THE E-LEARN EXAMINATIONS BOARD

PRE NATIONAL MOCK 2024

SET FOUR / FOUR

MATHEMATICS

Time Allowed: 2 hours 30 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 **12** 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		

Turn Over

SECTION A: 40 *MARKS*

*Answer **all** the questions in this section.*

*Questions **1** to **20** carry **two** marks each.*

1. Work out 36 ÷ 12

2. Write 34,782 in words.

   ……

3. Use distributive property to work out (12.5 ÷ 3) – (6.5 ÷ 3)

4. Write the next number in the sequence in Roman numerals

   1, 8, 27, 64, ……

5. Find the multiplicative inverse of $\frac{2}{5}$

6. Using a pair of compasses, a ruler and a sharp pencil only, construct angle of 105^{o}.

7. Convert 203_{four} to base ten

8. Work out $^{+}7 - ^{-}4$

9. Simplify $6x + 4y – 3x – 11y$

10. The area of a square garden is $64m^2$. Work out its perimeter.

Turn Over

11. Find the mean of 2m + 3, 3m and m+6

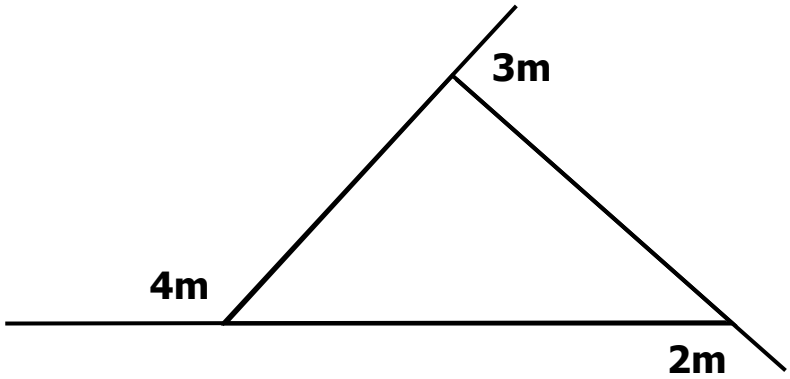
12. Write 265.43 in standard form.

13. 4 counter books cost sh 12,000. Find the cost of $1\frac{1}{2}$ dozens of similar counter books.

14. Round off 54.89 to the nearest tenths

15. Rose, a P7 girl got the following marks in a series of weekly tests 8, 9, 5, 6, 9, 5, 9. What was Rose's modal mark?

16. Find the value of angle m in the figure below.

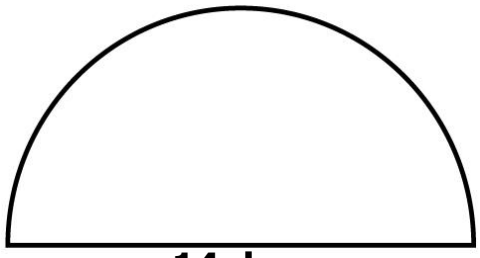


17. Workout $\frac{4}{9} + \frac{5}{18}$

18. Given set P = {a, b, c}. How many subsets are in set P?

19. Solve $\frac{1}{4}x^2 = 16$

20. Find the distance around the figure below.



Turn Over

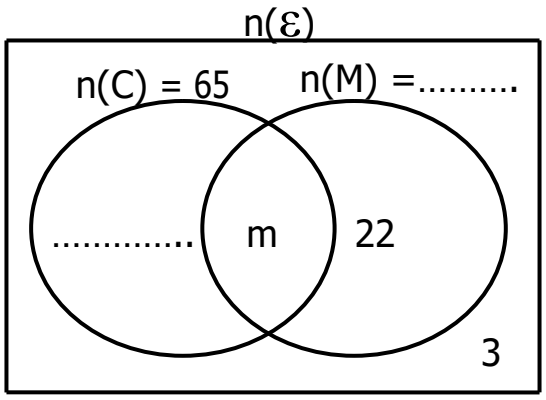
SECTION B: 60 MARKS

*Answer **all** the questions in this section.*

Marks for each question are indicated in brackets.

21. At a fundraising function held at Rock Junior School, 65 guests were Christians (C), 40 guests were Muslims (M), 22 guests were Muslims only, ***m*** guests were both Christians and Muslims while 3 guests were from African Traditional Religion.

(a) Represent the above information on a Venn diagram. *(02 marks)*



(b) Find the value of m *(02 marks)*

(c) How many guests attended the function? *(01 mark)*

22. Given the number **94,503**

(a) Write the number above in expanded form using exponents. *(02 marks)*

(b) Work out the quotient of the value of 4 and the value of 5 in the number above. *(03 marks)*

23. Musa is 6 years older than Faizo who is a third Hassan's age. In 4 years' time, their total age will be 68 years. How old is each now? *(05 marks)*

24. The sum of three consecutive even numbers is 60. If the last number is k – 3,
(a) Find the numbers *(04 marks)*

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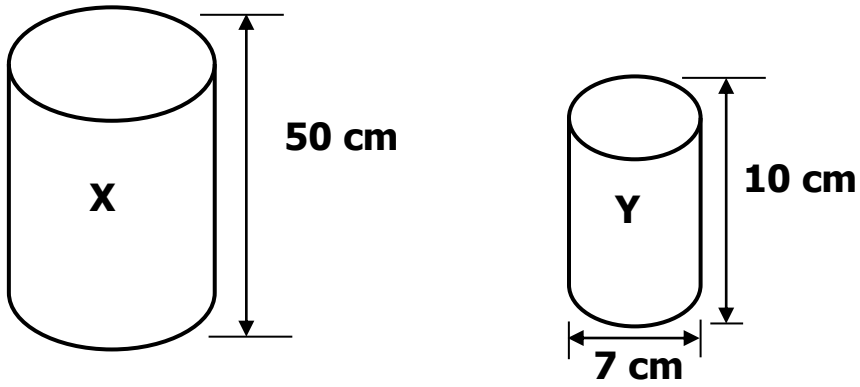
(b) Work out their range *(01 mark)*

25. Mubiru filled container X with water using container Y as shown in the diagram below.



If he used 80 of Y to fill container X, calculate the diameter of container X.

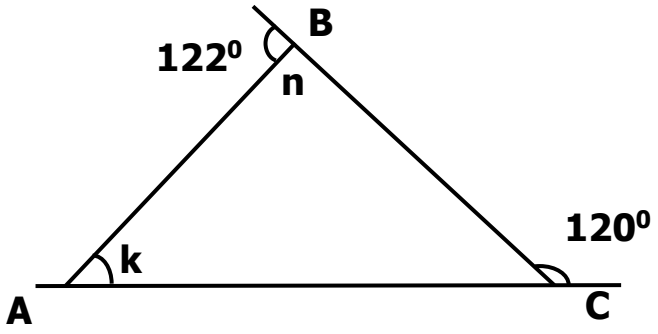
(05 marks)

26. (a) Workout $\frac{3.6 \times 0.3}{1.2 \times 0.09}$ *(03 marks)*

(b) Write 2.66… as a vulgar fraction. *(03 marks)*

Let the fraction be n

27. Using the figure below to answer the questions that follow.



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

(b) Calculate the size of angle k *(02 marks)*

28. Kintu left Hoima at 8:30 a.m. in the morning and travelled to Kampala for 4 hours at an average speed of 60 km/hr. He stayed in Kampala for 30 minutes and then returned back to Hoima.

(a) At what time did Kintu leave Kampala? (Give your answer in 12 hr clock system) *(02 marks)*

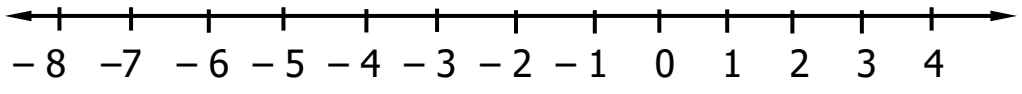
(b) Calculate the speed he used on the return journey if he reached Hoima at 6:00 p.m. (write your answer in m/s) *(04 marks)*

29. A trader bought 20 eggs at sh 200 each. On his way back home, some eggs got broken. If he sold the remaining eggs at sh 300 each making a profit of sh 800, how many eggs got broken? *(05 marks)*

30. (a) If $44_{m} = 35_{nine}$, find base m *(02 marks)*

(b) Work out $111_{two} \times 11_{two}$ *(02 marks)*

31. (a) Use the number line below and work out $-7 - {}^{+}3$ *(03 marks)*



Turn Over

(b) Davis was born in 18 BC and died in 45 AD. How old was he when he died?
(02 marks)

32. Town P is 60 km East of town Q and town R is 90 km from town Q on a bearing of 120^0.

(a) Draw a sketch diagram to show the three towns. *(01 mark)*

(b) Using a scale of 1 cm to represent 10 km, draw an accurate diagram to show the three towns. *(03 marks)*

(c) What is the shortest distance on the ground from town P to town R? *(01 mark)*

END