

MBARARA DISTRICT ACADEMIC BOARD
PRIMARY LEAVING MOCK, 2023

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Random No.	Personal No.

Candidate's Name:

Candidate's Signature:

District ID No:

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Read the following instructions carefully:

1. Do not write your **school** or **district name** anywhere on this 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** the working for both sections **A** and **B** must be shown in the spaces provided.
 4. **All** working must be done using a **blue** or **black** ball point pen or ink. Any work done in pencil other than graphs and diagrams will **not** be marked.
 5. **No calculators** are allowed in examination room.
 6. Unnecessary **changes** in your work and hand writing that cannot easily be read may lead to **loss** of marks.
- 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 - 30		
31 - 32		
TOTAL		

SECTION A : 40 MARKS.

Answer all questions in this section.

Questions 1 to 20 carry two marks each.

1. Work out:

$$\begin{array}{r} 30 \\ \times 3 \\ \hline \end{array}$$

2. Simplify: $6t - 2(4 - t)$

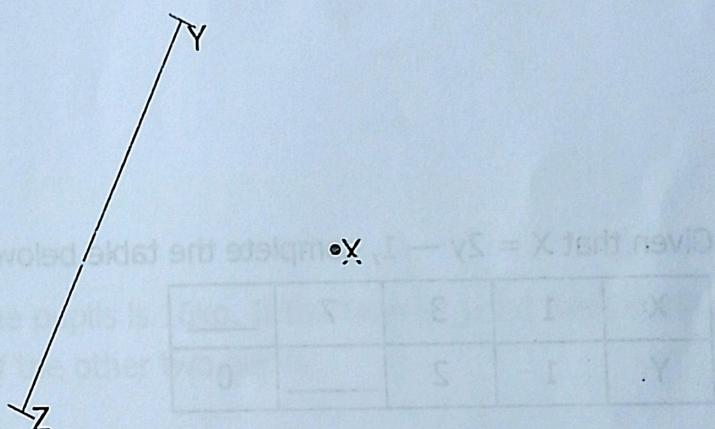
3. The LCM of two numbers is 72 and their GCF is 6. If one of the numbers is 18, find the second number.

4. Correct 95.752 to one decimal place.

5. Calculate the mean of the recorded patients who tested malaria last week.

Days of the week	Number of patients recorded
Tuesday	11
Wednesday	10
Thursday	8

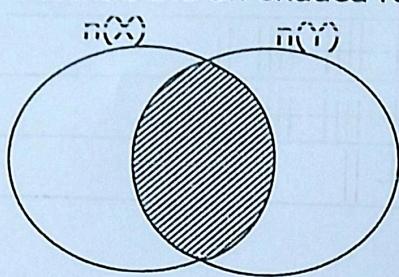
6. Using a ruler, a pencil and a pair of compasses only, construct a perpendicular line bisector from X to meet YZ at W.



7. How many cups of tea each measuring 280cm^3 can be obtained from 2.8 litres of tea?

8. Annet has bank notes numbered from AX04800 to AX04889. If each note is worth Shs. 1000 in value, how much money does she have?

9. Describe the un-shaded region in the Venn diagram below.



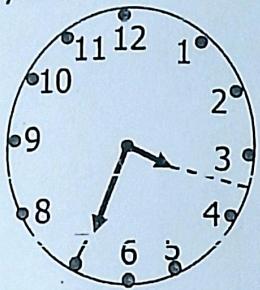
10. Convert 0.3636..... to a rational number.

11. Given that $X = 2y - 1$, complete the table below.

X	1	3	7	_____
Y	1	2	_____	0

12. Write the expanded numeral below in words.
(3 + 400 + 90000)

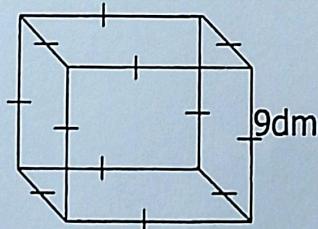
13. Express the afternoon time shown on the clock face below in a 24-hour clock system.



14. What amount of water when decreased by 10% becomes 360 litres?

15. The average weight of three pupils is 16kg. If the heavier pupil weighs 18kg, workout the total weight of the other two pupils.

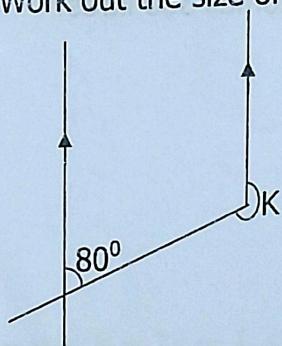
16. Calculate the total surface area of the cube below.



17. The sum of p , $p + 2$ and $p + 4$ consecutive even numbers is 36. Find the value of p .

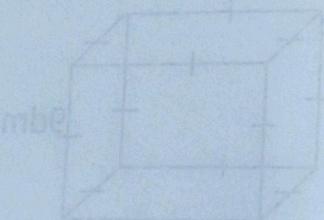


18. Work out the size of angle marked K in degrees.



19. If today is Wednesday, what day of the week will it be 40 days from today?

20. Given that $m = \frac{1}{4}$ and $p = \frac{3}{8}$
Solve for the value of $\frac{m}{p}$

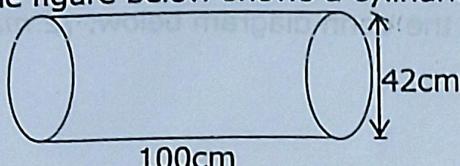


SECTION B : 60 MARKS.

Answer all questions in this section.

Marks for each question are indicated in the brackets.

21. The figure below shows a cylindrical plastic milk tank.



- (a) How many litres of milk can the tank hold when full? (2 marks)

- (b) If the tank is cut to form a rectangular plastic sheet, find the length of the sheet. (2 marks)

- (c) Work out the area of the plastic sheet formed. (2 marks)

22. The table below shows the exchange rates at the forex bureau.

S/No	CURRENCY	BUYING
(i)	1 US Dollar (\$)	Ug Shs. 3660
(ii)	1 Kenya Shilling (K Sh.)	Ug Shs. 35

- (a) Convert 300 US Dollars to Uganda Shillings.

(2 marks)

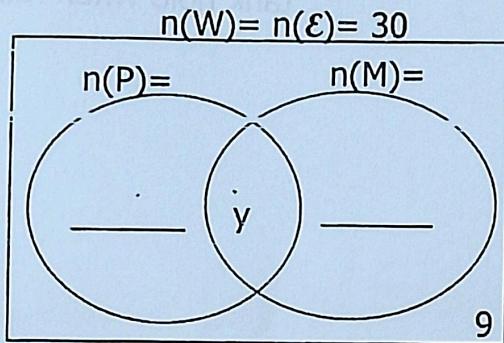
- (b) If a trader had various amount of money in currencies as;

- (i) 100 Kenya Shillings (K. Shs.)
(ii) 50 US Dollars (\$)

- (iii) A note of twenty thousand Uganda Shillings.
Calculate the amount of money he had in Uganda Shillings. (4 marks)

23. In a class of 30 candidates, all candidates drink water (W), 11 eat posho (P), 20 eat matooke (M) and y candidates take all the three while 9 candidates drink water only.

(a) Represent the above information on the Venn diagram below. (2 marks)



(b) Find the value of y . (2 marks)

(c) Work out the probability of picking a candidate who doesn't eat posho. (1 mark)

24. (a) Convert 9_{ten} to binary base. (b) Solve for a : $2^{2a} \times 2^3 = 32$.

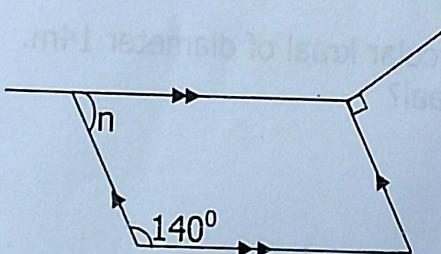
(2 marks)

(2 marks)

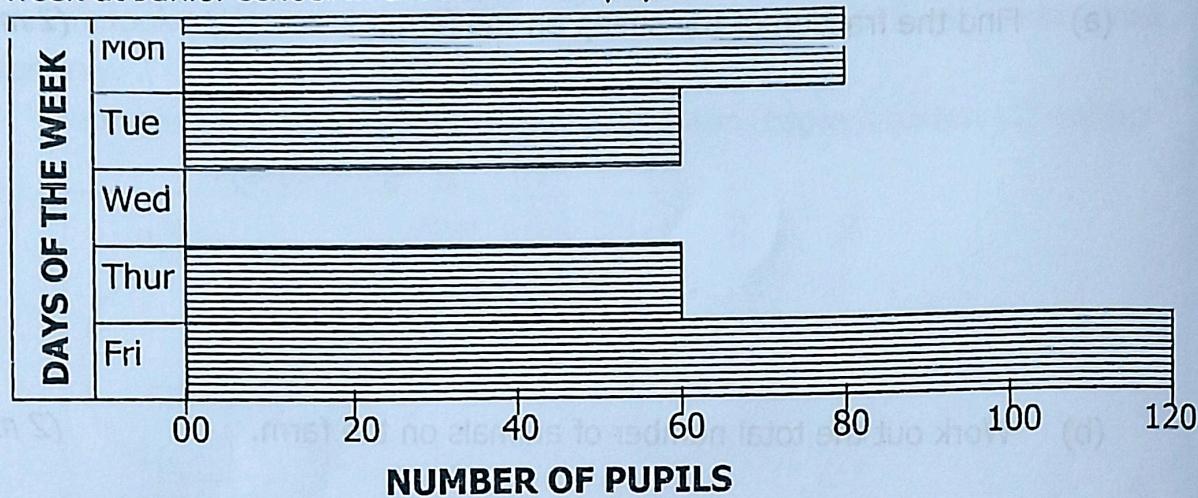
(c) Express 4030 in standard form. (2 marks)

25. On John's farm, the fraction of goats is $\frac{1}{3}$ more than that of sheep. The farm has 300 sheep.
- (a) Find the fraction of the sheep on the farm. (2 marks)
- (b) Work out the total number of animals on the farm. (2 marks)
26. (a) The interior angle of a regular polygon is three times its exterior angle. Calculate the size of its exterior angle. (2 marks)

- (b) In the figure below, solve for the size of angle n in degrees. (2 marks)



27. The bar-graph below shows number of pupils who did not attend sports last week at Junior school in a class of 120 pupils.



- (a) Which day was most likely to be a public holiday? (1 mark)
- (b) Work out the median of pupils who did not attend sports that week. (2 marks)
- (c) Calculate the total number of pupils who did not attend sports that week. (2 marks)

28. A herdsman constructed a circular kraal of diameter 14m.

- (a) Find the area of the kraal? (2 marks)
- (b) If a kraal was fenced with poles planted 2 metres apart at a cost of Shs. 3000 per pole, how much did he spend? (4 marks)

29. (a) Work out: $\frac{2.2 + 1.04}{1.8}$

(2 marks)

- (b) A teacher deposited Shs. 40,000 on her savings bank account for $\frac{1}{2}$ a year at a simple interest rate of 11% per annum.
Calculate the amount of money she had on her account after the period altogether? (3 marks)

30. A tourist left home and travelled 60km Westwards to a National Park. She then turned on a bearing of 225° and travelled to the nearest town a distance of 50km.
(a) Using a scale of 1cm to represent 10km, construct an accurate diagram to show the tourist's journey. (4 marks)

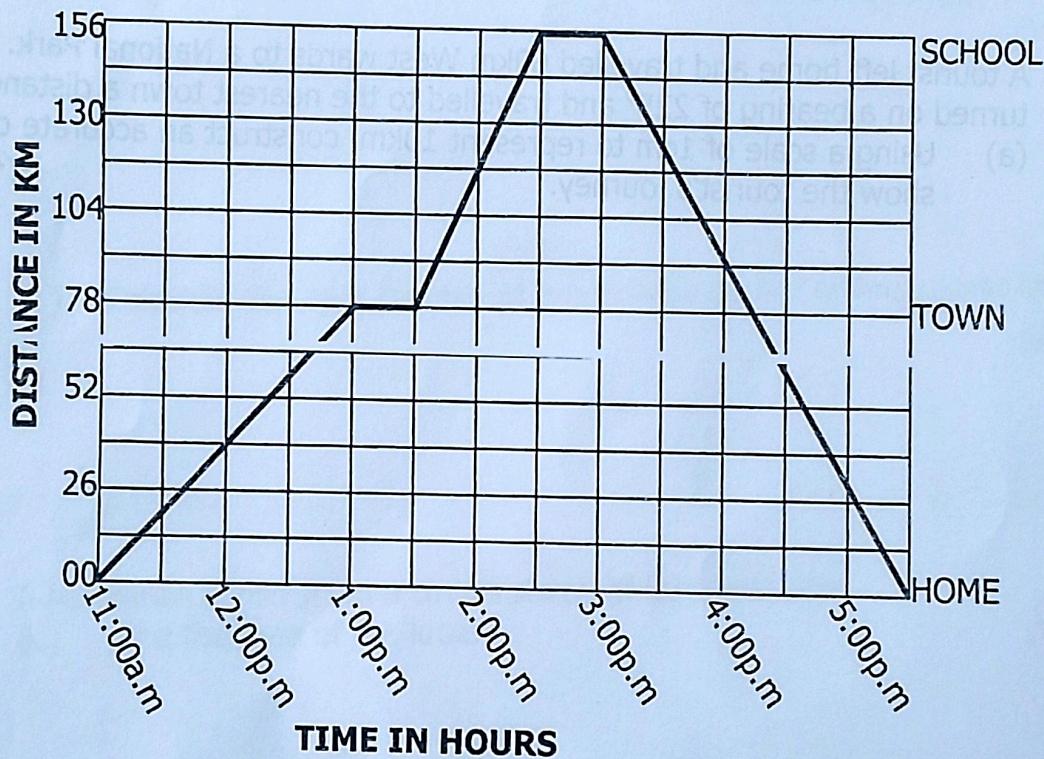
- (b) Find the shortest distance from town to his home in Km. (1 mark)

31. (a) Solve the inequality: $3t + 3 \leq 18$.

(2 marks)

- (b) Abdul is 8 years older than his wife. If their total age is 88 years, how old is the wife? (2 marks)

32. The travel graph below shows a parent's journey from home via town to school and then back home.



- (a) At what time did a parent arrive back home? (1 mark)

- (b) For how long did he rest in the whole journey? (1 mark)

- (c) Calculate his average speed for the whole journey. (2 marks)

END