THE SIPRO PREMIUM SET 2023

PRIMARY SEVEN MATHEMATICS END OF TERM II EXAMINATIONS

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/crossing*** 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;

PAGES	MARKS	INITIALS
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Total		

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SECTION: 40 MARKS

Attempt **all** *questions in this section*

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

1. **Work out:** 9 ÷ 3

2. Write **sh.2500** in words.

3. Find the **next** number in the **sequence**:

   9, 10, 14, 23, 39, 64,____

4. Convert **0.47km** to **metres**.

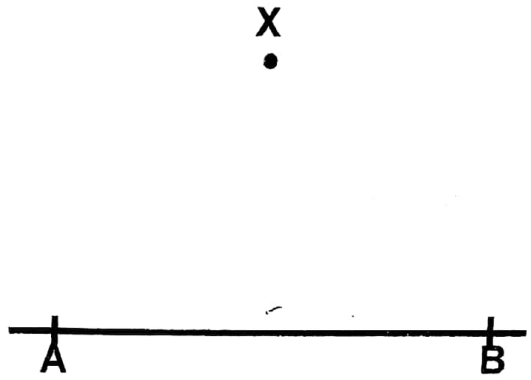
5. Given that Y = 2x + 1, **complete** the table below.

X	-2	
Y		5

6. A mathematics examination which was supposed to take **1 hour** ended at **1:25p.m**. What **time** did it begin?

7. **Simplify:** -8 - -3

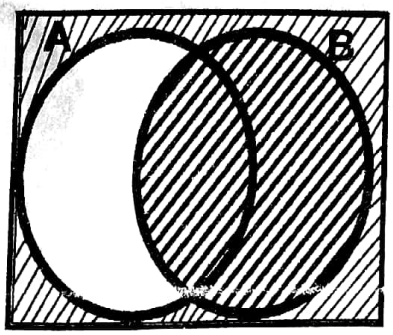
8. Using a ruler, a pencil and a pair of compasses only, **drop** a perpendicular line from point **X** to meet line **AB** at point **O**.



9. What number has been **expanded** to get $(4x10^3) + (8 x10^2) + (9 x10^{-1})$?

10. In a class of **80** pupils, the ratio of boys to girls is **2:3** respectively. Find the number of boys in Roman numerals.

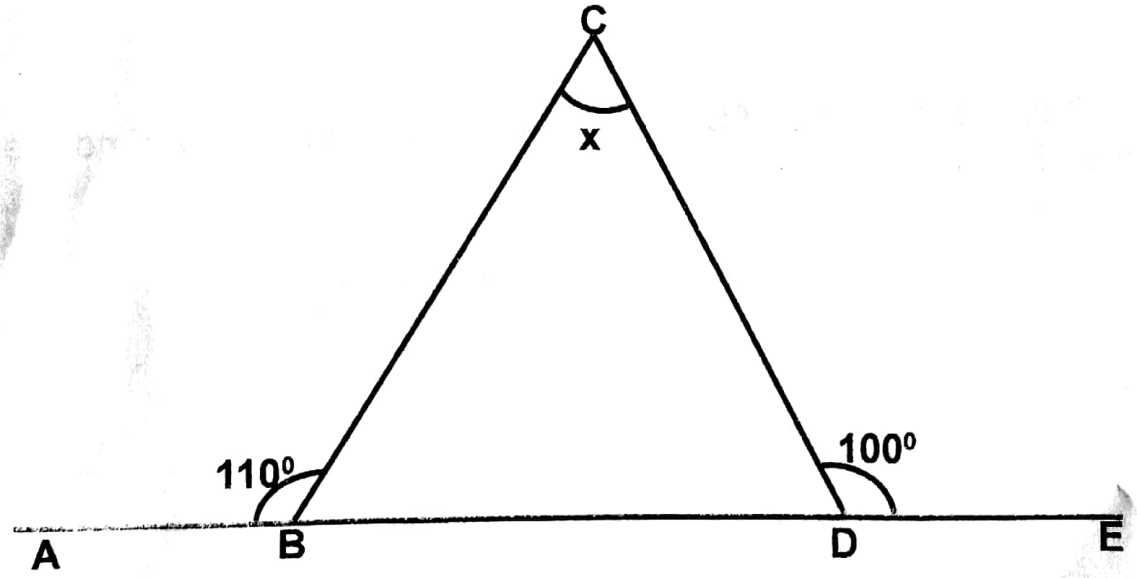
11. Describe the **shaded** region in the venn diagram below.



12. Work out the **LCM** of **12** and **18**.

13. **Solve for K:** 2k - 1 = 5 (finite 7)

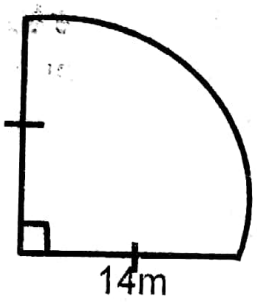
14. **ABDE** is a straight line and **BCD** is a triangle. Use it to find angle **X**.



15. The school bursar's salary of **shs. 400,000** was increased by **20%**. What is his new salary?

16. Work out the **perimeter** of the figure below.

[Take π as $=3\frac{1}{7}$]

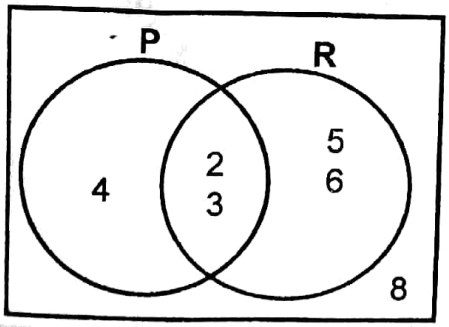


17. The sum of **two** numbers is **3**. If one of the numbers is $\frac{2}{5}$, find the other number.

18. **Simplify:** $\frac{48a^2b^2}{12ab^2}$

19. Write **849.5** in standard form.

20. List down all **elements** in set **P** complement.



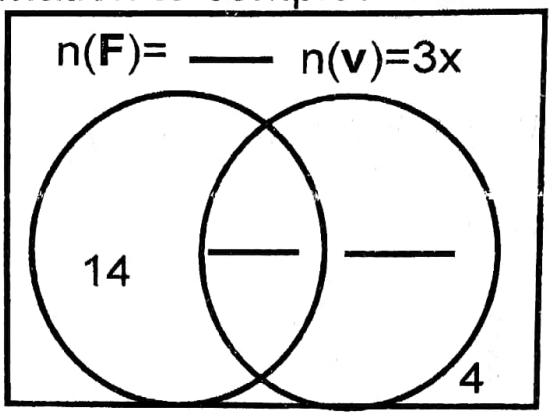
SECTION B: 60 MARKS

Attempt **all** *questions in this section.*

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

21. In a class, 14 pupils play football (**F**) only, 3x pupils play volleyball (**V**), 6 pupils play both football and volleyball while 4 pupils do not play either of the games.

(a) Use the given information to complete the venn diagram below.



(03marks)

b) Work out the **value** of **x** if there are **39** pupils in the class.

(02marks)

22.a) **Work out:** $\frac{3}{4} \div \frac{1}{6}$ of $\frac{5}{8}$

(02marks)

b) A tank is $\frac{2}{5}$ full of water. When **240** litres are drawn, it becomes $\frac{1}{4}$ full. Calculate the **capacity** of the tank when completely full.

(03marks)

23. The mean of **C - 6**, **C - 3** and **C** is **12**.

a) Work out the value of **C**.

b) Find the **median** of the three numbers. *(03marks)*

24. a) Round off **237.94** to the nearest whole number. *(02marks)*

b) Expand **237.94** using powers of tens. *(02marks)*

(02marks)

25. Andrew is **13** years older than Johnson. In **9** years time, Andrew will be twice the age of Johnson.
a)Work out the **age** of Andrew **now**.

(03marks)

b) Solve the inequality: **2y + 2 >10**.

(02marks)

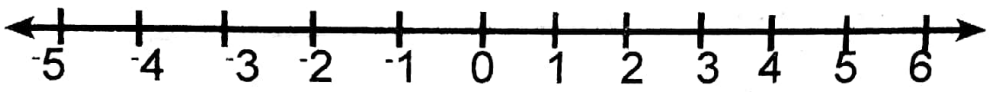
26.A mother bought the following items from the shop:
2kg of sugar at **sh.5,200** per kg.
$\frac{1}{2}$kg of meat at **sh.3,500** per $\frac{1}{4}$kg.
3,000 grammes of rice at **sh.5,400** every **1,000gm**.
a) Work out her bill.

(04marks)

b)If she was given **10%** discount on her bill, how much did she pay?

(02marks)

27.a) Use the number line to work out $^{-}2 - {}^{+}3$.



(03marks)

b) Judith went on Wednesday for term II holiday to her mother after **PLE** Examination. When was her last day in the week if she stayed for 7 days?

(02marks)

28. The **interior angle** of a regular polygon is 36^0 more than the exterior angle.

a) How many **sides** has the polygon?

(03marks)

b) Work out its **interior** angle sum.

(02marks)

29. The timetable below shows the departure and arrival time of the bus for different towns.

Days	Kampala	Mityana	Mubende	Fort Portal
Arrival time		8:45am	11:00a.m	1:30pm
Departure time	7:00am	9:00am	11:15am	

a) Express the arrival time at Fort Portal in **24 hour** clock time.

(02marks)

b) For how **long** did the bus stay at Mityana?

(02marks)

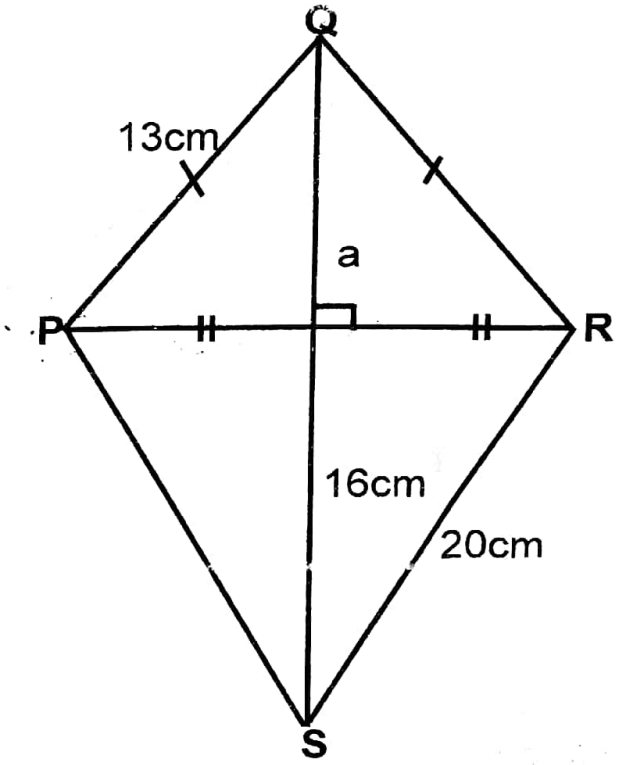
c) Calculate the distance the bus covered from Kampala to Fort Portal if it was travelling at **80km/h**.

(02marks)

30. Calculate the principal that amounted to **sh.4,800,000** at an interest rate of **10%** per annum in 2 years.

(05marks)

31. **PQRS** is a kite whose diagonal **PR** is 24cm, diagonal **QS** is (a + 16) cm, side **PQ** is 13cm, and side **RS** is 20cm.



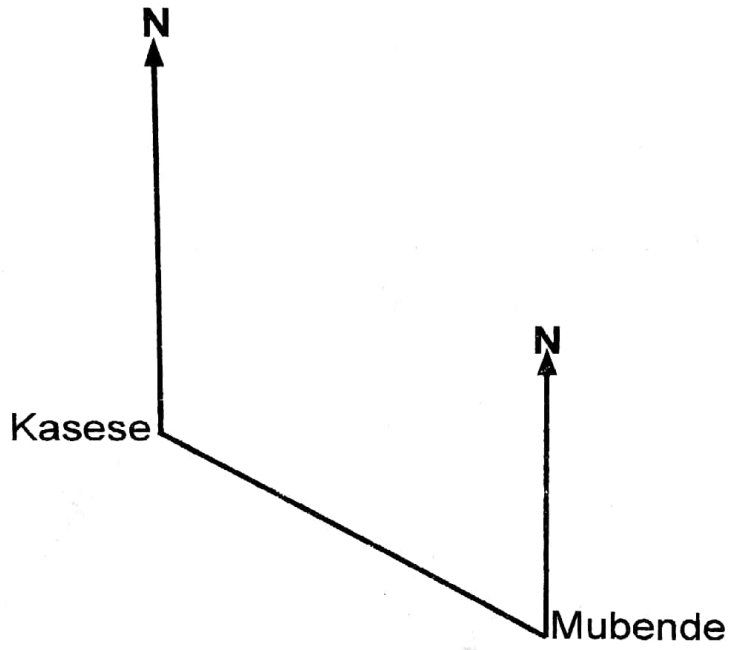
a) Calculate the height of triangle **PQR**.

(03marks)

b) Work out the area of the kite **PQRS**.

(02marks)

32. **The diagram below is accurately drawn showing two towns at different bearing.** *Use it to answer the questions that follow.*



a) Measure the bearing of Kasese from Mubende.

(02marks)

b) Use a scale of **1cm** to represent **20km**, find the distance between Kasese and Mubende.

(02marks)