



# RAPHA EXAMINATIONS BOARD

*" Education is an Investment"*

P.7 STANDARD FINAL SET

## MATHEMATICS FINAL SET 2024

*Time allowed: 2 Hours 30 Minutes*

Random No.	Personal No.

Candidate's Name:.....

Candidate's Signature:.....

District Name:.....

**Read the following instructions carefully:**

1. This paper has **two** sections: **A** and **B**.
2. Section **A** has **50** questions (**50 marks**)
3. Section **B** has **5** questions (**50 marks**)
4. Answer **all** questions . all answers to both sections **A** and **B must** be written in the spaces provided.
5. **All** answers must be written using a **blue** or **black ball** point **pen** or **ink**. Diagrams should be drawn in a pencil.
6. **Unnecessary** changes in your work may lead to **loss** of marks.
7. Any handwriting that **cannot** be easily read may lead to **loss** of marks.
8. **Do not** fill anything in the table indicated: "**FOR EXAMINERS' USE ONLY**" and boxes inside the question paper.

**BUZIGA: 0778710993**

FOR EXAMINERS' USE ONLY		
Qn. No	MARKS	EXR'S No.
1 – 10		
11 – 20		
21 – 30		
31 – 40		
41 – 43		
44 – 46		
47 – 49		
50 – 52		
53 – 55		
<b>TOTAL</b>		

**Turn Over**

## **SECTION A: 40 MARKS**

Answer all the questions in this section.

Questions **1** to **20** carry two marks each.

1. Work out: **3 2**

$$\begin{array}{r} \underline{3 \quad 2} \\ \times \quad 3 \\ \hline \end{array}$$

2. Write **XCIV** in Hindu Arabic numerals.

3. Given that set **K** = { **g, o, a, t** }, write down all the subsets of set **K**.

4. Find a equivalent fraction of  **$\frac{5}{7}$**

5. Expand **5637** using powers of ten.

6. Using a ruler and a pair of compasses only, construct an angle of **60°**

7. Given that  $x = 3$ ,  $y = 4$  and  $w = 2$ , find the value of  **$2x^2 y$**

8. Find the next number in the sequence.

**2, 4, 6, 8, \_\_\_\_\_, \_\_\_\_\_**

9. It takes Rachael 45 minutes to travel from Kampala to Kasangati, she arrived Kasangati at 12:30pm. At what time did Rachael leave Kasangati ?

10. Mr Kembo sold a bicycle and made a profit of **shs. 27,000**. If the cost price is **shs. 90,000**, calculate the percentage profit.
11. Find the largest number that is divisible by **24** and **30** without leaving a remainder.
12. The range of marks scored in a science test is **23**. If the highest mark scored **76**. What is the lowest mark scored.
14. Calculate the perimeter of a rectangle if the length is **7cm**.

15. Work out:  $28 - 14 + 37$

16. Solve for r:  $5 - 3r < 35$

17. Find the bearing of point **A** from point **B**.

18. Jesca bought **15kg** of rice. convert the kg of rice in grammes.

19. Today is Tuesday, what day of the week will it be after **31days** ?

20. The temperature of the human body is **-5<sup>o</sup>C**. The temperature rose by  $36^{\circ}\text{C}$  in the evening. Find the temperature in the evening.

**Turn over**

## **SECTION B: 60 MARKS**

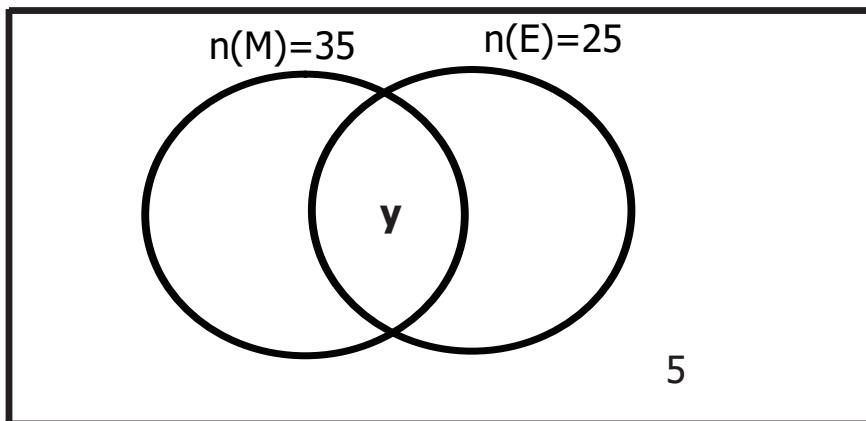
Answer all question in this section

Marks for each question are indicated in the brackets

21. In a class of 55 pupils, 35 like Mathematics (M), 25 like English (E) and 5 do not like any of the two subjects and  $y$  like both subjects.

- (a) Use the information to complete the Venn diagram below.

$$n(E) = \dots\dots$$



(1 mark)

- (b) How many pupils liked both subjects ?

(3 marks)

- (c) How many pupils like only one subject?

(2 marks)

22. Work out:  $\frac{0.0144 + 0.012}{0.36 - 0.01}$

(4 marks)

23.(a) Using a ruler and a pair of compasses only, construct a triangle **ABC** where  
**BC= 6cm, ABC= 90<sup>o</sup> and BCA= 45<sup>o</sup>**

(4 marks)

(b) Measure length **AC** in cm.

(1 mark)

24. Given that  $220_x = 1221_{\text{three}}$ , Find the value of  $x$  *(3 marks)*

25(a). Simplify:  $3x - 4y$  from  $x + 5y$  *(2 marks)*

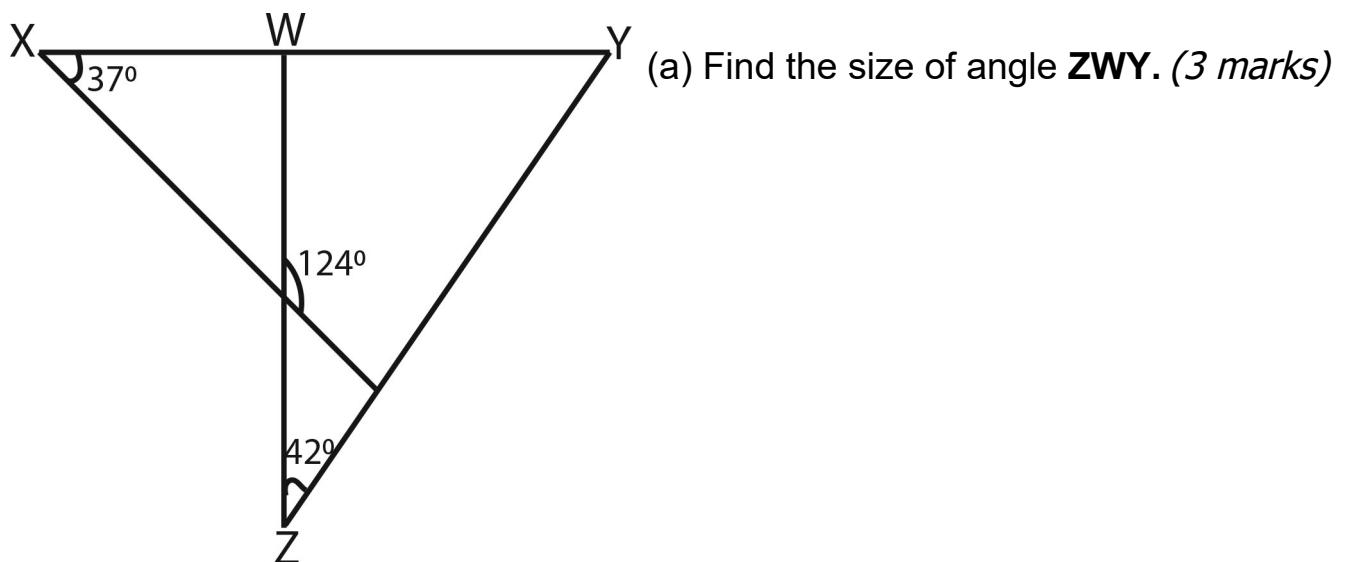
(b) Solve for  $p$ :  $\frac{5p - 4}{2} = p + 6$  *(3 marks)*

26.(a) Express  $0.\underline{2}333\dots$  as a common fraction in lowest terms. *(3 marks)*

(b) Simplify:

(3 marks)

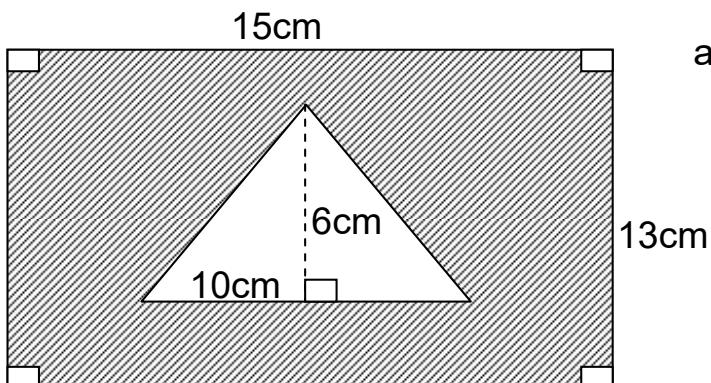
27. Study the diagram below and use it to answer the question that follow



(b) Calculate the size of angle  $Y$ .

(2 marks)

28. Use the figure below to answer the questions that follow.



a) Find the area of the outer figure.

(2 marks)

b) Find the area of the shaded part.

(3 marks)

29. A bicycle tyre can rotate **40** complete turns making a distance of **4280** cm.

Find the radius of a bicycle tyre.

(5 marks)

30. Mr. Mawazi went to the Supermarket and bought the following items.

Item	Unit price	Amount
3 kg of sugar	shs. 4,000	shs._____
2 bars of soap	shs. _____	shs. 10,000
gm of salt	shs. 800	shs._____
	Total Expenditure	shs. 24,000

(a) Complete the table above.

*(4 marks)*

(b) If Mr. Mawazi paid shs. 18,000. Find the percentage discount.

*( 2 marks)*

31. A taxi carries 14 people to become full while a bus carries 49 to become full. If a taxi made five trips and a bus made one trips when full.

(a) Find the number of people who were carried. *( 3 marks)*

(b) Find the amount of money that was paid for each passenger if the owner of the taxi was given shs. 56,000 per trip.

*( 2 marks)*

32. Bobi Wine bought a bull at sh.200,000, he sold it to Among at a profit of 40%.  
Among then sold it to Tayebwa at a loss of 20%.  
How much did Tayebwa pay for the bull?

*( 5 marks)*