ENEMAC

EXAMINATIONS BOARD
PRIMARY SEVEN SPECIAL MOCK
2023
MATHEMATICS
Time Allowed: 2 hours 30 minutes

EMIS No.						Personal No.		

Candidate's Name: ……

Candidate's Signature: ……

School Name: ……

District Name:……

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. Answer **all** questions. **All** the working for both sections **A** and **B** must be shown in the spaces provided.
3. **All** working must be done using a **blue** or **black** 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 examinationroom.
5. Unnecessary **changes** in your work and handwriting that cannot easily be read maylead to loss of marks.
6. Do not fill anything in the table indicated: **"For Examiners' Use only"**

FOR EXAMINERS´ USE ONLY		
Qn.No.	**MARKS**	**EXR´S NO.**
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31 - 32		
TOTAL		

SECTION A: 40 MARKS

Answer **all** questions in this Section

Questions **1** to **20** carry two marks each

1. Work out 42x 12.

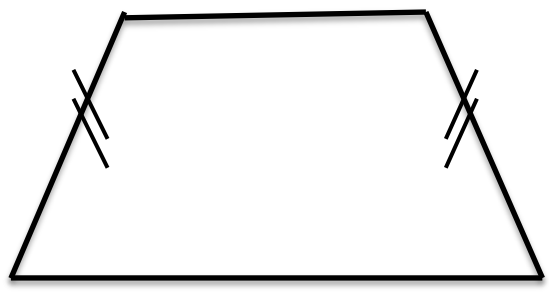
2. Write "Forty two thousand forty shillings "in figures.

3. Given that, A = {a, b, c, d, e} and A-B = {a, b, d}. Find n(AnB).

4. Simplify: $\frac{1}{3}$ of $\frac{3}{4}$

5. Solve; $2(4 + m^2) - 5 = 101$

6. How many lines of folding symmetry has the figure below.



7. Express $40cm^3$ to m^3.

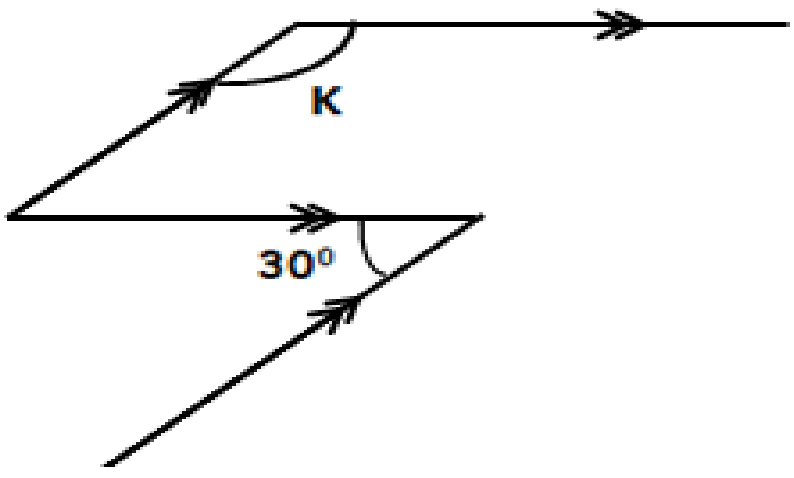
8. Find the value of $\frac{m^2}{mk}$ given that m=2 and k=5.

9. The teacher Charles class tossed two coins at once, find the probability that tails of the two coins show up.

10. Express 38_{ten} to base five using groups.

11. Find the number which forms a super subscript of (2^3x3^2) after factorization.

12. Study the figure below and find the size of angle marked K.



13. Doctor Katende got 59^0F after taking the temperature of a patient using the instrument below. If he used $\frac{5}{9}(^0F - 32) = {}^0C$ to change that temperature to centigrade, how many degrees did he get?

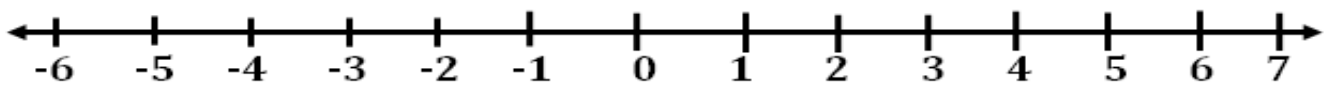
14. By selling a phone to **Namagembe, Nambasa** made a loss of 10%. How much did **Nambasa** buy the phone if **Namagembe** bought it at Shs.90,000.

15. Find the difference between the next two numbers in the sequence below.

2, 5, 8, 11, _____, _____

16. **Kanyangoga** drove his car at an average speed of $33\frac{1}{3}\,km/h$ covering 60km, find the time he used.

17. Work out -2 x 3 using a number line.



18. Using a ruler, a sharp pencil and a pair of compasses, construct the supplement of 105^0.

19. Kaggwa took $4\frac{1}{2}$ hours revising books at night, if he stopped at 2:00am, at what time did he start?

20. 25% of the pupils in P.7class at KOLOLO J/S were sent home for schools fees; find the total enrollment of that class if 45 pupils remained?

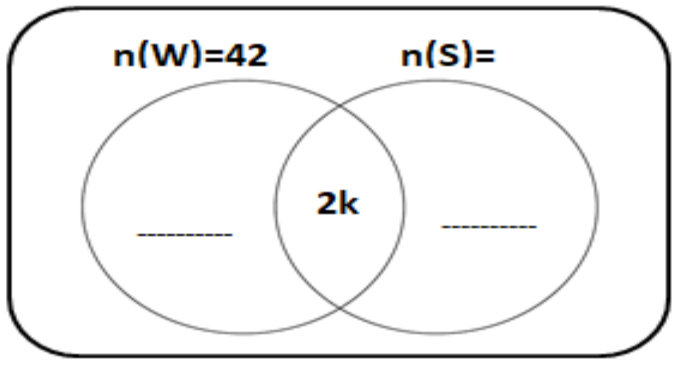
SECTION B: 60 MARKS

Answer **all** questions in this section

Marks for each question are indicated in brackets

21. In the meeting called by the Director to talk about challenges in school, K+6 took soda (S) only, 2K took both Soda and Water (W), while 42 took water.

a) Complete the Venn diagram using the information above. (2marks)



b) If only one person did not take any of the served drinks and 27 of those who attended took soda, find the value of k. (2marks)

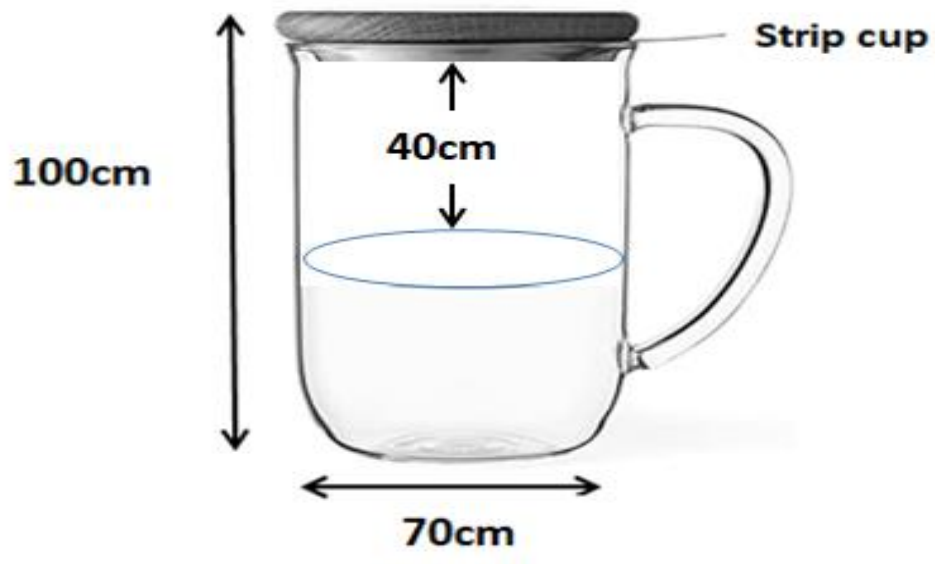
22. a)In an interview , **OLGA** was asked to write down the first six equivalent numbers of 2(finite7).Find the sum of the second and the third number. (2marks)

c) **Mutoni** a bus driver got a deal of transporting people to Nairobi for a tour, If she left Kampala at 7:00am and took nineteen hours, at what time did she arrive at Nairobi. (2marks)

23. In a class , 0.2 are boys and the rest are girls, if there are 36 girls, find the fraction of girls in that class. (2marks)

b) Workout the 20% of the total number of pupils in that class? (3marks)

24. Muwonge a farmer wanted to test for mastitis while milking using a strip cup placed on a jar as shown below.



a)Find the area of the circular upper part of the strip cup if its diameter is 70cm. (2marks)

b) Find the volume of the milk **Muwonge** collected after milking. (2marks)

25. **Namukasa Shivan** a math teacher at **Kololo Junior School** used a circular manila of radius **4.8cm** to make an accurate quadrilateral with equal sides, equal diagonals and interior angles each being $\mathbf{90^0}$. Use the space provided below to find the size of one side of that quadrilateral. (6marks)

26. In a certain commercial bank , 1 Euro (£)= Ug sh.4200, 1 US dollar= Ugsh3750 and 1 Ksh= Ugsh 18.

a) How much in Uganda shillings did **Kazinja** get from 120 Euros . (2marks)

b) **Nabbumba** has a son at Kenyatta International University, how much will he pay as tuition in Ksh if he has 150 US dollars. (3marks)

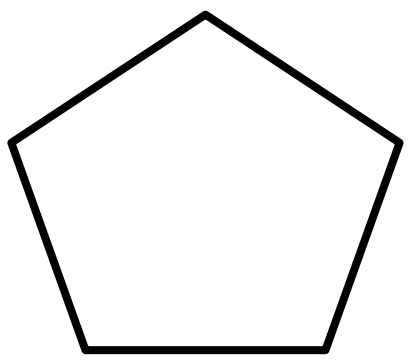
27. a) Solve and write a solution set of $12 > -3m \geq -3$ (2marks)

b) **Tabuti** is twice **Nakiranda's** age. If their total age is 33 years , how is **Tabuti** now? (3marks)

28.a) **Bbosa** an employee in Gombe development Sacco got a cut of his salary by 20% during the COVID 19 pandemic period . If he was getting sh. 420,000, find his new salary. (3marks)

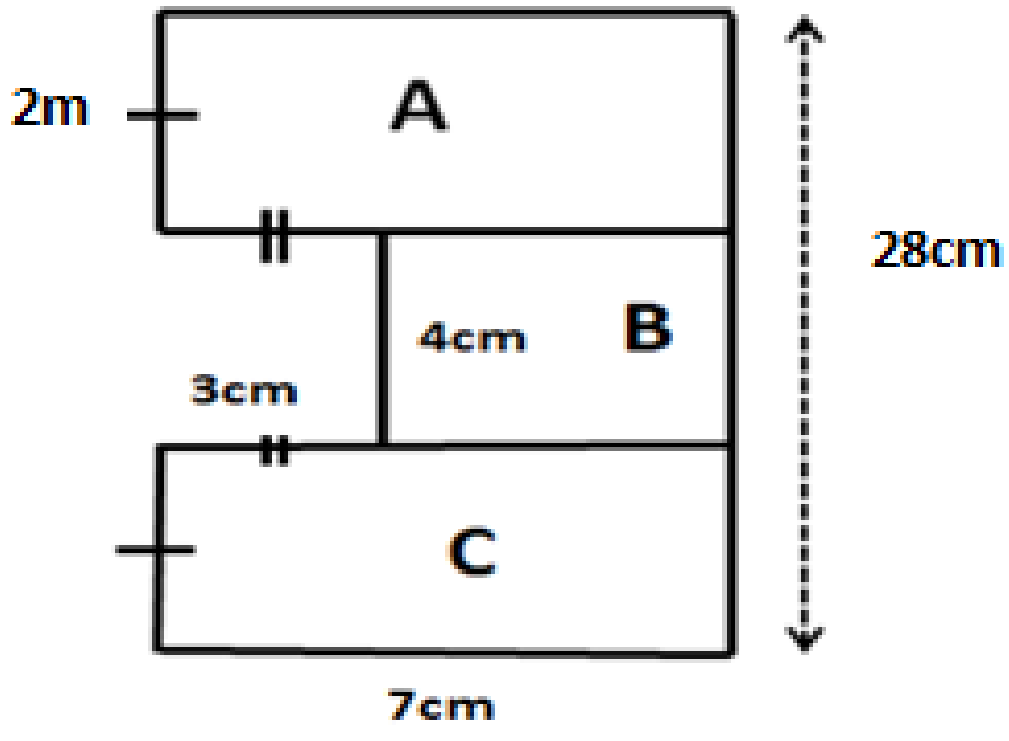
b) **Kawalya** borrowed sh.**M** from the bank at a rate of 5% per annum for 2 years. Find the value of M if in return he paid sh.330,000. (3marks)

29. a)How many right angles can be formed in the polygon below. (2marks)



b) The interior angle of o regular polygon is 60^0 more than the exterior angle; find the size of that exterior angle. (3marks)

30. **Nangendo, Bbemba**, and **Katushabe** contributed money and bought a plot of land below.



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

b) Calculate the distance around their plot of land. (2marks)

c) If each got a portion according to the contribution and Bemba was given plot A, find the area of the plot he got. (1mark)

31. The table below shows how **MAKA** drove his car from Kampala to Masaka for a wedding ceremony through Mpigi and Kalungu.

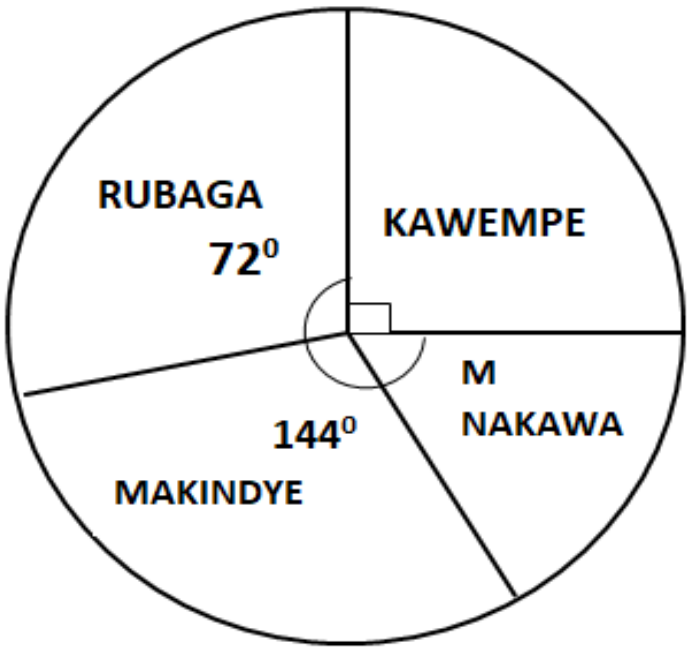
TOWNS	ARRIVAL TIME	DEPARTURE TIME
KAMPALA		6:00am
MPIGI	7:30am	7:45am
KALUNGU	8:35am	8:50am
MASAKA	10:00am	

a) How long did **MAKA** take to drive from Kampala to Mpigi? (2marks)

b) If **MAKA** stopped at Kalungu to pick some people, for how long did he wait for them? (2marks)

c) Find the distance he covered from Kampala to Masaka if he used a speed of 80kmhr^{-1}. (2marks)

32. The Pie chart below shows 720kg of maize flour was distributed among different divisions of Kampala.



a) Find the value of M. (2marks)

b) How many kilograms did Kawempe get? (1mark)

c) How many more kilograms did Rubaga get than Nakawa? (2marks)