HON. TUSHABOMWE DAVID NDINDI

RUBABO COUNTY RUKUNGIRI DISTRICT

PRE - P.L.E ASSESSMENT - 2023

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Random No.						Personal No.		

Candidate's Name:.....

Candidate's Signature:.....

District ID No. | | | | |

Read the following instructions carefully:

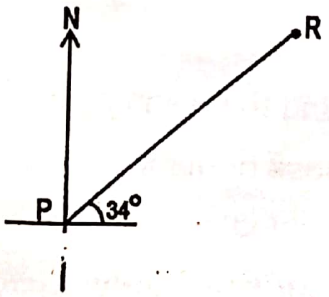
1. Do not write your **school** or **District name** anywhere on this paper.
2. Section **A** has **20** questions **(40 marks)**
3. Section **B** has **12** question **(60 marks)**

   Attempt **ALL** questions.

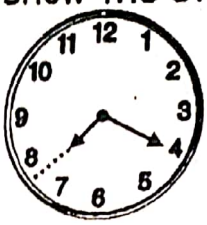
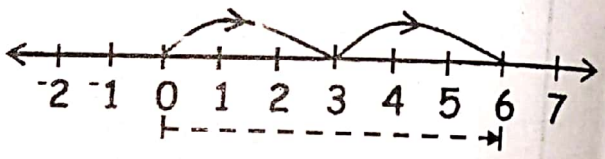
   All answers to both sections **A** and **B** must be written in the spaces provided.
4. All answers **MUST** be written using **blue** or **black** ball – point pen or **ink**. Diagrams should be drawn in **pencil**.
5. Unnecessary **changes** of work may lead to loss of marks.
6. Any handwriting that cannot easily be read may lead to **loss** of marks.
7. Do not fill anything in the boxes indicated **"For examiner's use only".**

FOR EXAMINERS' USE ONLY		
Qn. No.	MARKS	EXR'S NO.
1 – 10		
11 – 20		
21 – 22		
23 – 24		
25 – 26		
27 – 28		
29 – 30		
31 – 32		
TOTAL		

SECTION A (40 Marks)

1.	Workout: $21 \div 3$	2.	Solve: $7 + x = 11$
3.	Express 125g as a fraction of a kilogram.	4.	Change 1010_{two} to base ten.
5.	Work out $1\frac{1}{2} - \frac{2}{3}$	6.	If set P = {1, 2, 3, 4} and set M = {1, 3, 5, 6, 7}, find n(PUM)
7.	The cost of 6 counter books is sh. 45,000. Find the cost of 4 similar books.	8.	On the diagram below, find the bearing of P from R. 

9.	Find the sum of the 3^{rd} and 5^{th} triangular numbers.	10.	In a class of 45 pupils, the ratio of girls to boys is 3:2. How many boys are in the class?
11.	Work out the median of the following numbers. 0, 3, 6, 2, 5, 1 and 4.	12.	If P = r and r = 4, q = 3, evaluate $\frac{pq}{r}$
13.	The average length of 3 wires is 38cm. Two of the wires measure 44cm each, calculate the length of the third wire.		
14.	Kapere paid sh. 36,000 for a shirt which was at 10% discount. How much was the discount?		

15.	Simplify: $2(7 - p) - (8 - 9)$	16.	The hands of the clock face below show the evening time.  Write the time shown in a 24 hour clock system.
17.	Samalie deposited sh. 1,200,000 in a bank which offers a simple interest rate of 9% p.a. calculate the simple interest Samalie earned after a period of 7 months.	18.	Write the Mathematical statemer represented on the number lir below. 
19.	The width of a rectangular garden is 7 metres shorter than its length. If the garden has a perimeter of 62 metres, find the width.	20.	What number was expanded to give; $(3\times10^4)+(7\times10^2)+(8\times10^1)+(6\times10^0)$?

23. Given the exchange rates below.

Currency	Buying in Ug Sh.	Selling in Ug Sh.
1US Dollar ($)	3,700	3,800
1 Euro (€)	4,200	4,300
1 British pound (£)	4,600	4,700

(a) A trader exchanges Ug Sh. 2,280,000 for dollars ($). How much did he get? (2marks)

(b) A tourist exchanges £301 for Euros. How many Euros was he given? (3marks)

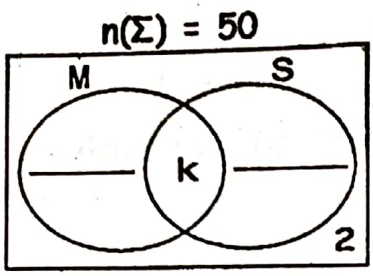
24. Kizito bought a blanket which he later sold to Kalumba at sh. 84,000 making a profit of 20%. Kalumba also sold the same blanket to Kakaire making a loss of 15%.

(a) How much money did Kizito buy the blanket? (3marks)

SECTION B: (60 Marks)

21. In a class of 50 pupils, 40 like Mathematics (M), 25 like Science (S), K like both subjects while 2 like neither of the two subjects.

(a) Use the above information to complete the venn diagram below. **(2marks)**



(b) How many pupils like both Mathematics and Science? **(2marks)**

(c) How many pupils like Mathematics only? **(2marks)**

22. A rectangular tank measuring 60cm long by 40cm wide by 50cm high is full of water.

(a) What is the volume of water in the tank? **(2marks)**

(b) If 24 litres of water are removed from the tank, what will be the height of the remaining water in the tank? **(3marks)**

(b) How much was Kalumba's loss? (2marks)

25. Given that PF 36 = $2^2 \times 3^2$ and PF 54 = $2^1 \times 3^3$, use the prime factors to find;

(a) GCF of 36 and 54. (2marks)

(b) LCM of 36 and 54. (2marks)

26. A shirt costs half as much as a pair of trousers, and a sweater costs a third as much as a pair of trousers. If the total cost of buying a shirt and a sweater is sh. 42,500, work out the cost of the pair of trousers. (4marks)

27. Deborah left Mbarara at 8:30a.m and drove to Lyantonde at a speed of 80km/hr for one hour and 30 minutes. She rested for half an hour then resumed her journey at a speed of 86 km/h and reached Masaka at 12:30p.m.

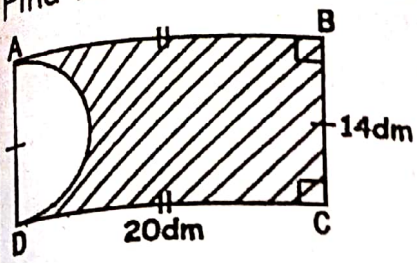
(a) At what time did Deborah leave Lyantonde? (2marks)

(b) Calculate Deborah's average speed from Mbarara to Masaka. (4marks)

28. If $y = 2(x + 1)$, complete the table below. (5marks)

x	1	2	.....	0	.....	-3
y	3	.....	0	.....	10	.....

Find the area of the shaded part **ABCD** below (Take $\pi = \frac{22}{7}$). **(5marks)**



(2marks)

(a) Workout: $101_{two} \times 11_{two}$.

(3marks)

(b) Solve: $203_k = 38_{nine}$.

31.	When **marking** a test of **20** questions, a teacher awarded **5** marks for every **correct** answer got **but** deducted **2** marks for every **wrong** answer **got**. (a) A boy got **17** correct answers. What **mark** was he **given**? **(2marks)** (b) If Namata got **44** marks, how many **wrong** answers **did** she **give**? **(3marks)**
32.	Using a **pair** of **compasses**, **ruler** and **pencil** only; (a) Construct a triangle **PQR**, where **PQ** = 6.5cm, angle **PQR** = 45^0 and angle **QPR** = 60^0. **(4marks)** (b) Measure the length **PR**. _____ **(1mark)**

THE END