



HILLSIDE PRIMARY SCHOOL
BEGINNING OF TERM TWO EXAMINATIONS
2024

MATHEMATICS (SET THREE)
Time Allowed: 2 Hours 30 Minutes

Index No.

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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: 40 MARKS

Answer all questions in this section

(Questions 1 to 20 carry 2 marks each)

1. Work out: $405 - 289$
2. Write 490.092 in words.
3. Simplify: $7mn - 7m - n - mn + m$.
4. Given $D = \{4, 0, 5, 8\}$. List all proper subsets of D.
5. Find the square root of the next number in the sequence;
36, 49, 64, 81, —

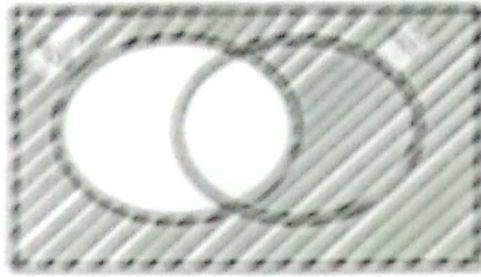
6. Express $0.1777777\ldots$ as a common fraction.

7. Precious slept at 10:15 p.m. and walked up after 2 hours and 40 minutes. What time did she wake up in 24-hour clock system.

8. The temperature in Nevada at 7:00 a.m. was -6°C . it increased to 4°C . What was the increase in temperature?

9. Use tallies to represent the quotient of 36 and 3.

10. Study the diagram below and describe the shaded region.



11. A sphere of golf has a radius of 1.5 cm. What is its mass in kilograms?

12. If today is a Tuesday, what day of the week will it be 14 days after tomorrow?

13. Find the sum of 6^{78} and the smallest 5 digit number formed using digits 6, 3, 4.

14. Raymond exercises every 12 days and Moses every 8 days. Raymond and Moses both exercised today. How many days will it be until they exercise together again?

15. Using a ruler, pencil and a pair of compasses only construct the complementary angle of 75° .

16. In a P.7 class, the ratio of girls to boys is 5:3. If there are 24 boys. Find the number of girls in P.7

17. Express 0.00643 in standard form.

18. A canteen attendant bought 2 dozen of rulers at sh. 24,000. She later sold each ruler at sh. 1500. How much profit did she make?

19. A car covered a distance of 800cm in four revolutions. Calculate the diameter of the car wheel. (take $\pi = \frac{22}{7}$)

20. In a basket of apples 12% of them are rotten and 66 are in good condition. Find the total number of apples in the basket.

SECTION B: 60 MARKS

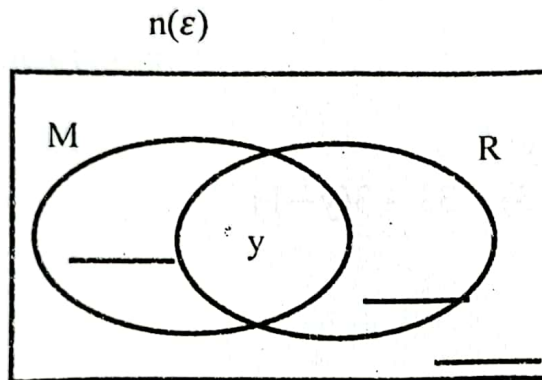
Answer all questions in this section

Marks for each question are indicated in the brackets

21. At a graduation party, 32 people like Rice only, y people liked both Rice (R) and Matooke (M), $(2y - 10)$ people like Matooke but not Rice, while $(y - 2)$ do not like any of the two foods.

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

(03 Marks)



- b) Given that those who like Matooke only are more than those who like Rice only by 38, find the value of y .

(02 marks)

22. A trader borrowed money from centenary bank at an interest rate 10% per annum for 2years.

a) How much did he borrow if he paid an interest of sh.84,000?

(02 Marks)

b) Calculate the amount he paid after 2 years. **(02 Marks)**

23.

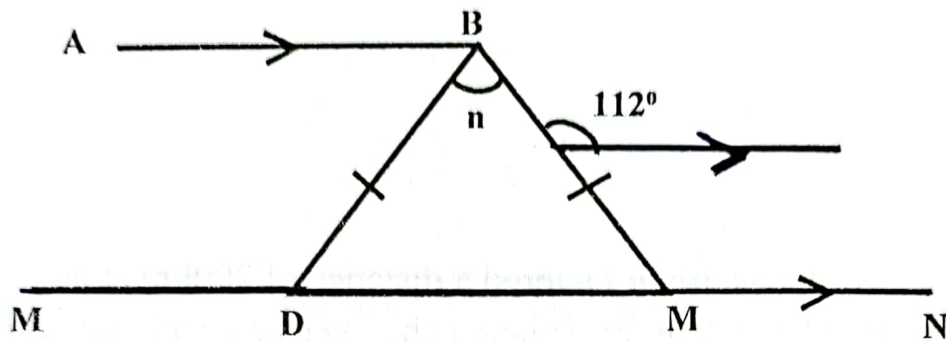
a) Solve for y:

$$4(2y + 3) = 31 - 3(y - 1)$$

(03 Marks)

b) At Rania's 12th birthday her father was 50 years old. After how many years will the father be thrice as old as the daughter? **(03 Marks)**

24. Study the diagram below and use the information given to answer the questions that follow
(02 Marks@)



a) Find the value of angle n .

b) Find the size of angle marked

(I) $\angle BDM$

(I) $\frac{1}{4}$ of $\angle BMN$

24.

a) Convert 18km/hr. to metres per second. (02 Marks)

b) A bus driver covered a distance of 200km at an average speed of 80km /hr. If he reached her destination at 4:05p.m. At what time did he start the journey?

(03 Marks)

25. The table shows the rate at which Bamuda forex bureau buys and sells United States dollars and Kenya shillings in Uganda shillings. Use it to answer questions that follow.

Currency	Buying rate	Selling rate
1 US dollar	Ug sh. 3500	Ug sh. 3650
1 K sh.	Ug sh. 30	Ug sh. 32

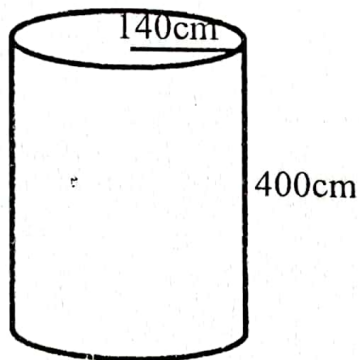
a) Abigail had K sh. 18250 and bought a fridge using US dollars. How many US dollars did she pay for the fridge?

(03 Marks)

- b) If Jason had US dollars 400 and bought a home theatre in Kenya shillings. What was the cost of the home theatre in Kenya shillings?

(03 Marks)

26. Mr. Katiko has a juice tank at his factory as shown below. Study it carefully and use it to answer questions that follow.



- a) Calculate the capacity of the tank when it is full of juice.

(03 Marks)

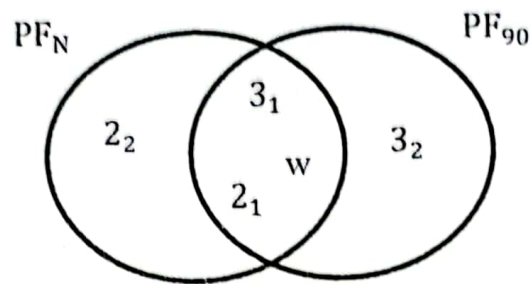
- b) If juice from the tank is packed in 20 litre jerrycans for selling, find the number of jerrycans which were obtained from the juice tank?
(02 Marks)

27.

- a) Convert 223_{four} to base six. (02 Marks)

- b) Work out $123_{\text{five}} \times 23_{\text{five}}$ (03 Marks)

28. The Venn diagram below shows the prime factors of N and 90 .



a) Find the value of w .

(02 Marks)

b) Find the HCF of N and 90 .

(03 Marks)

29. Candidates sat for a mathematics test and performed as shown on the table below.

a) How many candidates sat for the test?	Number of candidates	///	/	//	///
	Marks scored	60	90	40	m

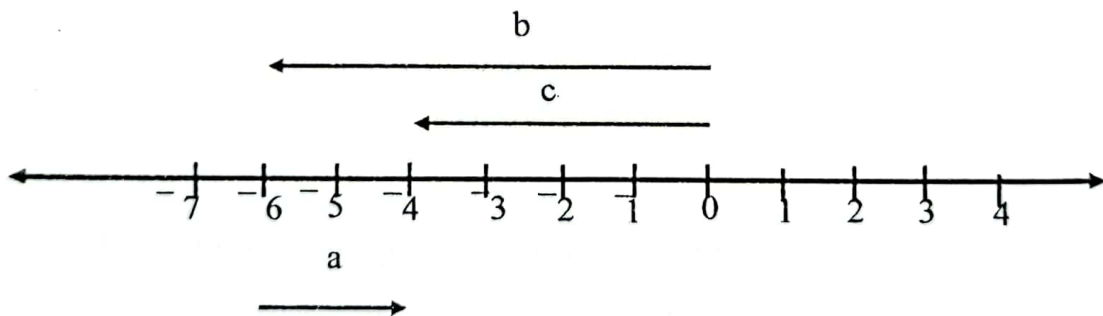
any candidates sat for the test?

(01 Mark)

b) If the mean mark was 50, find the value of m . (02 Marks)

c) How many candidates scored above the average mark? (01 Mark)

30. Below is a number line, study it carefully and answer the questions that follow.



a) Name the integer represented by arrow. (01 Mark@)

(I) b _____

(II) a _____

(III) c _____

- b) Write down the mathematical sentence shown on the given number line. **(01 Mark)**

31.

- a) Using a ruler, a pencil and a pair of compasses only construct a rectangle EFGH, where line $EF = 6.5$ cm and line $FG = 4.5$ cm

(04 Marks)

- b) Join E to G and measure angle GEH. **(01 Mark)**

END