HILLSIDE PRIMARY SCHOOL-NAALYA
BEGINNING OF TERM TWO EXAMINATIONS
2024
MATHEMATICS (SET EIGHT)
Time Allowed: 2 Hours 30 Minutes

Index No.

Candidate's Name...

Candidate's Signature...

Stream...

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

2. Answer **all** questions. All answers to both sections **A** and **B** must be written in the spaces provided.

3. All working must be done using a blue or black ball-point pen or fountain pen. Any work written in pencil other than graphs and diagrams will not be marked

4. No calculators are allowed in the examination room.

5. Unnecessary changes in work may lead to loss of marks. Any handwriting that cannot easily be read may lead to loss of marks.

6. Do not fill anything in boxes indicated: "For Examiners' Use Only" and those inside the 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 (02 Marks each)

1. Work out: 92 - 37

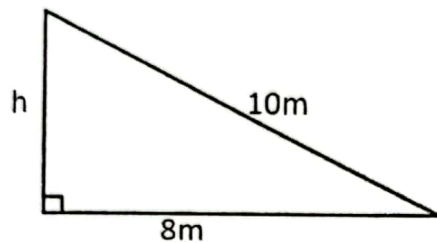2. List all the factors of 24

3. Simplify: $\dfrac{3}{4} - \dfrac{1}{5}$

4. Find the next two numbers in the sequence;

   1, 4, 9, 16, 25, _____, _____

5. Change 240minutes to hours.

6. Five cakes cost sh.3500. How many cakes can one buy with sh.4200?

7. Find the value of h in the figure below.

8. Work out 4 x 2 using a number line.

9. Solve: **3k + 1 = 16.**

10. Using a pair of compasses, construct an angle of 75⁰.

11.   Write 149 in Roman numerals.

12. The interior angle sum of a regular polygon is 1800^0. Find the number of sides.

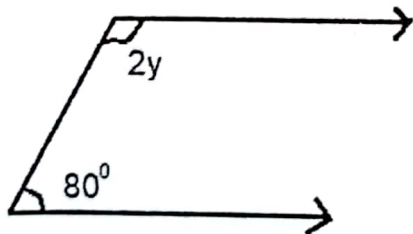13.   Find the mean of 4y, y+8 and y-2

14.   Change 7800 grammes to Kg

15.   The volume of a cube is $125cm^3$. Find its total surface area.

16. Add: $231_{five} + 44_{five}$

17. Without dividing , show that 4956 is exactly divisible by 3.

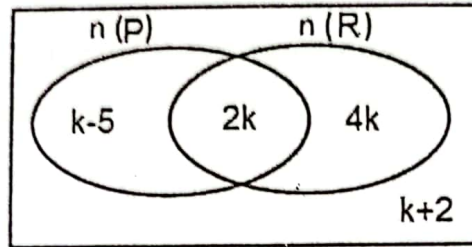18. Find the sum of the first 5 odd numbers.

19. Find the value of y.

20. A man bought a cock at sh.40,000 and later sold it at sh.33,000. Find the loss made.

SECTION B (60 marks)

21. In a class, some pupils like posho(P) and rice(R) while others like neither.

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       n (P)           n (R)
    ┌─────────────────────────┐
    │  ⎛        ⎛      ⎞      ⎞│
    │  ⎜ k-5    ⎜ 2k   ⎟  4k  ⎟│
    │  ⎝        ⎝      ⎠      ⎠│
    │                    k+2   │
    └─────────────────────────┘
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a) If 25 pupils like posho, find the value of k .(*02 marks*)

b) How many pupils do not like rice?   (*02 marks*)

c) Find the total number of pupils in the class. (*02 marks*)

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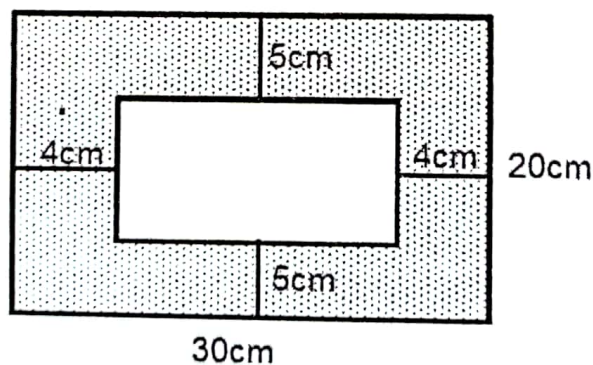22. Given the digits; 7 , 3 ,6 and 9

a) Form the smallest and the biggest 4-digit numerals.

(02 marks)

b) Workout the sum of the smallest and the biggest 4-digit numerals. *(02marks)*

23. Study the figure below and answer the questions that follow;

30cm

a) Find the area of the outer rectangle. *(02 marks)*

b) Find the area of the shaded part .　　　　　(*03marks*)

24.　The sum of three consecutive even numbers is 54.
　　a) If the largest number is k, find the value of k.　(*03 marks*)

b) Find the numbers.　　　　　　　　　　(*02marks*)

25. a) Using a pair of compasses, a sharp pencil and a ruler, construct triangle ABC in which line AB =8cm, angle ABC =120^0 and line BC =5cm. **(04marks)**

b) Measure line AC **(01 mark)**

26. Study the table below and answer the questions that follow;

Number of pupils	2	1	3	4
Marks scored	80	94	70	84

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

b) Calculate the average mark. *(03 marks)*

27. Kagoro went to market and bought the following;

$1\frac{1}{2}$kg of meat at sh.12000 per kg.

500g of salt at sh.3000 a kg.

12 apples at sh.1000 for every 3 apples

a) Calculate his total expenditure. *(04 marks)*

b) If he was given a discount of 10%, how much did he pay? *(02 marks)*

28. A cyclist travelled from town A to town B at a speed of 90km/hr in 2 hours. He returned back to town A at a speed of 60km/hr.
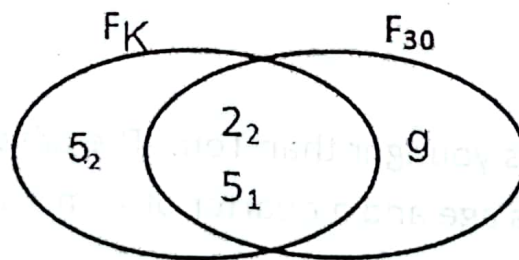
a) Find the distance between town A and town B.

(*02 marks*)

b) Calculate his average speed for the whole journey.

(*03 marks*)

29. Use the Venn diagram of prime factors to answer the questions that follow;

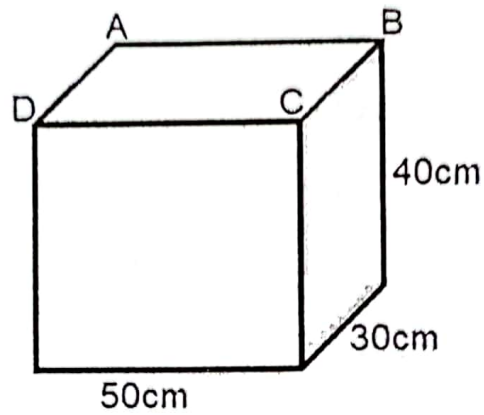a) Find the value of **k**. (*02 marks*)

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b) Find the value of g: (*02 marks*)

c) Find the Lowest Common Multiple of K and 30.
(*02 marks*)

30. a) Given that $p = 6$, $q = \frac{1}{2}$ of p and $r = $ twice p. Find the value of $q - p + r$ (*02 marks*)

b) Paul is 6years younger than Tom. The difference between a half of Paul's age and a quarter of Tom's age is a year. Find Paul's age. (*02 marks*)
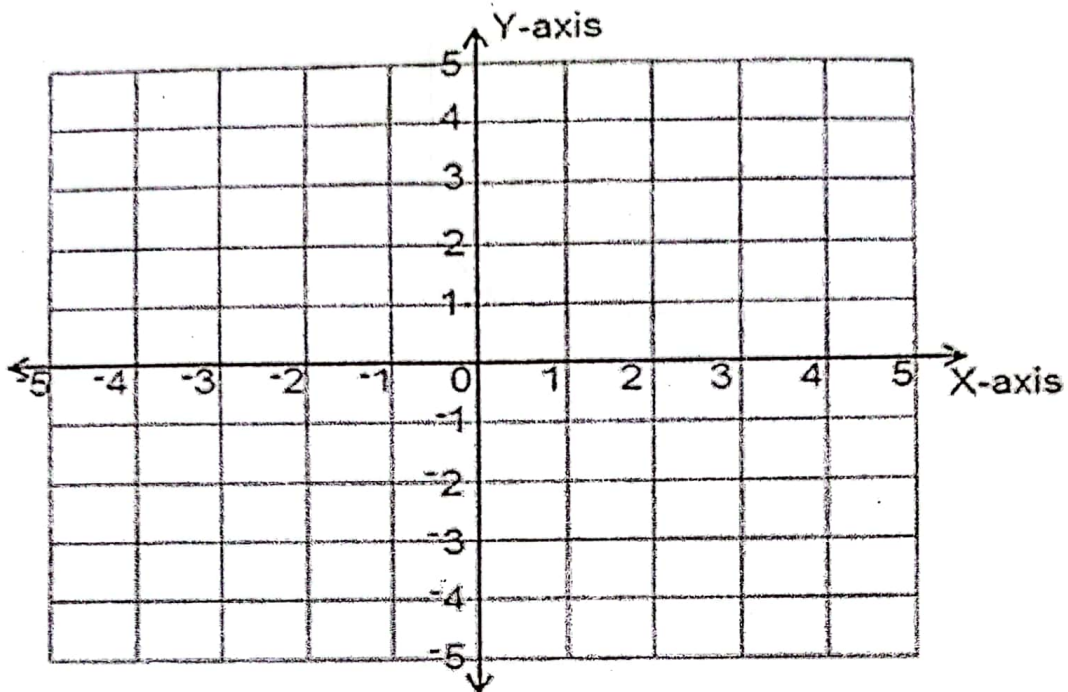
31. Below is a cuboidal tank. Use it to answer the questions that follow.

a) Find the capacity of the tank in litres.   (*03 marks*)

b) Find the area of the top face ABCD is square metres.

                                        (*02 marks*)

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32. a) Plot A(-3,2), B(-3,-3), C(4,-3) and D(1, 2) on the grid
graph below; **(04 marks)**

b) Join A to B, B to C, C to D, D to A . **(01 mark)**

c) Find the area of the figure formed. **(01 mark)**

END

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