

**STEM EXAMINATIONS BOARD**  
**PRIMARY SEVEN ASSESSMENT SET IX, 2023**  
**MATHEMATICS MOCK**

*Time Allowed: 2 hours 30 minutes*

Index No.	Random No.					Personal No.		
	<input type="text"/>							

Candidate's Name: .....

Candidate's Signature: .....

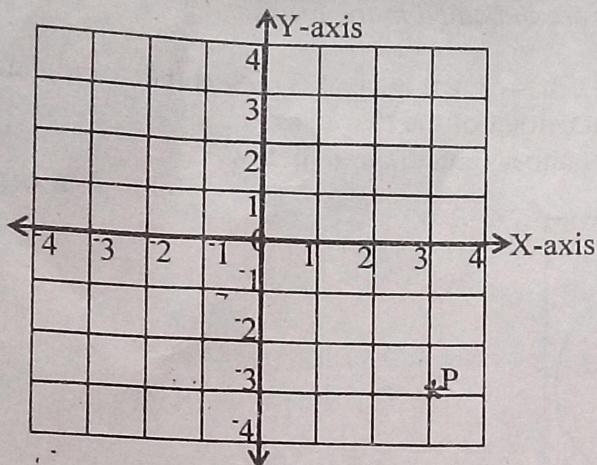
District ID No:

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.

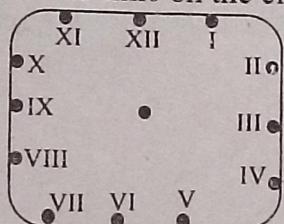
FOR EXAMINERS' USE ONLY		
Qn. No.	Marks	EXR'S NO.
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31 - 32		
<b>TOTAL</b>		

1. On the co-ordinate grid below;  
 (i) Plot T (-3, 0).



- (ii) State the co-ordinates of point P.

A bus arrived at the stage at midnight.  
 Show this time on the clock face below.



Add:  $1\frac{1}{3} + \frac{3}{4}$

14. Use the digits 4, 0, 3 and 1 to form the largest and smallest numerals.

- (i) Largest

- (ii) Smallest

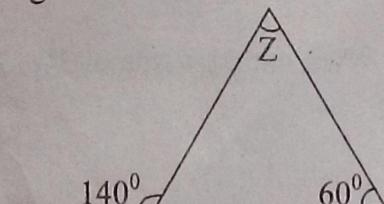
16. The profit from a bag sold at Shs. 18,000 was Shs. 2,900. calculate the cost price of the bag.

Express  $7.04 \times 10^3$  as a single numeral. 18.

Solve the inequality:  $2a - 3 < 11$

The radius of a wheel is 14 metres.  
 What distance does it cover in three complete revolutions?

20. Work out the size of angle marked Z in degrees.



SECTION A : 40 MARKS.

*Answer all questions in this section*

*Questions 1 to 20 carry two marks each.*

1. Subtract:    
$$\begin{array}{r} 384 \\ - 51 \\ \hline \end{array}$$

2. Simplify:  $p - (2m - 3p)$ .

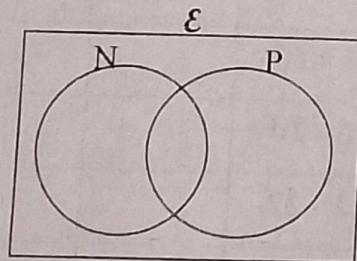
3. Find the value of;  
“3 hundreds — 3 tens”
4. Change  $20m^2$  into square centimetres.

5. From the counting numbers less than 12, select and circle;  
(i) Prime numbers.

- (ii) Triangle numbers.

7. In the Venn diagram below, shade the region of N complement.

8. A taxi arrived Hoima at 2:00p.m. If the journey took 3 hours, at what time did it depart?



9. Solve for  $\square$ ;  $2\square = 5 \text{ (mod 7)}$

10. A Kraal can be built by 5 men in 18 days

- How many men working at the same rate can build the same kraal in 15 days?

SECTION B : 60 MARKS.

*Answer all questions in this section.*

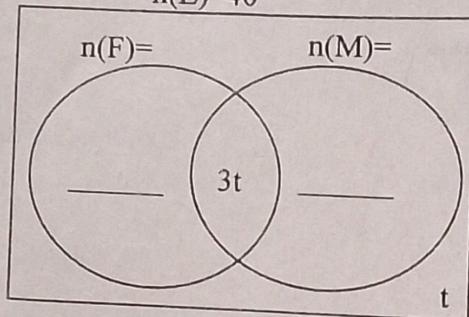
*Marks for each question are indicated in the brackets.*

21. In a class of 40 candidates 23 eat fish (F), 3t — 3, eat meat (M) only and 3t candidates eat both fish and meat while t candidates eat neither of the two sauce.

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

$$n(E)=40$$

(2 marks)



- (b) Solve for the value of t.

(2 marks)

(c)

- How many candidates eat one type of sauce only?

(1 mark)

22. (a) Express 0.1212..... as a common fraction. (2 marks)

$$\text{Simplify: } \frac{2.7 \times 1.2}{1.8}$$

(2 marks)

23. (a) Solve for n:  $23_n = 19_{\text{ten}}$ .

(2 marks)

(b)

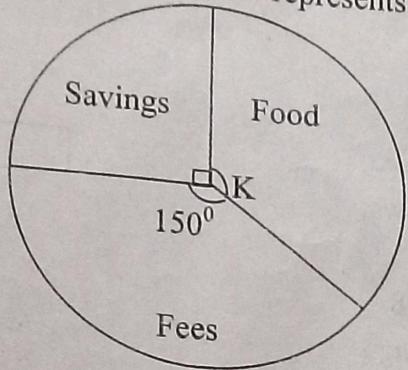
Use distributive property to simplify;  
 $\left(\frac{2}{3} \times 11\right) + \left(\frac{2}{3} \times 10\right)$

[ ] (2 marks)

- (c) Work out the value of  $3^8 \div 3^4 \div 3$ .

(2 marks)

24. The pie-chart below represents Abdul's expenditure per month.



(a) Find the value of K in degrees.  
(2 marks)

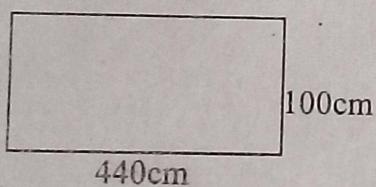
(b) If Abdul spends Shs. 18,000 more on fees than on food, how much does he earn per month?  
(3 marks)

25. The interior angle of a regular polygon is  $120^{\circ}$ .

(a) How many sides has the polygon?  
  
(2 marks)

(b) Work out the interior angle sum of the polygon.  
  
(2 marks)

26. The figure below shows a rectangular sheet of metal to be curved to form a cylindrical milk tank.



(a) Using  $\pi = \frac{22}{7}$ , find the radius of the tank formed.  
(2 marks)

(b) Calculate the area of the rectangular sheet curved to form the tank.  
(2 marks)

(c) Work out the capacity of the tank.

(2 marks)

27. The exchange rates at a forex bureau are as follows;

- (i) A US dollar (\$) costs Ug Shs. 3660.
- (ii) A Kenya Shilling (K.Sh.) costs Ug Shs. 38.
- (a) Convert Ug Shs. 209,000 to Kenya Shillings.

(2 marks)

(b) If a table costs 600 US dollars, find the equivalent cost of the table in Uganda Shillings.

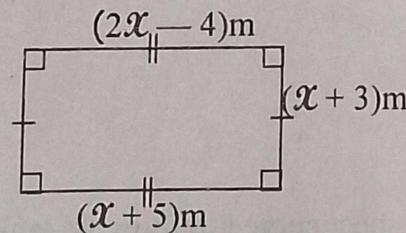
(2 marks)

28. (a) Solve for  $r$ :  $\frac{2r}{3} = 18$ .

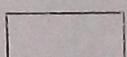
(2 marks)

(b) Calculate the area of the figure below.

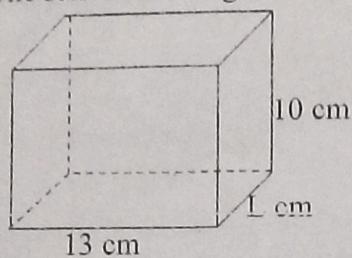
(3 marks)



29. With the help of a ruler, a pencil and a pair of compasses only, construct an isosceles triangle  $XYZ$  where  $XY = 7\text{cm}$ , angle  $XZY = 90^\circ$  and side  $XZ = YZ$ . *(5 marks)*
30. Bosco and his father contributed Shs. 480,000 for the party in the ratio 2:3 respectively.
- (a) How much did each contribute?
- (i) Bosco (2 marks) (ii) Father (2 marks)
- (b) How much more did the father contribute than Bosco? *(2 marks)*



31. The sum of the length of all edges of the prism below is 136cm.



(a) Find the length of edge L in cm.

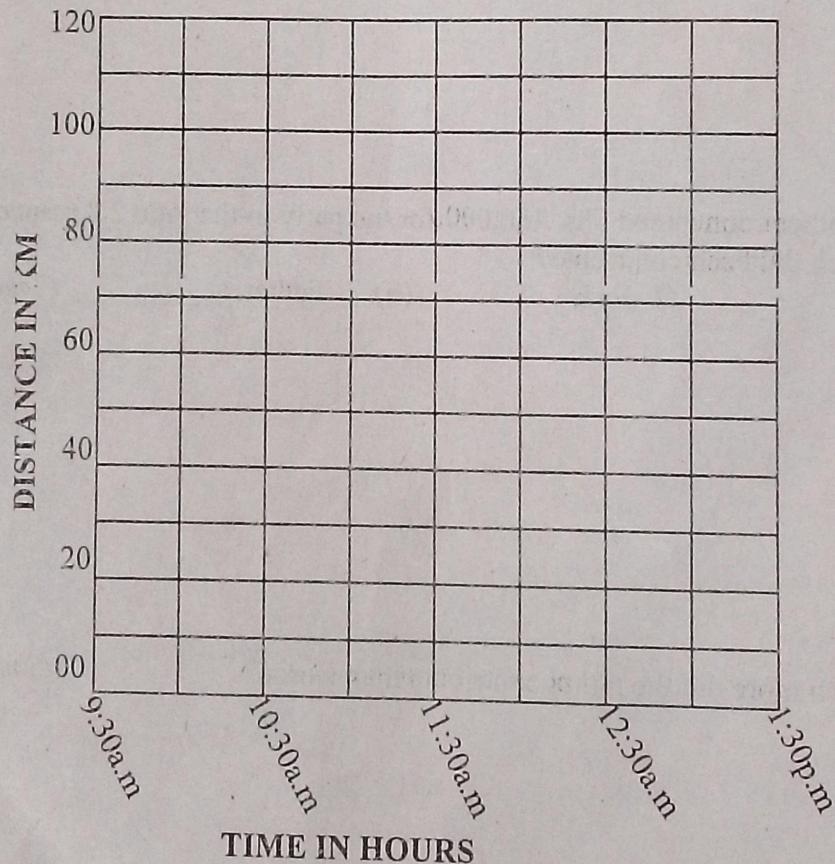
(3 marks)

- (b) Work out the volume of the prism.

(2 marks)

32. John covered part of his journey in  $1\frac{1}{2}$  hours travelling at a speed of 40km/hr and rested for 30 minutes. The remaining journey was covered in 2 hours at a speed of 30km/hr.

- (a) Represent John's journey on the graph below.



- (b) Calculate John's average speed for the whole journey.

(2 marks)