THE PLATINUM EXAMINATIONS BOARD

SPECIAL MOCK 2025

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Index No.	EMIS No.						Personal No.		

Pupil's Name: .....

Pupil's Signature: .....

School Name: .....

District Name: .....

Read the following instructions carefully:

1. Do not forget to write your **school** or **district name** on the 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** working for both sections **A** and **B** must be shown in the spaces provided.
4. **All** answers **must** be written using a **blue** or **black** ball point pen or ink. Any work written in pencil will **not** be marked.
5. Unnecessary **changes** in your work and handwriting that cannot be read easily may lead to **loss of marks**.
6. 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 – 32		
TOTAL		

SECTION A

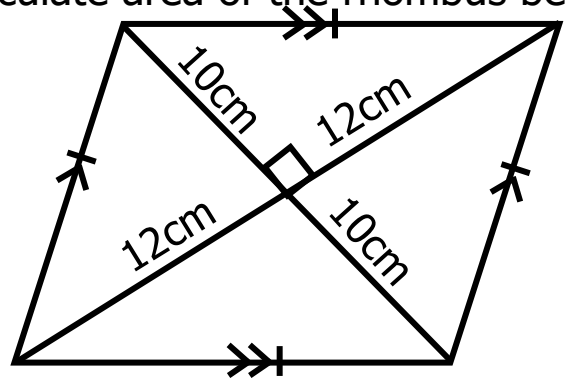
1. Subtract: 100 – 99.

2. If set A = { 0 , 2 , 4 , 6 , 8 } and set B = { 4 , 6 , 8 , 9 , 10}.
   Find n(A ∩ B)

3. Workout 1 – 3 =……(Finite 7).

4. Write 4,083 in scientific notation.

5. Calculate area of the rhombus below.



6. Write "nine hundred thousand, seventeen" in figures.

7. Simplify $^{-}4 - {}^{-}7$.

8. Our class teacher withdrew bank notes numbered consecutively from ER0004952 to ER0004961. Find the number of notes the class teacher withdrew.

9. Using a protractor, draw an angle of 60° in the space below.

10. Decrease sh 90,000 in the ratio of 7:9.

11. Solve $2^{5} \div 2^{n} = 2^{3}$

12. Convert $43_{\textbf{five}}$ to base ten.

13. Find the 9^{th} equivalent fraction to $\frac{2}{3}$.

14. Given that 4 mangoes cost sh. 2,000. Find how many mangoes would one buy with sh. 6,000.

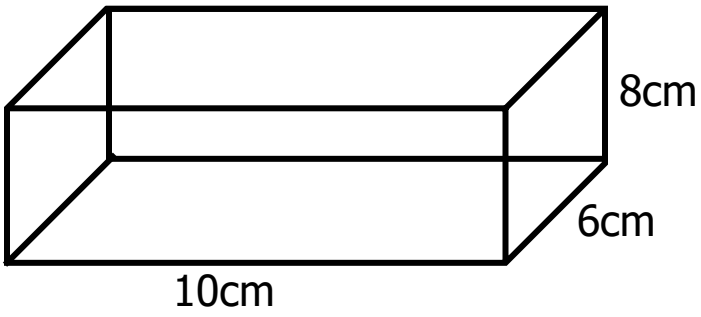
15. Find the next number in the sequence
$^{-}27$, $^{-}23$, $^{-}17$, $^{-}9$, 0 , _____.

16. Calculate the interior angle sum of a regular pentagon.

17. Simplify (m – 2) – (1 – 3m).

18. A debate which ended at 3:00p.m. took $1\frac{1}{4}$hours. At what time did it begin?

19. Find the total length of all edges of the rectangular prism below.



20. Set Q has 7 proper subsets. Find the number of subsets it has.

SECTION B.

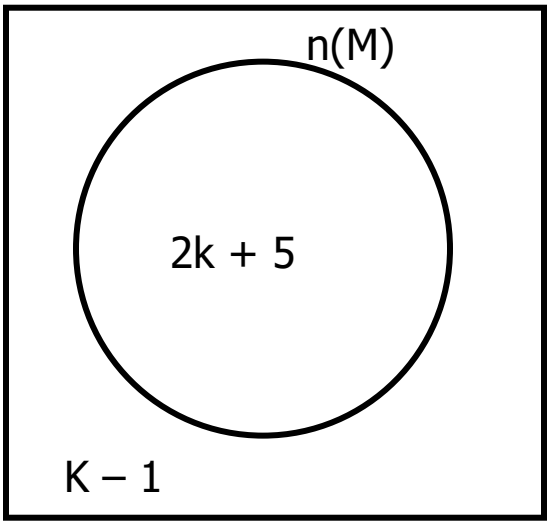
21. Godfrey's car uses 5 litres of petrol to cover 15km.

a) Find the number of litres of petrol his car uses to cover 108km.
(02 marks)

b) If a litre of petrol costs sh 5,200, how much money will Godfrey spend on buying fuel needed to run his car for $1\frac{1}{2}$ hours at a speed of 30km/h? (03 marks)

22. The venn diagram below shows how a family of 13 members enjoy different kinds of sauce namely chicken (C) and meat (M). use it to answer the questions that follow.

$n(\Sigma) = n(C) = 13$



a) Find the value of k. (03 marks)

b) If a member is to be selected at random from the family, what is the probability that a person selected enjoys chicken only? (02 marks)

23. a) The sum of 3 consecutive odd numbers is 45. If the largest number is m. Find the numbers. (03 marks)

c) Workout the square of the least number. (02 marks)

24. Atim went shopping and bought the items shown in the table below. If she was offered a 10% trade discount worth sh. 1,000. Complete the table correctly. (05 marks)

Item	**Unit cost**	**Amount**
250g of maize flour	sh 2,000 per kg	sh……..
……litres of cooking oil	sh 5,000 per litre	sh 2,500
2kg of sugar	sh …….. per kg	sh ……..
Net expenditure		Sh……

25. a) Find the range of the integers: $^{-}7$, 0 , $^{+}2$ and $^{-}4$. (02 marks)

b) The mean of the numbers 5 , r + 4 , 3 , 11 and 4 is 6. Find the value of r. (02 marks)

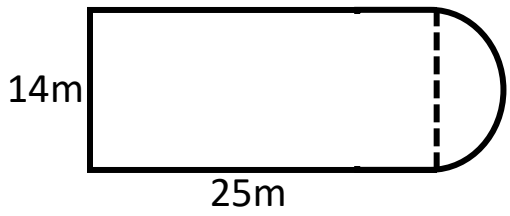
c) In a bag that contains 4 red pens and some blue pens, the probability of selecting a blue pen at random is $\frac{3}{5}$. Find the total number of pens in the bag. (02 marks)

26. Two taps T and C are connected to a water tank. Tap T takes 3 minutes to fill the tank while tap C can empty it in 4 minutes. If both taps are opened at the same time, how long will they take to fill $\frac{2}{3}$ of the tank?

(04 marks)

27. Using a ruler, pencil and a pair of compasses only, construct a triangle PRQ = 75° and angle QPR = 60°. Drop a perpendicular bisector from R to meet line PQ at B. (05 marks)

28. The figure represents Sserunkuma's plot of land. He fenced it using poles placed at intervals of 40cm. Find the number of poles he used. (use $\pi = \frac{22}{7}$). (03 marks)

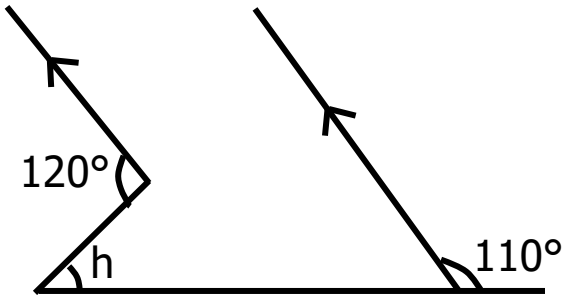


b) If each pole costs sh 1,500 , how much money will Sserunkuma spend on the poles? (02 marks)

29. a) Solve the inequality $^{-}3(2 - P) \geq 6$ given that P is a composite number. (03 marks)

b) State the first five values of the solution set for the inequality above. (02 marks)

30. In the figure below, find the size of the angle marked h. (03 marks)

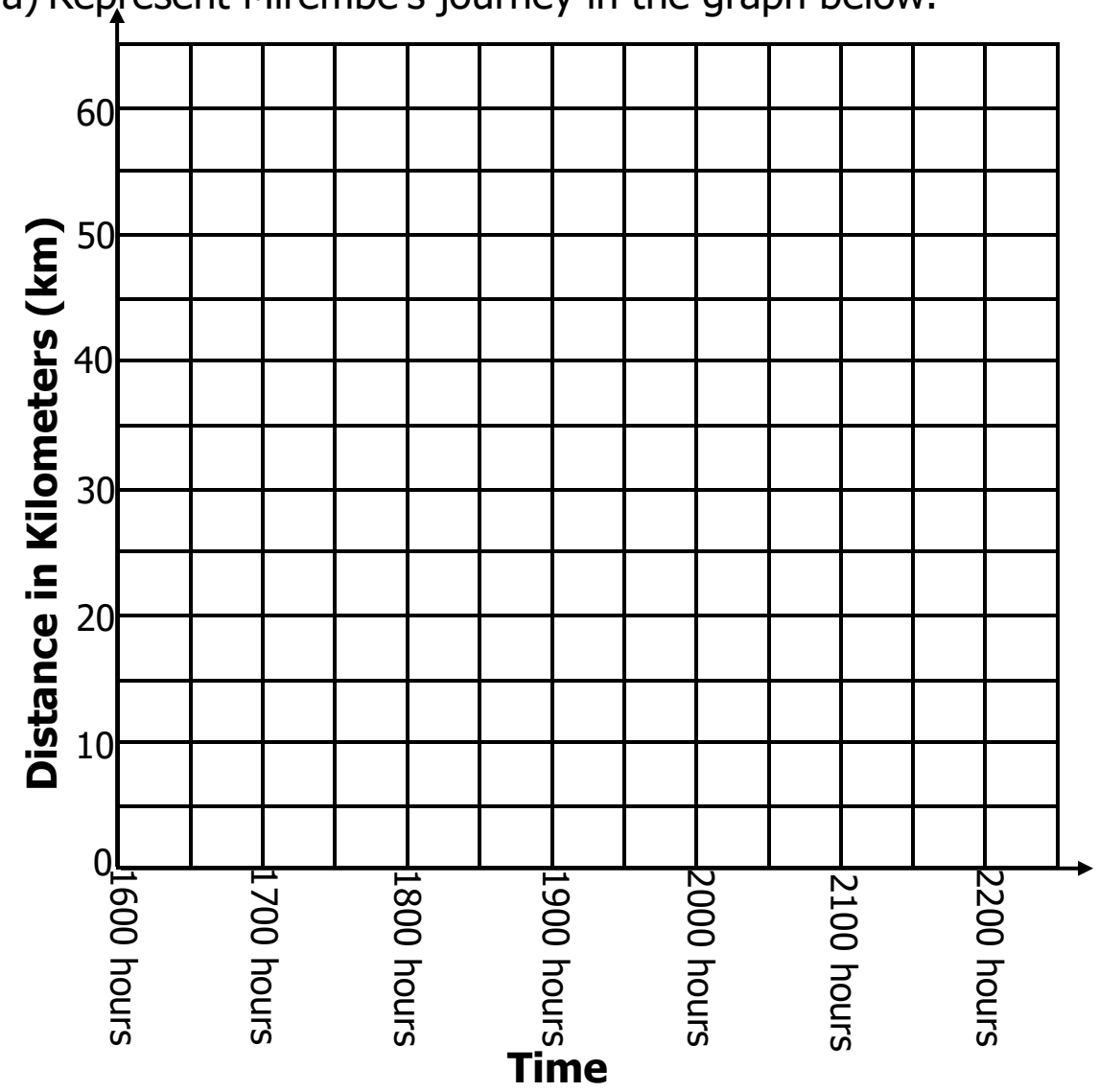


b) Find the complement of d + 25°. (02 marks)

31. A box full of mangoes weighs 48kg. The empty box weighs 4.5kg. Find the number of mangoes in the box if each mango weighs 300g. (04 marks)

32. At 1630 hours, Mirembe left town A and drove for an hour to town B, 10km away. She rested for 30 minutes and then continued with her journey driving at the same speed she started with in the same direction to town C which is 40km away from town A.

a) Represent Mirembe's journey in the graph below. (03 marks)



b) At what time did Mirembe reach town C? (01 mark)

c) Calculate her average speed for the whole journey. (02 marks)

GOOD LUCK