

IPPSA EXAMINATION BOARD

P.7 MID - TERM II 2023

MATHEMATICS EXAMINATION

Time allowed: 2 hours 30 minutes.

Index No.							
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Candidate's Name:.....

Candidate's Signature:

EMS Number:

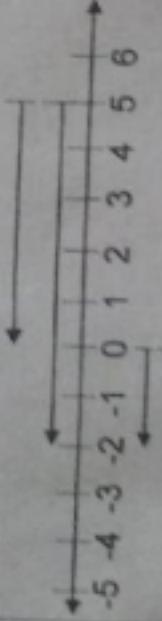
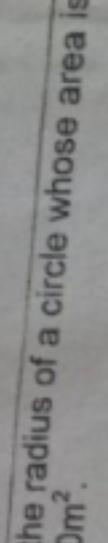
District Name:.....

Read the following instructions carefully:

1. This paper is made up of two sections: A and B.
2. Section A has 20 questions (40 Marks)
3. Section B has 12 questions (60 Marks)
4. Answer ALL questions in both sections A and B.
5. All answers must be written in the space provided in blue or black ball point pens and ink. Only diagrams should be done in pencil.
6. Unnecessary crossing of answers will lead to loss of marks.
7. Any handwriting, which cannot be easily read, may lead to loss of marks.
8. Do not fill anything in the boxes indicated for Examiners' use only.

FOR EXAMINER'S USE ONLY			
QN. No	MARKS	INITIALS	
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)

- | | |
|--|--|
| 1. Divide $10 + 5$ | 2. Write 58 in Roman numerals. |
| 3. Given that set $P = \text{(all factors of } 18)$. List the elements of P . | 4. Without dividing, show whether 8064 is divisible by 6. |
| 5. Round off 763.97 to the nearest tenths. | 6. A farmer collects 225 litres of milk every day. He packs the milk in cans of 25 litres each. How many cans does he collect in a week? |
| 7. Write the Mathematical sentence shown on the number line below. | 8. Name the polygon whose centre angle is 45° . |
|  |  |
| 9. Find the number of five hundred shilling coins that can be exchanged for a note of twenty thousand shillings. | 10. Find the radius of a circle whose area is 15400m^2 . |

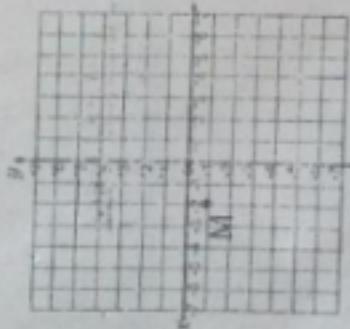
11. A bus left at 8:30p.m and reaching its destination at 4:00am the next day. How long did the bus take on the way?

12. Solve the inequality, $4 - k \geq 6$

13. A trader deposited sh. 360,000 in a bank which gives an interest at a rate of 12½% p.a for 4 months. How much interest did he receive?

14. Find the square root of 1.44.

15. Study the graph below and use it to answer questions that follow.

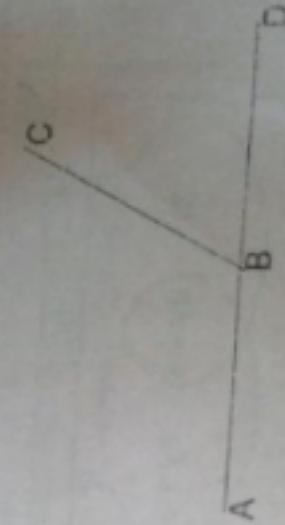


- (a) Write co-ordinates of point marked M.

- (b) On the graph, plot N(0, +2)

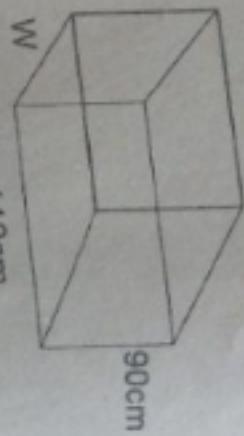
16. The old man was born in 17 BC and lived for 89 years. In which year did he die?

17. Using a pair of compasses and a ruler only, bisect angle ABC below.



18. Mukilbi sold a shirt at sh. 12,000 making a loss of sh. 4000. Calculate his percentage loss.

19. The tank below holds 990 litres.



Find the width of the tank.

20. The length of a rectangle is twice its width. If its area is 32cm^2 find the width of the rectangle.

SECTION .B. (60 Marks)

21. (a) Multiply $203_{\text{base 4}}$ $\times 4$.

- (b) Solve for the unknown base $205_n = 77_{\text{ten}}$.

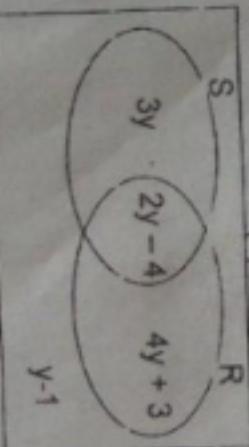
22. The venn diagram below shows the number of players who like swimming(S) and Rugby(R).

(05 Marks)

(R)

$n(\Sigma)$

(S)



05 Marks

b)	How many players like swimming?	(c)	If a player is selected at random from the group, what is the probability of selecting a player who does not like swimming to be a captain?
23.	Given the numeral 86.074. (a) Write the numeral in words without using the word point.	(b)	Write the numeral in expanded form using indices.
(c)	Find the product of the value of 8 and the place value of 7.		(05 Marks)
24.	Below is Akiiki's shopping list for her birthday. - 5 bottles of soda at sh. 5000 - 2kg 500g of meat at sh. 12000 each - 2 cakes at sh. 10000 each - A wrapping paper at sh. 3000	(b)	If he was given a change of sh. 4900, how much did she have at first?
(a)	If she was given a 5% discount, how much did she pay?		(05 Marks)

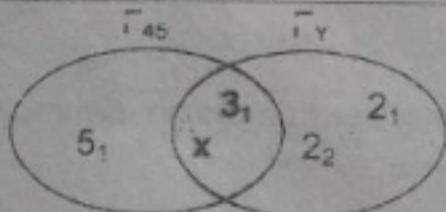
26. Murlica, Mugisha and Murindwa shared books in the ratio of 3:7:5 respectively if Murlica got 12 books less than Mugisha

(a) How many books did they share altogether?

(b) Express Murindwa's books as a ratio of the total.

(05 Marks)

26. The prime factors of 45 and Y are shown on the venn diagram below.



(a) Find the value of,

(i) y

(ii) x

(b) Work out the LCM of F_{45} and F_Y .

(05 Marks)

27. (a) Write the morning time shown on the clock face below.



(b) Calculate the speed of a car that covers a distance of 45km in 1 hour 15 minutes.

28. (a) Use a dial to work out $4 - 6 \pmod{7}$.

(b) It is 4 o'clock now. At what time will it be 18 hours from now? (04 Marks)

(c) The temperature of ice dropped by 8°C from -10°C . Find its new temperature.

29

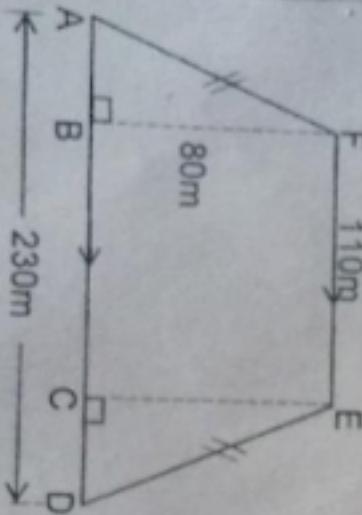
- (a) Using a ruler a pencil and pair of compasses, construct a parallelogram $KLMN$ where $KL = 7\text{cm}$, angle $LKM = 45^{\circ}$ and $LM = 4\text{cm}$.

(b) Measure diagonal LN .

30. A trapezium compound $ADEF$ below measures 110m by 230m along the two parallel sides. If a long the height is 80m ,

(05 Marks)

(a) Find the length DE .



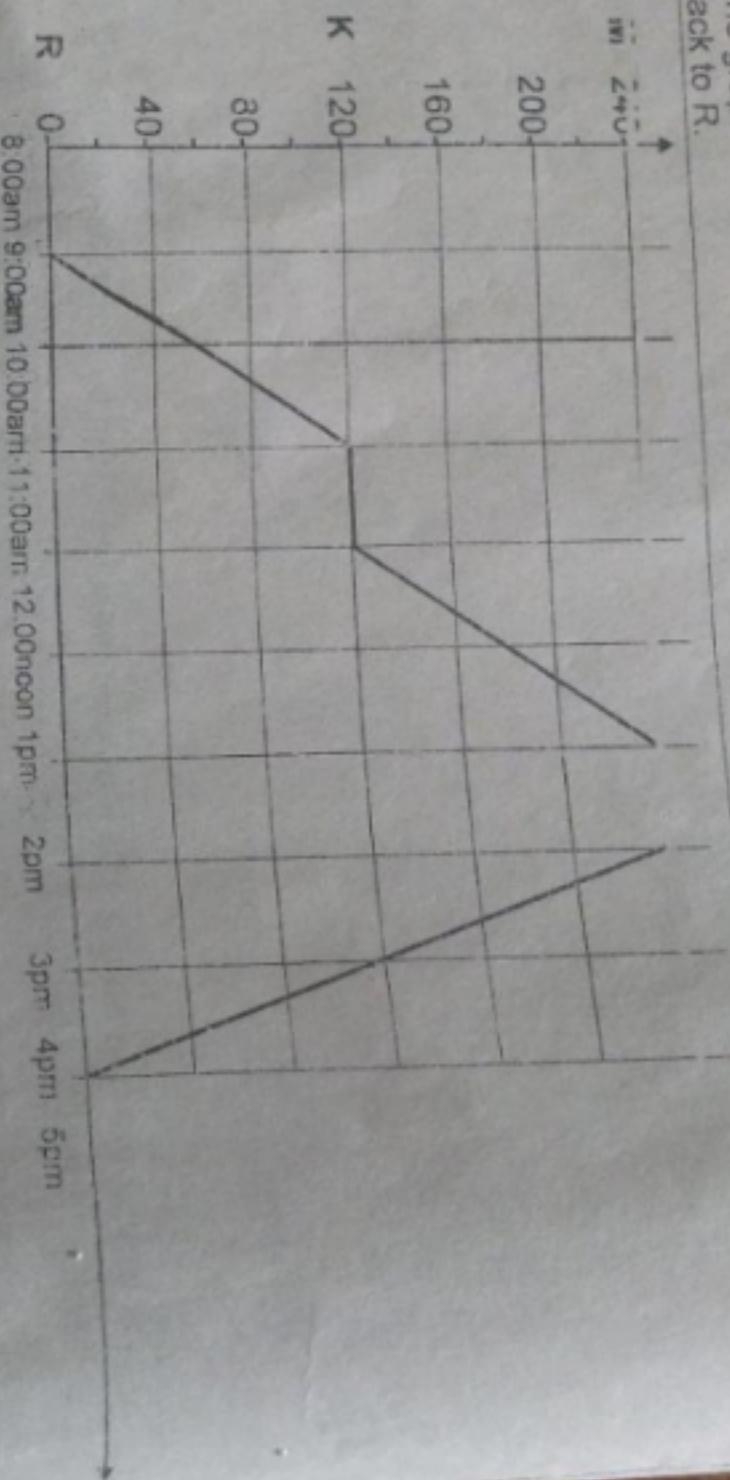
(u) Find the area of the trapezium in the figure.

(v) Find the area of the trapezium.

(05 Marks)

(05 Marks)

32. The graph below shows how a motorist drove from town R to town M through town K and back to R.



- (a) At what time did the motorist leave town R?
- (b) For how long was the resting period at K?

- (c) What distance had the motorist covered after 3 hours?

- (d) Calculate the motorist's average speed for the whole journey.

(05 Marks)

END