# THE SIPRO MID-TERM II EXAMINATIONS -2023
## PRIMARY SEVEN MATHEMATICS

**Time Allowed:** *2 Hours 30 Minutes*

Index No.

| Random No. | | | | | | Personal 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"**

**Please turn over**

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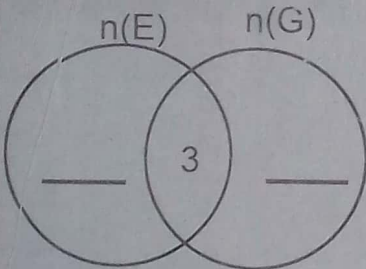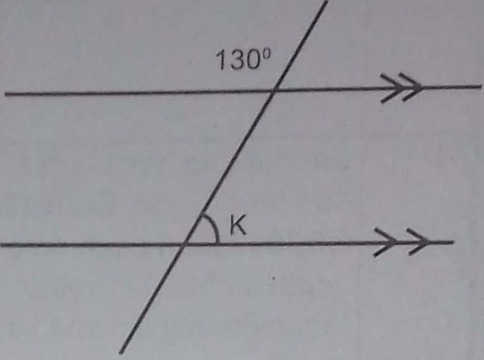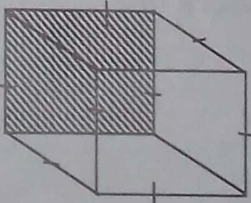
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## SECTION: 40 MARKS

*Attempt all questions in this section*

Questions 1 to 20 carry two marks each

| | | | |
|---|---|---|---|
| 1. | Work out: $\begin{array}{r} 1\ 4 \\ \times \quad\ 2 \\ \hline \\ \hline \end{array}$ | 2. | Write **XLII** in words. |
| 3. | Simplify: $4e-(5-e)$ | 4. | Express **40cm** as a percentage of **2m**. |
| 5. | Given that set:<br>$E= \{a, b, c, d, e, f, h\}$ and<br>$G =\{e, c, n, r, k, b, q, w, i\}$:<br>**complete** the venn diagram below.<br><br>n(E)   n(G)<br><br>___  3  ___ | 6. | Which number has been **prime factorised** to get $\{2,3, 5\}$? |
| 7. | The match started at **11:45am** and ended at **1:15pm**. How **long** did the match take? | 8. | Rebecca is 3.4 **metres** tall. What is her height in **centimetres**? |

| 9. | Find the **probability** of getting an **odd** number from set **P**. Given that set P= {0,1,2,3,4,5,6,8,9} | 10. | **Simplify:** 3 - 4 =_____(mod6) |
|---|---|---|---|
| 11. | Sandra has bank notes numbered from **EQ004300** to **EQ004399**. If each note was worth sh.5000 in value, how much money did she have? | 12. | Using a ruler, a pencil and a protractor, **draw** an angle of $130^0$. |
| 13. | **Work out:** $\begin{array}{r} 1\ 0\ 1_{two} \\ +\ 1\ 1_{two} \\ \hline \end{array}$ | 14. | If set **W** has **32** subsets, how many elements are in set **W**? |

| | | | |
|---|---|---|---|
| 15. | Find the mean of **4r+2,5,6 and7** | 16. | Matovu sold a motorcycle at **shs.2,800,000** making a loss of **shs. 150,000**. What was his cost price? |
| 17. | **Solve for h:** h- 6 =15 | 18. | Find the value of **k** in the figure below.  |
| 19. | **12** women can do a piece of work in **5** days. How many women are needed to do the same job in 6 days? | 20. | The **area** of the shaded part below is 25cm². Find its **volume**.  |

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IGNITE CRITICAL THINKING AND EXPERIENCE ACTUAL LEARNING WITH THE ACTIVITY BOOKS, SEMAS, TR'S GUIDES AND PUPIL'S COMPANIONS.
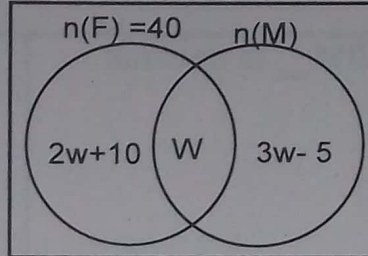
## SECTION B: 60 MARKS
*Attempt **all** questions in this section.*
*Marks for **each part** of the question are **indicated** in the brackets*

**21.** Given that **40** pupils like fish(**F**) and some like meat (**M**) while **W** like both sauces as shown in the venn diagram below. *Use it to answer the questions that follow.*

$n(F) = 40$   $n(M)$

2w+10 | W | 3w- 5

a) Find the value of **W**.

(02Marks)

b) Find the **number** of pupils who eat **meat**.

(02Marks)

c) Find the **total** number of pupils in the class.

(02Marks)

**22.** Noeline was driving a vehicle at a constant speed. She had to cover a distance of 132km in $2\frac{3}{4}$ hours.

a) Calculate the **speed** at which she was driving.

(02Marks)

| | | |
|---|---|---|
| b) | Calculate the **remaining** distance after driving **2 hours**. | |
| | | *(03Marks)* |

| 23.a) | Change **1011**$_{two}$ to decimal base. | If 204$_y$ = 112$_{four}$ Find the **unknown** base. |
|---|---|---|
| | *(02Marks)* | *(03Marks)* |

**24.** Timothy went to the shop and **bought** the following items:

$\frac{1}{2}$kg of rice at **sh.5000** each kg.

2kg of sugar at **sh. 4000** per kg

20 oranges at **sh. 3000** every 4 oranges

1kg of meat at **sh. 3500** $\frac{1}{4}$kg each.

Calculate his expenditure.

*(05Marks)*

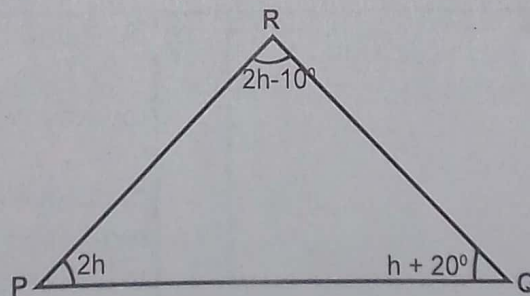| | |
|---|---|
| 25. | Kiiza scored the following marks in a weekly test **55,81,69,63,96,63** and **77** |
| a) | What was his **modal** mark? |
| | *(01Mark)* |
| b) | Find his **median** mark. |
| | *(01Marks)* |
| c) | What is the **probability** that Kiiza scored **a mark** below his average mark? |
| | *(03Marks)* |
| 26. | Below is a triangle **PQR**. *Study it carefully and answer the questions that follow.*  |
| a) | Find the value of **h**. |
| | *(03Marks)* |
| b) | Work out the size of angle **PRQ**. |
| | *(02Marks)* |

| | | |
|---|---|---|
| 27 a) | Given that **e = 2** and **k = ˉ4.** Find the value of **3e + 2k.** | |
| | | (02Marks) |

b) Jethro is **three** times as old as Sandra. If their total age is **68** years; How old is Jethro?

(03Marks)

28. a) **Work out:**

$1\frac{1}{3} - \frac{1}{2}$

(02Marks)

b) One day, Nisha covered $\frac{1}{2}$ of her journey by taxi, $\frac{1}{3}$ of it using a motorcycle and she walked the remaining **6km**. Calculate the **total distance** she covered.

(03Marks)

| 29 | Use the rectangular tank below to answer the questions that follow. |
|---|---|



40cm  50cm  30cm
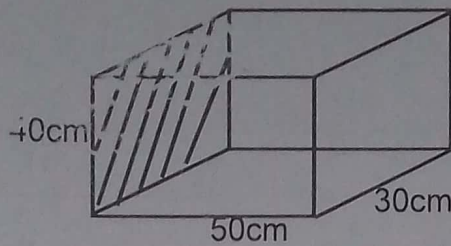
| | a) | Work out the **area** of the shaded part.<br><br>(02Marks) | b) | Calculate the amount of water the tank above can hold if it's full in **litres**.<br><br>(03Marks) |
|---|---|---|---|---|

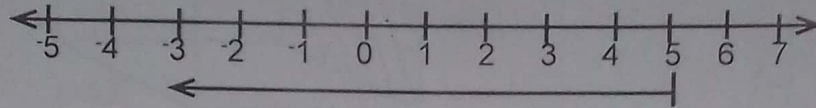| 30. | a) | With the help of a ruler, a pencil and a pair of compasses only, construct a triangle **PQR** in which **PQ =7cm** angle **RPQ = 120°** and **PR = 5cm**.<br><br>(04marks) |
|---|---|---|
| | b) | Measure angle **RQP**.<br><br>(01mark) |

**31. a)** On the number line below, draw the remaining **two** arrows to complete the subtractional statement $^-3 - {^+5} = {^-8}$.



(02marks)

**b)** If today is **Tuesday**, what day of the week was it **67** days ago?

(03marks)

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**32. a)** Express **0.0783** in standard form.

(02marks)

**b)** **Work out:** $(3.5 \times 14) + (3.5 \times 16)$ using distributive property.

(02marks)