NTUNGAMO DISTRICT EXAMINATIONS PANEL

PRIMARY SEVEN MOCK EXAMINATION 2024

MATHEMATICS

Time allowed: 2 HOURS 30 MINUTES

INDEX NUMBER: _____

CANDIDATE'S NAME: _____

CANDIDATE'S SIGNATURE: _____

SCHOOL NAME: _____

INSTRUCTIONS

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

Read the following instructions carefully

1. The paper has two Sections A and B Section A has 20 questions and section B has 12 questions.
2. Answer all the questions. All the workings for both sections A and B must be shown in the spaces provided.
3. All working must be done using a blue or ball point pen or ink. Any work done in pencil other than graphs and diagrams will not be marked.
4. No calculators are allowed in the examination room
5. Unnecessary changes in your work and handwriting that cannot be read easily may lead to loss of marks.
6. Do not fill any thing in the table indicated; **"FOR EXAMINER' USE ONLY"** and boxes inside the question paper

FOR EXAMINERS USE ONLY

QN. NO.	MARKS SCORED	INITIAL
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31 - 32		
TOTAL		

SECTION A (40marks)

Answer all questions in this section
Questions 1 to 20 carry two marks each

1. Workout: 25 x 12

2. Write 124 in Roman numerals.

3. Draw a venn diagram to show that all boys (B) are males (M)

4. Change the following to base ten: 1101_{two}

5. If today was a Friday, what day of the week will it be after 40 days?

6. A car travels 250km in 5hours. How many kilometers does it travel per hour?

7. Simplify the expression:
$5x+3+2x-4$

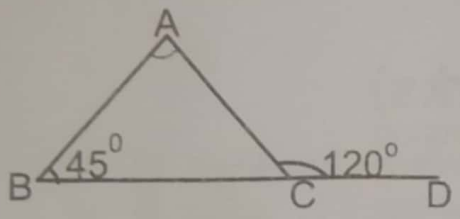
8. Find the area of a circle whose radius is 4cm.(use pi as 3.14)

9. Find the next two numbers in the sequence:
5, 10, 20, 40, 80, ____, ____

10. Using a ruler and a pair of compasses only, construct an angle of 150^0

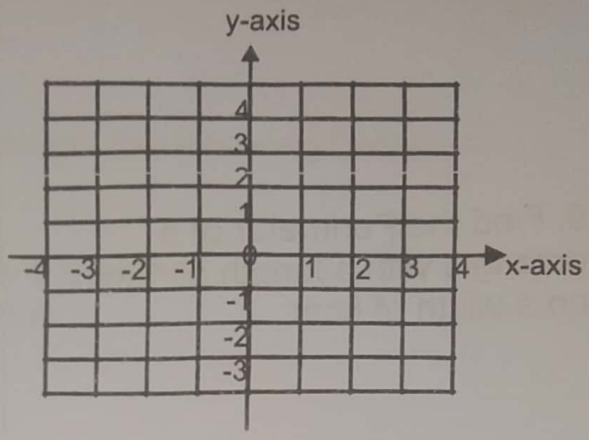
11. A lady sold a radio for sh 85,000 making a profit of sh 5,000. Calculate the buying price of the radio.

12. In the diagram below, calculate the size of angle BAC

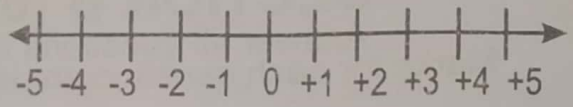


13. Jesca ate $\frac{2}{5}$ of the pancake and Peter ate $\frac{1}{5}$ of the pancake. The rest was eaten by Jim. What fraction did Jim eat?

14. Plot the following points on the grid below: A(2,4), B(-3,-3)



15. Show -3 + +5 on the number line below



16. Solve: 3y - 2 = 10

17. A farmer sold the following number of litres of milk in 5days; 50,54,55,52,54. Calculate the average litres of milk the farmer sold in that period.

18. Round off 0.658 to the nearest whole number.

19. Find the Perimeter of a rectangle with a length of 10cm and a width of 8cm.

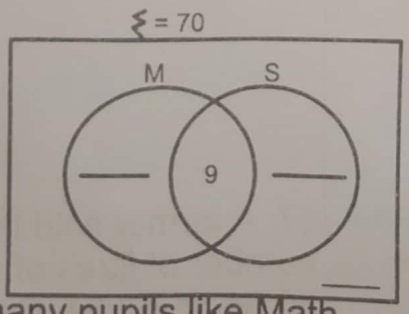
20. The cost of one book is sh.500. Find the cost of 2 dozens of similar books.

SECTION B (60marks)

Answer all questions in this section
Marks for each question are indicated in the brackets

21. There are 70 pupils in P.7. 9 pupils like SST and Math. 25 pupils like SST only and 2 pupils do not like SST or Math.

a) Use the given information to complete the venn diagram below (03marks)



b) Work out how many pupils like Math. (02marks)

22a) Change $\frac{1}{4}$ to a decimal. (02marks)

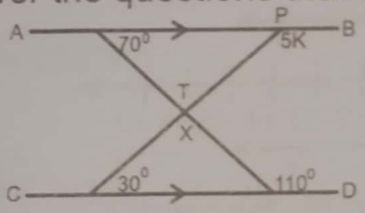
b) Work out: $\frac{4.2 \times 4.8}{9.6}$ (03marks)

23. Adam went to the market and bought the following items:
    4 litres of milk at sh.6000.
    250g of salt at sh. 2000 per kg.
    20 oranges at sh.1500 for every 5 oranges.

a) Calculate the total cost of the items. (03marks)

b) Adam paid sh.12000 for the items. What discount was he given? (01mark)

24. In the diagram below, line AB is parallel to line CD. Study the diagram and use it to answer the questions that follow.



Find the size of;

a) angle X (02marks)

b) angle BPT (03marks)

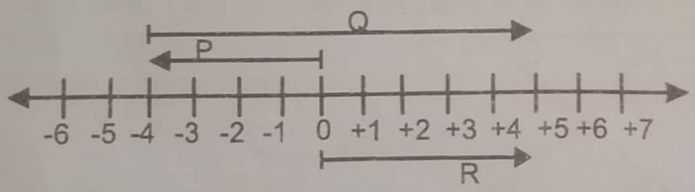
25. A motorist drove for 3 hours at an average speed of 90km/hr. He then traveled at an average speed of 70km/hr for 2 hours.

a) Find the average speed of the motorist for the whole journey. (3marks)

b) If one litre of fuel covers 20km, how many litres of fuel did the motorist use for the second journey? (02marks)

26. Using a ruler and a pair of compasses only, construct a parallelogram PQRS whose longer side QR is 7cm, Angle $Q=60^0$ and the shorter side PQ = 4cm. Measure its diagonal QS. (05marks)

27. Use the number line below to answer the following questions.



a) Write the integer represented by the arrows.

(i) P _____ (01mark)

(ii) Q _____ (01mark)

(iii) R _____ (01mark)

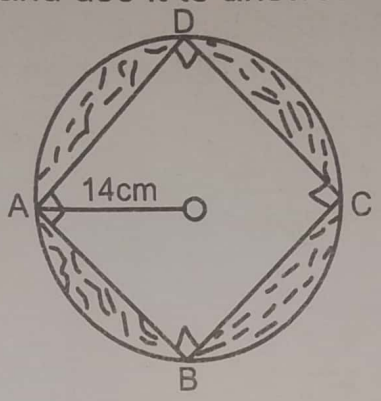
b. Write a mathematical statement represented on the number line above. (02marks)

28. Joy, Andrew and Sarah shared mangoes in the ratio of 2:3:7 respectively.

a) If Sarah got 12 more mangoes than Joy, How many mangoes did they share altogether? (04marks)

b. Find the number of mangoes Andrew got. (2marks)

29. The diagram shows a square ABCD enclosed in a circle with centre O and radius 14cm. Parts of a circle are shaded as shown in the diagram. Study the diagram and use it to answer the questions that folow.



a) Calculate the area of the circle. (use $\pi = \frac{22}{7}$) (02marks)

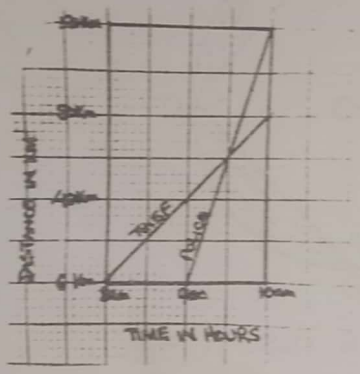
b. Find the area of the shaded part. (04mark)

30a) Solve the equation: $\frac{3y}{5} + 6 = 2 + y$ (03marks)

b) Solve the inequality: $k+3<9-2k$ (03marks)

31. The bursar of a school deposited sh.100,000 in a bank which offers an interest of 10% per annum. The money was in the bank for 18 months. How much money was on the school's account at the end of the 18 months? (04marks)

32. The graph below shows a thief taking off at 8:00am moving at 40km/hr and a police going after him at 120km/hr an hour after.



a) At what time did the police catch the thief? (01mark)

b) After what distance of traveling was the thief caught? (01mark)

c) What is the scale on the vertical axis? (01mark)

d) At what time did the police start running after the thief? (01mark)

END

Wishing you success