

**THE NERDS EXAMINATION SERIES**  
**P.7 EXAMINATION 2024 (SET 1)**  
**MATH MATICS**

Time allowed: 2hours 30minutes.

INDEX NO:

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CANDIDATES NAME: \_\_\_\_\_

CANDIDATE'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SCHOOL'S EMIS NO. \_\_\_\_\_

DISTRICT NUMBER: \_\_\_\_\_

**Read the following instructions carefully**

1. The paper has two sections A and B.
2. All the working for both sections A and B Should be shown in the spaces provided.
3. All working must be done using a blue or black ball point pen or fountain pain. Diagrams must be drawn in pencil.
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 boxes indicated for examiner's use only and those inside the question paper.

SECTION	MARKS
SECTION A	
SECTION B	
TOTAL	

## **SECTION A (40 MARKS)**

1. Subtract 69 from 85.
  
2. Given that Set  $W = \{e, f, g, h\}$ , how many subsets can be formed from set  $W$ ?
  
3. Write 40,094 in words.
  
4. Musana had  $\frac{3}{4}$  of the cake and served  $\frac{1}{2}$  of his friend Hannah, what fraction of the cake did he remain with?

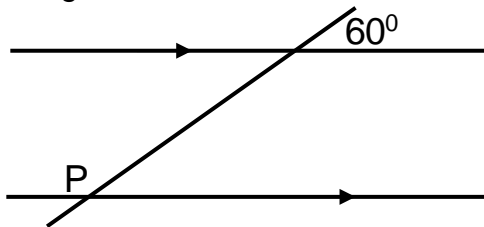
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5. Find the mean of  $2a + 3$ ,  $3a$  and  $a+6$ .

6. Joshua invested shs. 600,000 in a bank that pays simple interest at a rate of 2% per month. Calculate the simple interest he received after 4 months.

7. Simplify:  $-4 - +6$ .

8. In the figure below, find the value of  $P$  in degrees.



9. Using a ruler, a pencil and a pair of compasses, construct an angle of  $75^\circ$ .
10. Waswa was the 9<sup>th</sup> boy from either side of the line. How many boys were on the line?
11. Round off 468.49 to the nearest tenths.
12. The total distance around a quadrant is 39dm. find its radius.

13. Express 50m/sec into km/hr.

14. The area of a square garden is  $144\text{cm}^2$ . Calculate the length of each side of the garden.

15. Workout:  $0.75 \times 0.4$

16. Express 0.5454... as a vulgar fraction.

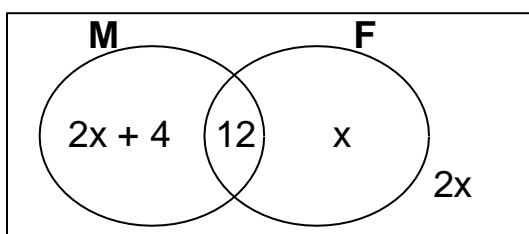
17. The range of consecutive integers is 6. List the highest integers in descending order.

18. Simplify  $4.36 - 8.74 + 6.47$ .
19. Express 994 in Roman numerals.
20. Find the least number of oranges that can be shared by a group of 18 boys or 15 girls leaving no remainder.

### **SECTION B**

**Answer all questions in this section**

21. The venn diagram below shows number of pupils in P.7 class who eat meat (M) and Fish (F).



- a) If the total number of pupils in P.7 class were 56. Find the value of  $x$ .
- b) How many pupils eat fish altogether?

- c) If a pupil is picked at random to clean the black board. What is the probability of picking a pupil who does not eat any of the two?

22. During an interview, 5 marks were awarded for every correct answer given and two marks were deducted for every wrong answer given. It consisted of twenty questions.

- a) If Alice passed only 16 questions, how many marks did she get? (2marks)

- b) If Moses scored 79 marks, how many questions did he answer correctly?

(3marks)

23. a) If today is Thursday. What day of the week was it 115 days ago?

b) Martha is 18 years older than her brother Tom. In 10 years' time, Martha will be twice as old as Tom. How old is Martha now?

24. Mathew went shopping and bought the following items from Heer supermarket

- 2kgs of beans at shs. 1500 per kg
- 500gm of salt at shs. 12,000 a kg
- 2 ½ kg of sugar at shs. 4,000 each
- 30 tomatoes at shs. 500 for every 3 tomatoes

a) Find his total expenditure.

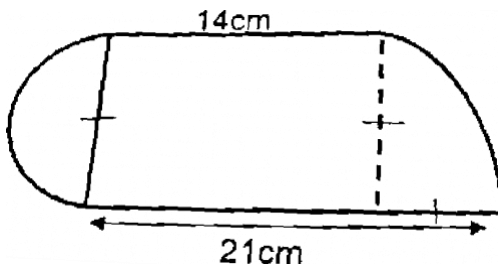
b) If he was given a distance of shs. 1500. How much did he pay?



25. In a school, 40% were boys and there were 720 girls last year. This year, the number of girls increased by 15% and the number of boys increased in the ratio of 9:8. How many pupils are in the school this year altogether?

26. a) Below is a flower garden. Find its perimeter (Use  $\pi = 3\frac{1}{7}$ )

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7



b) The length of a wire wound round the cylindrical tin 200 times is 88 metres. Find the diameter of the tin.

27. Complete the Magic square below by showing the working

9		5
	8	
		7

28. The sum of interior angles of a regular polygon is  $1080^\circ$ .

a) Calculate the size of its interior angle.

b) Find its number of right angles.

29. Given that  $9 \leq 3x \leq 21$  and  $x$  is whole number

a) Solve for  $x$ .

b) Write a solution set form  $x$ .

30. A driver left town A at 8:00am and reached town B at 10:30am moving at a speed of 60km/hr. He then left town B for C and covered a distance of 90km in 1 hour and 30 minutes.
- Find the distance covered by the driver from town A to town B.

b) Calculate the average speed for the whole journey.

31. a) Solve for  $x$  in  $4x + 2 = 5 \pmod{7}$

b) The table below represents addition of numbers in base six. Complete it

+	3	4
2	5	
4		

32. A school van uses 3 litres of fuel to cover a distance of 48km.

a) How much fuel in litres does it use for a journey of 120km? (3marks)

b) If 2 litres of fuel cost shs. 77 00, how much money is needed to cover the distance of 120km? (2marks)

**END**