

## THE E-LEARN EXAMINATIONS BOARD

## PRE NATIONAL MOCK 2024

# **SET ONE / FOUR**

## MATHEMATICS

Time Allowed: 2 hours 30 minutes

Index No.	EMIS No.					Personal No.		

Pupil's	Name:
Pupil's	Signature:
School	Name:
District	Name:

### Read the following instructions carefully:

- Do not forget to write your school or district name on the paper.
- This paper has two sections: A and
  B. Section A has 20 questions and section Bhas 12 questions. The paper has 12 printed pages altogether.
- Answer all questions. All working for both sections A and B must be shown in the spaces provided.
- 4. **All** answers **must** be written using a **blue** or **black** ball point pen or ink. Any work written in pencil will **not** be marked.
- 5. Unnecessary **changes** in your work and handwriting that cannot be read easily may lead to **loss of marks**.
- Do not fill anything in the table indicated:
  "For Examiners' use only" and boxes inside the question paper

FOR <b>EXAMINERS'</b> USE ONLY					
Qn. No.	MARKS	EXR'S NO.			
1 – 5					
6 - 10					
11 – 15					
16 – 20					
21 – 22					
23 – 24					
25 – 26					
27 – 28					
29 – 32					
TOTAL					

#### **SECTION A: 40 MARKS**

Answer **all** the questions in this section. Questions **1** to **20** carry **two** marks each.

- 1. Work out 24÷4 using repeated subtraction.
- 2. Draw a Venn diagram to show that girls (G) are females (F)
- 3. Simplify : -(-3)+ -4

4. Write the number whose scientific notation is  $3 \times 10^{-3}$ ?

5. Find the square of the next number in the sequence

84, 82, 79, 74, 67, .....

6. Work out  $\frac{2}{5} \div \frac{3}{4}$ 

7. What percentage of the diagram is shaded?

8. The probability of picking a green card in a bag containing 6 blue cards is  $\frac{3}{5}$ . How many cards are in the bag?

9. Solve for p: (XIV) + p = (XX)

10. How many lines of folding symmetry does the figure below has?





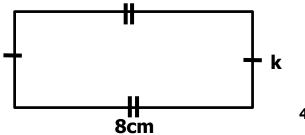
11. Find the value of *t* and *q* 

2	24	36
2	12	t
2	6	9
<i>q</i>	3	9
3	1	3
	1	1

12. Construct angle 90<sup>0</sup> at point A using a pair of compasses, ruler and pencil.

13. Express 1 week on a ratio of a fortnight

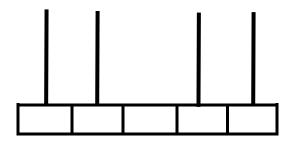
- 14. Simplify 5p 6r + 2r p
- 15. A rat moved round the figure below twice and covered 48cm. Find the value of k



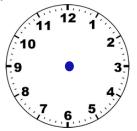


- 16. Nakiguli read an English novel from page 14 to page 23. How many papers did she read?
- 17. The position of Katongole from either side of the line is K. If there are 9 pupils on a line. Find Katongole's position.

18. Represent 43.04 on the abacus



19. Show a quarter to 9 on the clock face below



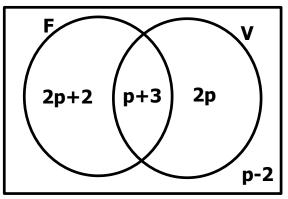
20. The cost of 3 text books is sh. 135,000. Find the cost of 2 similar text books at the same rate

## **SECTION B: 60 MARKS**

Answer **all** the questions in this section.

Marks for each question are indicated in brackets.

21. In a sports club, members play football and volley ball as shown in the Venn diagram below. Use the Venn diagram to answer questions that follow.



a) If there are 10 more members who play volley ball than football only, solve for P (02 marks)

b) Find the number of members who play football altogether.

(02 marks)

22. Namatovu Zam bought the following items from a market.

2kg of rice at shs 3200 per kg 1 <sup>1</sup>/<sub>2</sub> kg of meat at shs 8000 per kg A sachet of cooking oil at shs 1,750 500g of salt at shs 1,400 per kg

23. Given	that digits <b>0</b> , <b>3</b> , <b>5</b> and <b>4</b> .	
a) Forr	n two four digit members divisible by	
i)	4	(02 marks)
ii)	5	(02 marks)

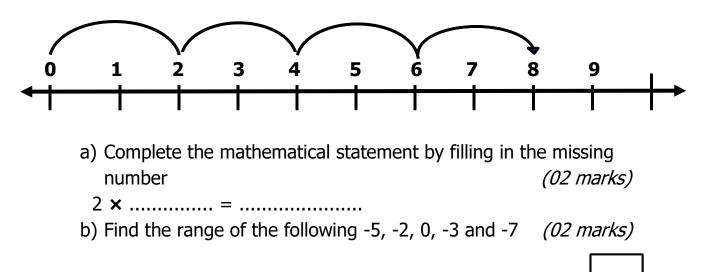
b) Find the difference between the largest and smallest 4 digit numerals that can be got from the digit above. (02 marks)

24. Tr. Keith drove from Bulo to Mpigi for 3 hours at a steady speed of 60km per hour. He left Mpigi at 11:00am and drove back to Buli on the same road at a steady speed of 90km/hr. At what time did Tr. Keith reach Bulo? (04 marks)

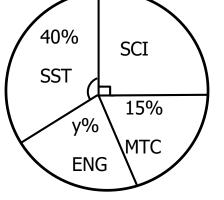


25. (a) With an aid of a apencil, a ruler and a pair of compasses only, construct a triangle SBK where  $\overline{SB} = 6cm$ , KSB = 75° and SBK = 30° (04 marks)

- (b) Drop a perpendicular from K to meet line SB at point T *(01 mark)*
- 26. Study the number line below and answer the questions above.



 The pie – chart below shows how vision park Junior School performed in PLE 2023 per subject in terms of Distinction per subject. Study it carefully and answer the questions.



b) If SST got 2 more distinctions than MTC and ENG, how many candidates sat for PLE in that school ion 2023 (03 marks)

28. The table below shows prime factors of  $F_{54}$  and  $F_z$  whose GCF is 18. Use it to answer the questions that follow

F <sub>54</sub> only	F <sub>z</sub> only	F₅₄ ∩ <b>F</b> z			GCF
k	22	31	21	t	18

Find the value of

(02 marks)

a) **t** 

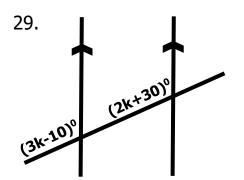
(01 mark)

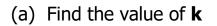
**Turn Over** 

b) **z** 

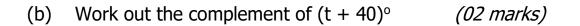
d) Find the LCM of F54 and Fz

(02 marks)

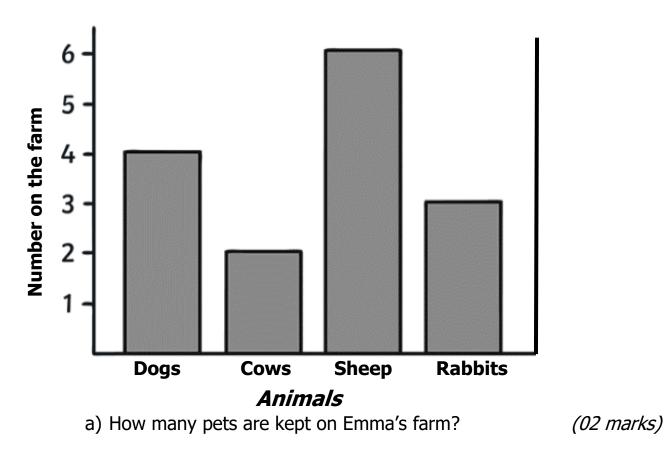




(02 marks)



30. The graph below shows some of the animals on Emma's farm. Study it carefully and answers the questions about it.



b) If **eight** cows were not represented on the graph, how may cows

are on the farm? (02 marks)

c) How many animals were represented altogether? (01 mark)

31. (a) Work out  $\frac{0.28 \times 0.08}{0.4 \times 1.4}$ 

(03 marks)

(b) 
$$1\frac{2}{5} \times 1\frac{1}{2} \div 3\frac{1}{2}$$
 (03 marks)

- 32. Square tiles of sides 20cm each were laid on the floor of a room measuring 6m by 4m.
  - a) Find the number of tiles needed to cover the floor. (03 marks)

b) If a box containing 25 tiles costs shs 30,000. Find the total cost for tiling the whole floor (02 marks)



### END