



HILLSIDE PRIMARY SCHOOL-NAALYA

PRE-REGISTRATION EXAMINATIONS

2023

MATHEMATICS (Set Two)

Time Allowed: 2 Hours 30 Minutes

Name: Stream:

Read the following instructions carefully

1. The paper has two sections: **A** and **B**.
2. All the working for both sections **A** and **B** must be shown in the spaces provided.
3. All the working must be done using a blue or black ball-point pen or fountain pen. Diagrams must be drawn in pencil.
4. Calculators are not allowed in the examination room.
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 boxes indicated: "For Examiners' Use Only" and those inside the question paper.

FOR EXAMINERS' USE ONLY

Qs. No.	MARKS	EXRS' NO
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)

1. Work out: $300 - 24$

2. Write **Eighty thousand fifteen** in figures.

3. Write 197 in Roman numerals.

4. Given that set P has 31 proper subsets. How many elements are in set P?

5. The area of a trapezium is 35m^2 . If its height is 6m and the shorter parallel side is 5m, find the length of the longer parallel side.

6. The supplement of $3r - 10^\circ$ is 40° . Find the value of r .

7. 5 pencils cost sh.1500. How many pencils can one buy with sh.2400?

8. Simplify: $2t - 8k - 7t + 5k$

9. Without dividing, show that 392425 is exactly divisible by 11

10. Change $\frac{3}{4}$ to a decimal

11. A lesson that ended at 4:10pm lasted 50minutes. At what time did it start?

12. Simplify: $^{\circ}4 + ^{\circ}6$

13. Increase 600kg by $22\frac{1}{2}\%$

14. Using a ruler, a pencil and a pair of compasses only, construct an angle of 135° in the space below.

15. Solve: $k - 5 = 1$ (finite 7)

16. Given that $a = \frac{1}{4}$ and $b = \frac{1}{12}$. Find the value of $\frac{a}{b}$

17. What is the smallest number that can be divisible by either 6 or 8 and leaves 3 as the remainder?

18. Draw a Venn diagram to show that all hens(H) are birds(B).

19. Solve: $5 - 2y = 13$.

20. Find the square of the next number in the sequence:
5, 8, 12, 17, 23, _____

SECTION B (60 marks)

21. Molly bought the items in the table below from a shop.

a) Complete the table below.

(04 marks)

Items	Unit cost	Amount
.....bars of soap	Sh. 3,000per bar	Sh. 6000
3 loaves of bread	Sh.per loaf	Sh. 9600
$2\frac{1}{2}$ kg of salt	Sh. 800 per kg	Sh.
TOTAL EXPENDITURE		Sh.

b) If he was given a discount of 10%, how much money did he pay?

(01 mark)

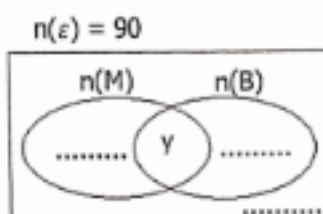
22. a) Express 0.00597 in scientific notation.

(02 marks)

- b) Find the sum of the value of 4 and the value of 8 in the number 24689 **(03 marks)**

23. In the village of 90 farmers, 40 grow matooke (M), 52 grow beans (B) and y grow both matooke and beans while 6 farmers grow neither of the two food crops

- a) Complete the Venn diagram below. **(03 marks)**



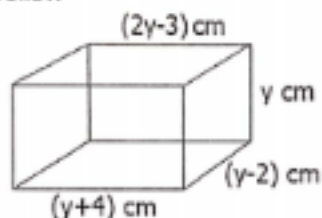
- b) Find the value of y . **(02 marks)**

24. a) Solve and find the solution set for m :

$$3(m-1) \leq 9 \quad \textbf{(03 marks)}$$

b) Kato is two thirds as old as Tom. Find their total age. (**02 marks**)

25. The figure below is a cuboid. Study it and answer the questions that follow



a) Find the value of y (**02marks**)

b) Calculate its volume. (**03marks**)

• 26. The sum of three consecutive counting numbers is 72.

a) If the first number is p , find value of p .

(03 marks)

b) Write the second number in words.

(02 marks)

27. Three brothers; Alex, Ben and Chris shared 360 apples in the ratio of 3:4:5 respectively.

a) How many apples did each get?

(03 marks)

b) Express Alex's share as a percentage of the total share. **(01 mark)**

28. a) In a class of 600 pupils, $\frac{1}{3}$ of the pupils like Meat, 60% of the remainder like chicken. The rest of the pupils like Fish
a) How many pupils like chicken? **(03 marks)**

- b) How many pupils like fish? **(02marks)**

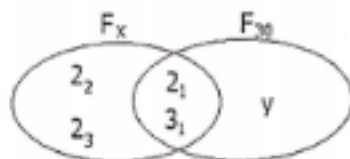
29. The table below shows the scores of a group of pupils in a class.

Marks	80	k	90	70
No. of pupils	2	3	1	4

- a) How many pupils did the test? **(02 marks)**

- b) If the mean mark was 71, find the value of k. **(03 marks)**

- 30. The Venn diagram below represents the prime factors of two numbers. Use it to answer the questions that follow.



- a) Find the value of x .

(02 marks)

- b) Calculate the value of y .

(02 marks)

- c) Work out the LCM of X and 30 .

(02 marks)

31. a) Work out: $\frac{1.8 \times 0.15}{0.6 \times 0.3}$

(03 marks)

b) Express 0.3636 - - - as a fraction in its simplest form. (02 marks)

32. a) Using a pair of compasses, ruler and pencil only, construct a rectangle ABCD where line BC=9cm and line BA=5cm. (04marks)

b) Measure diagonal BD. (01 mark)

END