

# MAYUGE DISTRICT EXAMINATIONS BOARD

## PRIMARY LEAVING MOCK ASSESSMENT, 2024

### 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 **8 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 the examination room.
6. Unnecessary **changes** in your work and handwriting that cannot easily be read may lead to loss of marks.
7. 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		
<b>TOTAL</b>		

SECTION A : 40 MARKS.

Answer all questions in this section.

Questions 1 to 20 carry two marks each.

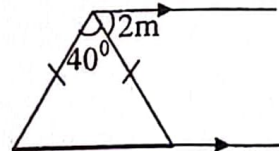
1. Work out:

$$\begin{array}{r} 430 \\ + 458 \\ \hline \end{array}$$

2. Determine the next decimal number in the sequence below;  
0.25, 0.16, 0.09, 0.04, \_\_\_\_\_

3. There are;  $\{a\}$ ,  $\{m\}$ ,  $\{r\}$ ,  $\{a, r\}$ ,  $\{r, m\}$ ,  $\{a, m\}$  and  $\{r, a, m\}$  proper subsets in set K. Find  $n(K)$

4. Solve for the value of  $m$  in degrees from the figure below.

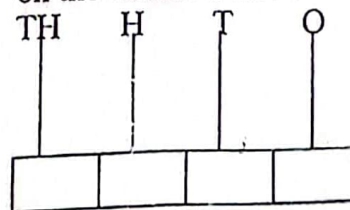


5. What numeral has been expanded to get;  
 $(8 \times 10^2) + (3 \times 10^0) + (5 \times 10^{-1}) + (3 \times 10^{-2})$

6. Convert  $0.4\dot{5}$  to a rational number in the lowest form.

7. Subtract:  $(y + p)$  from  $3y - p$ .

8. Show the smallest 4-digit numeral that can be formed from  $\boxed{2}$ ,  $\boxed{0}$ ,  $\boxed{1}$  and  $\boxed{3}$  on the abacus below.



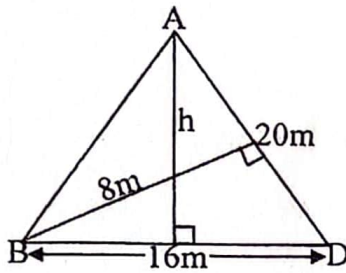
9. Given that:  $P = \{2_1, 2_2, 3_1, 5_1\}$   
 $X = \{2_1, 3_1, 5_1\}$   
Work out the Lowest Common Multiple (LCM) of P and X.

10. Calculate the mean of 6m, 10, 9m, 8 and 7.

11. Solve for t:  $3 - 5 = t$  (finite 7)

12. Simplify:  $3^2 \times 16 + 2^3$

13. Calculate the height (h) on the figure below in metres.



14. A fisherman saw a boat on water on a bearing of  $090^\circ$ . What is the bearing of a fisherman from the boat?

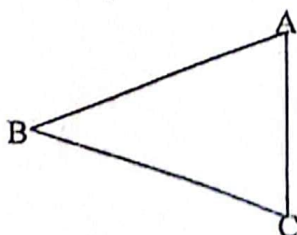
15. Given that a US dollar costs Ug Shs. 3730. If a tourist comes to Entebbe with 710 US dollars, how much money in Uganda shillings will he get from Tennis Forex Bureau?

16. In an hour a watch loses 5 seconds. How long will it take to lose 2 minutes?

17. A team can win, loose or draw the game, 18. what is the probability that a team will draw the game?

- The price of a radio was increased by 10% to Shs. 34,000. Calculate the original price of the radio.

19. Using a ruler, a pencil and a pair of of compasses only, bisect angle ABC in the figure below.



20. 8 men can do a piece of work in 5 days. How many men can do the same piece of work in 4 days?

**SECTION B : 60 MARKS**

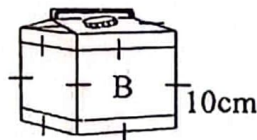
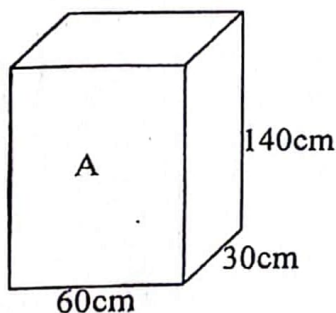
*Answer all questions in this section.*

*Marks for each question are indicated in the brackets.*

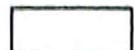
21. (a) Express  $30.4 \times 10^{-2}$  as a single numeral. (2 marks) (b) Given that  $33_n = 120_{\text{three}}$ , solve for base n. (2 marks)

- (c) A lady bought 300 tomatoes each at Shs. 500. She sold them in heaps of five and six tomatoes each. If she made 30 heaps of six tomatoes, how many heaps of five tomatoes did she make? (2 marks)

22. Below is a rectangular cuboidal box A with a cube juice tin B.

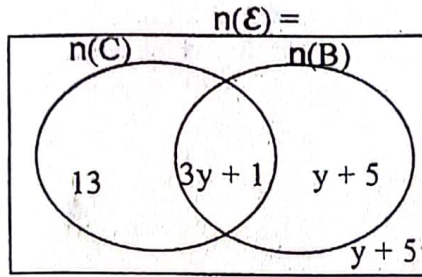


- (a) Calculate the volume of cuboidal box A. (2 marks)
- (b) How many cube juice tins can be obtained from the cuboidal box A? (3 marks)





At a gathering of women,  $y + 5$  women ate beef (B) only,  $3y + 14$  women ate chicken (C),  $3y + 1$  women ate both chicken and beef while  $y + 5$  ate neither of the two dishes.

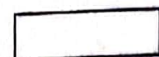


- (a) If  $n(B) = 22$  women, solve for the value of  $y$ . (2 marks)

- (b) Find the total number of women in the gathering altogether. (2 marks)

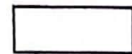
24. (a) With the help of a ruler, a sharp pencil and a pair of compasses only, construct a quadrilateral WXYZ where  $WX = 6\text{cm}$ , angle  $WXY = 60^\circ$  and  $XY = WZ = 7\text{cm}$ . (4 marks)

- (b) Drop a perpendicular line bisector from Y to meet WX at A and measure YA. (2 marks)

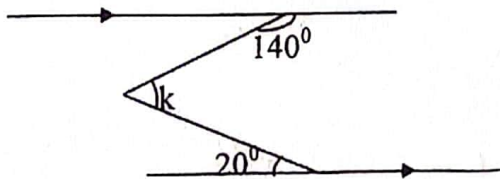


25. A motorist left home for town at an average speed of 80km/hr for 3 hours. He rested for an hour and then returned back home at a steady speed of 60km/hr.
- (a) Find the distance between his home and town. (2 marks)
- (b) Calculate the motorist's average speed for the whole journey. (3 marks)

26. Andrew went shopping and bought the following items.
- (i)  $1\frac{1}{2}$  litres of cooking oil at Shs. 6000 a litre.
- (ii) A bar of soap at Shs. 4000.
- (iii) 14 apples at Shs. 5000 per five apples
- If he went with 3-ten thousand shilling notes, how much was his change? (4 marks)



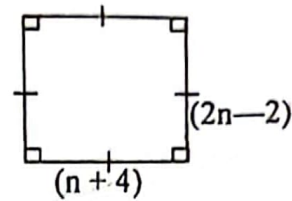
27. (a) Work out the size of angle marked  $k$  in degrees. (2 marks)



- (b) The interior angle sum of a regular polygon is  $1440^\circ$ . How many sides has the polygon? (2 marks)

28. (a) Given that  $x = \frac{2}{5}$  and  $y = \frac{3}{5}$   
Solve for  $\frac{x}{y}$  (2 marks)

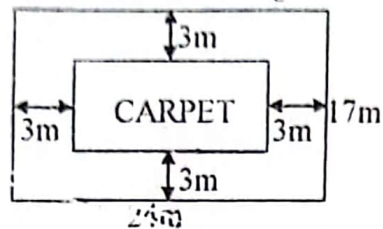
- (b) Find the perimeter of the figure below. (3 marks)



29. The three sectors of a pie-chart care, savings and food are in the ratio 3 : 1 : 2 respectively. using a radius of 4cm, construct an accurate pie-chart to represent the given information above. (5 marks)

30. In a village,  $\frac{1}{4}$  of the farmers grow matooke,  $\frac{2}{3}$  of the remainder grow cassava while the rest of the farmers grow millet. If those who grow millet are 45 farmers, how many farmers are in the village? (5 marks)

31. The figure below shows a sitting room with a carpet as shown below



Calculate the area uncovered by the carpet.

(5 marks)

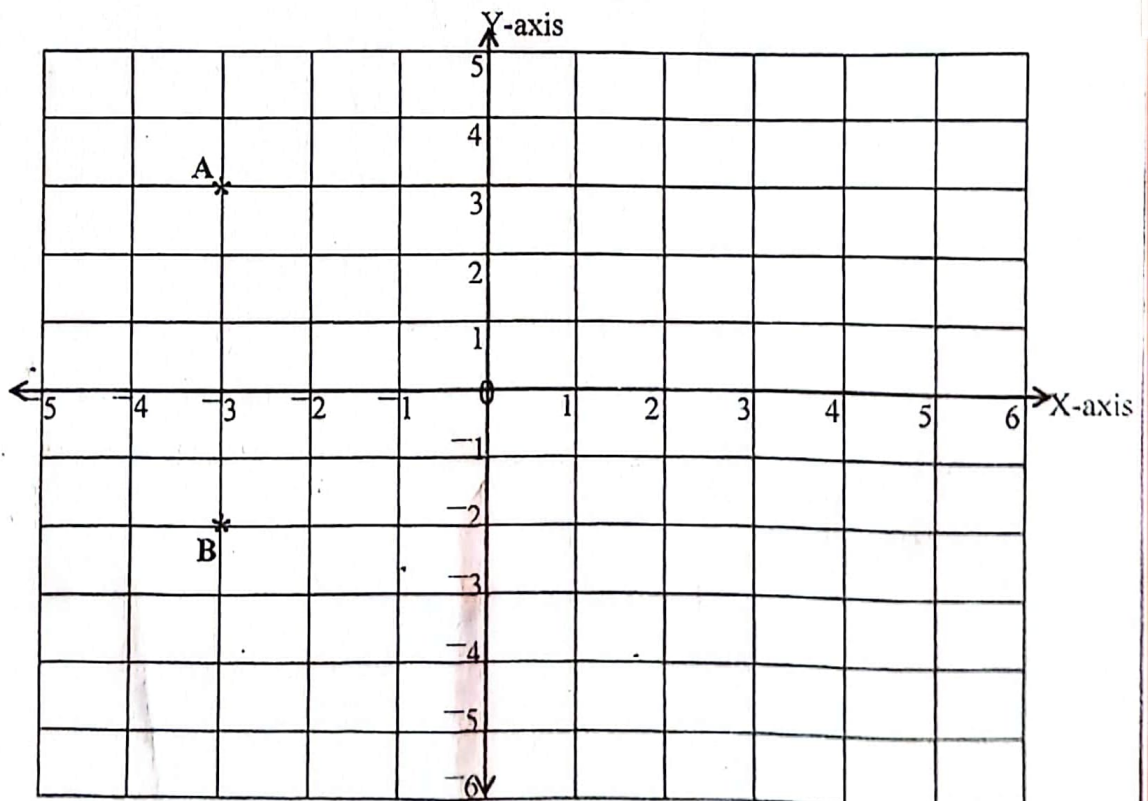
32. (a) From the grid graph below, state the co-ordinates for points;

(i) A = (1 mark)

A(-3, 3)

(ii) B = (1 mark)

B(-3, -2)



- (b) Plot the points C (5, -2) and D (1, 3).

(2 marks)

- (c) Join A to B, B to C, C to D, D to A and name the quadrilateral formed.

(2 marks)

END