

**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:

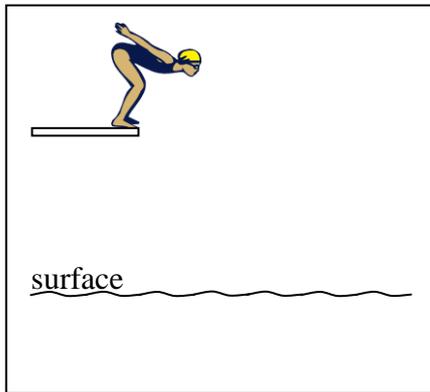
a)  $3.7 \text{ km} = \text{_____ m}$

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)

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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)

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



\_\_\_\_\_seconds

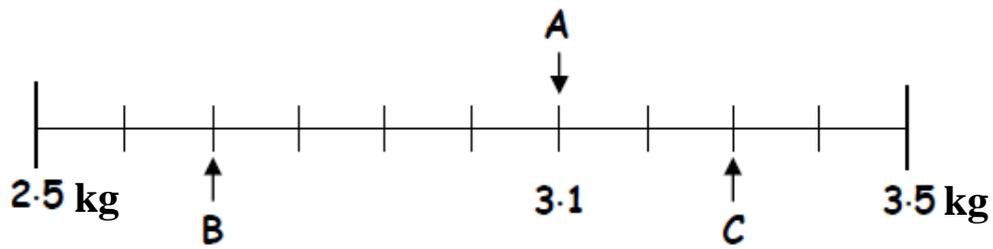
- b) Kelson finished **third** in the race. Give two possible times for the first two competitors.

\_\_\_\_\_seconds      \_\_\_\_\_seconds

(4 marks)

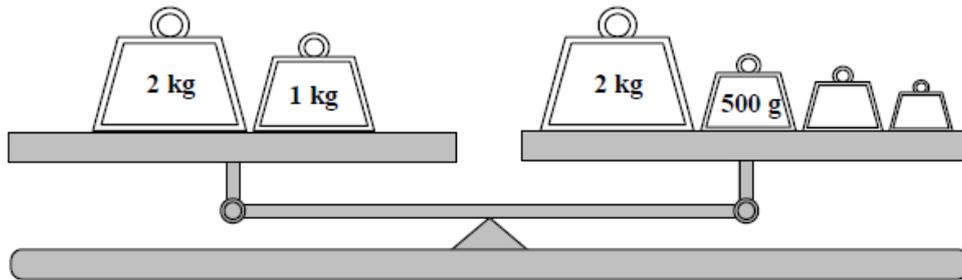
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8. a) The diagram shows the readings on a scale. Arrow **A** points to **3.1 kg**.



- i) Arrow **B** points to \_\_\_\_\_ kg.
- ii) Arrow **C** points to \_\_\_\_\_ kg.
- iii) The **difference** between the two numbers **B** and **C** is \_\_\_\_\_ kg.

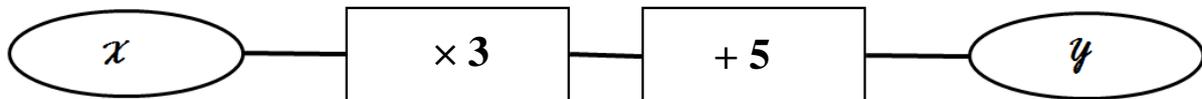
b) Write down any possible values of the **two missing weights** in this balanced scale. (Your weights must not be equal.)



\_\_\_\_\_ g and \_\_\_\_\_ g

(6 marks)

9. Use this function machine to complete the table:



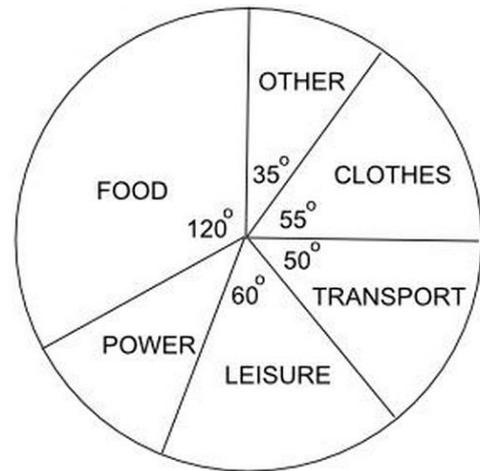
$x$	$y$
2	
6.5	
	50

(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: \_\_\_\_\_

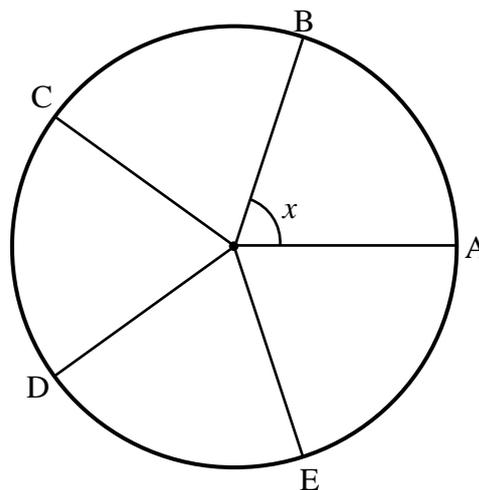
- c) From the pie chart, name two items that **together** form **half** the money spent by Maltese people.

\_\_\_\_\_ 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)

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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)

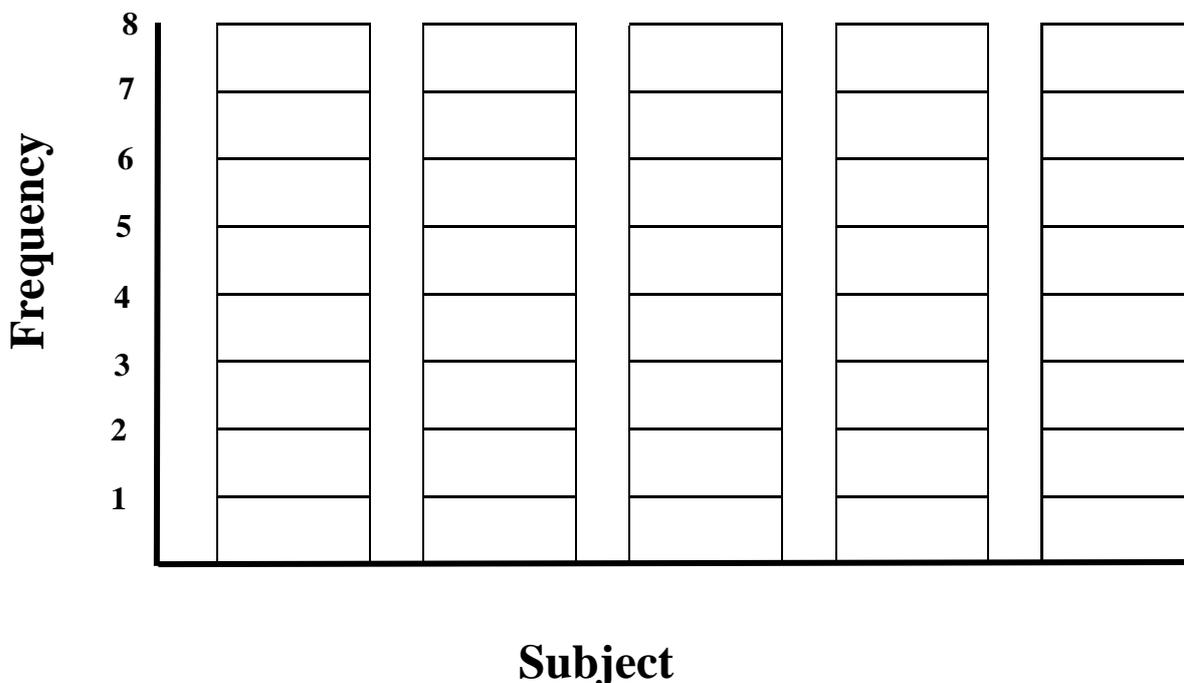
14. The following is a list of the favourite subject of **thirty** students.

**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		
<b>Total:</b>		

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



(8 marks)

**END OF EXAM**