

# THE HIGHWAY EXAMINATIONS BOARD

# PRIMARY LEAVING MOCK EXAMINATION

#### 2025

### **MATHEMATICS**

Time Allowed: 2hours 30 Minutes

	Randon	n No.		Pers	onal N	ο.

Candidate's N	ame	• • • • • • • • • • • • • • • • • • • •	•••••	•••••	••••••••••••
Candidate's S	ignat	ture	•	•••••	
District No:					

#### Read the following instructions carefully:

- 1. **DO** not forget to write your **school** and **district name** on this paper.
- 2. This paper has **two** sections **A** and **B**. Section **A** has 20 short questions (40 marks)
  - Section **B** has 12 questions (60 marks)
- 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 will **not** be marked except drawings and diagram.
- 5. **No calculators** are allowed in the examination room.
  - "FOR EXAMINERS' USE ONLY" and the 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						

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Turn Over

#### **SECTION A**

Answer **all** questions in this section. Questions **1 to 20** carry two marks each.

1. Workout 3 x 2 using repeated addition.

2. Write sh.25,000 in words.

3. Arrange the following in ascending order. -3, 0, -1, 4, -5, 8

4. Given that  $\Sigma = \{a, b, c, d, e, f, g, h, i\}$  set  $P = \{a, e, f, h\}$  and  $Q = \{a, b, g, h\}$ . Find  $n(P - Q)^1$ .

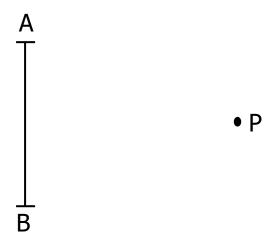
5. Simplify: 5y - 2 - (3 - 4y)

6. What is the next number in the sequence

7. Find the mean of 3p, 5p+2 and p+4.

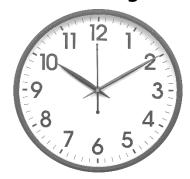
8. Using a pair of compasses, a ruler and a pencil only.

Construct a perpendicular bisector from point P to meet line AB at W.



9. The ratio of two numbers is 2:3 and their GCF is 4. Find the lowest common multiple (LCM) of the numbers.

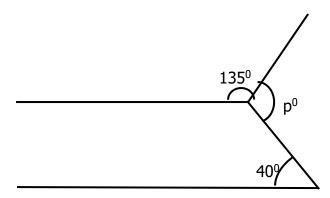
10. What evening time is shown on the clock face below?



11. A trader sold a bag at sh.30,000 and gained sh.10,000. Calculate the percentage profit.

12. Workout:  $\frac{1}{3} - \frac{1}{4} + \frac{1}{5}$ 

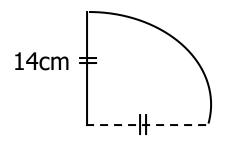
13. Use the figure below to find the size of angle **P**.



14. Given that q = 3 and p = 2q - 1. Evaluate:  $\underline{qp}$ 

15. What number has been expanded to give:  $(8x10^2) + (4x10^1) + (5x10^{-2})$ ?

16. Find the perimeter of the figure below.



17. Given that  $2^m \times 5^2 = 100$ . Find the value of m.

18. The body temperature of Ogwal dropped by  $3^{\circ}C$  in the morning and raised by  $5^{\circ}C$ . If the normal body temperature was  $37^{\circ}C$ , what was his body temperature in the evening?



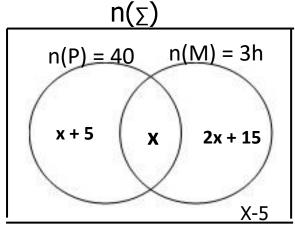
19.	Express 144kilometer for every hour to meter per second	<b>j</b> .
20.	Okello deposited sh.120,000 to the bank at a rate of 109 per month for 2 years. Find the interest he gained.	%
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## **SECTION B (60MARKS)**

Answer all questions in this section.

Marks for each question are indicated in the brackets

21. The Venn diagram below shows candidates who like mathematics (**M**) and English (**E**) in a primary seven class. Study it carefully and answer the questions that follow.



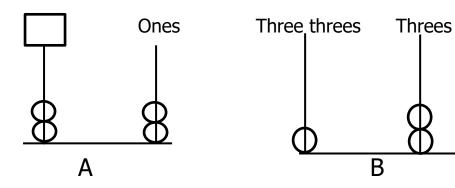
(a) If 30 more pupils like English only than those who like neither of the two mentioned subjects, find the value of **x**. (3marks)

(b) How many pupils like only one subject? (2marks)

- 22. Emily went to the market and bought the following items.
  - 2kg of meat sh.28,000
  - 3kg of rice at sh.4,000 per kg
  - 750l of cooking oil at sh.6,000 per litre.
  - 15 tomatoes at sh.1000 for every 5 tomatoes.
  - a) What was her total expenditure on all the items? (4marks)

b) If she went with two notes of "*Twenty thousand shillings*", what was her change? (2marks)

23. Study the abaci **A** and **B** below carefully and use it to answer the questions that follow.



Ones

a)	•	acus <b>B</b> narks)
b)	Find the missing place value on the abacus A.	(3marks)
24. <i>a</i> )	A trader bought 20 eggs at sh.400 each but on himarket, some eggs got broken, he sold the rest or remaining eggs at sh.500 each making a loss of the How many eggs got broken?	of the sh.5000.
b)	Calculate his percentage loss.	(2marks)

**Turn Over** 

25. (a) Joy types 150 pages of a book in 3 hours. If she types two more pages each hour than the previous one. How many pages did Joy type in that last hour? (3marks)

(b) What is the 21<sup>st</sup> triangular number? (2marks)

26. The table shows the travel timetable for a motorist who transports money from different bank points. Study it carefully and answer the questions that follow.

Bank points	Departure	Arrival
P – Q	00 00h	06 50h
Q – R	07 20h	10 20h
R – S	12 00h	13 00h
S – T	14 50h	17 00h

(a) Express the time a motorist left for bank point **Q** in 12 hour clock system. (2marks)

• ,	The total distance from bank <b>Q</b> to <b>S</b> is 153 the motorist's average speed from Q to S.	
109	nothy sold a radio at sh.63,000 to Opio mak %. Opio later sold it to Apio at a profit of 1 Calculate the amount of money Timothy pai	5%.
(b) H	How much money did Opio sell the radio?	(2marks)

28.	A motorist left town K on a bearing of 060 <sup>0</sup> travelling at an
	average speed of 60km/hr for 1 ½ hours to town M. At town
	M, he moved westwards at a speed of 50km/hr for 2hours to
	town R.

a) Draw a sketch to represent the three towns. (1mark)

b) Using a scale of 1cm to represent 10km, draw an accurate diagram showing the three towns. (2marks)

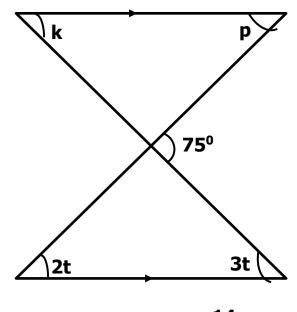
c) Calculate the shortest distance between towns **R** and **K**. (1mark)

29. a) In an interview, 2 marks are awarded for every correct answer given and a mark is deducted for every wrong answer given. If an interviewee failed 5 questions and scored 25 marks, how many questions were asked by the interviewer?

(3marks)

b) Jempede was born in **15**BC and died in **30**AD. How old was he when died? (2marks)

30. Study the figure below and use it to answer the questions that follow.



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Find the value of;

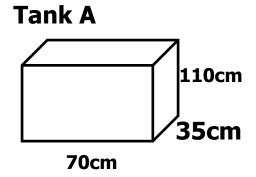
(2marks @)

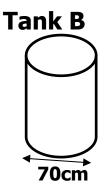
(i) t

(ii) p

(iii) k

31. A cuboidal water tank below is 70cm long, 35cm wide and 110cm high. The tank was filled with water. The water from tank A was all poured into tank B of diameter 70cm.





Find the new water level (length) in tank B. (Use  $\pi = {}^{22}/_{7}$ ) (5marks)

32. Given the equation of the line. y = x - 2, complete the table. (4marks)

X	<sup>-</sup> 4	_	<sup>-</sup> 2	
У		<sup>-</sup> 1		1