

# MBARARA CITY EXAMINATIONS BOARD

## PRIMARY LEAVING MOCK ASSESSMENT, 2025

### 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 **16 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.
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		
TOTAL		

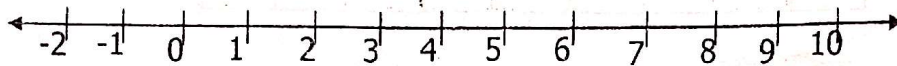
**SECTION A : 40 MARKS.**

Answer **all** questions in this section.

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

1. Use the number line below to work out;

$$3 \times 3 = \square$$



2. Find the sum of all triangular numerals from the list below;

20, 21, 22, 23, 24, 26, 27, 28, 29, 30

3. Simplify:  $3mn - 7pq - mn - 5pq$ .

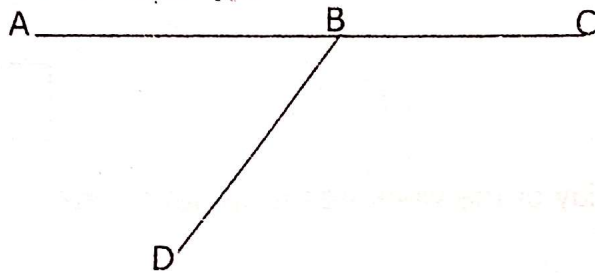
4. Give that  stands for 18 apples. How many apples are represented by

 apples?

5. In a candidate class, the ratio of boys to girls is 3:2 respectively. If there are 60 girls, how many candidates are in the class?

6. Tom made a profit of Shs. 2000 on an article which was 10% of the cost price. How much did he sell the article?

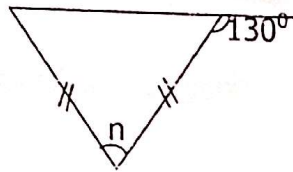
7. Using a ruler, a pencil and a pair of compasses only, bisect angle ABD drawn below.



8. Express  $3\frac{1}{2}$  tonnes to grams.

9. Given that set P has 16 subsets.  
Find  $n(P)$ .

10. Calculate the size of angle  $n$  in degrees.

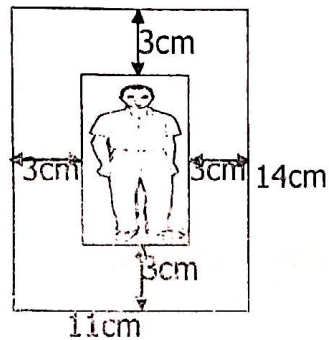


11. If today is Thursday, what day of the week was it 48 days ago?

12. Express  $0.\dot{4}\dot{5}$  to rational number in the lowest form.

13. Abdūl earns Shs. 210,000 in a fortnight, how much does he earn per day?

14. The figure below shows a photo in a frame.



Work out the area of the photo.

15. Find the value of  $t$  if  $2^t \times 4 = 32$ .

16. The digits 9, 0, and 1 were used to form a 3-digit numeral. Express the smallest 3-digit numeral formed in Roman numerals.

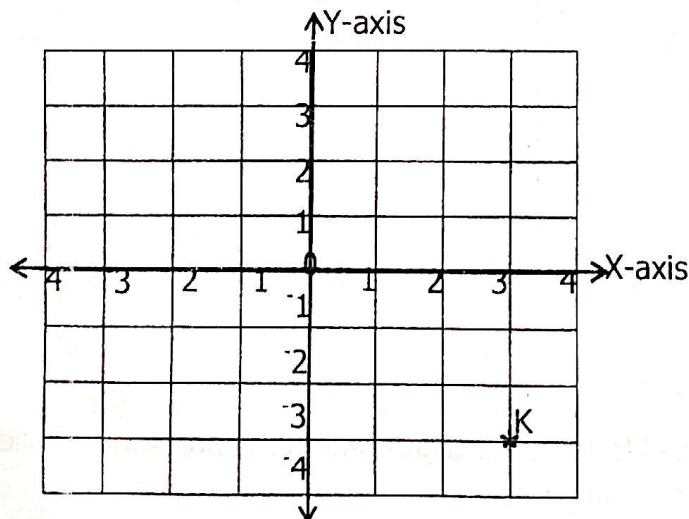
17. Solve for  $w$ ;  $3w - 12 = w$

18. A fuel pump M takes 5 minutes to draw fuel from the tank while pump R takes 4 minutes to fill it fully with fuel. How many minutes will it take to fill the tank if both pumps are opened at the same time?

19. Work out:

weeks	Days
34	4
+ 8	5
<hr/>	

20. On the grid graph below;  
(a) Show  $N(-2, 3)$



- (b) Name the co-ordinate represented by K.

**SECTION B : 60 MARKS.**

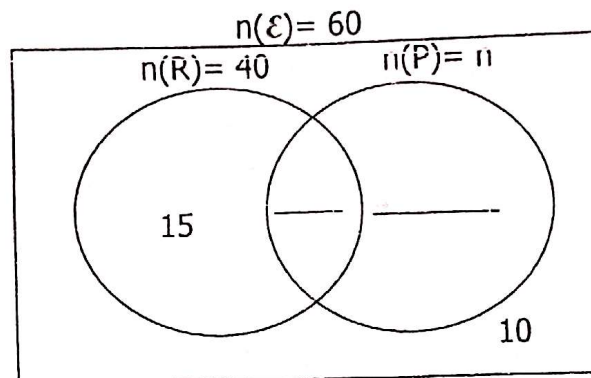
*Answer all questions in this section.  
Marks for each question are indicated in the brackets.*

21. (a) Solve for base  $n$ :  $17_{\text{ten}} = 101_n$  (2 marks)

- (b) Use distributive property to simplify;  $(60 \div 7) + (24 \div 7)$  (2 marks)

- (c) Express 0.0809 in scientific notation. (2 marks)

22. In a class of 60 candidates,  $n$  eat posho (P), 40 eat rice (R) and 15 eat rice only while 10 eat neither of the two types of food.  
(a) Use the given information above to complete the Venn diagram below. (2 marks)

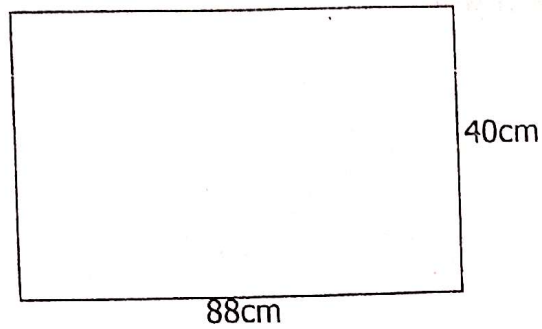


- (b) Find the value of  $n$ .

(2 marks)

- (c) If a candidate is picked at random to be a class monitor, what is the probability of picking one who eat only one type of food? (2 marks)

23. The rectangular sheet of metal below was folded to form a hollow cylinder.



- (a) How long is the radius of the formed cylinder? (2 marks)

- (b) Calculate the volume of the formed cylinder. (2 marks)

24. The average of three consecutive even numerals is 20. Find the least numeral. (2 marks)

- (a) Given that;  $F_N = \{2_1, 2_2, 3_1, y\}$   
 $F_{70} = \{2_1, 7_1, y\}$

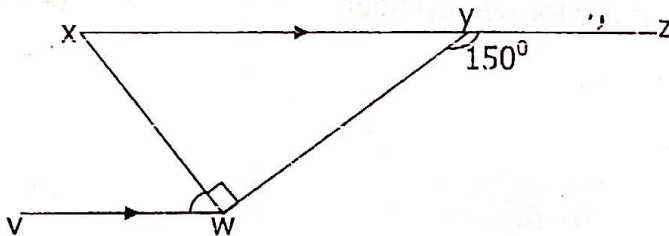
(i) Solve for the value of N.

(2 marks)

(ii) Work out the Lowest Common Multiple (LCM) of N and 70.

(2 marks)

25. The figure bellow shows line XZ parallel to VW.



(a) Calculate the size angle VWX in degrees.

(2 marks)

- (b) The interior angle sum of a regular polygon is  $1440^\circ$ .  
Work out its exterior angle.

(2 marks)

26. The exchange rates at Abdul's Forex bureau are as follows;

- (i) 1 US dollar (\$) costs Shs. 3600
- (ii) 1 Pound Sterling (£) costs Ug. Shs. 4800
- (iii) 1 Kenya Shilling (K Sh) costs Ug Shs. 28.
- (a) A lap top costs 208 Pounds. Find the cost of the laptop in Uganda Shillings.

- (b) A tourist came with 140 US dollars. How much Kenya Shillings can he get from the Forex bureau?

(2 marks)



27. The table below shows weight of members in a Parish Development Model (PDM) group in a division.

Number of members				
Weight of members in Kg	40	t	90	60

- (a) If the average weight was 55kg, solve for value of t.

(2 marks)

- (b) Calculate the median weight of the members.

(2 marks)

28. (a) Simplify:  $\frac{3.5 + 4}{0.03}$

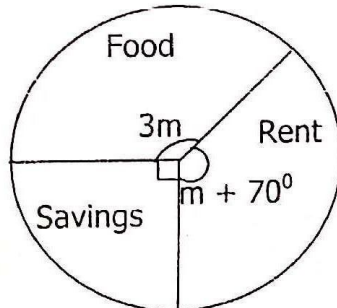
(2 marks)

- (b) At the function of t invited guests, there are 20% more females than males.  
(i) Find the percentages of male guests invited.

(2 marks)

- (ii) If there were 312 female guests at the function, how many guests (t) attended the function? (2 marks)

29. The pie-chart below shows Annet's monthly expenditure. Use it to answer the questions that follow.

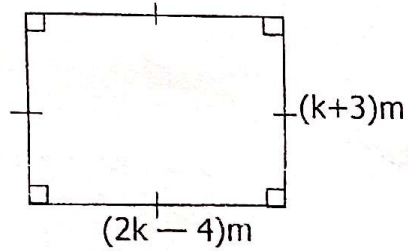


- (a) Work out the value of  $m$  in degrees. (2 marks)
- (b) If she saved 270,000, calculate her monthly income. (2 marks)

30. (a) Subtract:  $(3y - 3)$  from  $(4y - 4)$

(2 marks)

(b) Use the square below to answer the questions that follow.



(i) Solve for the value of  $k$  in metres

(2 marks)

(ii) Calculate the area of the square above.

(2 marks)

31. The table below shows the departure and arrival time of the City Education Officer (CEO) from his office to school via town.

STATION	ARRIVAL TIME	DEPARTURE TIME
Office	.....	9:5a.m
Town	10:10a.m	11:30a.m
School	12:15p.m	.....

- (a) For how long did the CEO rest in the town?

(1 mark)

- (b) Express his arrival time at school to a 24-hour clock system.

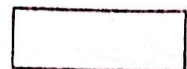
(1 mark)

- (c) If the CEO travelled at an average speed of 90km/hr from office to school, How far is the school from office?

(2 marks)

32. Our school is 70km away from my home on a bearing of  $270^{\circ}$  while my home is 80km away from our town on a bearing of  $180^{\circ}$ .  
(a) Draw a sketch diagram showing the three places. (1 mark)

- (b) With the help of a ruler, a pencil, a pair of compasses and a scale of 1cm to represent 10km, construct an accurate diagram showing the three places. (4 marks)



END