HILLSIDE PRIMARY SCHOOL-NAALYA

BEGINNING OF TERM TWO EXAMINATIONS
2024
MATHEMATICS (Set one)

Time Allowed: 2 Hours 30 Minutes

Name: .....

Stream: ..... **Date:** .....

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)

1. Work out: $12 \div 3$ using repeated subtraction.

2. Write XCI in words.

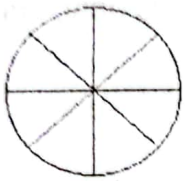
3. Simplify: $3r - 5r + 3r$

4. Given that set A has 4 elements. Find the number of proper subsets in set A

5. Express 36 km/hr as metres per second.

6. Evaluate: $6 - 6\,(2 + 1) + 1$

7. Shade $\frac{2}{8}$ of the figure below.

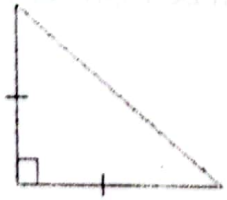


8. Change 23_{ten} to base four

9. A coin is tossed once. What is the probability that a head will show up?

10. Given that r = 3 and p = 5. Find the value of the reciprocal of $\frac{r}{p}$.

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



12. Today is Friday. What day of the week will it be after 23 days?

13. With the help of a ruler, a pencil and a pair of compasses only, construct an angle of 135^0 in the space provided below.

14. The LCM of two numbers is 120 and their GCF is 10. If the first number is 40, find the second number.

15. Five girls can take 12 days to do a piece of work. How much longer will 3 girls take to do the same piece of work?

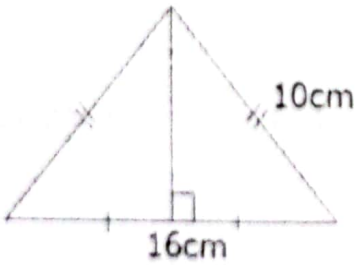
16. If  represent 12 apples, how many apples can be represented by 

17. Find number that has been expanded to give;
$(5 \times 10^{3}) + (3 \times 10^{1}) + (6 \times 10^{0})$?

18. Increase sh. 14,000 by 20%

19. Solve: $2^{(3h-1)} = 32$.

20. Find the area of the figure below.



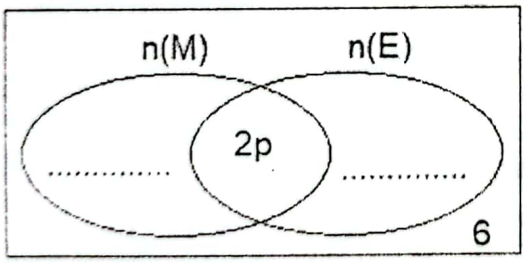
SECTION B: (60 marks)

21. The sum of four consecutive even numbers is 68. If the first even number is m, find the numbers. *(05 Marks)*

22. In a class of 55 pupils, 21 like Mathematics (M) only, 18 like English (E) only, 2p like both subjects while 6 pupils do not like any of the two subjects.

a) Complete the Venn diagram below. *(02 Marks)*

$n(\varepsilon) = 55$



b) Find the number of pupils who like Mathematics. *(03 Marks)*

23. In a school library, $\frac{1}{4}$ of them are English books, $\frac{2}{5}$ of the remainder are mathematics books and the rest are other books. If there are 180 other books, find the total number of books in the library. *(04 Marks)*

24. At Cohen Primary School, two bells for lower and upper primary ring at the intervals of 30 minutes and 40 minutes respectively.

a) After how long will the two bells take to ring together again?
(03 marks)

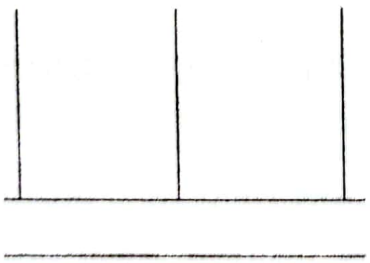
b) If they ring at 11: 30 am, at what time will they ring together again?
(02 marks)

25. a) Using a ruler, a pencil and a pair of compasses only, construct a triangle QRS where RQ = 7cm, QRS = 75^0 and QSR = 45^0. *(04 Marks)*

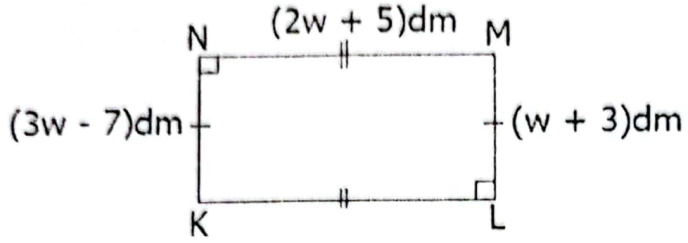
b) Measure angle RQS = ... *(01 Mark)*

26. a) Add: $231_{four} + 121_{four}$. *(02 marks)*

b) Show 314_{five} on the abacus below. *(03 marks)*



27. Study the figure below and use it to answer the questions that follow.



a) Find the value of w. *(03 Marks)*

b) Workout the area of the figure above. *(03 Marks)*

28. Okaare went to the market and bought the items as shown in the table below.

Item	Quantity	Unit price	Total cost
Sugar	2kg	Sh. 3,500	Sh. .....
Meat	.....kg	Sh. 8,000	Sh. 24,000
Milk	$2\frac{1}{2}$ litres	Sh.	Sh. .....
Bread	4 loaves	Sh.	Sh. 8,000
	Total expenditure		Sh. 46,500

a) Complete the table. *(05 marks)*

b) If he went with sh. 50,000, find his change. *(1 mark)*

29. a) Solve: $\frac{2x - 1}{3} = \frac{x + 2}{4}$ *(02 Marks)*

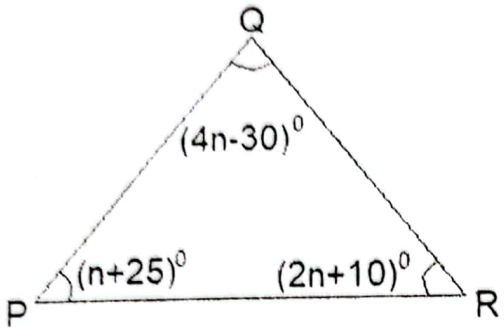
b) Nandutu is two times as old as Khainza. In 8 years' time, the ratio of Nandutu's age to Khainza's age will be 8:5 respectively. How old is Nandutu now? *(03 Marks)*

30. A motorist moved from town R to town T at 65km/hr for 2hours. He rested at town T for 30minutes and later continued to town P at a speed of 70km/hr for $2\frac{1}{2}$hours.

a) Find the distance between town R and town T. *(02 marks)*

b) Calculate the motorist's average speed for the whole journey. *(03 marks)*

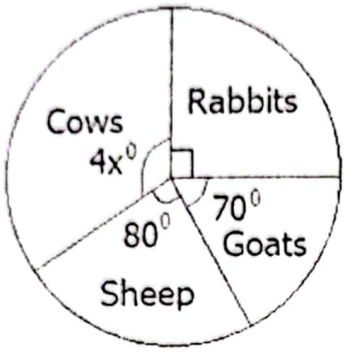
31. The figure below is a triangle PQR. Use it to answer the questions that follow.



a) Find the value of n. *(03 Marks)*

b) Calculate the size of angle PQR. *(02 Marks)*

32. The pie- chart below represents the number of animals in Mr. Adaku's farm. Use it to answer the questions that follow.



a) Calculate the value of x. *(02 Marks)*

b) If there are 28 cows, how many animals are there in the farm? *(03 Marks)*

END