



ANKOLE DIOCESE EXAMINATIONS SECRETARIAT

PRE-PLE EXAMINATION  
2024

MATHEMATICS

TIME ALLOWED: 2 HOURS 30 MINUTES.

INDEX NO.

EMIS NO						Personal No.		

Candidate's Name:..... Signature:.....

School Name:..... EMIS No. ....

Archdeaconry .....

Read the following instructions carefully

1. This paper has **two** Sections: **A** and **B**. Section **A** has **20** questions and Section **B** has **12** questions.
2. All the working for both section **A** and **B** must be shown in the spaces provided. No pieces of paper should be provided for rough work.
3. All working must be done in **blue or black** ball point pen or ink and **NOT** in pencil. Only diagrams and Graph work may be done in pencil.
4. Unnecessary changes of work may lead to **loss of marks**.
5. Any handwriting that cannot be easily read, may lead to **loss of marks**.
6. The use of electronic calculators and Mathematical tables is not allowed.
7. Do not fill anything in the box indicated "for Examiner's use only" and those inside the paper.

FOR EXAMINERS' USE ONLY		
QN NO.	MARK	Examiner's Sign
1-5		
6-10		
11-15		
16-20		
21-22		
23-24		
25-26		
27-28		
29-30		
31-32		
TOTAL		

TURN OVER

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## SECTION A (40 MARKS)

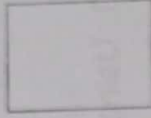
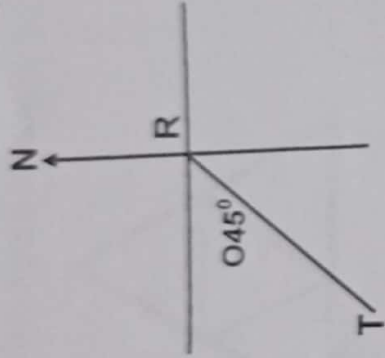
1. Work out:  $22 \times 4$  (2 mks)

2. Round off 39.752 to the nearest one decimal place. (2 mks)

3. Simplify :  $5m^2 - n + m^2 - n$  (2 mks)

4. What number has been expanded to give;  
 $(3 \times 10^0) + (4 \times 10^1) + (7 \times 10^3)$  ? (2 mks)

5. Use the diagram below to find the bearing of T from R. \_\_\_\_\_ (2 mks)



(2 mks)

6. Find the next number in the sequence below;  
0, 1, 5, 14, 30, \_\_\_\_\_

7. If a Kg of millet flour costs sh.3600, calculate the cost of 250gm of millet flour. (2 mks)

Turn over

8. Given that set  $M = \{1, 3, 5, 7, 9\}$  and set  $Q = \{2, 3, 5, 7\}$

Find  $\cap(M \cap Q)'$

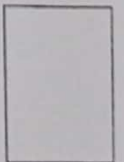
(2 mks)

9. Using strips, arrange the fractions below starting with the smallest.

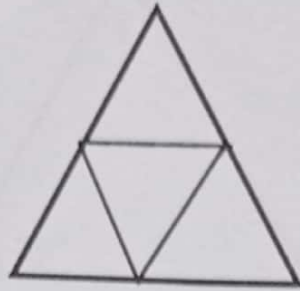
$\frac{2}{3}, \frac{1}{3}, \frac{1}{4}, \frac{1}{2}$

10. A wheel of a car is 35 cm in diameter. What distance will it cover in 6 complete revolutions ?

( 2 mks)



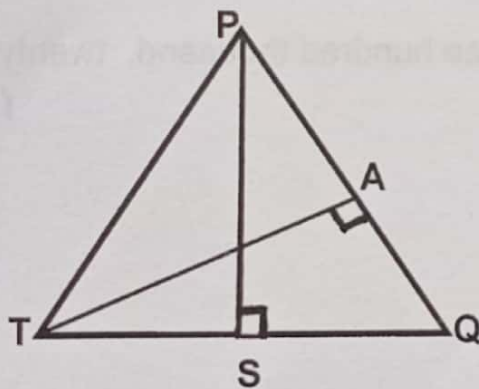
11. Name the geometric figure below. (2 mks)



12. Write **XCIV** in Hindu-Arabic numerals. (2 mks)

13. Study the figure below and find the length of **AT**.

Given that  $PQ = 32\text{cm}$ ,  $QT = 24\text{cm}$  and  $PS = 20\text{cm}$ . (2 mks)



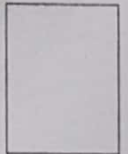
Turn over



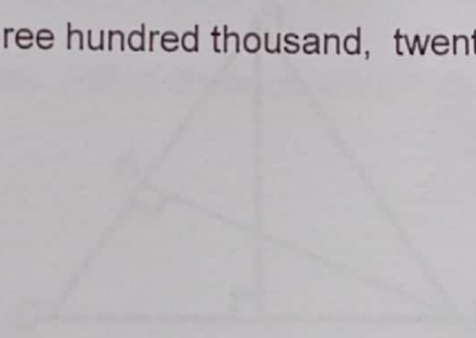
14. The square root of a number is 4. What is the number ? (2 mks)



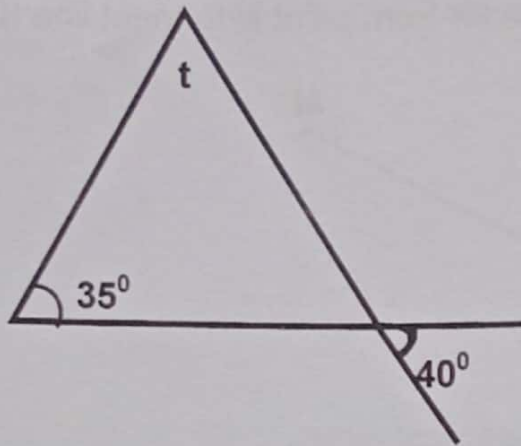
15. By how much is  $5x - 1$  greater than  $1 - 5x$  ? (2 mks)



16. Write in figures : " Four million, three hundred thousand, twenty". (2 mks)

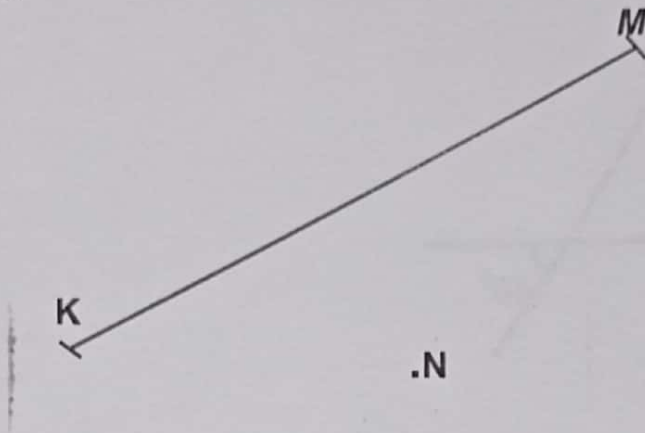


17. Find the size of angle  $t$ .

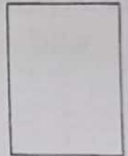


18. A parents' meeting at Good Daddy Primary School started at 11:25 am and ended at 4:05 pm. For how long did it take? **(2 mks)**

19. With the help of a pencil, a pair of compasses and a ruler only, construct a perpendicular bisector from point **N** to meet line **KM** at **L**. (2 mks)



20. A motorist drove 25 metres in only 5 seconds. Express his speed in km/h. (2 mks)



### SECTION B (60 MARKS)

- 21.a) The average age of 6 girls is 11 years and the average age of 4 boys is 12 years. Find the average of the whole group. (2 mks)



b) Below are series of integers.

$-3, 3, 2, -2, -1, 1, 0.$

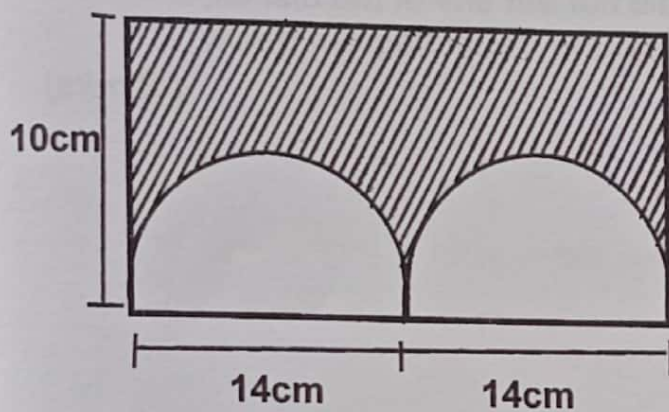
i) Find their median

(1 mk)

ii) Work out the range of the above integers.

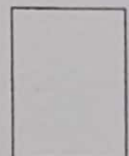
(2 mks)

22. The figure below is made up of two semi-circles.



Calculate the area of the shaded region.

(5 mks)



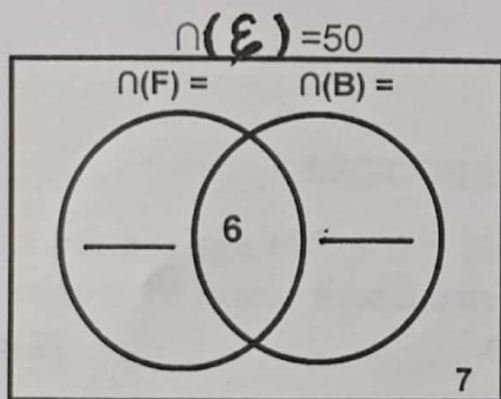
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23. Okello was given sh.5,000 to buy:  
 1kg 500g of sugar at sh.1200 per kg.  
 3 litres of milk at sh.450 each litre.  
 100g of tea leaves at sh.2500 per kg.  
 What percentage of the money did he remain with ?

(5 mks)

24. At a party attended by 50 guests, some guests ate fish (**F**) and beans (**B**). If 23 guests ate beans and 7 did not eat any of the dishes;  
 a). Use the information given to complete the Venn diagram below;

(2 mks)

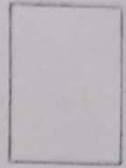


- b) How many guests ate fish only ?

(2 mks)

c) Find the probability of selecting a guest who ate only **one** type of dish.

(1 mk)



25. The interior and exterior angle of a regular polygon are in the ratio of 4:1.

a) Find its number of sides.

(3 mks)

b) Calculate its interior angle sum.

(2 mks)

26. A cyclist left town P and travelled 60km North East to town Q, he then turned on a bearing of  $120^\circ$  and travelled 80km to town R.

a) Draw a sketch diagram to show the cyclist's journey. (1 mk)

b) Using a scale of  $1\text{cm} = 10\text{ km}$ , draw an accurate diagram for the cyclist's journey. (3 mks)

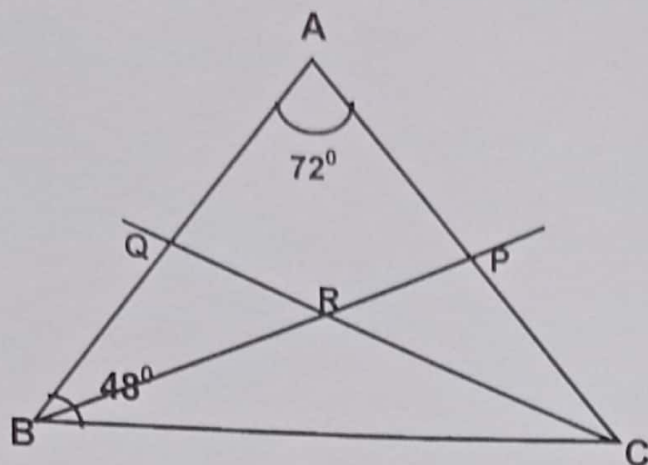
c) Find the shortest distance from P to R. (1 mk)



27. Given that **BP** bisects angle **ABC** and **CQ** bisects angle **ACB**.

a) Calculate the size of **BRC**.

( 3 mks)



b) The two base angles of an isosceles triangle are  $(2x + 50^\circ)$  and  $(4x - 20^\circ)$ . Find the value of **x**.

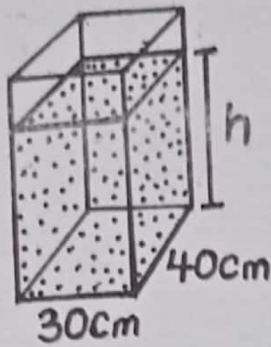
(2 mks)



28. The tank given below holds 54 litres of water.

a) Calculate the value of  $h$ .

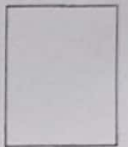
(3 mrks)



b) The amount of water in the tank is  $\frac{3}{4}$  of the whole tank.

What is the actual height of the tank ?

(2 mks)



29. A father distributed sh.9,000 among his three daughters; Jack, Mary and Brenda. Jack got  $t$ , Mary got sh.1200 more than Jack and Brenda got sh.600 more than Mary. How much did each get ?

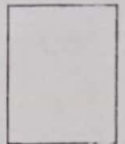
(5 mks)

30. a) Solve for  $n$  :  $34_n = 201_{\text{three}}$ .

( 3 mks)

b) Work out the value of  $m$ :  $2^m \times 2^m = 16$

(2 mks)



31.a) Given that  $7p$  is equal to  $21k$ . Find the value of  $K$  if  $P = 12$  ( 2 mks)

**Turn over**

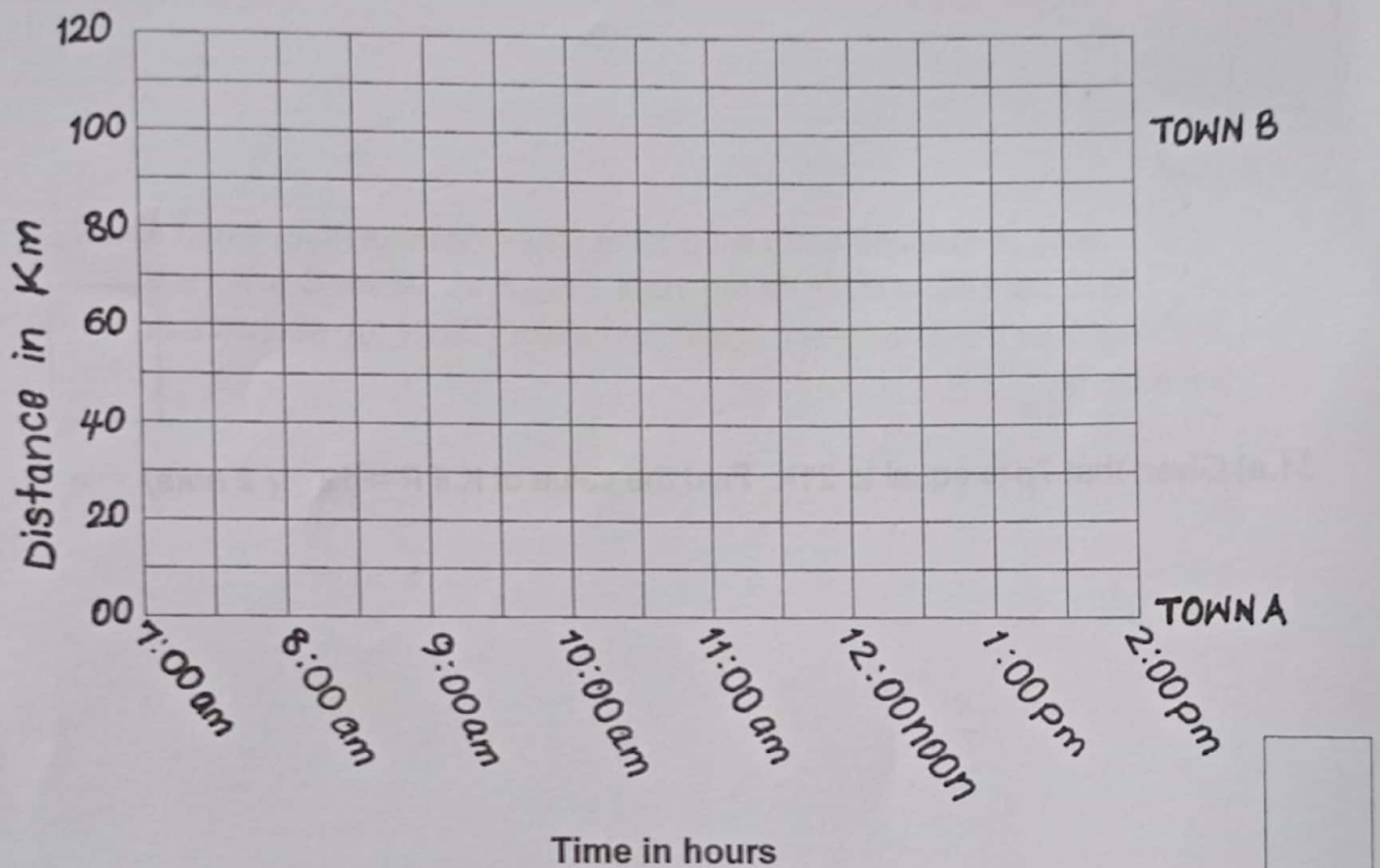
b) Solve:  $\frac{3w}{4} - \frac{1}{5} = 0$

(3 mks)

32. Juma started his journey from town A at 8:00 am driving at 40km/h. After 1 hour, he rested for 30 minutes. He continued at 60km/h for 1 hour to town B. He spent 1 hour at B and drove back reaching town A at 1:30 pm.

Show Juma's journey on the graph below.

(5 mks)



END