



HILLSIDE PRIMARY SCHOOL-NAALYA
BEGINNING OF TERM THREE EXAMINATIONS

2023

MATHEMATICS (Set Seven)

Time Allowed: 2 Hours 30 Minutes

Index No.

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Candidate's Name.....

Candidate's Signature.....

EMIS No..... **Stream**

District

Read the following instructions carefully:

1. The paper has **two** sections: **A** and **B**. Section **A** has 20 questions and section **B** has 12 questions. The paper has 12 pages altogether.
2. All working for both sections A and B must be shown in the spaces provided
3. All working must be done using a blue or black ball-point pen ink or fountain pen. Any work done in pencils other than graphs and diagrams will **not** be marked.
4. **No calculators** are allowed in the examination room.
5. Unnecessary alterations/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. "

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. Subtract: $64 - 23$

2. Write 19,342 in words.

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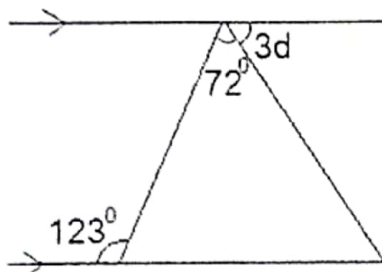
3. Write 637 in standard form

4. If today is Wednesday, what day of the week it be 40 days from now?

5. Increase 2400 kg by 10%

6. Akidi is 4 times as old as Odong the product of their ages is 64 years, how old is Akidi?

7. Find the value of d in the figure below;



8. How much can one pay to buy 16 books at sh. 4800 for every two pairs?

9. Expand 45.02 using powers of ten

10. Using a pair of compasses, a ruler and a sharp pencil, construct an angle of 30° .

11. Work out the mean of $3n$, 7 , $n + 1$ and 4 .

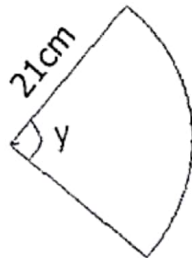
12. 4 men can slash a compound in 9 days. How many men are needed to do the same piece of work in 2 days?

13. Given that set $K = \{a, b, c\}$, how many subsets has set K ?

14. Subtract $a + 2$ from $3a - 4$

15. Express $0.121212\dots$ as a common fraction in its lowest form

16. Below is a sector whose perimeter is ~~58.5~~^{58.5} cm. Find the value y



17. What is the 9th triangular number?

18. By selling an item at sh. 12,000, a trader made a profit of $33\frac{1}{3}\%$. At what price did he buy the item?

19. Workout the complement of $(60^\circ + 2m)$

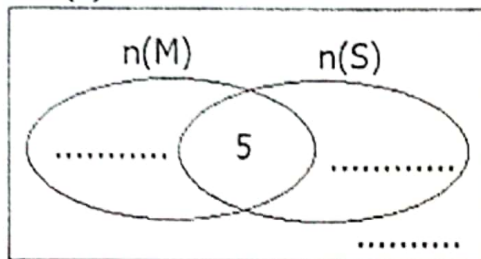
20. Express $\frac{3}{5}$ as a decimal fraction

SECTION B: (60 marks)

21. In a P.7 class of 56 pupils, 20 like science (S), p like maths (M) only which is also twice the number of pupils who like neither science nor maths.

a) Complete the Venn diagram below (3 marks)

$$n(\varepsilon) = 56$$



b) Calculate the value of p (2 marks)

- 22.a) Find the number whose scientific notation is 3.8×10^2 (2 marks)

b) Solve: $3^k \times 3 = 81$

(3 marks)

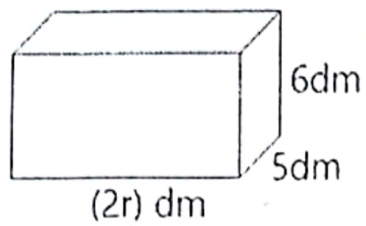
23. a) Simplify: $\frac{0.45 \times 0.03}{0.03 \times 0.5}$

(3 marks)

b) Work out : $\frac{3}{4} + \frac{2}{5}$

(2 marks)

24. The sum of all the edges on the figure below is 76dm.



a) Find the value of r .

(3 marks)

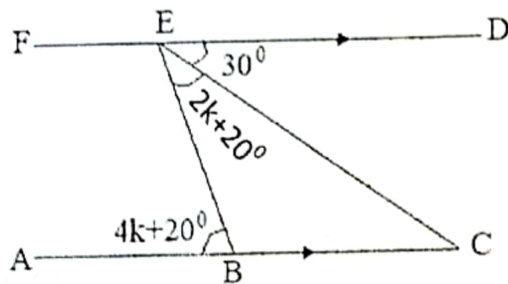
b) Calculate its volume

(2 marks)

25. a) What angle is $\frac{1}{4}$ of its supplement?

(2marks)

- b) In the figure below line FD is parallel to line AC. Use it to find the value of k.



26.a) Work out: (2 marks)

$$\begin{array}{r} 232_{\text{five}} \\ - 34_{\text{five}} \\ \hline \\ \hline \end{array}$$

b) Given that; $301_k = 144_{\text{five}}$. Find the value of k (3 marks)

27.a) Solve for m: $\frac{1}{2}(4m - 2) = m + 2$

(2 marks)

b) Musa is 20 years older than Sarah. In 8 years' time, Musa will be thrice as old as Sarah. How old is Musa now? (3 marks)

28. The sum of 3 consecutive even numbers is 42. If the largest number is h.

a) Find the value of h. (3 marks)

b) Work out their range.

(2 marks)

29. Complete the shopping table below

(5marks)

Item	Quantity	Unit cost	Amount
Books	5	Sh. 2,000	Sh.
Pens	Sh. 700	Sh. 6,300
Pencils	Half dozen	Sh. 4,500 @doz	Sh.
Reams	2	Sh.	Sh. 50,000
Total expenditure			Sh.

30. A motorist left town P travelling at a speed of 90km/h for 2 hours to town Q. If he returned to town P at a speed of 60km/h.

a) Find the distance between towns P and Q. (2 marks)

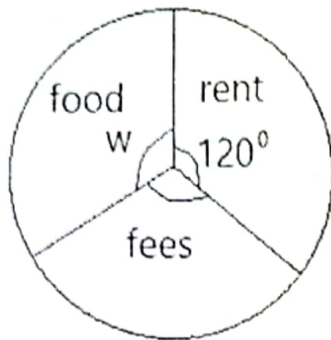
b) Work out the average speed for the whole journey. (3 marks)

31. a) Using a ruler and a pair of compasses only. Construct a triangle PQR where $PQ = 7\text{cm}$, angle $PQR = 60^\circ$ and angle $QPR = 45^\circ$. Drop a perpendicular line from R to meet PQ at point O. (4 marks)

b) Measure line RO

(1 mark)

32. The pie chart below shows how a family spends its income of sh. 240,000. Study it carefully and answer the questions that follow



a) If they spend sh. 60,000 on fees per month, find the value of w
(3 marks)

b) How much less does he spend on rent than on food per month?
(2 marks)

END