



BROAD EXAMINATIONS®

P.7 MATHEMATICS EXAMINATION

TRIAL SET I TERM I - 2024

Time allowed: 2 hours 30 minutes.

Candidate's Name:

Candidate's Signature:

School 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

PAGES	MARKS	SIGN
Page 2		
Page 3		
Page 4		
Page 5		
Page 6		
Page 7		
Page 8		
TOTAL		

Teacher's comment to the learner

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Approved by:

Team Head Mathematics Dept.

Add; $6 + 4$

SECTION .A. (40 Marks)

2.

Write 49 in words.

3.

Name the set symbol below.



4.

A pencil costs sh. 500 and a rubber costs sh. 500. Find the total cost of the two items.

5.

How many quarter litre bottles can fill a 10 litre jerrycan?

6.

Find the next number in the sequence below.

6, 10, 14, 18, _____

7.

Study and complete the table below.

Name	Shape
(i) _____	
(ii) cone	

8.

Work out; litres ml

9 250

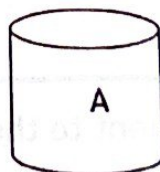
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9.

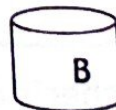
Given that ☒ represents 12 boxes, draw symbols to represent 54 boxes.

10.

Below are two containers A and B. Use "less" or "more" to compare the containers.



A



B

(i) Container A holds _____ water than container B.

(ii) Container B holds _____ water than container A.

words.

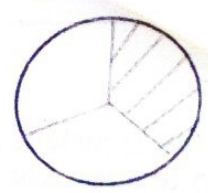
11. Divide; $\overline{4)412}$

12. Subtract 4 from 6.

13. Write the time shown on the digital watch below in words.



14. Write the unshaded fraction in the diagram below.



15. The average mass of five tins of shoe polish is 450 grammes. Find the total mass of all the five tins in kilograms.

16. A car covered a distance of 60km at a steady speed of 90km/h. For how long in minutes did the car take to cover the distance?

17. Find and list all factors of 18.

18. Simplify; $2k + 6k - 7k$

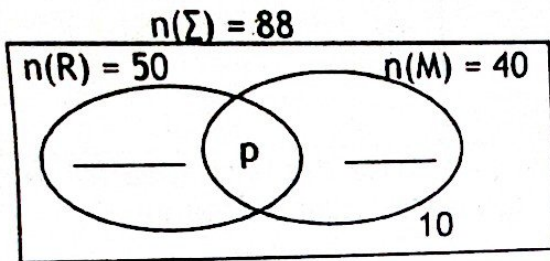
19. Set $M = \{\text{cow, dog}\}$. List all the subsets of set M.

20. Using a ruler, pencil and a pair of compasses only, construct an angle of 135° .

SECTION .B. (60 Marks)

1. In a group of 88 teachers, 50 teachers like rice (R), 40 like millet (M), some teachers like both rice and millet while 10 teachers like neither of the two foodstuffs.

(a) Complete the venn diagram below.



(b)

How many teachers like both rice and millet?

(c)

If a teacher is picked at random from the group, what is the probability of picking a teacher who likes only one foodstuff?

(05 Marks)

22. Below is a list of some items and their prices in a school canteen. Study and use it to answer questions that follow.

Item	Price
Avocado	sh. 500
Pencil	sh. 400
Picfare book	sh. 1000

(a)

Find the total cost of 4 picfare books and an avocado.

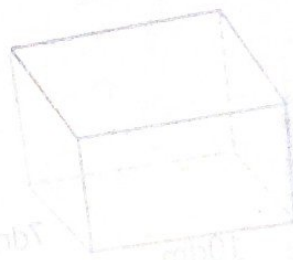
b)

James had a five thousand shilling note and bought some avocados. He was given a change of sh. 3500. How many avocados did he buy?

23.

The sum of the values in the table below is the same horizontally, vertically and diagonally. Complete the table. (5)

—	20	27
26	24	—
21	—	—



(05 Marks)

24.

Out of the 96 pupils in a P.6 class, $\frac{1}{3}$ are boarders and the rest are day scholars.

(a)

Find the fraction of day scholars.

(b)

How many more day scholars than boarders are in the class?

(05 Marks)

25.

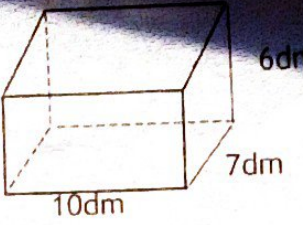
A bus left town P at 7:20a.m and reached town Q at 9:50a.m.

(a)

Find the time taken.

(b)

If the average speed of the bus was 30km/h, find the distance between the two towns.

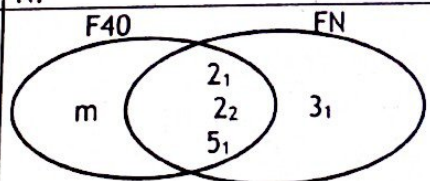
26.	Study and use the shape below to answer questions that follow.	(a)	Find its number of
			(i) faces
			(ii) edges
(b)	Work out the volume of the cuboid above.		
27.	(a) Using a ruler, a pencil and a pair of compasses only, construct a square KLMN of sides 6.5cm.		
	(b) Measure diagonal LN.		
28.	A mother is three times as old as her daughter. Four years ago, her daughter was 6 years old.		
(a)	Find the age of the mother.	(b)	Work out their total age.

Questions that follow
Find its number of
(i) faces

edges

Marks)

(ks)

	(a) Express 0.125 as a common fraction in its simplest form.	(b)	Change $\frac{3}{4}$ into a decimal.	(d)
30.	(a) Work out; (i) $\begin{array}{r} 412_{\text{five}} \\ + 41_{\text{five}} \\ \hline \end{array}$	(ii)	$\begin{array}{r} 102_{\text{five}} \\ - 11_{\text{five}} \\ \hline \end{array}$	(04 Marks)
(b)	Expand 320_{five} using powers.			
31.	Study the venn diagram below showing the prime factors of two numbers 40 and N.			
				
(a)	Find the value of;			
(i)	N	(ii)	m	

(b) Work out the LCM of 40 and N.

(06 Marks)

32. A school boy spent his pocket money as follows;

- sh. 1500 on buying a ruler
- sh. 2000 on buying a graph book
- sh. 2500 on buying fruit juice

Using a radius of 4cm, construct an accurate pie chart to show the above information.

(05 Marks)

END