



UMAKA

INTERNAL EXAMINATION (SET 3) - 2023

MATHEMATICS

Time Allowed: 2 Hours 15 Minutes

INDEX NO:

--	--	--	--	--	--	--	--	--	--

Candidate's Name: _____

Candidate's Signature: _____

District Name: _____

READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

1. This paper is made of 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. 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 points 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.

FOR EXAMINER'S USE ONLY

PAGES	MARKS	SIGN
Page 2		
Page 3		
Page 4		
Page 5		
Page 6		
Page 7		
Page 8		
Page 9		
Page 10		
Page 11		
Page 12		
Page 13		
Page 14		
Total		

Turn over

INTERNAL PRE-PLE MATHEMATICS P.7 (SET 3)**SECTION A**

1. Work out: $36 \div 3$.

2. Write the expanded number below in standard form.
 $4000 + 500 + 9$.

3. Work out:

Kg	g
4	400
+ 2	500
<hr/>	
<hr/>	

4. Given that set $R = \{ \text{vowel letters between } \underline{U} \text{ and } \underline{Z} \}$.
Find $n(R)$.

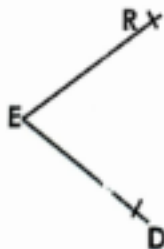
5. Subtract $(2y - 3)$ from $(y - 5)$.

6. In an examination paper, it was found out that every after four easy questions, there was one hard question. If the paper has 33 more ^{easy} hard questions than ^{hard} easy ones, how many questions did the paper have?

7. Write the next number in the sequence below in Hindu – Arabic numerals.

II, VI, XII, XX, XXX, _____.

8. Using a pair of compasses, a ruler and a sharp pencil only, bisect the reflex angle RED below.






9. A forty-minute lesson started at quarter to 7 in the morning. At what time did it end?

10. Mutebi was born in 1986. After some years, Milly was also born. In 2016, Mutebi got married to Milly when she was 6 years younger than him. Find Milly's year of birth.

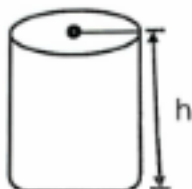
11. During a music festival, the organiser issued tickets each at sh. 5000. If the tickets were numbered consecutively from 4863 to 4872, how much money did the organiser get?

12. The pictograph below shows apple trees and the fruits they bear. Complete it correctly.

Picture trees		_____
Picture apples		
Exact number of apples	_____	900

13. Work out: $\frac{3}{5} - \frac{2}{4}$.

14. The base area of the figure below is 154cm^2 and its volume is 3080cm^3 . Calculate the value of h .



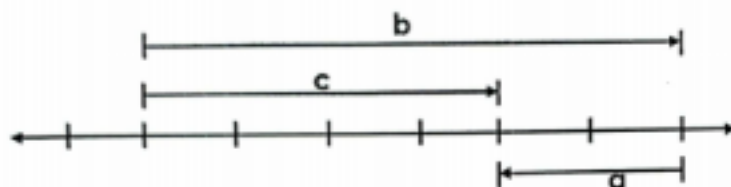
15. Work out: $304_{\text{five}} + 120_{\text{five}}$.

16. The LCM of two numbers is 120 and their GCF is 6. If the first number is 24, find the second number.

17. A taxi left Kyotera with 13 people, when they reached Kalisizo, 3 passengers got out and 2 new passengers entered. When it reached Bukunda, some passengers got out. If it reached Masaka with 7 people, how many people got out from Bukunda?
18. Solve for k if the undelined number in the equation below is divisible by eleven.
 k 816 k 5 = 0
19. Some boys were playing in a field. Another boy came to join them and asked, "How many are you?" They replied, "We need half of us plus you to become 100. How many boys were initially in the field."
20. The direction of town V from town M is $S 54^{\circ}E$. Find the bearing of M from V.

SECTION B : 60 marks

21. Study the number line below and use it to answer the questions that follow.



- (a) Name the integers represented by; (3 mks)

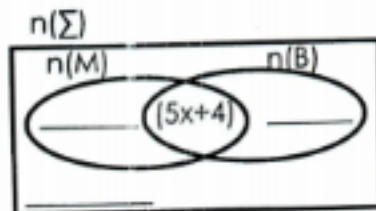
(i) $b =$ _____

(ii) $a =$ _____

(iii) $c =$ _____

- (b) Write down the mathematical sentence shown on the number line above. (1 mk)

22. In a village, $(3x - 2)$ farmers grow maize only (M), 8 farmers grown only beans (B), 20 farmers do not grown any one the two crops while $(5x + 4)$ farmers grown both neans and maize.
- (a) Use the information above to complete the venn diagram.



- (b) Given that the number of farmers who grow beans is the same of those who do not grow maize, find the value of x .
(2 mks).

- (c) How many farmers do not grow maize? (1 mk)

23. (a) Write 0.37 as a ratio. (2 mks)

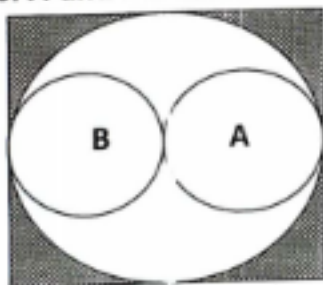
- (b) Simplify: $\frac{0.36 \times 0.14}{0.24 \times 0.7}$ (3 mks)

- (c) Write 0.78 in words. (1 mk)

24. A trader bought 36 eggs each at sh. 200. On his way, some eggs broke and he sold the remaining eggs each at sh. 330 making a profit of 10% at the end.
- (a) Find the cost price of 36 eggs. (2 mks)

(b) How many eggs broke? (3 mks)

25. In the diagram below, similar circles A and B are enclosed in a bigger circle which is also put in a frame as shown. The total area of A and B is 308m^2 .



- (a) Find the radius of the bigger circle. (2 mks)

- (b) Calculate the area of the frame which is not occupied by the circles. (3 mks)

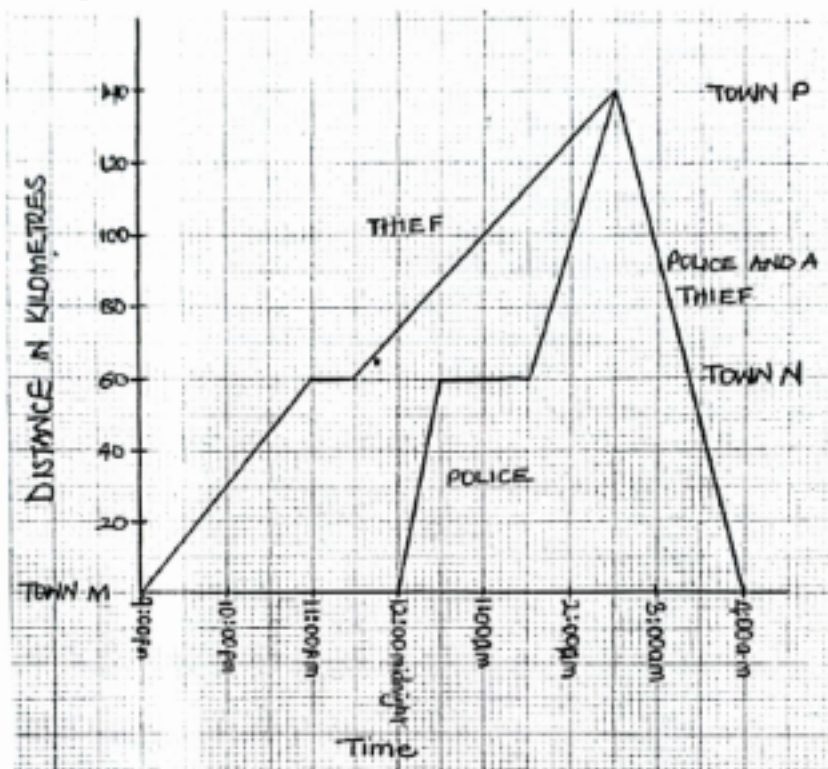
26. Binyuma bought the following items from the market.

- 2kg of sugar at sh. 4,000 per kg.
- $3\frac{1}{2}$ kg of rice at sh. 6,000 a kg.
- 2500g of meat at sh. 34,000
- 10 apples each at sh. 500.

(a) How much was his total expenditure? (4mks)

- (b) If he remained with a debt of sh. 4500, how much money did he have at the beginning? (1 mk)

27. The graph below shows the movement of a thief and the police chasing him. Use it to answer the questions that follow.



- (a) At what time did the thief reach town N? (1 mk)
- (b) For how long did the police search in town N? (1 mk)
- (c) Where was the thief caught from? (1 mk)
- (d) Where was the thief at 4:00am? (1 mk)

- (e) Calculate the police's average speed for the whole journey.

(2 mks)

28. Given that the interior angle sum of a regular polygon is 1080° .

(a) How many sides does the polygon have?

(2 mks)

- (b) By how many degrees is its interior angle more than its exterior angle?

(3 mks)

29. Town N is 400km away from town R. Betty left town N for town R and she travelled at a speed of 80km/h. After 40 minutes, Alex also followed Betty through the same route for town R where he reached at 10:40pm. At R, Alex waited for Betty for twenty minutes before her arrival. How faster was Alex than Betty? (4 mks)
30. A tank was $\frac{3}{5}$ full of water. When $\frac{2}{3}$ of the water was used and the remaining water was sold using a 10 litre-jerrycan, a total of sh. 14000 was collected. If each jerrycan was sold at sh. 350, find the capacity of the tank. (4 mks)

31. (a) A car used 3 litres of petrol to cover a distance of 60km. How many kilometres will it cover with 7 litres of petrol at the same rate of consumption? (2 mks)

- (b) Share sh. 64,000 among Tonny, Ben and Lule in the ratio of 4:1:3 respectively. How much does each get? (3 mks)

32. Given that $a = 4$, $m = 5$ and $v = 6$. Evaluate.

(a) $\frac{v^2+9}{m}$ (2 mks)

(b) Solve: $3(2x - 20) = x + 20$. (3 mks)