HORMISDALLEN SCHOOLS' EXAMINATIONS BOARD

PRE-PLE SET ONE 2025

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Random No.						Personal No.		

Candidate's Name: _____

Candidate's signature: _____

Branch: _____

Stream: _____

Read the following instructions carefully.

1. The paper has **two** sections **A** and **B.**
2. Answer **all** questions**. All** answers to both Sections **A** and **B must** be written in the Spaces provided.
3. **All** answers must be written using a **blue or black ball-point pen or ink.**
4. Unnecessary changes of work may lead to loss of marks.
5. Any handwriting that cannot easily be read may lead to loss of marks.
6. Do **not** fill anything in the boxes indicated **"For Examiners' Use Only"** and those inside the question paper.

FOR EXAMINERS' 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		

SECTION A: 40 MARKS

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

1. **Work out**: 20 ÷ 4 using repeated subtraction.

2. **Simplify:** zy + mp + 3zy - mp

3. Find the next number in the sequence below.

   5, 7, 10 , 15 , 22 , _____

4. What number has been expanded to give;
   $(2 \times 10^{3}) + (4 \times 10^{-2})$?

5. **Work out**: $1\frac{2}{3} - \frac{5}{6}$

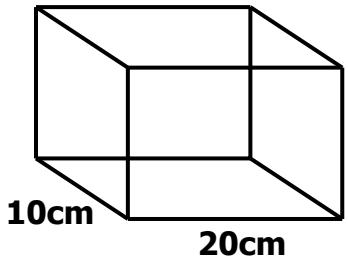
6. The average mass of **3** girls is **140kg**. The average mass of the **2** girls is **135kg**. Find the mass of the third girl.

7. Joan sold **120** goats from her farm and the number of goats reduce in the ratio of **5:7**. Find the new number of goats on her farm.

8. **Solve:** 9 - r = 3.

9. Given that set **P** = {1 , 2 , 3}. List all the improper subsets of set **P.**

10. The volume of the box below is **400cm^3.**



Find the height of the box.

11. Samuel left Kampala for Mbale at **12:42am**. Express his departure time in a **24** hour clock system.

12. Express $\frac{4}{11}$ as a recuring decimal.

13. Mapeera building was demolished in **38AD** after **98** years since it was built. In which year in **BC** was it built?

14. Makebe was born on 29th February of one of the two years below. **1900, 1994**. Find the correct date and year on which Makebe was born.

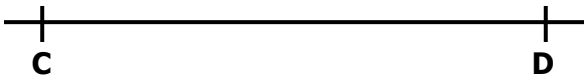
15. **Work out**: $2^{-4} + {}^{-}2^{4}$

16. Tom moved from Kampala at a speed of 40km/h to Luwero. If he started the journey at 10:20pm and Luwero is $66\frac{2}{3}$km away from Kampala, At what time did he reach Luwero?

17. **Complete the table below in finite five.**

+	3	4
2	0	
3		2

18. Using a pair of compasses, a ruler and a pencil only, construct line **AB** parallel to **CD** 3cm apart.



19. Find the sum of the value of **2** and the value of **4** in **2340**$_{\text{five.}}$

20. Round off **389.42** to the nearest hundred.

SECTION B

21. Oluwa went to the market with 24-one hundred US dollar notes and bought the following in Uganda.

2 mattresses at ug shs 240,000.
3 cellphones at ugsh 200,000 each phone
4 grosses of books at ugsh 20,000 per dozen.

a) How much money did he spend altogether in **Ugsh.** ***(3marks)***

Given the exchange rates.

Currency	Buying rates	Seling rates
US Dollars	3600	3650
Kenyan shillings (KES)	35	36

b) i) How much money was he left with in Uganda shillings. ***(2marks)***

ii) If he exhausted the remaining amount to Kenya shillings, how much in **KES** did he get? ***(1mark)***

22. Penge penge spent **25%** of his pay on food, out of the remainder he paid some school fees and saved $\frac{5}{8}$ of the pay.

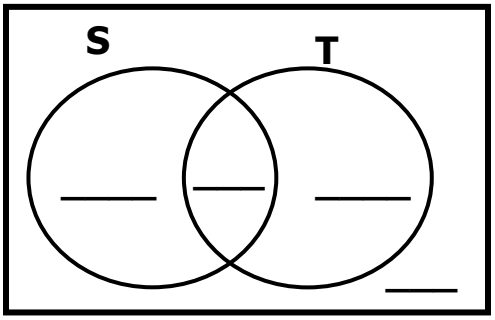
a) What fraction of the remainder was paid as fees? ***(4marks)***

b) If his school fees was **sh.60000**, what was his pay? ***(2marks)***

23. In a village of maize growers, **(4g + 8)** people grow both maize and Cassava (c) **(9g – 4)** people grow both maize and rice (R) but not cassava, **(g + 2)** people who grow casava also grow rice while **(3g + 4)** people grow only maize.

a) Complete the Venn diagram below. ***(4marks)***

n(ℰ) = n(m)



b) Given that the number of people who grow either maize and cassava or maize and rice is less than the total number of people in the village by **34** people, find the value of **g**. ***(1mark)***

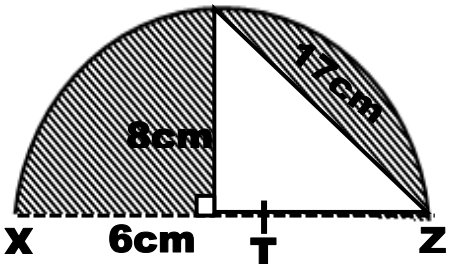
24. A bicycle wheel of diameter **56cm** was used to move from Kampala to Mbale and made **10000** revolutions at a speed of **11km/h.**

Calculate the total time taken to complete the whole journey. ***(4marks)***

25. a) **Solve**: 2 (3y + 4) - 2 (6 -2y) = 16. ***(2marks)***

b) Given that pk = 18, p = 3, find the value of **K + P**. ***(2marks)***

26. Study the figure below and answer the questions that follow.



Given that **T** is the centre of the semi-circle;

a) Find the perimeter of the shaded part. ***(3marks)***

b) Calculate the area of the shaded part. ***(3marks)***

27. Kadha played a game on his phone and found out that he could score **4** points for a game won and **r** points could be deducted from him for a game lost. At the end of **25th** game, he realized he had collected **70** points from **20** games won.

a) Find the value of **r**. ***(3marks)***

b) Given the statement, "Samuel can score atmost 20 marks". Use letter **S** to show the above statement as an inequality. ***(2marks)***

28. The two consecutive even numbers are 4y - 8 and 3y - 1.

a) Fid the value of **y**. ***(2marks)***

b) Find the sum of the numbers. ***(2marks)***

29. a) Using a pair of compasses, a ruler and a pencil only, construct a triangle ABC where $\overline{AB}$ = 7cm, angle ABC = 30^0 and angle ACB = 45^0.

(4marks)

b) Measure $\overline{BC}$. ***(1mark)***

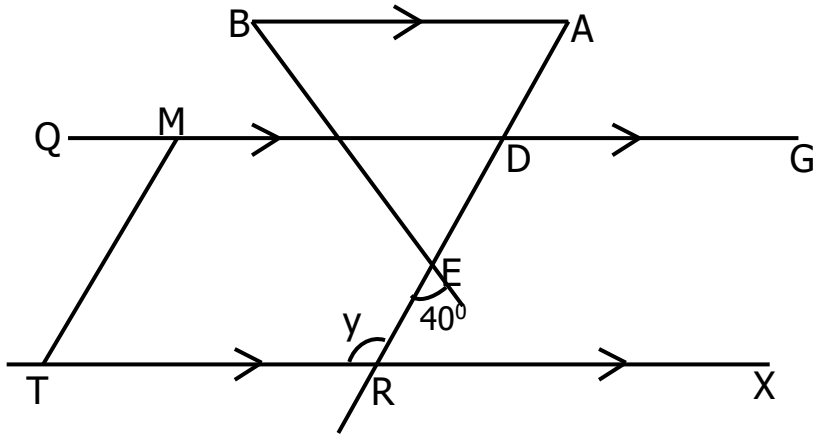
30. a) Express **2.486** in standard form. ***(1mark)***

b) **Simplify**: $2^2 \div 2^6 \times 2^2$. ***(3marks)***

c) Find the missing values in the table below of base five. ***(2marks)***

+	3	4
4	_____	13
2	10	_____

31. Study the figure below and answer the questions that follow.



Given that $\overline{\mathbf{BE}} = \overline{\mathbf{EA}}$ of the triangle **ABE** and $\overline{\mathbf{RA}}$ is parallel to $\overline{\mathbf{TM}}$.

a) Find the size of angle marked **y**. ***(3marks)***

b) Work out the size of angle **TMQ**. ***(1mark)***

32. **3** boys Kainan, Tanga and Sango contributed **sh.20,000, sh.40,000** and **sh.30,000** respectively towards making a pan cake selling business. Show the contribution of the **3** boys on a circle graph of radius **4cm**.
(6marks)

END