THE E-LEARN EXAMINATIONS BOARD

P.7 PRE PLE SET THREE / TEN

2024

MATHEMATICS

Time Allowed: 2 hours 15 minutes

Index No.	EMIS No.						Personal No.		

Pupil's Name: .....

Pupil's Signature: .....

School Name: .....

District Name: .....

Read the following instructions carefully:

1. Do not forget to write your **school** or **district name** on the paper.
2. This paper has two sections: **A** and **B**. Section **A** has **20** questions and section **B** has **12** questions. The paper has **10** printed pages altogether.
3. Answer **all** questions. **All** working for both sections **A** and **B** must be shown in the spaces provided.
4. **All** answers **must** be written using a **blue** or **black** ball point pen or ink. Any work written in pencil will **not** be marked.
5. Unnecessary **changes** in your work and handwriting that cannot be read easily may lead to **loss of marks**.
6. Do not fill anything in the table indicated: **"For Examiners' use only"** and boxes inside the question paper

FOR EXAMINERS' USE ONLY		
Qn. No.	**MARKS**	**EXR'S NO.**
1 – 5		
6 – 10		
11 – 15		
16 – 20		
21 – 22		
23 – 24		
25 – 26		
27 – 28		
29 – 32		
TOTAL		

SECTION A: 40 MARKS

Answer all questions in this section

Questions **1** *to* **20** *carry* ***two*** *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, ...

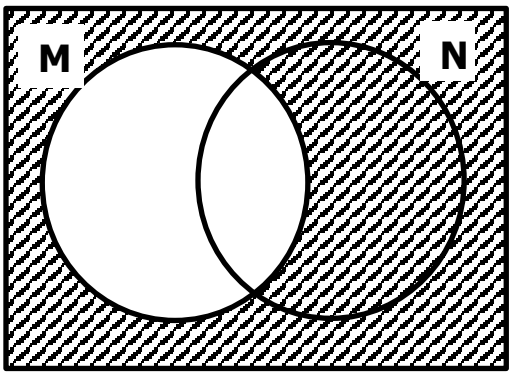
6. Express 0.1777777..... as a common fraction.

7. Precious slept at 10:15 p.m. and woke 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 sachet of gorillos weighed 12mg. What is its mass in decagrams?

Turn Over

12. If today is a Tuesday, what day of the week will it be 48days after tomorrow?

13. Find the sum of 679 and the smallest 3-digit number formed using digits 6, 0, 8.

14. Raymond exercises every 12days 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 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 660cm in **five** 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 88 are in good condition.
Find the total number of apples in the basket.

Turn Over

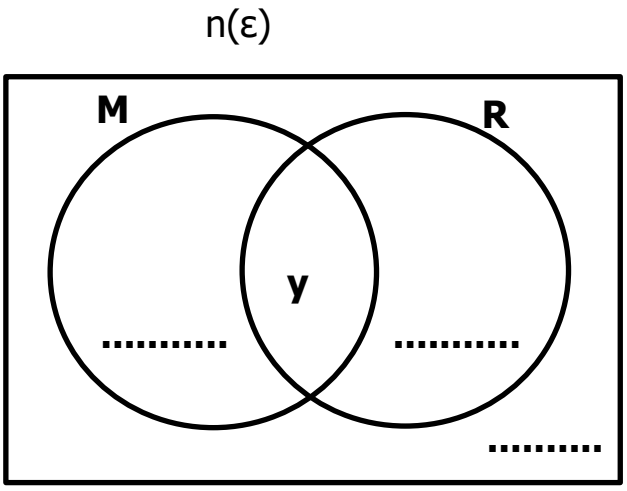
SECTION B: 60 MARKS

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.

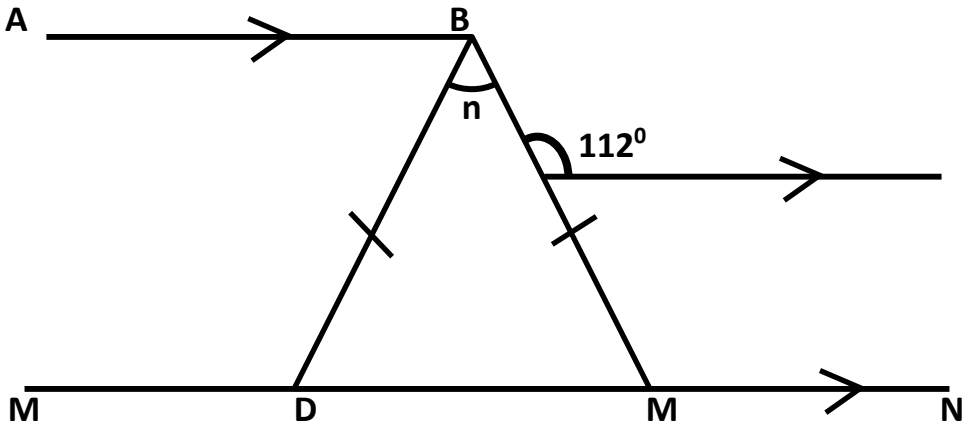
(a) How much did he borrow if he paid an interest of sh.84,000? *(02 Marks)*

(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.



Turn Over

(a) Find the value of angle n. *(02 marks)*

(b) Find the size of angle marked *(02 marks)*

(i) BDM

(ii) $\frac{1}{4}$ of BMN

25. (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)

26. 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 shs 3650
1 ksh	Ug sh 30	Ug shs 32

(a) Abigail had Ksh. 18250 and bought a fridge using US dollars. How many US dollars did she pay for the fridge? *(03 Marks)*

(b) Jason had US dollars 400. He exchanged the dollars for Uganda shillings and bought a home theater sh. 1,035,000. What was his balance in US dollars? *(03 Marks)*

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

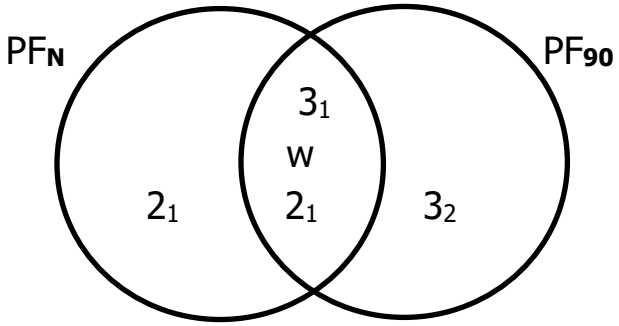
(a) Calculate the capacity of the tank when it is full of juice. *(03 Marks)*

(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)*

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

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

29. 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. *(02 marks)*

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

Number of candidates	///	/	//	///
Marks scored	60	90	40	**S**

(a) How many candidates sat for the test? *(01 mark)*

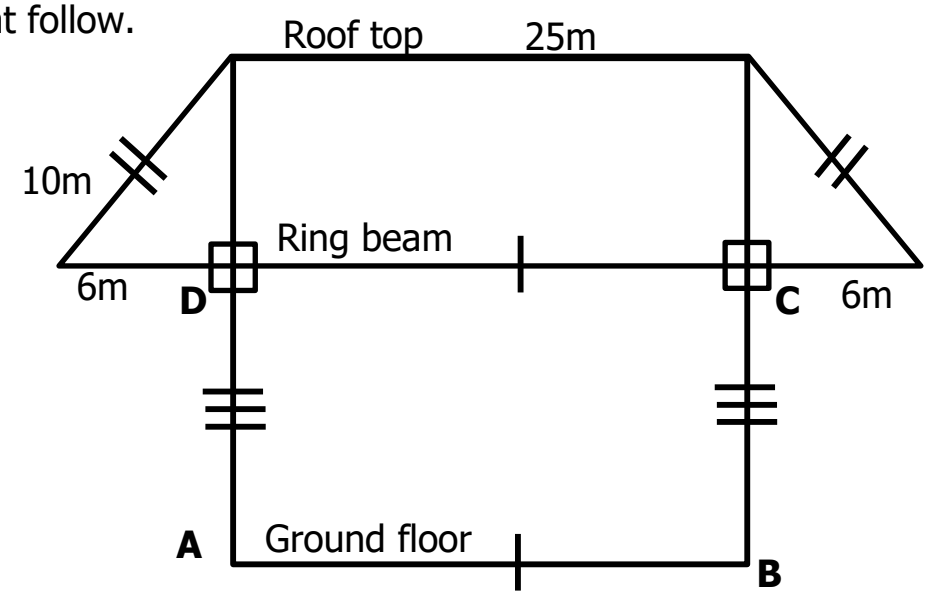
(b) If the mean mark was 50, find the value of **S**. *(02 marks)*

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

31. (a) Using a ruler, a pencil and a pair of compasses only construct a quadrilateral **MODE** inside a circle of radius 3.5cm *(04 marks)*

(b) Calculate the perimeter of the quadrilateral formed. *(02 marks)*

32. Below is house plan for Mr. Odongo's house. Study it carefully and use it to answer the questions that follow.



Turn Over

(a) How high is the top of the roof from the ring beam? *(02 marks)*

(b) If **AB** is half of **BC**, find the total area of the house plan to be constructed.

(04 marks)

END