



# BROAD EXAMINATION

## P.7 MATHEMATICS EXAMINATION

### PRE - PLE TRIAL SET IV 2024

Time allowed: 2 hours 30 minutes.

Random No.	Personal No.

Candidate's Name: \_\_\_\_\_

Candidate's Signature: \_\_\_\_\_

School Name: \_\_\_\_\_

**Read the following instructions carefully:**

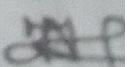
1. This paper is made up of two sections: A and B.
2. Section A has 20 questions (40 Marks).
3. Section B has 12 questions (60 Marks).
4. Answer ALL questions in both sections A and B.
5. All answers must be written in the space provided in blue or black ball point pens and ink. Only diagrams should 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.

**Teacher's comment to the learner**

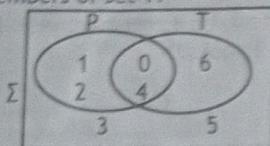
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FOR EXAMINERS USE ONLY	
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<b>TOTAL</b>	
Approved by  Team Head	

SECTION A. (40 MARKS)

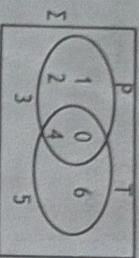
1.	Work out: $\frac{7}{10} - \frac{4}{10}$	2.	Write 2040 in words.
3.	From the venn diagram below, list the members of set T.	4.	Multiply 467 by 5.
			
5.	Find the next number in the sequence below. 4, 12, 36, _____	6.	A boy is 17 years old. Draw tally marks to represent his age.
7.	Using a ruler and a pair of compasses only, drop a perpendicular from point M to meet line KL at point N.  	8.	A man used poles to fence around his rectangular garden 150 metres long and 90 metres wide. If the poles were placed 6 metres apart, find the total number of poles he used.

**SECTION A. (40 MARKS)**

1. Work out:  $\frac{7}{10} + \frac{4}{10}$

2. Write 2040 in words.

3. From the venn diagram below, list the members of set T.



5. Find the next number in the sequence below.  
4, 12, 36, \_\_\_\_\_

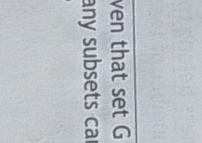
6. A boy is 17 years old. Draw tally marks to represent his age.

7. Using a ruler and a pair of compasses only, drop a perpendicular from point M to meet line KL at point N.

• M



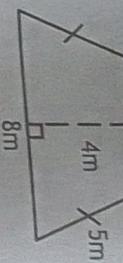
8. A man used poles to fence around his rectangular garden 150 metres long and 90 metres wide. If the poles were placed 6 metres apart, find the total number of poles he used.

9. Simplify; $*4 \cdot *7$		10. What evening time in 24 hour clock system is shown on the clock face below?	
11. Solve and state the solution set for the inequality; $2x - 2 < x + 1$		12. James and Arafat shared some books in the ratio 3:5 respectively. If James got 9 books, how many books did Arafat get?	
13. 5 cakes cost sh. 3000. What is the cost of 8 similar cakes?		14. Write 37000 in standard form.	
15. A football player scored the following goals in different tournaments; 4, 2, 4, 6, 8, 3, 6, 3, 6. What was the modal number of goals?		16. Given that set $G = \{1, 2, 3, 4\}$ , how many subsets can be formed from set G?	
17. Convert $2\frac{1}{3}$ hours to minutes.		18. List the multiples of 4 less than 20.	

9.	Simplify; $+4 - +7$	10.	What evening time in 24 hour clock system is shown on the clock face below?
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17.	Convert $2\frac{1}{3}$ hours to minutes.	18.	List the multiples of 4 less than 20.

19. The interior angle sum of a regular polygon is  $1800^{\circ}$ . How many sides has the polygon?

20. Find the area of the trapezium below.



**SECTION .B. (60 MARKS)**

21. (a) Expand 4068 using place values.

(b) What number is expanded to give  $(7 \times 10000) + (9 \times 100) + (4 \times 1)$ ?

22. On a school staff, 12 teachers belong to Math department, 10 teachers belong to Science department, 4 teachers belong to both Science and Math departments while 15 teachers belong to other departments.

- (a) Find the total number of teachers on the staff.  
(b) How many teachers belong to Math and Science departments altogether?

- (c) If a teacher is selected at random, find the probability that the teacher belongs to Science department only.

(06 Marks)

23.

In a school,  $\frac{3}{7}$  of the pupils are girls and the rest are boys. Given that the school has a population of 280 pupils;

(a) How many girls are in the school?

(b) If  $\frac{2}{5}$  of the boys have school uniform, how many boys have school uniform?

24.

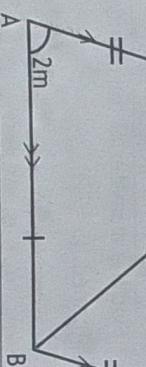
A businessman deposited some money in a bank that offers an interest of 12% per year. After 2 years, he found a total amount of sh. 446,400. How much money did he deposit in the bank?

(05 Marks)

25. Study the diagram below and use it to answer questions about it.

(05 Marks)

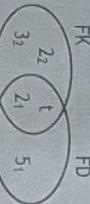
(a) Find the value of  $m$ .



(b) Work out the size of  $\angle CBE$ .

(05 Mark

26. The venn diagram below shows the prime factors of two numbers K and D. Study it carefully and answer questions about it.



Given that the Lowest Common Multiple (LCM) of K and D is 180.

(a) Find the value of t.

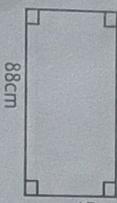
(b) Find the HCF of K and D.

27. Study and complete the bill table below. (05 Marks)

Item	Price	Total cost
1½ litres of milk	Sh. 1400 a litre	Sh. _____
kg of rice	Sh. 3200 a kg	Sh. 6400
8 tomatoes	Sh. _____ for every 2 tomatoes	Sh. 2000
gm of flour	Sh. 4000 a kg	Sh. 1000
Total expenditure		Sh. _____

28. A welder folded a rectangular sheet of metal to form a hollow cylinder of height 50cm as shown below. (05 Marks)

(a) Find the diameter of the cylinder formed. ( $\pi = \frac{22}{7}$ )



(b) Calculate the area of the metal sheet needed to cover the base of the cylinder.

(05 Marks)

29. Simplify;  
(a)  $\frac{4}{5} \div 1\frac{1}{3} - \frac{1}{5}$  (b)  $\frac{1.5 - 0.6}{1.63 + 1.37}$

30. Using a ruler, a pencil and a pair of compasses, construct a quadrilateral PQRS where  $\angle SPQ = 60^\circ$ ,  $PQ = 8\text{cm}$  and  $PS = 6\text{cm}$ . From R, drop a perpendicular to meet PQ at K.

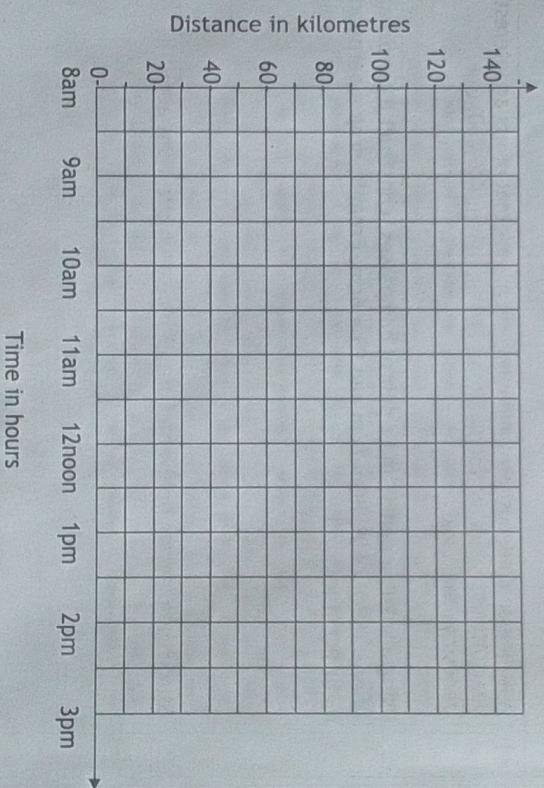
(06 Marks)

(04 Marks)

31. Jeremiah is two thirds as old as Aggrey. The difference between their ages is 15 years. Work out their total age.

32. A taxi driver left town A at 8:00am driving at a speed of 40km/h and reached town B after  $1\frac{1}{2}$  hours. He stayed at B for 30 minutes and later continued to town C at a speed of 20km/h for 2 hours. He again rested at C for 30 minutes and drove back to town A at a steady speed of 50km/h.

- (a) Represent the journey made by the taxi on the graph below.



(b) Calculate the average speed of the taxi for the whole journey.

(05 Marks)

END