



HILLSIDE PRIMARY SCHOOL-NAALYA
BEGINNING OF TERM THREE EXAMINATIONS

2023

MATHEMATICS (Set Two)

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		

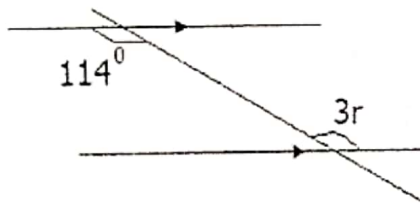
SECTION A: (40 marks)

1. Work out: $24 \div 6$ using repeated subtraction.
2. If $R = \{2, 3, 4, 7\}$. How many subsets are set R?
3. Given that: $a = \frac{1}{2}$, $b = 8$, and $c = 4$, find out the value; $a(b + c)$
4. Work out: $2 \div k = 4$ (finite 5)
5. Write the place value of 3 in 234_{five}

6. Express 20m/s as kilometers per hour

7. Kirya is 4 times as old as Masaba the product of their ages is 64 years, how old is Masaba?

8. Find the value of r in the figure below



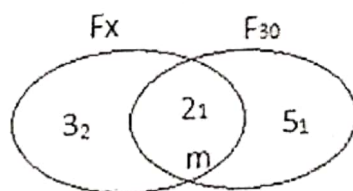
9. Divide; $2555 \div 7$

10. What is the square root of $1\frac{11}{25}$

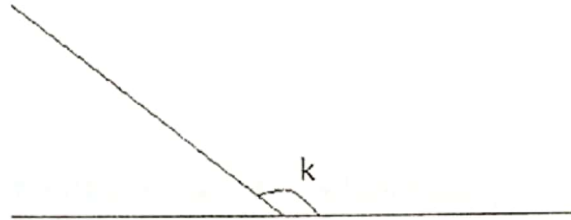
11. Convert 9.08 tonnes to kg

12. Work out the circumference of a circle whose diameter is 14dm

13. Find the Greatest Common Factor(GCF) OF X and 30 in the diagram below



14. Using a protractor, measure the angle marked with letter k in the figure below



15. Solve the inequality and find the solution set for;

$$4 \geq 2p \geq -12$$

16. In a class, 0.6 of the pupils are girls and there are 20 boys. How many pupils are there in the class?

17. Expand 97.08 using powers of ten

18. It started raining at half past mid night. Express this time in 24 hour clock system

19. Opio turned clockwise from north to south east, what angle did he turn?

20. Find the next two numbers in the sequence
6, 10, 16, 24, 34, ____, ____

SECTION B: (60 marks)

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

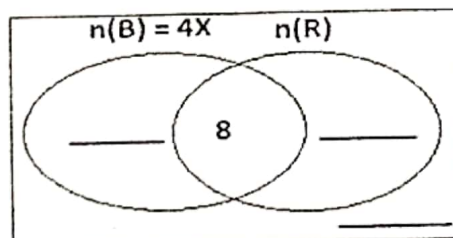
b) Solve: $3^k \times 3 = 81$

(3 marks)

22. In a home, $4x$ members eat beans (B), some eat rice (R), 8 members eat both beans and rice, 13 members eat rice only while $(x - 3)$ members do not eat any of the two types of food.

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

(3 marks)



b) Given that 14 members do not eat rice, find the value of x .
(2 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. Using a pair of compasses, a ruler and a pencil only

a) Construct a square in a circle of radius 3cm (4 marks)

b) Measure its sides

(1 mark)

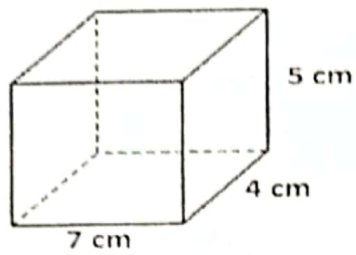
25. Anyait bought the items below:

- ❖ 4kg of sugar for sh. 3500 per kg
- ❖ 200g of salt for sh. 2000 per kg
- ❖ $3\frac{1}{2}$ kg of beans for sh. 1400 per $\frac{1}{2}$ kg

a) How much money did Anyait spend on all the items? (4 marks)

b) If Anyait paid sh sh. 22,000, how much discount was she offered?
(1 mark)

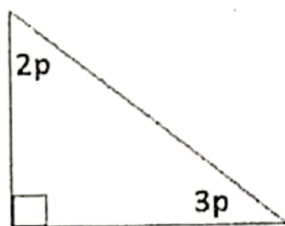
26. Study the diagram below and answer questions that follow



a) Find the volume of the figure. (2 marks)

b) Work out the total surface area of the figure. (3 marks)

27. Find the value of p in the figure below (3 marks)



b) Find the complement of $y - 30^\circ$

(2 marks)

28. On a farm of animals, $\frac{1}{6}$ of them are sheep, $\frac{3}{8}$ are rabbits, $\frac{1}{4}$ are cattle, $\frac{1}{12}$ are goats and the rest are donkeys. If there are 152 donkeys on the farm, find the total number of animals on the farm. (5 marks)

29. Work out $2 - 3 = \underline{\hspace{1cm}}$ (finite 5) using a dial

(2 marks)

- b) If today is Tuesday 16th June, what day of the week will it be on 20th September the same year? (3 marks)

30. A motorist drove at a speed of 80 km/hr for $2\frac{1}{4}$ hours. He got a stop over for 45 minutes and covered 240 km in 2 hours after resting.

- a) Find the distance he covered before the stop over. (2 marks)

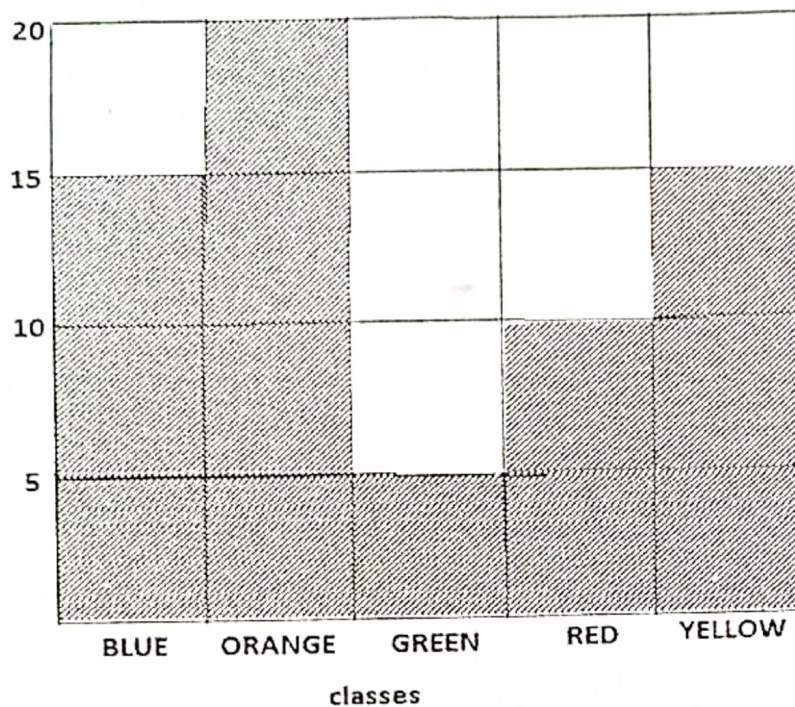
- b) Calculate the average speed for the whole journey (3 marks)

31. a) Subtract $a + 4$ from $2a - 7$

(2 marks)

b) The age of Musa and that of Angella are in the ratio of 7: 9 respectively. 5 years ago their total age was 54 years. Find Musa's age (3 marks)

32. Study the graph below showing the number of absentees in different streams of primary seven and answer questions that follow



- a) Which class had the highest attendance? (1 mark)
- b) If each stream has 50 pupils when they are all present, find the total number of pupils ^{Present} in green and red (2 marks)
- c) Express orange's attendance to red's attendance as a ratio in its simplest form (2 marks)

END