HILLSIDE PRIMARY SCHOOL
PRE-MOCK EXAMINATIONS
2024
MATHEMATICS (SET ONE)
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.

Qn. No.	MARKS	EXRS' NO
FOR EXAMINERS' USE ONLY		
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. Workout: $20 \div 4$

2. Write in figures; '*Two thousand twenty-four*'

3. Find the missing two numbers in the sequence below:
   4, 6, 8, ..., 10, ...

4. Workout: $^-6 - {}^-4$

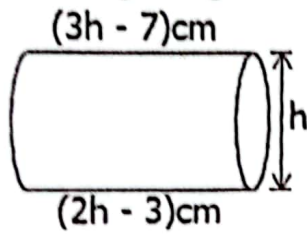5. A school has a total of 600pupils. If there are 360 boys, find the ratio of girls to boys

6. The time shown on the clock face in a classroom is 12:15p.m. Write the time shown on the clock in 24-hour clock system.

7. Given that Q = {2, x, 7, d, 3} and P= {5, a, 4, x, 6, c, d}. Find n(PnQ)

8. Solve for t: $t + \frac{1}{5}t = 6$

9. A trader sold a bag of coffee at sh. 600,000 making a loss of sh. 120,000. What was the price of the bag of coffee?

10. The diagram given below is a cylinder. Find the value of h in cm

(3h - 7)cm

h

(2h - 3)cm

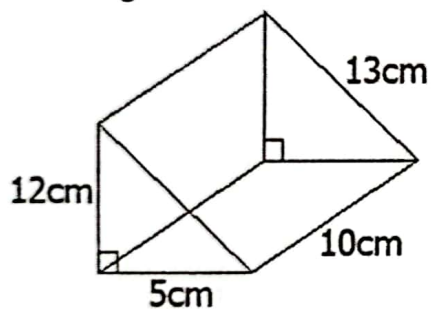11. The bearing of town K from town L is 230^0. Find the direction of town K from town L.

12. Find the mean of 5, $x - 3$, $7x$, and 6

13. Workout: $111_{three} + 121_{three}$

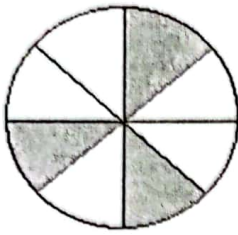14. Given that 8books cost sh. 4,000. Find the number of books one can buy with sh. 10,000.

15. A box weighs 36kg when full of curry powder and it weighs 6000g when empty. Find the weight of curry powder in grams

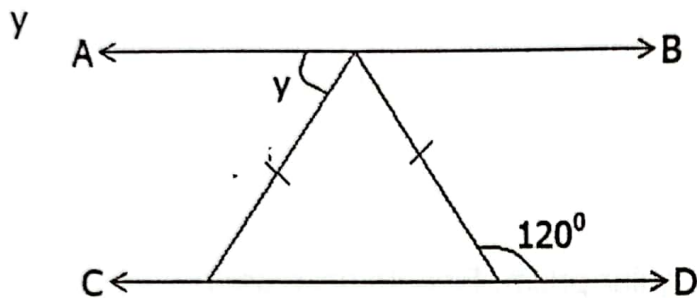16. The diagram below is a triangular prism. Find its base area.

17. Express 45 seconds as a percentage of 3minutes

18. The diagram below is divided into equal parts. Find the fraction of the diagram not shaded

19. In the diagram below AB is parallel to Dc. Find the value of angle marked y
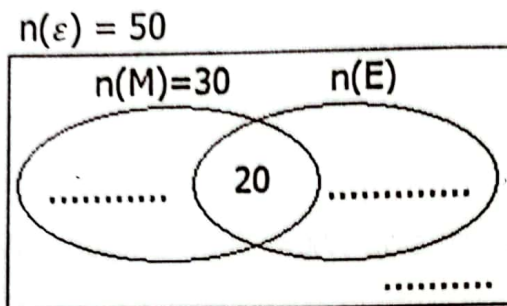

20. Musa had $\frac{2}{3}$ of sugarcane. He gave $\frac{1}{2}$ of it to his friend, what fraction did he remain with?

SECTION B: (60 marks)

21. In a class of 50 pupils, 30 pupils like Mathematics (M), 20 pupils like both Mathematics and English(E), 3k like English only whereas k like none of the two subjects.

a) Use the information to complete the Venn diagram below.   (3 marks)

n(ε) = 50

n(M)=30   n(E)

.... (20) ....

....

b) Given that the number of pupils who do not like Mathematics at all is 20. Find the value of k.   (2 marks)

22. Anita sold a dress at sh. 60,000 to Grace. She realized a loss of sh. 20,000.

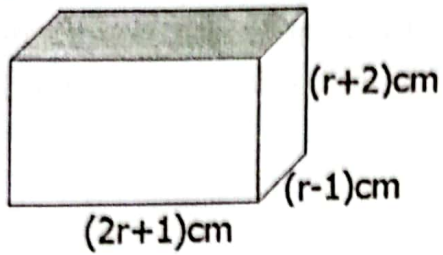a) Calculate Anita's percentage loss.   (3 marks)

b) If Grace sold the same dress to Nandutu at a profit of 15%. How much did Nandutu pay for the dress? (3 marks)

23. a) Construct a rhombus WXYZ in which side WX = 5cm, diagonal WY = 8cm and diagonal XZ = 6cm. (4 marks)

b) Calculate area of one of its congruent triangles. (1 mark)

24. A wire of total length 56 cm was used to make the edges of the cuboid below.

(r+2)cm
(r-1)cm
(2r+1)cm

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

b) Calculate the base area of the cuboid.   (2 marks)

25. The sum of five consecutive odd numbers is 35. If the middle number is k, find the value of k.   (4 marks)

26. Arthur needs 3days to clear a piece of garden. Tony needs 6days to clear the same piece of garden.

   a) If both are employed to work together at the same rate, how many days will they take to clear the same piece of garden?   (3 marks)

   b) What fraction of the garden will remain if both work for 2days?

(2 marks)

27. The interior angle of a regular polygon is 100^0 more than the exterior angle.

   a) Find the size of its each interior angle.   (3 marks)

   b) Name the polygon.   (2 marks)

28. Natukunda left his at 7:45a.m. and drove at 32km/hr to his office which is 102km away. At 9:15am, his car broke down and he used 25minutes to repair it. At what speed did he drive if he reached the office at 11:10am?

(5 marks)

29. Given that 3154 is a number.
    a) Write the number in words. (2 marks)

    b) Expand the number using place values. (2 marks)

    c) Express the number in standard form. (2 marks)

30. a) Given that p = 2, q = 4 and r = 3. Find the value of pq - r   (2 marks)

b) Solve for a: 4(3 - a) - (8 - a) = 7   (3 marks)

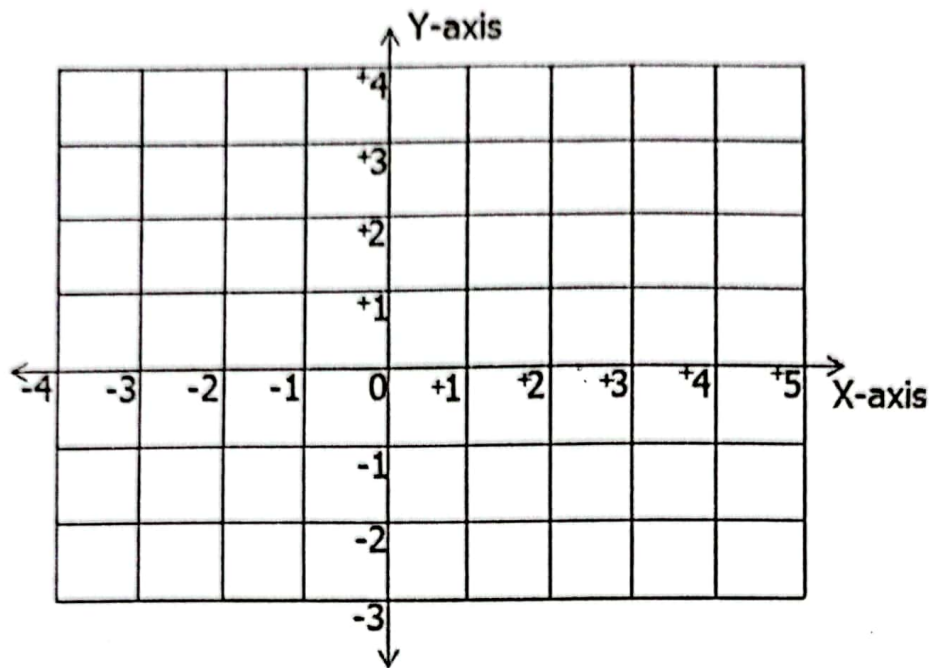31. The table below shows the marks scored by some pupils. Study it and answer the questions that follow.

Mangoes per collection	80	70	60	90
Number of pupils	y	2	3	2

a) How many pupils did the test?   (1 mark)

b) If the mean mark is 74, find the value of y.   (4 marks)

32. a) Below is the co-ordinate graph. Use it to plot the points; P(-3, -3),
M(5, -3), R(5, 3)   (3 marks)

b) Locate point Q on the above grid so that when P is joined to M, M to
R, R to Q and Q to P, a rectangle is formed.   (1 mark)

END