



HILLSIDE PRIMARY SCHOOL-NAALYA

PRE-REGISTRATION EXAMINATIONS

2024

MATHEMATICS (Set Six)

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		
Qn. 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

Answer all questions in this Section

Questions 1 to 20 carry two marks each

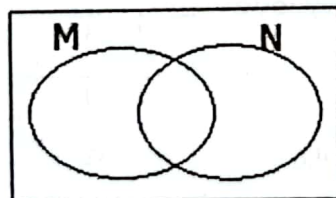
1. Work out: $79 - 35$

2. Write XCIV in Hindu Arabic numerals.

3. Given that $A = \{a, b, c, d, e\}$ and $B = \{a, e, i, o, u\}$. Find $n(B - A)$.

4. Find the sum of the 6th and the 10th even numbers.

5. In the Venn diagram below, shade the complement of $M \cap N$.



6. Simplify: $5m - 7m + 8m$

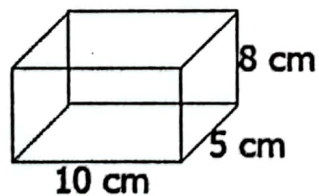
7. Write the number represented by the tallies below.

///

8. The place value of 8 in the number is ten thousands. Find the value of 8.

9. Work out: $\frac{2}{3} - \frac{1}{12}$

10. Find the volume of the figure below.



11. Find the range of -1 , 0 , -4 , 2 and -3 .

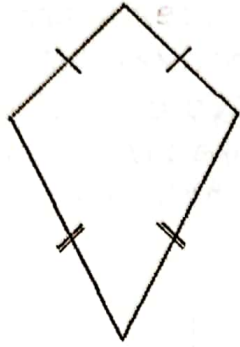
12. A man has a rectangular plot of land whose length is 15 m. If the area of the land is 180 m^2 . Find the width of the land.

13. A cheetah covered a distance of 360 km in 3 hours. Calculate its average speed in kilometres per hour.

14. Evaluate: $2 - 5 = \underline{\hspace{2cm}}$ (finite 6)

15. Write "**One thousand, one**" in figures.

16. How many lines of folding symmetry does the figure below have?

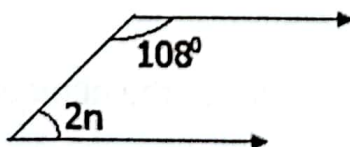


17. Decrease sh. 45,000 in the ratio of 3: 5.

18. Find the G.C.D of 8 and 12.

19. A businessman bought a shirt at sh. 48,000 and later sold it at a profit of sh. 15,000. At what price did the businessman sell the shirt?

20. In the figure below, find the value of n in degrees.



SECTION B: 60 MARKS

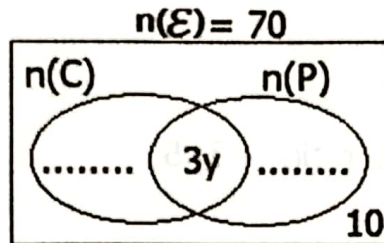
Answer all questions in this section

Marks for each question are indicated in the brackets

21. In a party attended by 70 guests, 40 took Coke (C), 35 took Pepsi (P), 3y took both drinks while 10 guests did not take any of the two drinks.

a) Use the above information to complete the Venn diagram below.

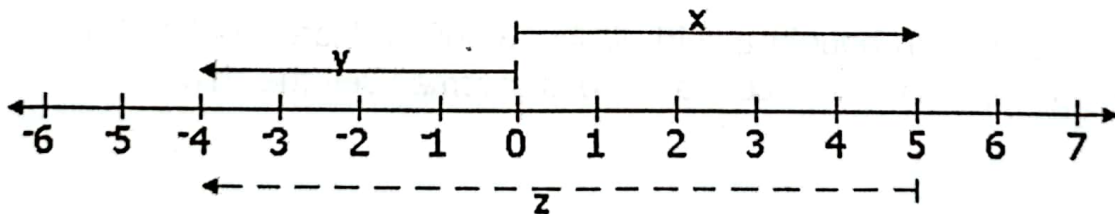
(02 Marks)



b) Find the value of y?

(03 Marks)

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



a) What integers are represented by the arrows on the number line above?

i) $x = \underline{\hspace{2cm}}$

ii) $y = \underline{\hspace{2cm}}$

iii) $z = \underline{\hspace{2cm}}$

b) Write a mathematical sentence shown by the arrows on the number line above.

23. The table below represents the marks scored by some pupils in a mathematics test. Use it to answer the questions that follow.

Marks scored	60	80	90	70
Number of pupils	4	8	6	2

a) How many pupils did the test?

b) Calculate his average mark.

24. The table below shows the shopping bill of Walter's wife. Use it to answer the questions that follow. Complete the table above. (05 marks)

Item	Quantity	Unit price	Total cost
Sugar	3 kg	Sh. 4,500 per kg	Sh. _____
Rice	2 kg	Sh. _____ per kg	Sh. 12,000
Cooking oil	_____ litres	Sh. 3,500 per litre	Sh. 14,000
Salt	$1\frac{1}{2}$ kg	Sh. 1000 per kg	Sh. _____
	Total expenditure		Sh. _____

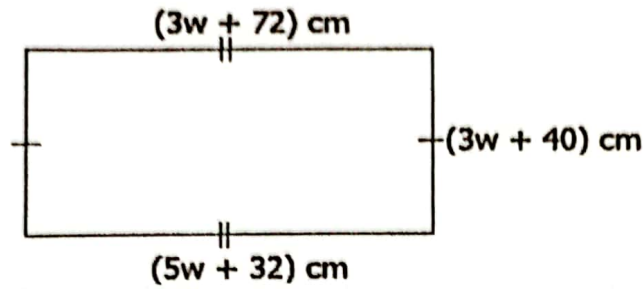
25. a) Using a ruler, a pencil and a pair of compasses only, construct an equilateral triangle KLM in which $KL = 7$ cm. (04 Marks)

b) Measure the angle KLM. (01 Mark)

26. The sum of the values the numbers in the square below are the same, vertically, horizontally and diagonally. Complete the table. (05 Marks)

20	_____	7	17
9	15	14	_____
_____	11	10	16
8	18	_____	_____

27. The figure below shows the metallic rectangular sheet. Use it to answer the questions that follow.



- a) Find the value of w .

(02 Marks)

- b) Work out the perimeter of the sheet.

(03 Marks)

28. There are 1500 pupils in the school and 60% of them are girls then the rest are boys.

- a) Find the number of boys in the school

(03 Marks)

b) How many more girls than boys are there in the school? (02 Marks)

29. A cyclist travelled from town A to town B at an average speed of 60 km per hour for 2 hours. He then continued to town C at a steady speed of 50 km/hr. He took 5 hours to travel from town A to town C.

a) Find the distance between town B and town C. (02 Marks)

b) Calculate the cyclist's average speed for the whole journey. (02 Marks)

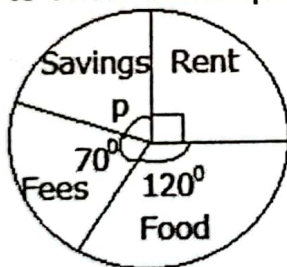
30. Given that $y = x - 1$. Complete the table below. (05 Marks)

x	-3	_____	0	_____	3
y	_____	-2	_____	0	_____

31. In a village, the ratio of children to women to men is 3: 2: 5 respectively. If there are 450 men,
a) Find the total number of people in the village. *(03 marks)*

b) How many more children than women are there in the village? *(03 marks)*

32. The pie-chart below shows Muzorewa's monthly expenditure of sh. 720,000. Use it to answer the questions that follow.



- a) Find the value of p in degrees. *(03 marks)*

b) How much more money does he spend on food than on rent? *(02 marks)*