BROAD EXAMINATIONS®

P.6 MATHEMATICS EXAMINATION

TRIAL SET I TERM III 2024

Time allowed: 2 hours 30 minutes

Pupil's Name.....

School Name: .....

District 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 EXAMINERS' 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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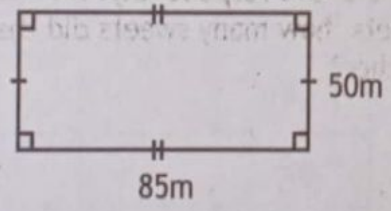
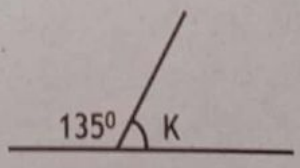
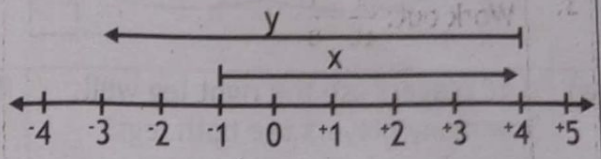
Approved by:

Team Head Mathematics Department

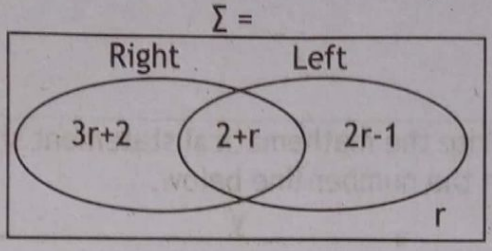
SECTION .A. (40 Marks)

1.	Add: 4 7 + 5 4 _____	2.	Write 948 in words.
3.	Work out: $\frac{5}{12} - \frac{1}{8}$	4.	Simplify; $^{-}11 - {}^{-}8$
5.	Given that; set L∪M = {1, 2, 3, 4, 5, 6, 7, 8, 10}, set M = {2, 4, 6, 8, 10} and M - L = {6, 8, 10}, list the elements of L.	6.	Find the next two numbers in the sequence 3, 5, 7, 9, _____, _____
7.	A goat moved around the rectangular garden below once. What distance did it cover?  	8.	A Youth Seminar started at 10:40am and ended at 2:10pm. How long did the seminar take?
9.	Enoth had a twenty thousand shilling note and changed it into sh.500 coins. How many coins did he get?	10.	Find the size of angle marked K. 

11.	Express XCIX in Hindu-Arabic numerals.	12.	Write 231_{five} in words.
13.	Kakuyo is twice as old as Jumbe. If their total age is 72, how old is Jumbe?	14.	Write the mathematical statement shown on the number line below. 
15.	A fruiterer sold the following number of passion fruits in a week. 60, 42, 50, 60, 60, 30. Find the modal number of fruits sold.	16.	Set M is a set of whole numbers between 5 and 9. Find the number of subsets in set M.
17.	The LCM of two numbers is 60, their GCF is 4. If one of the numbers is 20, find the second number.	18.	Jordan and Peter shared some sweets in the ratio of 3:5 respectively. If Peter got 10 sweets, how many sweets did they share altogether?
19.	Express 18 km/h to m/sec.	20.	Itungo deposited sh. 15,000 in Kid's association that offers an interest rate of 3% per month for 6 months. How much interest did she get?

SECTION .B. (60 MARKS)

21. The venn diagram below shows the legs used well by players in Young Stars Football Club. Use it to answer questions about it.



(a) If 16 players use the right leg well, how many players use both legs?

(b) How many players are in the club altogether?

(c) If a player is chosen from the club at random to be a team captain, what is the probability of choosing a player who uses the left leg only?

(06 Marks)

22. (a) Convert 421_{five} to base ten.

(b) What base five number has been expanded to give $(1x5^2) + (3 \times 5^1) + (2 \times 51^0)$?

(05 Marks)

23. **The median of four consecutive even numbers is 33.**

(a) Find the numbers.

(b) Find the sum of the numbers.

(05 Marks)

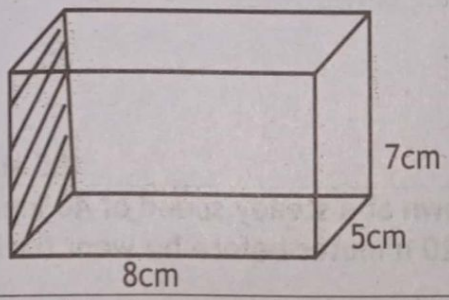
24. **A car uses 8 litres of petrol to cover 56km.**

(a) What distance does it cover if there are 12 litres of petrol in its tank?

(b) How many litres of fuel does it consume if it covers a distance of 98km?

(04 Marks)

25. **The figure below is a cuboid. Study and use it to answer questions about it.**



(a) Work out the volume of the cuboid.

(b) Calculate the area of the shaded face.

(c) How many edges does the figure above have?

(05 Marks)

26.	In a school, 60% of the pupils are girls and the rest are boys.		
(a)	If there are 120 boys in the school, find the number of pupils in the school.	(b)	How many girls are in the school? (05 Marks)
27.	(a) **Using a ruler, a pencil and a pair of compasses only, construct an equilateral triangle in a circle of radius 3.5 cm.** (b) Measure the length of each side of the triangle. (05 Marks)		
28.	Swizin left home at 7:30 am and cycled to the town at a steady speed of 40 km/h. He reached the town at 9:00 am and rested for 20 minutes before he went back home through the same route.		
(a)	How long did he take to travel from home to town?	(b)	If it took him 1 hour and 30 minutes to go back home, calculate the average speed for the whole journey. (06 Marks)

29. Laureen went shopping and bought the items indicated in the table.

Item	Quantity	Unit Cost	Amount
Sugar	$2\frac{1}{2}$ kg	sh. 6000 per kg	sh. _____
Bread	_____ loaves	sh. 6000 per loaf	sh. 12000
Milk	3 litres	sh. _____	sh. _____
Omo	500g	sh. _____ per kg	sh. 3000
	Total		**sh. 34500**

Complete the table correctly.

(05 Marks)

30. (a) A frog jumped 5 steps in front, 2 steps backward and other 3 steps forward. Find the position of the frog now.

(b) The temperature of water was 10^0c in the morning. It increased to 35^0 in the afternoon. Find the increase in temperature.

(04 Marks)

31. (a) Solve; 15 + y = 32

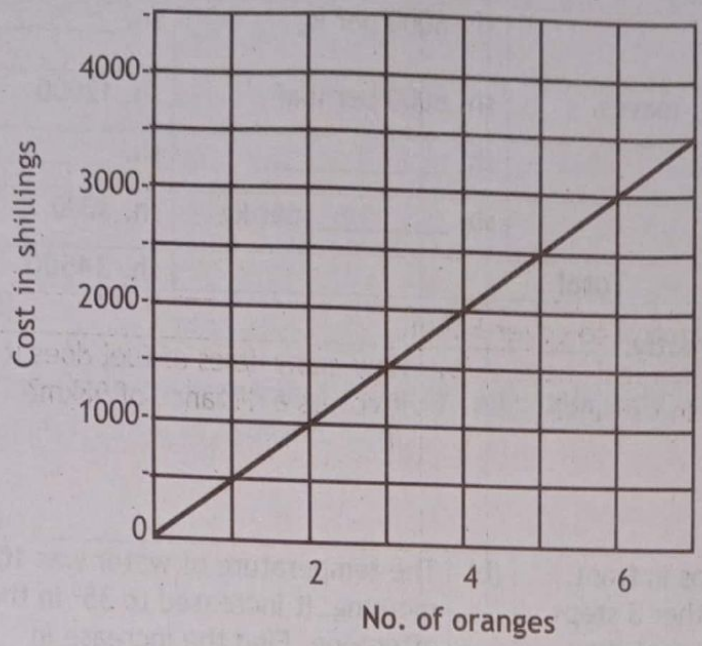
(b) Given that m = 5, n = 3 and r = 4, find the value of;

(i) mnr

(ii) $\frac{m+n}{r}$

(06 Marks)

32. The line graph below shows the cost of oranges in Mabunu Market. Study it and answer questions that follow.



(a) What is the cost of each orange?

(b) How many oranges can one buy with sh. 3500?

(c) Abdul went with sh. 5000 and bought 4 oranges, how much did he remain with?

(04 Marks)

END