KISORO MUNICIPAL COUNCIL

PRIMARY LEAVING MOCK EXAMINATION 2023

MATHEMATICS

Time Allowed: *2 Hours 30 Minutes*

	Random No.						Personal No.		
Index No.									

Candidate's Name: .....

Candidate's Signature: .....

School Random No: .....

District ID: .....

READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

1. This paper has two sections: **A** and **B**.
2. Section **A** has **20** questions **(40 Marks)**.
3. Section **B** has **12** questions **(60 Marks)**.
4. Attempt all questions in both sections. All answers to both sections **A** and **B** must be written in the spaces provided.
5. All answers must be written in blue or black ball point pens or ***ink***. Only diagrams and graph work must be done in ***pencil***.
6. Unnecessary ***alteration*** of work will 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 boxes indicated: **"FOR EXAMINER'S USE ONLY"**

For Examiner's Use Only;

Qn. No	MARKS	INITIALS
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31 - 32		
TOTAL		

Please turn over

SECTION A: 40 MARKS
Attempt all questions in this section.
Questions 1 to 20 carry two marks each.

1. **Work out:**
$$\begin{array}{r} 8\ 4 \\ -\ 6\ 3 \\ \hline \\ \hline \end{array}$$

2. Express **CVIII** in Hindu - Arabic numerals.

3. **Work out:** 2x3 = _____ (finite 5) using the **dial** below.

4. Given set M = {All **prime** numbers less than **10**} and
set N = {All **whole** numbers less than 10}. Find **n(M∩N)**.

5. Draw a net of a cube in the space provided below.

6. **Simplify:** $2 - 1\frac{1}{3}$.

7. Change 14_{ten} to binary **base**.

8. Juliet tossed a **dice** once. What is the probability that a **square** number will appear on top?

9. At Kiri Soda Factory, bottles are packed in packs of **12 bottles** each. If they pack **500 packs** a day, how many bottles are packed in **a week?**

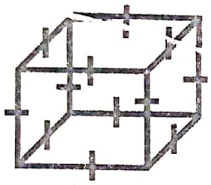
10. **Subtract** 3b - 2c **from** 5b + 3c.

11. If set K = {eye, ear, nose}; List all the proper subsets of set K.

12. Find the **missing** number in the sequence below.

____, 6, 12 , 24 , 48

13. Calculate the **length** of the wire used to form the cube below.



14. Express 12 : 40a.m. to 24 hour time.

15. Write 6 tens using bundles of ten.

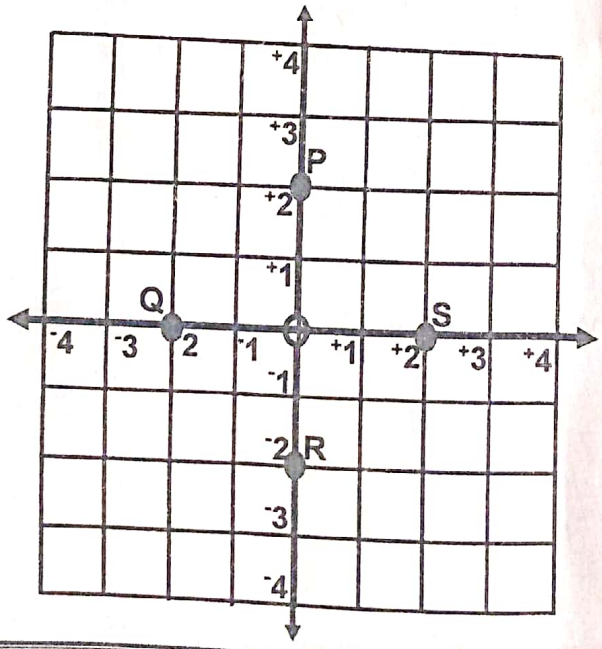
16. **Simplify:** $\frac{a^5 \times a^3}{a^2 \times a^4}$

17. Solve for $\square$ in the equivalent fractions below:

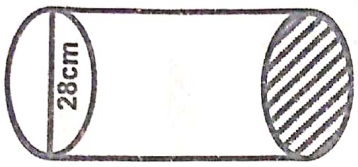
$\frac{1}{3} = \frac{\square}{9} = \frac{12}{\square}$

18. Use a ruler, a pencil and a pair of compasses only to construct an angle 135^0 in the space below.

19. On the grid drawn, join points **PQRS** and name the shape.



20. The figure below is a **cylinder**, find the area of the shaded part.
(Use $\pi = \frac{22}{7}$)

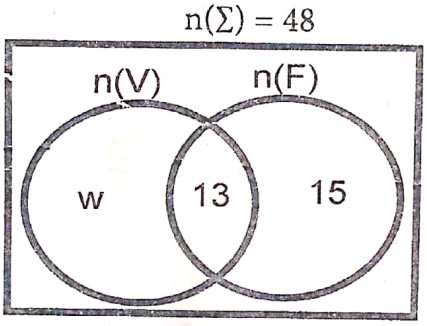


SECTION B: 60 MARKS

Attempt all questions in this section.

Marks for each part of the question are indicated in the brackets.

21. *The Venn diagram below shows 48 pupils who enjoy different games in a class. Use it to answer the questions that follow.*



a) How many pupils like volleyball only?

(02 marks)

b) What is the probability of picking a pupil at random from the class who likes only one type of game?

(03 marks)

22. a) Using a ruler, a pencil and a pair of compasses only, construct a square **ABCD** in a circle of radius **3.5cm**.

(04 marks)

b) Measure side AB = _____ cm

(01 mark)

23. a) Ongomo was last seen **29** days ago. If today is Sunday, which day of the week was Ongomo last seen?

(03 marks)

b) Solve for **W**: 3w + 5 = 6 (finite 7)

(02 marks)

24. a) Given the digits; **2**, **7**, **0** and **6**. **Form** and **write** the largest four - digit number in words.

(02 marks)

b) Form and express the **smallest** four - digit number in **standard** form.

(03 marks)

25. **The table below shows marks scored by pupils of Primary Seven.**
Use it to answer the questions that follow.

Marks scored	85	60	95	80
Number of pupils	2	4	1	3

a) How many pupils scored **above** the modal mark?

b) Calculate the **mean** mark. *(02 marks)*

26. Peter spent $\frac{1}{3}$ of his monthly salary on rent, $\frac{1}{6}$ on fees, $\frac{1}{12}$ on food and he banked sh: 125,000. *(03 marks)*

a) Calculate the **fraction** he banked.

(03 marks)

b) Find Peter's monthly **salary**?

(03 marks)

27. The **median** of 6 consecutive odd numbers is 20. If the last number is r, find;

a) the first number.

b) their **mean**. *(02 marks)*

28. Given the exchange rates; US dollar 1 = **3600** Ugandan shillings, Ksh 1 = 30 Ugandan shilllings; *(02 marks)*

a) How much money in **Ugandan shillings** will Alfred get from **800 US** dollars?

b) If a flat television set costs **50 dollars**, calculate the same cost in Kenyan shillings. *(02 marks)*

(03 marks)

29. a) Solve for **k**: 4k - 4 = 16.

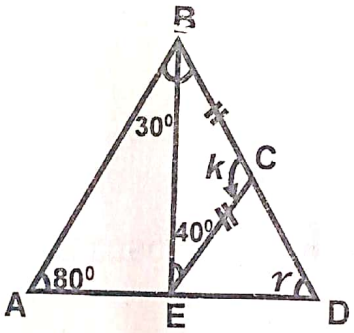
(02 marks)

b) Given that a = ⁻4, b = ⁻6 and c = $\frac{1}{2}$.

Evaluate **c(ab)**.

(02 marks)

30. **Study the figure below and answer the questions that follow.**



a) Find the size of angle **k**.

(02 marks)

b) Calculate the size of angle **r**.

(03 marks)

31. A motorist left home for town travelling at a steady speed of 80km/h as shown in the table below.

Station	Arrival	Departure
Home		8:00 a.m.
Town	11: 00 a.m.	

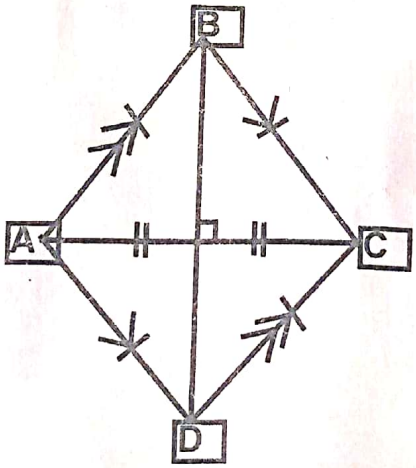
(a) How long did the journey take?

(02 marks)

(b) How far is his home from town?

(02 marks)

32. **ABCD** is a rhombus whose diagonals are **AC = 12 cm** and its perimeter is **40cm**. *Use it to answer the question that follows.*



Calculate the area of the kite.

(05 marks)