

MUKONO MUNICIPAL COUNCIL

MOCK EXAMINATION 2024

MATHEMATICS

Time Allowed : 2 hours 30 minutes

RANDOM NO.

PERSONAL NO.

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Candidate's Name.....

Candidate's Signature.....

School Name.....

District Name.....

Read the following Instructions carefully:

1. This paper is made up of **two** sections **A** and **B**
2. All working for both sections A and B must be shown in the spaces provided.
3. **All** working must be done using a blue or black ball - point pen or Ink or fountain pen. Diagrams should be drawn in pencil.
4. Unnecessary changes of work may lead to **loss** of marks.
5. Any hand writing that cannot be easily read may lead to **loss of marks**.
6. Do not fill anything in the table indicated "**For Examiners` Use Only**" and the boxes inside the question paper

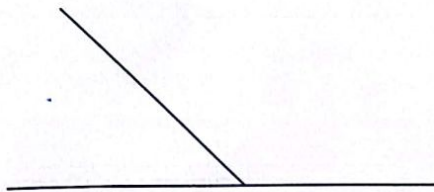
FOR EXAMINERS` USE ONLY		
Qn. No.	MARKS	EXRS` NO
1 - 5		
6 - 10		
11 - 16		
17 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31 - 32		
Total		

SECTION A (40 MARKS)

1. Add $23 + 41$

2. Write 416, 098 in words.

3. Bisect the obtuse angle in the figure below.



4. Simplify $4m + 3y - 7m + 2y$.

5. A dice was tossed once. What is the probability that a composite number showed up?

6. Find the next number in the sequence.

9, 10, 13, 19, 29, 44 _____

7. Simplify $+2 - 5$.

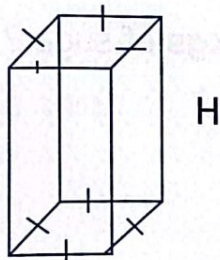
8. Without dividing, show which of the numbers below is divisible by 9.

309,

864,

919

9. The figure below has a volume of 720cm^3 and a base area of 36cm^2 . Find its height.



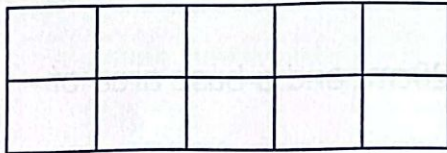
10. Convert 20m/sec to km/hr .

11. How many elements are in a set with 31 proper subsets?

12. Change **LXIV** into Hindu Arabic numerals.

13. Write **2940.6** in standard form.

14. Shade 40% of the figure below.

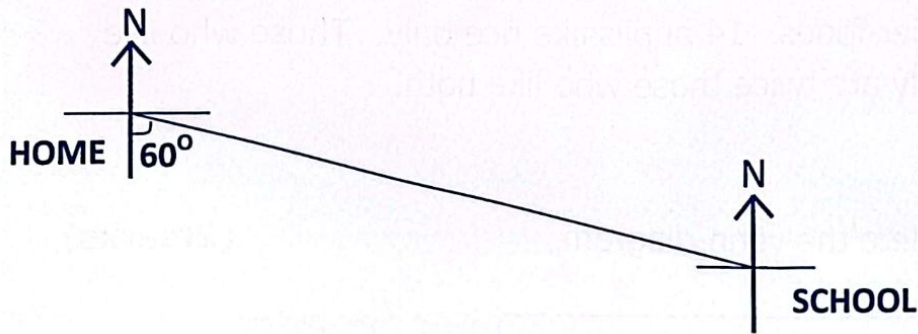


15. How many **250g** can be measured from **4kgs** of sugar?

16. A businessman withdrew five thousand shilling notes from the Bank numbered from AB 0012338 to AB0012359. How much money did he withdraw?

17. **Solve:** $6 - 3p \leq 18$.

18. Find the bearing of Home from school in the diagram below.



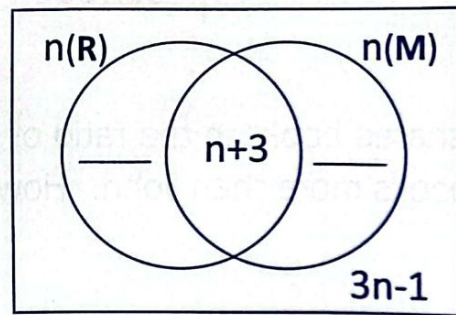
19. Two boys John and Peter shared books in the ratio of 5:7 respectively. Peter got 6 books more than John. How many books did they have altogether?

20. Find the mean of **$3m$, 8 , $5m-1$ and 5** .

SECTION B (60 MARKS)

21. The venn diagram below shows pupils who like Rice (**R**), Matooke (**M**) and other foods. 14 pupils like rice only. Those who like Matooke only are twice those who like both.

- (a) Complete the venn-diagram. **(2marks)**



- (b) Find the value of n if the pupils who don't like Matooke are 40. **(4marks)**

- (c) How many pupils like Matooke? **(1mark)**

22. (a) Work out $\frac{0.24 + 0.6}{0.04 \times 0.3}$ **(3marks)**

(b) Simplify $2\frac{1}{4} - 1\frac{1}{2} + \frac{3}{5}$ **(2marks)**

23. The interior angle of a regular polygon is 100° more than its exterior angle.

(a) How many sides are on this polygon? **(3marks)**

(b) Find its interior angle sum. **(2marks)**

24. (a) Solve $P03_{five} = 311_{four}$ **(3marks)**

(b) Workout

1	0	0	1_{two}
-	1	1	1_{two}
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(2marks)

25. James went to the shop and bought the following items. He was given a discount of 10%.

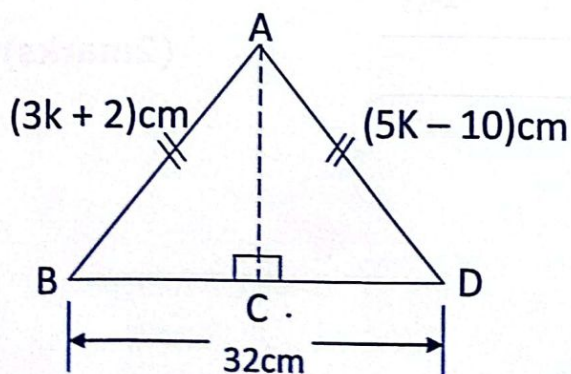
Item	Quantity	Unit cost	Amount
Sugar	2kgs	sh.4800	_____
Bread	3 loaves	_____	sh.15,000
Tea leaves	_____kg	sh.2,500	sh.1,250
TOTAL			_____

(a) Complete the table above. **(4marks)**

(b) How much money did he pay? **(1mark)**

26. A water tank was $\frac{5}{9}$ full of water. When the water equivalent to a half of what was in the tank was re-filled, the tank was left with 24 litres to get full completely. What is the capacity of the full tank. **(4marks)**

27. Study the triangle below and use it to answer the following questions.



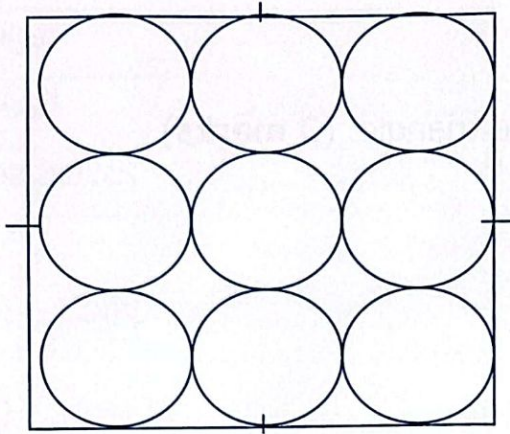
(a) Find the value of K **(2marks)**

(b) Calculate the area of the triangle. **(3 marks)**

28. (a) Using a ruler, pencil and a pair of compasses, construct a parallelogram ABCD where
AB = 7cm, BC = 5.5cm and $\text{angle } ABC = 120^\circ$.
(4marks)

(b) Drop a perpendicular from **D** to meet \overline{AB} at **x** and measure \overline{DX} . **(1marks)**

29. Circular metallic plates were cut from a square sheet of area 3600cm^2 as shown in the diagram below.



- (a) Find the length of each side of the metallic sheet. **(2marks)**

- (b) Calculate the area of the sheet that was wasted
(Take $\pi = 3.14$) **(3marks)**

30. The travel time table below shows the movement of a Bus from Kampala to Mbarara. Use it to answer the following questions.

STATION	DISTANCE FROM KAMPALA (KM)	ARRIVAL TIME	DEPARTURE TIME
Kampala	00		9:30am
Mpigi	50	10:30am	10:35am
Lwengo	140	11:20am	11:28am
Lyantonde	220	12:58pm	1:00pm
Mbarara	260	1:30pm	

- (a) What is the distance between Mpigi and Lwengo? **(1mark)**
- (b) How long was the stop over at Lyantonde?
- (c) Calculate the average speed the bus driver used for the whole journey from Kampala to Mbarara. **(3marks)**
31. A flask costs thrice as much as a book. A water bottle costs sh.4,000 more than a book. A parent bought a flask, 4 books and 2 water bottles and paid sh.62,000. What is the cost of a water bottle? **(5marks)**

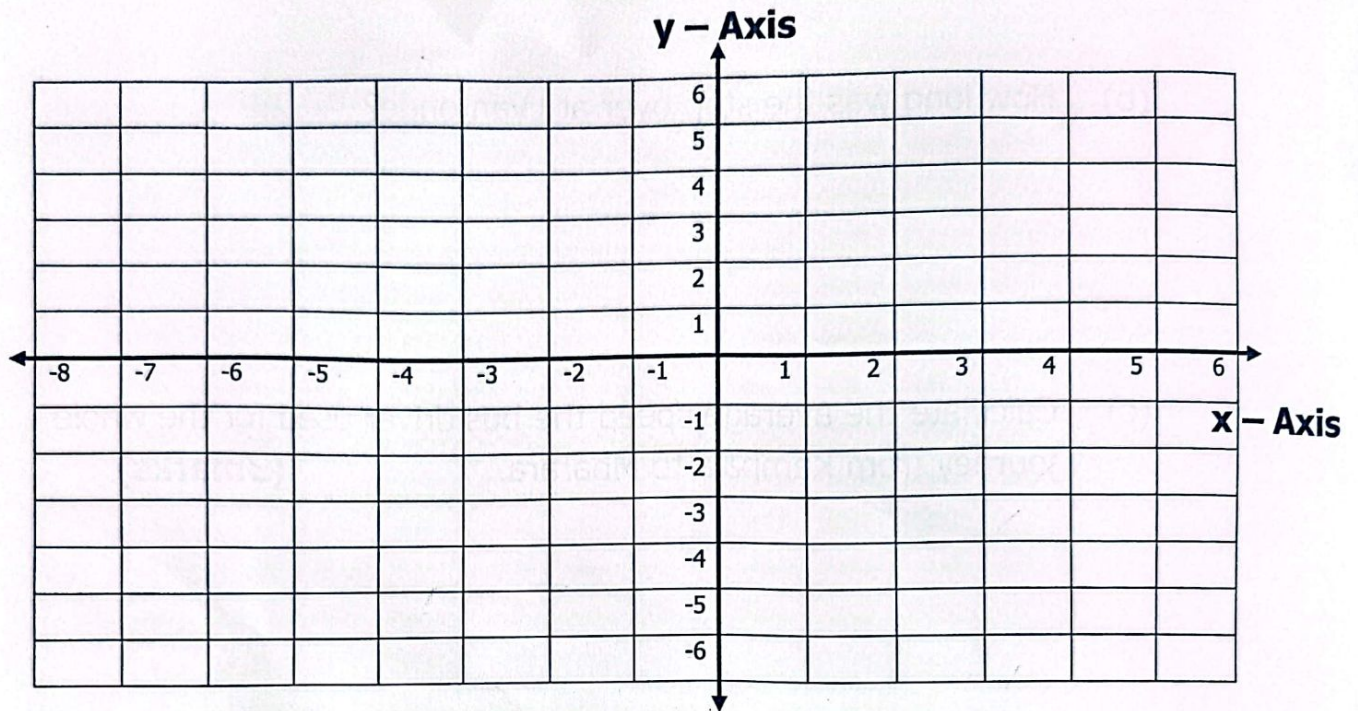
32. Plot the following co-ordinates on the grid below.

A(-6, -3)

B(-3, 3)

C(0, 3)

(3marks)



(b) Locate point D on the grid and join A to B, B to C, C to D and D to A to form an isosceles trapezium. (1mark)

(c) Find the area of the trapezium ABCD. (2marks)

.....good luck