KAMPALA PARENTS' SCHOOL 2004
PRE-PLE SET I EXAMINATION - 2023
MATHEMATICS
TIME: 2 HOURS 30 MINUTES

Index No.

EMIS NO						Personal No.		

Candidates Name …………………………………………………………………………

Candidates' Signature …………………………………………………………………………

EMIS No. …………………………………………………………………………

District Name …………………………………………………………………………

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO

Read the following instructions carefully.

1. This paper is made up of two Sections: A and B.

2. Answers to both sections must be written in the spaces provided in full sentences.

3. Section A has 20 questions (40 marks)

4. Section B has 12 questions (60 marks)

5. Attempt all questions. All answers to both sections A and B must be written in the spaces provided.

6. All answers must be written in blue or black ballpoint pen or ink but not in pencil. All work
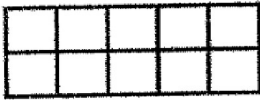
FOR EXAMINERS USE ONLY		
QN. NO.	**MARK**	**SIGN**
1 - 10		
11 - 20		
21 - 22		
23 – 24		
25 – 26		
27 – 28		
29 – 30		
31 – 32		
TOTAL		

SECTION A (40 MARKS)

1. **Multiply:** $\begin{array}{r} 1\ 4\ 3 \\ \times\ \ \ 2 \\ \hline \end{array}$

2. **Simplify:** $3m - 2n + m =$

3. Shade $\underline{\dfrac{2}{5}}$ in the diagram below.
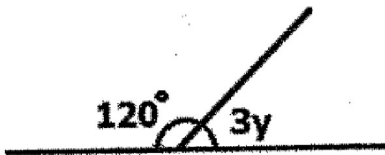

4. A security guard counted the number of cars which entered the school gate on a Saturday as shown.

   How many cars were counted?

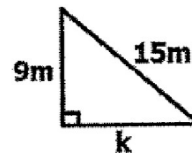5. Find the **value** of **y** in the diagram below.

6. What **morning** time is shown on the clock face?

7. **Solve:** $2x - 4 = 8$

8. Musherembe is on a bearing of 250° from Mushabe. Calculate the bearing of Mushabe from Musherembe.

9. Calculate for the **value** of **k** on the figure below.

10. Mr. Mushushu bought a TV set for shs.450,000 and sold it making a profit of 80,500. Find the **selling** price of the TV.

11. Given that set A = {1, 2, 3, 4, 5, 6}, B = {2, 3, 5, 7}, find **n(A − B)**.

12. Prime factorise **36** and present prime factors in a product form.

13. **Add:**

kg	gm
5	250
+ 2	750

14. **Work out:** $\sqrt{p} = 16$

15. Express **149** in Roman numerals.

16. If ⚽ represents **5** balls, how many balls are represented by ⚽ ⚽ ⚽ ⚽ ?

17. Round off **97.568** to the nearest two decimal places.

18. In a class of **50** pupils, **30** are girls and the rest are boys. What **percentage** of pupils are boys?

19. **Work out:** $\frac{5}{6} - \frac{1}{4}$ of $\frac{1}{3}$

20. If today is Tuesday, what **day** of the week will it be **27** days from now?
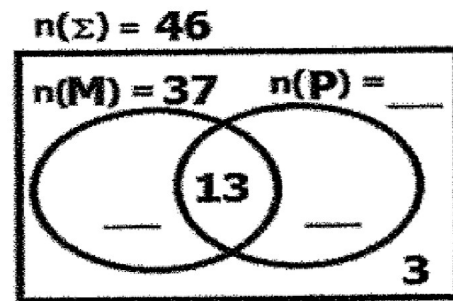
SECTION B (60 MARKS)

21. a) **Simplify:** $\dfrac{0.42 \times 0.36}{0.018 \times 0.14} =$ (3mks)

b) **Work out:** $1\frac{1}{2} + 2\frac{1}{3} \times 2\frac{2}{5} =$

(3mks)

22. In a class of **46** pupils, **37** pupils like Music (M), **y** pupils like P.E (P) only, **13** pupils like both P.E and Music while **3** like neither of the two subjects.

a) Complete the Venn diagram below. (3mks)

b) Find the **value** of **y**. (2mks)
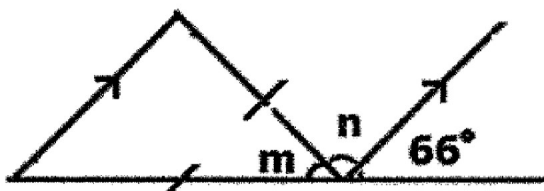
c) Find **probability** of picking a pupil who likes P.E. (1mk)

23. a) Write **296.15** in **expanded** form using exponents. (2mks)

b) Work out the **product** of the place value of **2** and the value of **1** in the number above. (2mks)

c) Write the number above in **scientific notation.** (2mks.)

24. <u>**Use the diagram below to answer questions that follow.**</u>

a) Find the **value** of **m**. (2mks)

b) Work out the **value** of **n**. (2mks)

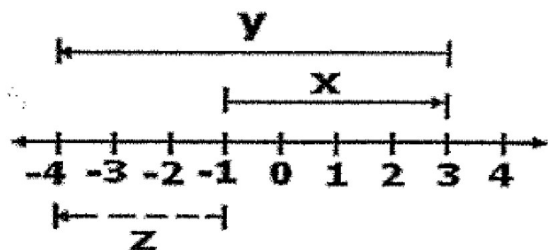25. a) A P.7 candidate did different tests and scored as shown below.
47, 30, 52, 23, 38, 50, 40

(i) Find his **median** mark. (2mks)

(ii) Calculate his **mean** mark. (2mks)

b) Find the **average** of; 2x, 3, 6x and 1. (2mks)

26. <u>**Use the number line below and answer the questions that follow.**</u>

a) Write the **integers** represented by arrows. (1mk@)
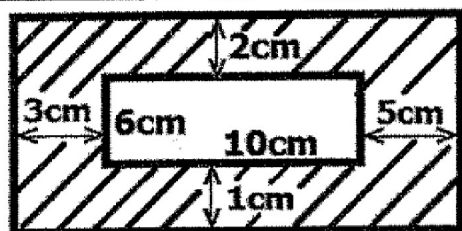
(i) X _____

(ii) y _____

(iii) z _____

b) Write a mathematical **sentence** for the above. (2mks)

b) Work out the **area** of the shaded part. (3mks)

27. Mbwatekamwa travelled from Kampala to Igara West at a speed of **80km/hr**. He returned to Kampala immediately travelling at a speed of **120km/hr**. If the whole journey took him **5** hours. How far is Igala West from Kampala? (3mks)

29. **Rutaraka went to the market and bought the following items.**

  3 bars of soap at shs.6,000 per bar

  2½kg of sugar at shs.4,000 per kg

  750ml of cooking oil at shs.1,000 per litre

  2kg of ghee for shs.12,500

  a) Calculate the **total** expenditure. (4mks)

28. **The diagram below shows the table cloth on top of the table.**

a) Find the **actual** length and width of the table. (2mks)

b) If he went with a **fifty** shilling note, find his **change**. (2mks)
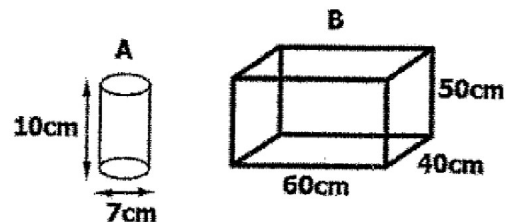
30. a) **Solve:** $0.4x = 6$ (2mks)

b) **Work out:** $2(3y - 1) = 4y + 13$

                       (3mks)

31. (a) Using a pair of compasses, a ruler and a sharp pencil, construct a **rhombus** MAKE with diagonal **MK = 8cm** and **AE = 6cm.**

                       (4mks)

(b) Calculate the perimeter of the rhombus above.   (2mks)

32. **The diagram below shows tins of type A which were packed in box B in a glucose factory.**

a) How many tins will **fill** the box completely?   (2mks)

b) Calculate the **volume** of the space left after packing?   (3mks)

*** Good Luck! ***