



STEP-UP EXAMINATIONS BOARD
NATIONAL PRE-PLE SET THREE
2024

MATHEMATICS

Time allowed : 2 hours 30minutes

Random No.						Personal No.		

Pupil`s Name

Signature:

School Name.....

District Name.....

Read the following instructions carefully;

1. This paper has **two** sections: **A** and **B**.
Section **A** has **20** questions and Section **B** has **12** questions.
2. Answer **all** the questions. **All** the answers for both sections **A** and **B** must be shown in the spaces provided.
3. All working must be done using a **blue** or **black** ball-point pen or fountain pen. Any work done in pencil other than graphs, pictures and diagrams will **not** be marked.
4. Unnecessary changes of work may lead to **loss** of marks.
5. Any handwriting that cannot easily be read may lead to **loss of marks**.
6. Do **not** fill anything in the boxes indicated: **“FOR EXAMINERS’ USE ONLY”** and boxes inside the question paper.

FOR EXAMINERS’ USE ONLY

QN. NO.	MARK	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

1. Workout:
$$\begin{array}{r} 854 \\ - 523 \\ \hline \\ \hline \end{array}$$
 (2 Marks)

2. Write 1201 in words. (2 Marks)

3. Workout :
$$\frac{5}{9} \div \frac{2}{3}$$
 (2 Marks)

4. Given that $PUG = \{1, 2, 3, 4, 5, 6, 7, 8\}$, $PnQ = \{1, 4, 7\}$ and $P' = \{5, 6, 8\}$. List the elements of set P. (2 Marks)

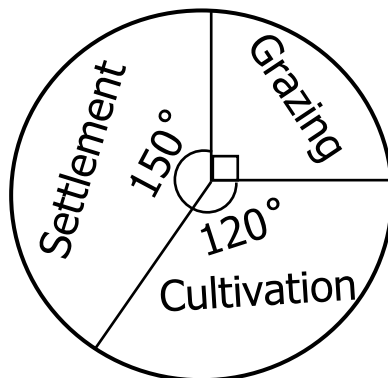
5. A boarding school opened on a Monday and took 80 days operating. On which day did it close? (2 Marks)

6. Find the next number in the sequence 1, 3, 7, 13, 21, _____ (2 Marks)

7. A car uses 9 litres of petrol to cover 45km. How many litres of petrol can it use to cover 80km? (2 Marks)

8. A bus left Gulu for Kampala at 10:30 pm. The journey took 5 hours. What time did the taxi arrive in Kampala? (2 Marks)

9. The pie chart below shows how a farmer uses her land. Use it to answer the questions that follow.



Calculate the size of her land if she uses 72 acres for Cultivation. (2 Marks)

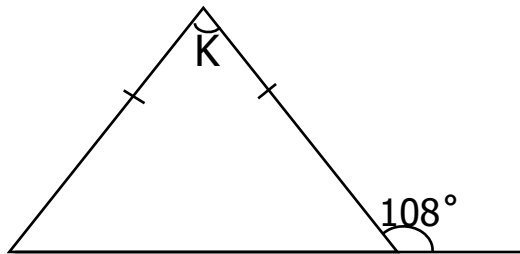
10. Solve $3K - 8 = 10$ (2 Marks)

- 11.** Workout: $(49 \times 39) + (61 \times 49)$ (2 Marks)
- 12.** A tank was $\frac{3}{4}$ full of water. When 40 litres were removed, it became $\frac{1}{2}$ full of water. What is the capacity of the tank? (2 Marks)
- 13.** Write 9:30 a.m in the 24 hour clock. (2 Marks)
- 14.** Solve $2^{3m} \div 2^m = 2^4$ (2 Marks)
- 15.** In a shop, bottles of water are packed into boxes which hold 144 bottles. How many boxes of the same size are needed to pack 1,008 bottles of water? (2 Marks)

16. Apio bought 30 books at sh.3,000 per dozen. How much money did she spend? (2 Marks)

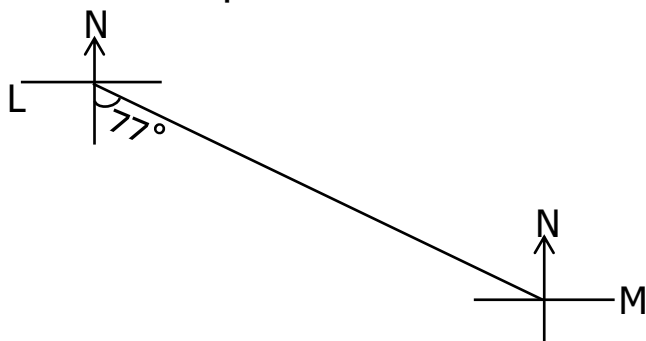
17. Change 250 grams into kilograms. (2 Marks)

18. In the diagram below, calculate the size of angle K. (2 Marks)



19. Solve the inequality: $3 - 2m < 15$ (2 Marks)

- 20.** The diagram below shows the position of two towns L and M. Use it to answer the questions that follow. (2 Marks)



Work the bearing at town L from town M.

SECTION B

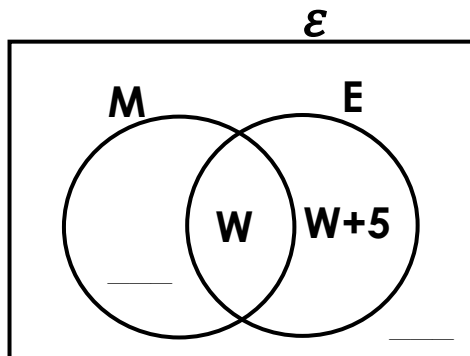
- 21.** (a) Workout: 334_{five} (2 Marks)

$$\begin{array}{r} +123_{five} \\ \hline \end{array}$$

- (b) Given that $43_n = 123_{four}$. Find the value of n. (3 Marks)

22. In a class, 30 pupils like Mathematics (M) and $(W+5)$ like English (E) only. W like both subjects while 3 like neither of the two subjects.

(a) Use the above information to complete the Venn diagram below. (2 Marks)



(b) If 27 pupils like English, Find the value of W. (3 Marks)

23. The average age of four men is 56 years. When two men join the group, the average age becomes 52 years. The sixth man is 8 years older than the fifth man. How old is the sixth man? (5 Marks)

24. (a) Simplify: $\frac{1}{2} - \frac{1}{4} \div \frac{4}{5}$ (3 Marks)

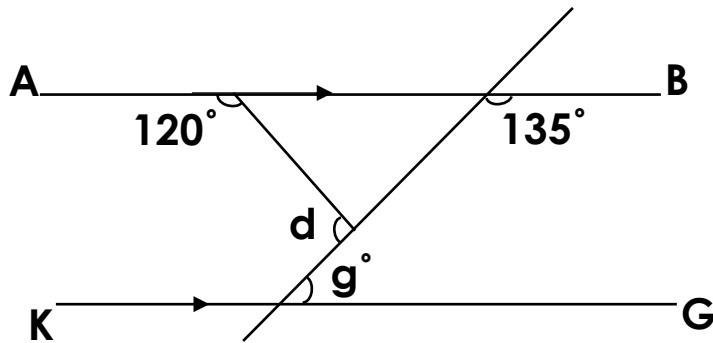
(b) Workout: $\frac{0.2 \times 1.2}{0.9}$ (3 Marks)

25. Kizza went to a market with sh.30,000. She bought the items shown in the table below.
After paying for all items, she remained with sh.9,250.
Complete the table.

Items	Unit cost	Total cost
2Kg of sugar	Sh.4,000	Sh._____
2 loaves of bread	Sh._____	Sh._____
_____ litres of milk	Sh.1,500	Sh.2.250
Total expenditure		Sh._____

(5 Marks)

- 26.** In the diagram below, line AB is parallel to line KG. Use it to answer the questions.



(a) Find angle g .

(2 Marks)

(b) Find angle d .

(3 Marks)

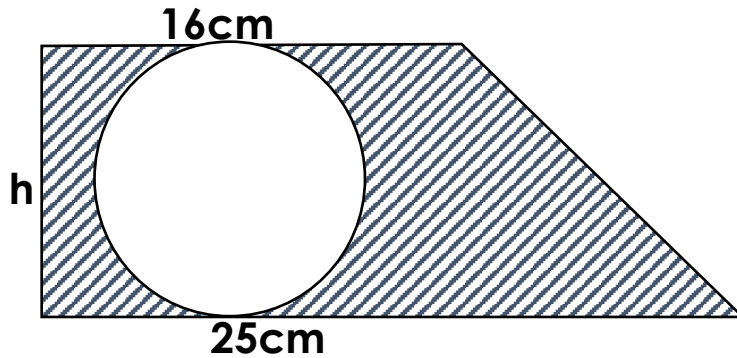
- 27.** A taxi driver left town A for town B at 10:30 a.m driving at a speed of 80km/hr. He reached town B at 2:00p.m.

How far is town B from A?

(5 Marks)

- 28.** Madada sold his radio to Aguti at Sh.63,000 making a loss of 10%.
Aguti later sold it to Chebeti at a profit of 15%.
(a) Calculate the amount of money Madada bought the radio.
(3 Marks)
- (b) For how much money did Aguti sell the radio?
(2 Marks)
- 29.** In a market, a pawpaw costs three times as a mango.
An apple costs Sh. 300 more than a mango.
If a pawpaw costs as much as a mango and an apple.
Find the cost of a pawpaw.
(4 Marks)

- 30.** The area of the trapezium in the figure below is 287dm^2 .
Use it to answer the questions below.



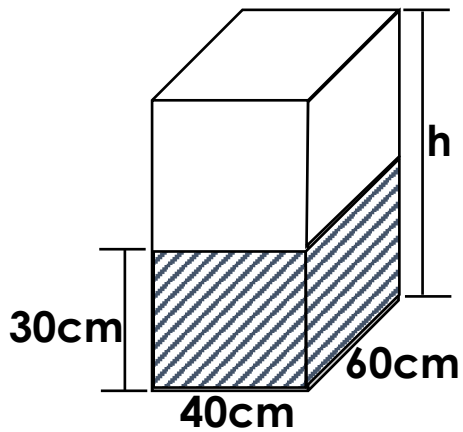
- (a) Find the value of h . **(3 Marks)**

- (b) Calculate the area of the shaded part. (use $\pi = \frac{22}{7}$) **(3 Marks)**

- 31.** A school is 70km East of the hospital. The Church is 60km from the school on a bearing of 240° .
(a) Using a scale of 1cm to represent 10km, show the three places on an accurate diagram.

(b) Find the shortest distance between the church and the hospital.

32. The tank below is $\frac{1}{4}$ full of water.



(a) Find the value of h.

(b) How many litres of water are needed to fill the tank?

END.