



ANKOLE DIOCESE EXAMINATIONS SECRETARIAT

PRE-MOCK EXAMINATION
2023

MATHEMATICS

TIME ALLOWED: 2 HOURS 30 MINUTES.

INDEX NO.

EMIS NO									Personal No.	

Candidate's Name: Signature:

School Name:

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)

(2 mks)

1. Add: $106 + 44$

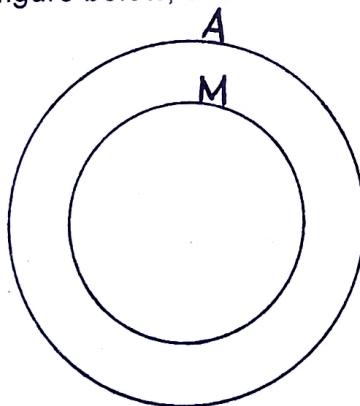
(2 mks)

2. Write CXLVI in Hindu-Arabic numerals.

(2 mks)

3. Write 401001 in words.

4. In the figure below, shade $A \cap M$.



(2 mks)

5. Work out: $\frac{2}{3} + \frac{1}{4}$

(2 mks)

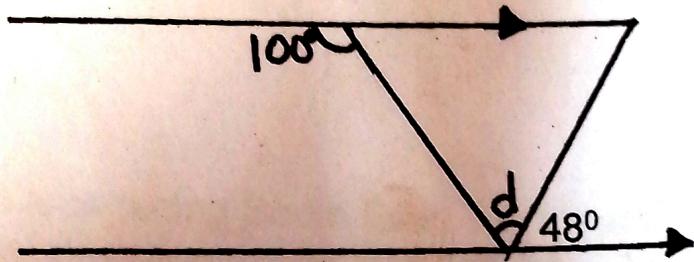


7. Find the next two numbers in the sequence:

42, 52, 26, 36, 18, 28, _____, _____.

(2)

8. Find the size of the angle marked d in the diagram below.



9. At a dollar house forex bureau, 1US dollar costs Ug.shs.3,300

How many US dollars can I buy with Ug.Shs.1,320,000 ?

(2)

10. Express 101000 in scientific notation. *(2 mks)*



11. Use lattice method to multiply 315 by 16. *(2 mks)*

12. Simplify : $+11 + -3$ *(2 mks)*

13. Given that 5 books cost shs.6,000. Find the cost of quarter of a dozen of similar books. *(2 mks)*

14. Find the supplement of $(2x - 40^\circ)$. *(2 mks)*

15. A roll of an electric cable is 2.4 km long. How many 60m pieces can be got from this roll ? *(2 mks)*

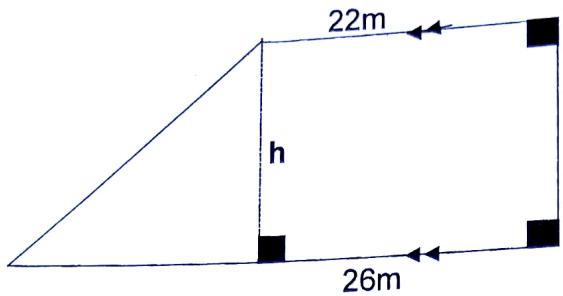


16. Aijuka was facing South East. He turned anti-clockwise through an angle of 270° . In what direction did he face finally? *(2 mks)*

Turn over

17. The area of the figure below is 120m^2 . Find the value of h .

(2 mks)



18. The faces of a tetrahedron are numbered 1 to 4; if it is tossed once, what is the probability that a square number shows up ?

(2 mks)

19. A trader sold a watch at shs.55,500 and realized a loss of shs.4,500. How much did he buy the watch ?

(2 mks)

20. Change $\frac{1}{4}$ kg to grams.

(2 mks)



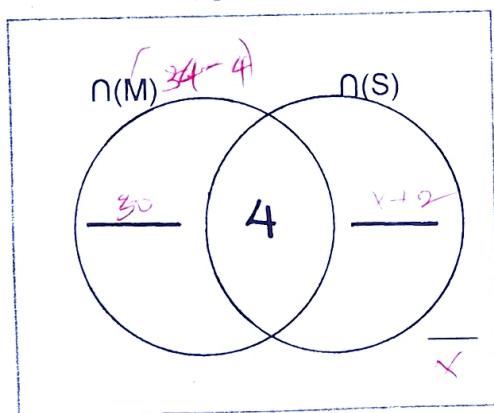
SECTION B (60 MARKS)

21. In a meeting attended by 70 teachers, 34 teach Mathematics (M), 4 teach both Mathematics and science (S), X teachers teach neither of the two subjects while $X+2$ teach science only.

- a) Complete the Venn diagram below .

(3 mks)

$$\cap(E) = 70$$



- b) Find the value of x .

(2 mks)

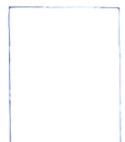
Turn over

c) Of 70 teachers, how many teachers don't teach Mathematics at all ? (1 mks)

22.a) Work out: $6.44 - 0.4 + 0.56$ (2 mks)

b) Evaluate: 0.12×24 (3 mks)

$$6.4 - 6$$



23. A trader bought 2 tonnes of salt at shs.400,000 and sold it in 1kg packets for Shs.250 each. Calculate his profit. (4 mks)

24.a) Find the solution set for the inequality.

$$3 - K < 10 \quad (3 mks)$$

- b) Kavuma is three times as old as his daughter Nakawesa, 5 five years ago,
Kavuma was 22 years old. How old is he now ? **(3 mks)**



- 25.a) The interest rate at premier credit company limited is 4% per month.
If Mutonyi borrowed shs.200,000, how much interest will she pay after
 $2\frac{1}{2}$ years ? **(3 mks)**

- b) Calculate the amount of money which he will pay back at the end
of that period. **(2 mks)**

Turn over

26. Nyabutono was given two notes of twenty thousand shillings to buy the items on the table below:-

ITEM	QUANTITY	UNIT COST	AMOUNT
Meat	1½ kg	Shs. 10,000	shs. _____
Sugar	_____ kg	Shs 3,000	shs. 11,400
Soap	½ bar	Shs. _____	shs. 2,000
Total expenditure			shs. _____

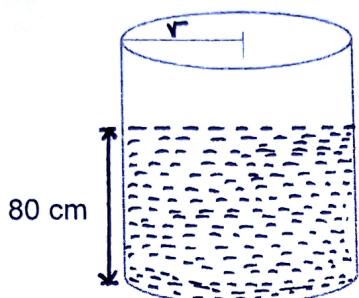
(4 mks)

- a) Complete the table above.

- b) Calculate Nyabutono's change after buying all the items above.

(1 mk)

27. A cylindrical water tank below is containing 1232 litres of water. Use it to answer the questions below.



- a) Find the radius r of the tank. (Take $\pi = 3\frac{1}{7}$) **(3 mks)**

- b) The tank holds 2310 litres when completely full, calculate the remaining height to fill the tank. **(3 mks)**

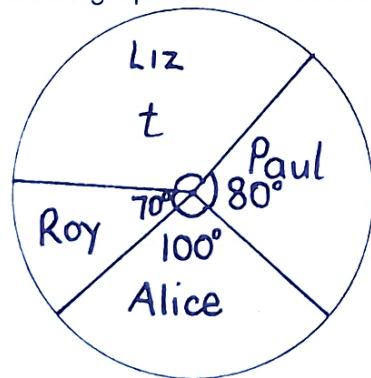


Turn over

28.a) Work out $(4.5 \times 75) - (4.5 \times 25)$ using distributive property. (2 mks)

b) Evaluate $3^x \div 3^2 = 27$ (2 mks)

29. Study the circle graph and use it to answer the questions about it.



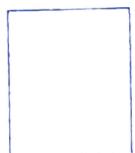
a) Find the value of t . (2 mks)

b) Given that Liz got shs. 45,000 more than Paul, how much was shared altogether ? (2 mks)

30. In Mbarara Central market, there are 20% more male vendors than females.
If there are 280 females in the market;

a) How many vendors are in the market ? (3 mks)

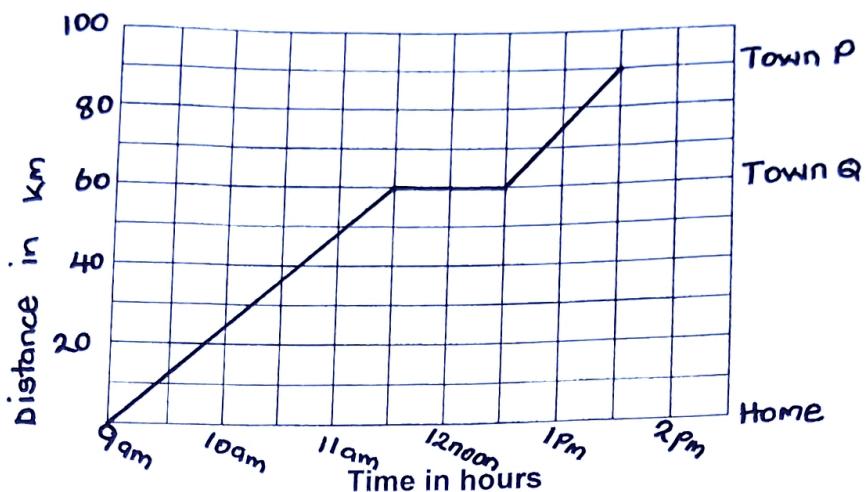
b) Express the number of male vendors as a ratio of all the vendors. (2 mks)



Turn over

31. Town A is 30 km West of town B and town C is 42 km Southwest of town B. (1 mk)
- a) Draw a sketch diagram to show the position of the three towns.
- b) Using a scale of 1cm to represent 6 km, draw an accurate diagram to show the location of the towns. (4 mks)

32. The graph below shows a journey covered by cyclist from his home to town P via town Q.



- a) How far is town Q from town P ? (1 mk)
- b) At what speed was he moving from home to town Q ? (2 mks)
- c) For how long did the cyclist rest in town Q ? (1 mk)
- d) At what time did the cyclist arrive in town P ? (1 mk)

END

