

# RUBANDA SOLIDARITY PRIMARY SCHOOL

## PRIMARY SEVEN MOCK EXAMINATION ACADEMIC PANNEL

MATHEMATICS EXAM 2023

Time:2 hours 30 minutes

Name.....

School.....

Class.....

District.....

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

### Read the following instructions carefully.

1. This paper is made up two sections A and B.
2. Section A has twenty (20) questions (40 marks)
3. Section B has twelve (12) questions (60 marks)
4. Answer all questions in both sections A and B
5. All answers in both sections must be written in the space provided.
6. Use blue or black ball point pen and ink, all drawings must be done using a pencil.
7. Unnecessary crossing of answers leads to loss of marks.
8. Any handwriting which cannot be easily read, may lead to loss of marks.
9. Moving in and out of the classroom during examination, is a sign of examination malpractice.
10. Do not share your work with your friend or else one.

QUIZ	MARKS	INITIALS
1-10		
11-20		
21-24		
25-28		
29-32		
<b>TOTAL</b>		

Questions **1** to **20** carry 2 marks

1. Work out:  $98 \div 8$

7. Find the least number of oranges given to 15 or 18 pupils leaving 3 as remainder.

2. Write 196,342 in words.

8. Solve:  $\frac{3}{p} = 4$  (finite 5)

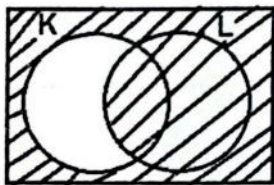
3. Simplify:  $3(w - 2) - 2(w + 3)$

9. Round off 6372 to the nearest hundreds.

4. Write 3800 in standard form.

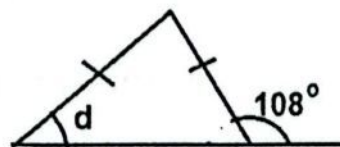
10. Work out the mean of  $3n$ , 7,  $n + 1$  and 4.

5. Describe the shaded region in the figure below.



6. Write CDLXV in Hindu Arabic numerals.

11. Find the value of  $d$  in the figure below.



12. Express  $4\text{m}^2$  to  $\text{cm}^2$ .

17. A motorist covered 400m in 20 seconds. Calculate the motorist's speed in km/h.

13. If today is Tuesday, what day of the week was it 39 days ago?

18. A trader sold a belt at sh.3000 and made a profit of sh.600. Calculate the trader's percentage profit.

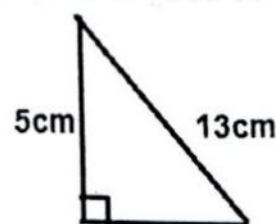
14. Solve:  $6 - 2n = 2$

19. The LCM of two numbers is 90 and their GCF is 3. If one of the numbers is 18, find the second number.

15. Using a ruler and a pair of compasses, construct an angle of  $105^\circ$ .

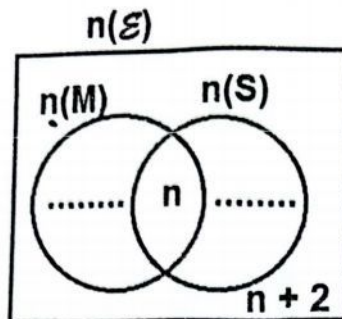
16. Express 0.2333.....as a simplified common fraction.

20. Work out the distance around the figure below.



## SECTION B: 60 MARKS

21. In a class, 24 pupils like Maths (M) only,  $n$  like both Science (S) and Maths. The number which likes Science only is thrice those that like both subjects while  $n + 2$  like other subjects.
- a) Use the above information to complete the Venn diagram below.



- b) Given that 28 pupils like Science, find the value of  $n$ .

- c) How many pupils are in the class?

22. (a) Work out:  $232_{\text{five}}$

$$\begin{array}{r} -34_{\text{five}} \\ \hline \end{array}$$

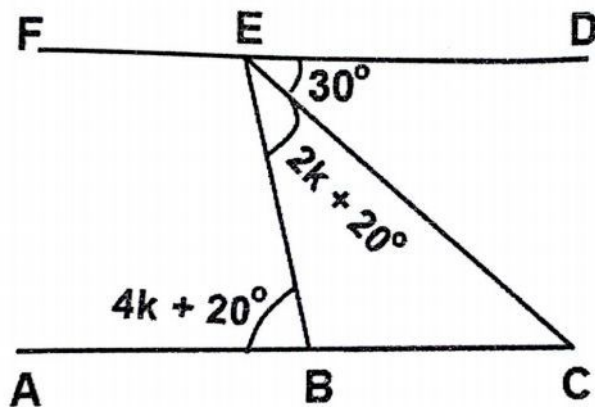
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- (b) Given that  $301_p = 144_{\text{five}}$

23. The sum of 3 consecutive even numbers is 42. If the largest number is  $g$ ,  
a) Find the value of  $g$ .

b) Work out their range.

24. Study the figure below and use it to answer the questions that follow.



- a) Find the value of  $k$ .

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

25. A hen costs sh.12,000 less than a cock and a turkey costs twice as much as a cock. If their total cost is sh.96,000. Find the cost of each item.

26. (a) Using a ruler and a pair of compasses, construct a triangle PQR where  $PQ = 7\text{cm}$ ,  $\angle PQR = 60^\circ$  and  $\angle QPR = 45^\circ$ . Drop a perpendicular line from R to meet PQ at point O.

(b) Measure the length RO.

27. Aminah went shopping and bought the following items:

3kg of rice at sh.15,600

$1\frac{1}{2}$  litres of cooking oil at sh.7000 per litre

500gm of meat at sh.14,000 per kg

2 packets royco at sh.1,000

a) Calculate her total expenditure.



- b) If she was offered a discount of 5%, how much money did she pay for all the items?

28. The table below shows the performance of a P.7 class in a math test. Use it to answer the questions that follow.

Marks scored	65	P	70	25
No. of pupils	2	3	1	4

- a) How many pupils did the test?

- b) If their average score was 48, find the value of P.

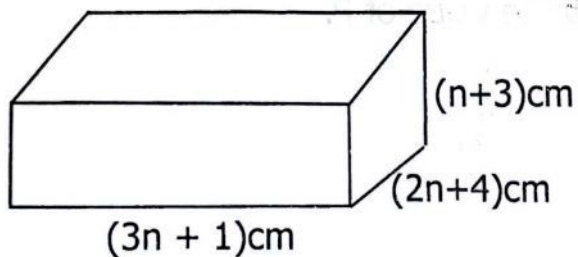
29. A tank is  $\frac{2}{5}$  full of water. When  $\frac{1}{6}$  of the water was sold, 6000 litres remained. Find the capacity of the tank.

30. A motorist left town P travelling at a speed of 90km/h for 2 hours to town Q. If he returned to town P at a speed of 60km/h,
- a) Find the distance between towns **P** and **Q**.      (b) Work out the average speed for the whole journey.

31. On a farm, there are 40% more cattle than goats.  
a) Find the percentage of goats on the farm.

b) If there are 42 cattle, find the total number of animals on the farm.

32. The sum of all the edges on the figure below is 104cm.



a) Find the value of  $n$ .

b) Work out its volume.