 30 mins

Main Paper

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Main	NC	Global Mark
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. Complete:

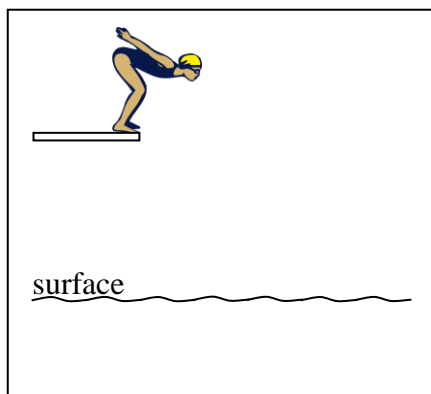
a) $3.7 \text{ km} = \text{_____ m}$

b) $250 \text{ cm} = \text{_____ m}$

c) $2 \text{ hours } 12 \text{ minutes} = \text{_____ minutes}$

(4 marks)

2.



A swimmer jumps off a platform **10m above** the water's surface. She dives to a depth of **3m below** the surface of the water. How many metres does she travel during the dive?

_____ metres

(2 marks)

3. a) Complete:

i) 5 weeks = _____ days

ii) 3.2 hours = _____ minutes

b) A film starts at 4:30 p.m. and finishes at 6:50 p.m.

i) How long is the film?

_____ hours _____ minutes

ii) The same film starts again at 7:00 p.m. At what time does it finish?

Ans: _____

(6 marks)

4. a) Mark the 2D shapes in the following list. The first one has been done for you.

Triangle	✓
Circle	
Rectangle	
Cube	
Sphere	
Cone	
Hexagon	

b) Maria draws a 4-sided shape. The opposite sides are parallel but it is **not** a square and is **not** a rectangle. What is the special name of Maria's shape?

Ans: _____

(4 marks)

5. a) Draw the shape that the turtle draws when it follows these commands:

PD FD 100 RT 90 FD 100 HOME



- b) Underline the name for the above shape:

Isosceles triangle

Square

Equilateral triangle

Scalene triangle

(4 marks)

6. At Wenzina Restaurant, $\frac{3}{7}$ of the customers leave tips.

At Rožina Restuarant $\frac{2}{5}$ of the customers leave tips.

Which restaurant has the **bigger fraction** of customers leaving tips?

Show your working.



Ans: _____

(4 marks)

7. a) Kelson runs at a **speed** of 8 m/s. How much **time** does he take to run the 100 m race?



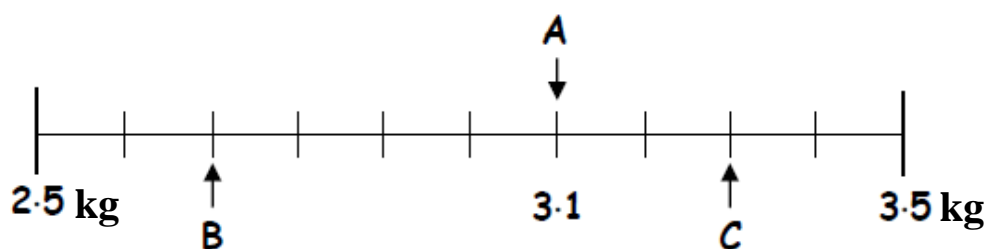
_____seconds

- b) Kelson finished **third** in the race. Give two possible times for the first two competitors.

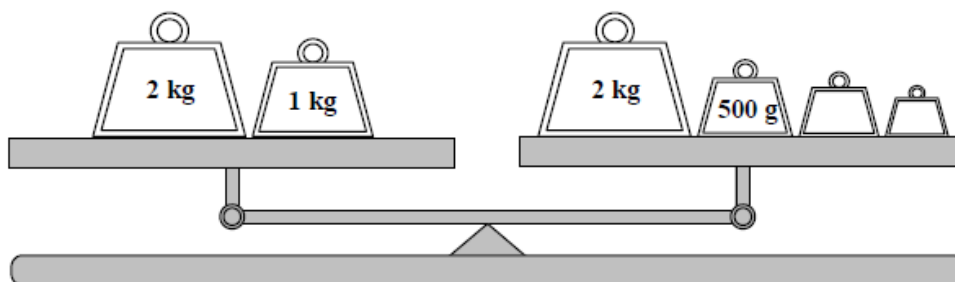
_____seconds _____seconds

(4 marks)

8. a) The diagram shows the readings on a scale. Arrow **A** points to **3.1 kg**.



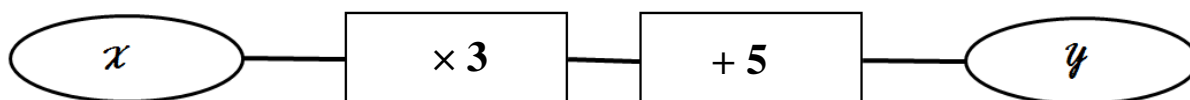
- Arrow **B** points to _____ kg.
 - Arrow **C** points to _____ kg.
 - The **difference** between the two numbers **B** and **C** is _____ kg.
- b) Write down any possible values of the **two missing weights** in this balanced scale.
(Your weights must not be equal.)



_____ g and _____ g

(6 marks)

9. Use this function machine to complete the table:



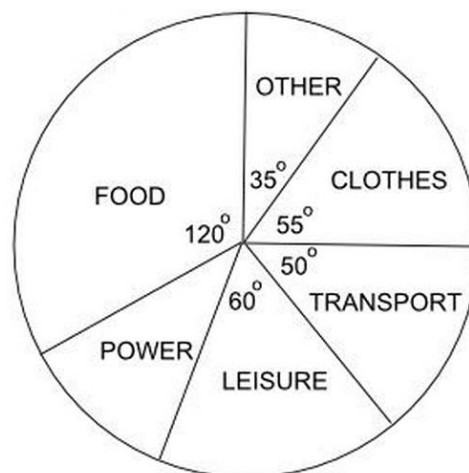
x	y
2	
6.5	
	50

(6 marks)

10. This pie chart shows how Maltese people spend their money.

- a) What is the angle for **POWER**?

Ans: _____°



- b) On which item do Maltese people spend their money **most**?

Ans: _____

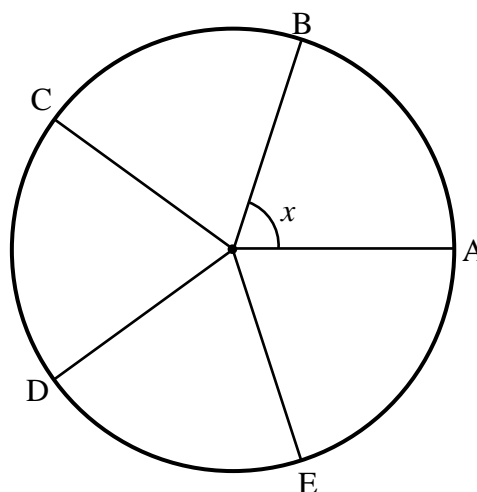
- c) From the pie chart, name two items that **together** form **half** the money spent by Maltese people.

_____ and _____

(5 marks)

11. Therese draws the following diagram.

The values of the angles at the centre are all **equal**.



- a) Draw the lines AB, BC, CD, DE and EA.

b) i) What is the **name** of the shape ABCDE? _____

ii) Explain why shape ABCDE is **regular**.

c) What is the value of angle x ?

Ans: _____

(5 marks)

12. In a shop, a printer is marked **€120**.

During a sale, prices are **reduced** by **30%**. Krista buys this printer.

i) How much does she **save**?

Ans: € _____

ii) How much does she pay for the printer during the sale?

Ans: € _____

iii) Krista pays with two **fifty euro** banknotes.
What is her change?



Ans: € _____

(7 marks)

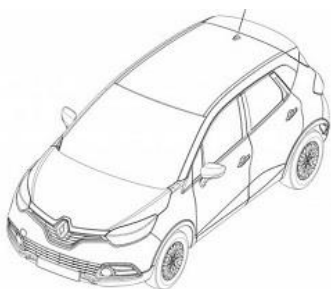
13. a) Work out the value of $3x + 4y - z$ when $x = 2$, $y = 5$ and $z = 15$.

Ans: _____

- b) The cost of hiring a car is calculated using this formula:

$$\text{Cost} = \text{€}50 \times \text{number of days} + \text{€}110$$

Calculate the cost if the car is hired for a **week**, including the weekend.



Ans: € _____

- c) Solve:

i) $y + 4 = 10$

ii) $\frac{z}{3} = 7$

iii) $2m - 6 = 4$

Answers:

i) $y =$ _____

ii) $z =$ _____

iii) $m =$ _____

(10 marks)

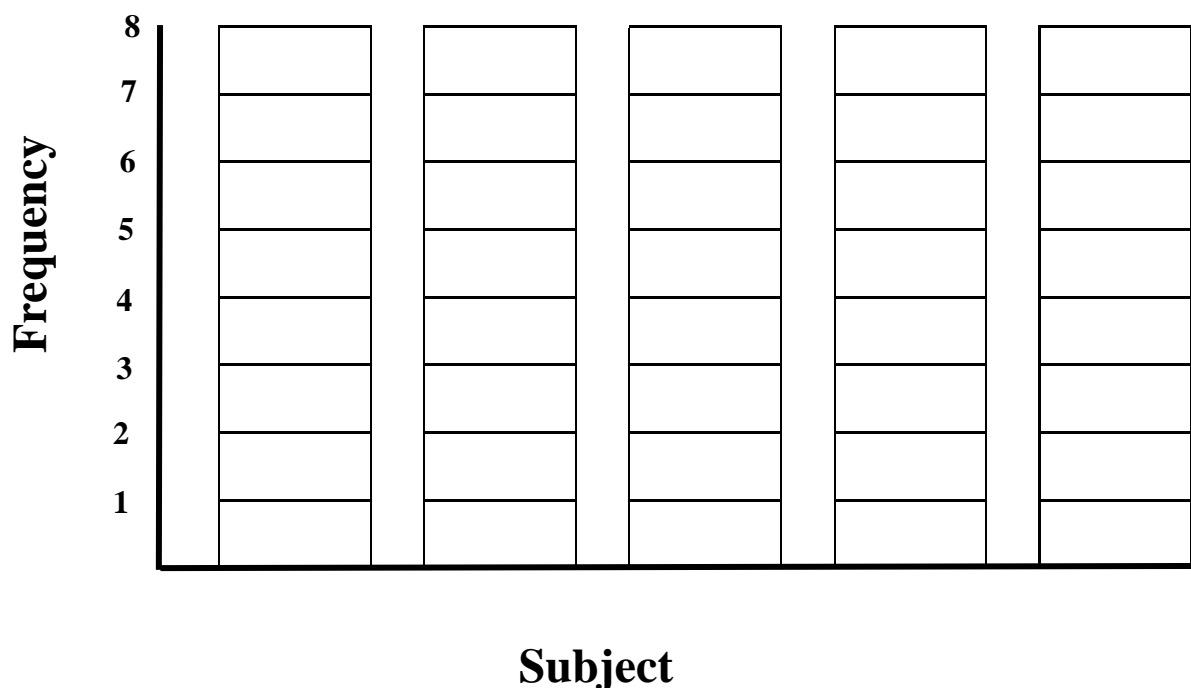
14. The following is a list of the favourite subject of **thirty** students.

Maths, English, Maltese, PE, PE, Maths, Social Studies, Maths, PE, Social Studies, English, Maltese, Maths, PE, Maths, Maltese, Maths, PE, Social Studies, Maltese, English, PE, Maths, English, Social Studies, Maltese, PE, English, Maltese, Social Studies.

a) Complete the following table:

Subject	Tally	Frequency
Maltese		
English		
Maths		
PE		
Social Studies		
Total:		

b) Use this diagram to complete a **bar chart** representing the above results.



(8 marks)

END OF EXAM