ANKOLE DIOCESE EXAMINATIONS SECRETARIAT

P.7 ENTRANCE EXAMINATION
2023

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		

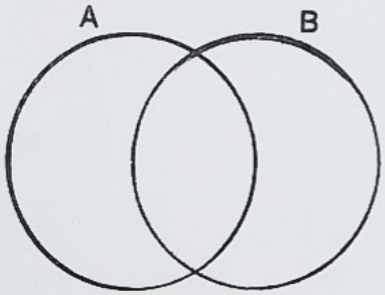
TURN OVER

SECTION A (40 MARKS)

1. Work out: 194 + 33

2. Write **1905** in words

3. In the Venn diagram below, shade **(A ∩ B)**



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

5. Find the next two numbers in the sequence below.

   1, 3, 6, 11, 18, _____ , _____

6. If  represents 12 trees, draw pictures to represent 60 trees.

7. The length of a wire is 9 m. Express this length in centimetres.

8. Convert 321_{five} to decimal base.

9. write 96 in Roman numerals.

10. Find the lowest common multiple (LCM) of 12 and 18.

11. Work out :

	Weeks	Days
	4	5
+	3	3

12. Calculate the circumstance of a circle whose diameter is 14 cm.
(Take $\pi = \frac{22}{7}$)

13. Simplify : $4m + 4k + m - 2k$

14. A school staff meeting which lasted $1\frac{1}{2}$ hrs ended at 11:30 am.
At what time did it start ?

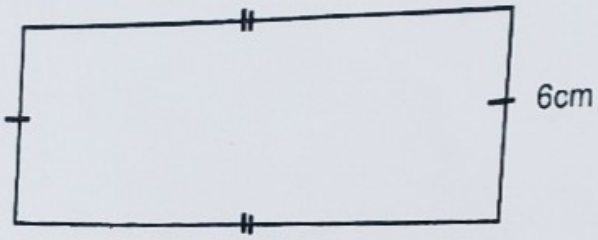
15. Using a ruler, a pencil and a protractor only, draw an angle of 55^0 .

16. Increase 200 in the ratio of 5 : 4 .

17. A motorist covered a distance of 180 km in $1^1/_2$ hrs .
Calculate the motorist's speed in Km/hr

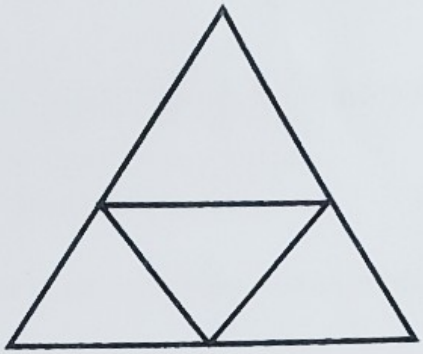
Turn over

18. Work out the total distance round the figure below.



19. A shopkeeper bought a shirt at shs. 18,500 and made a loss of shs. 2,500.
How much did he sell the shirt ?

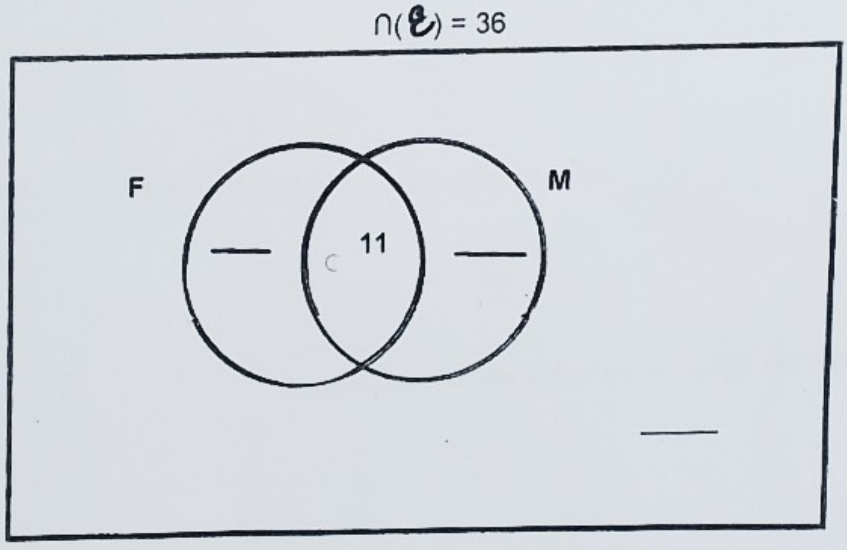
20. Name the shape whose net is shown below.



SECTION A (60 MARKS)

21. At a farewell party of 36 candidates, 22 candidates took Mirinda (M), K took Fanta (F) only, 11 took both Mirinda and Fanta while 2 candidates took neither Mirinda nor Fanta.

a) Use the above information to complete the Venn diagram below. ***(3 mks)***



b) Find the value of **K.** ***(2 mks)***

22. Given the digits 4, 0 and 8 ;

a) List down all the 3 – digit numerals that can be formed using the above digits.
(2 mA

b) Find the value of 4 in the smallest numeral formed.

c) Work out the range of the numerals formed above.

23. A parent paid school fees for his daughter at St.Agness Centre for Education Nursery and Primary school as follows ;

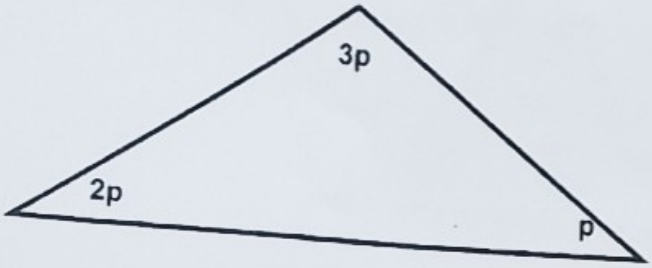
4 – twenty thousand shillings notes.
9 – ten thousand shillings notes.
9 – five thousand shilling notes
5- five hundred shilling coins.

Find how much the parent paid as school fees. ***(5 mks)***

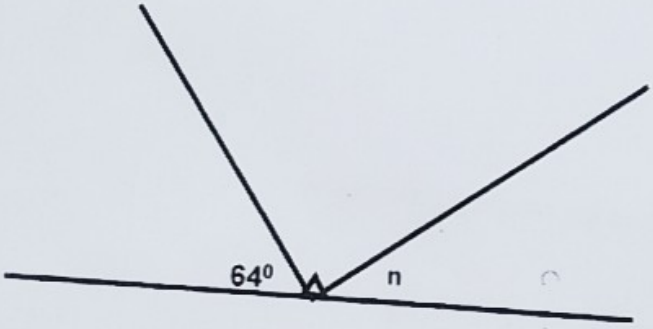
24. Study and complete the magic puzzle below. ***(5 mks)***

_____	11	4
_____	7	_____
10	_____	8

25.a) Find the value of **P** in degrees. *(3 mks)*



b) Calculate the size of the angle marked **n**. *(2 mks)*



26. a) Work out: $\frac{0.6 \times 0.08}{0.02 \times 0.4}$ *(3 mks)*

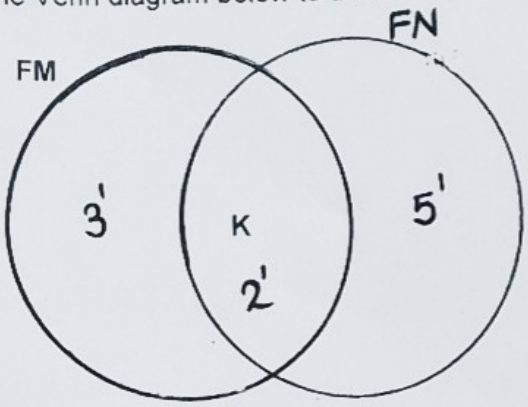
b) Find the sum of 0.06 and 0.4. *(2 mks)*

27. a) Using a ruler, a pencil and a pair of compasses only, construct a square **KLMN** of side **5 cm.** *(3 mks)*

b) How many lines of folding symmetry has the figure constructed above ? *(2 mks)*

Turn over

28. Use the Venn diagram below to answer the questions that follow.



a) Given that the lowest common multiple (**LCM**) of **M** and **N** is **60**, find the value of **K.** **(2 mks)**

b) Work out the value of **M.** ***(2 mks)***

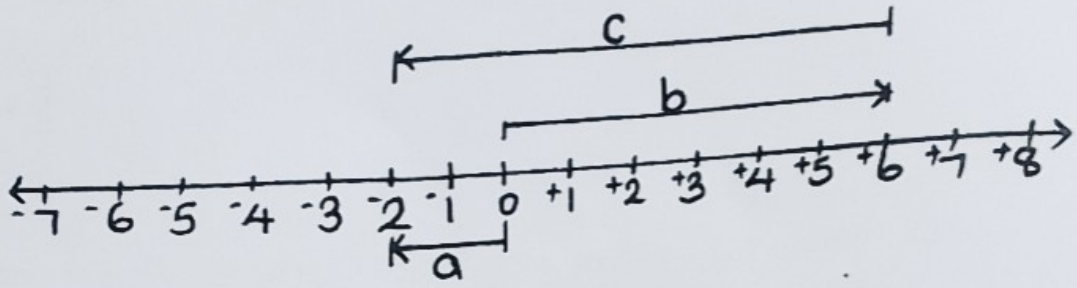
c) Calculate the GCF of **M** and **N.** ***(1 mk)***

29. a) Solve for a : a + 6 = 14 *(2 mks)*

b) If Naboth is 3K years old and Stephen is 4K years old, how old is each of them in 10 years' time if they ae now 28 years old altogether ? *(4 mks)*

30. The sum of 3 consecutive even numbers is 36. Find the numbers. *(4 mks)*

31. Study the number line below and use it to answer the questions that follow.



(1 mk each)

a) Name the integer represented by;

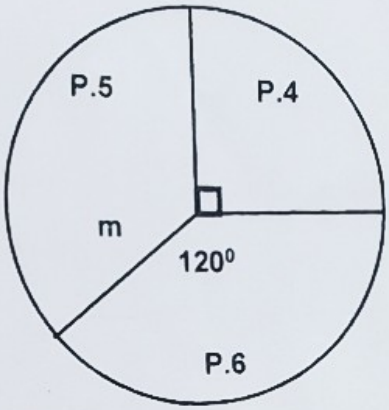
i) **a** = _____

ii) **b**= _____

iii) **c**= _____

b) Write down the Mathematical sentence for the number line above. ***(2 mks)***

32. The pie chart below shows how pupils are distributed in different classes at Ebeneza Nursery and Primary school. Use it to answer the questions below.



a) Find the value of **m.** ***(2 mks)***

b) If there are 50 pupils in Primary four, find the total number of pupils in the three classes. ***(3 mks)***

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