MAYUGE DISTRICT EXAMINATIONS BOARD

PRIMARY LEAVING MOCK, 2023

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Index No.	Random No.						Personal No.		

Candidate's Name: .....

Candidate's Signature: .....

District ID No:

Read the following instructions carefully:

1. Do not write your **school** or **district name** anywhere on this paper.
2. This paper has **two** sections: **A** and **B**. Section **A** has **20** questions and Section **B** has **12** questions. The paper has **8 printed pages** altogether.
3. Answer **all** questions. **All** the working for both sections **A** and **B** must be shown in the spaces provided.
4. **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.
5. **No calculators** are allowed in the examination room.
6. Unnecessary **changes** in your work and handwriting that cannot easily be read may lead to loss of marks.
7. Do not fill anything in the table indicated: **"For Examiners' use only"** and boxes inside the question paper.

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.

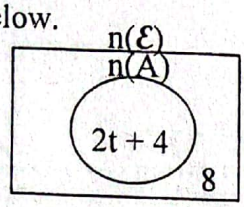
Answer **all** *questions in this section.*

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

1. Add: $23 + 54$

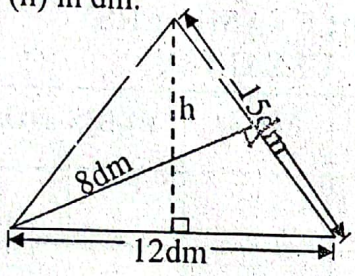
2. Subtract: $2r - 3$ from $2 - r$

3. If $t = 8$, find $n(\mathcal{E})$ from the Venn diagram below.



4. Calculate the 18^{th} triangular number.

5. In the triangle below, solve for the height (h) in dm.

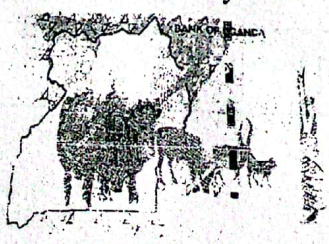


6. Work out the value of **4** and the place value of **8** in the numeral 8047.

7. Given that  stands for a half dozen of pens. Draw pens that represent $2\frac{1}{2}$ dozen of pens.

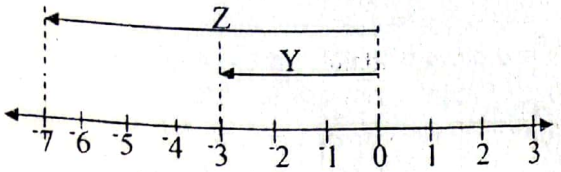
8. Simplify: $\frac{1.82 + 0.18}{0.25}$

9. How many coins of Shs. 1000 are in the note of money below?



10. Solve for base x: $24_x = 14_{ten}$

11. Write the subtraction statement shown on the number line below.

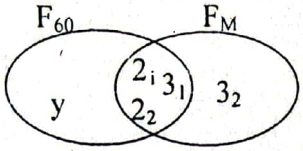


12. The bearing of a town from a village is 098^0. Work out the bearing of village from the town.

13. Arrange $\frac{1}{2}$, $\frac{1}{3}$ and $\frac{1}{4}$ in ascending order.

14. Solve the inequality: $2n - 3 \leq 7$

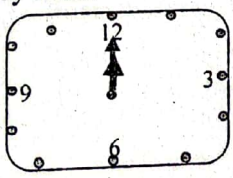
15. Use the Venn diagram below of prime factors to find;



(i) Value of m (ii) GCF of M and 60

16. Express "9 tens + 9 ones" in Roman numerals.

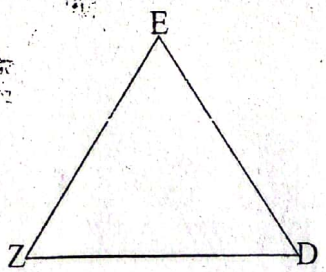
17. Write the morning time shown on the clock face below in a 24-hour clock system.



18. Work out the average of p, 2p + 3, 12 and p + 1

19. How many packets of 300 grammes can be got from 3.3 kilogrammes of posho?

20. Using a ruler, a pencil and a pair of compasses only bisect angle ZED below.

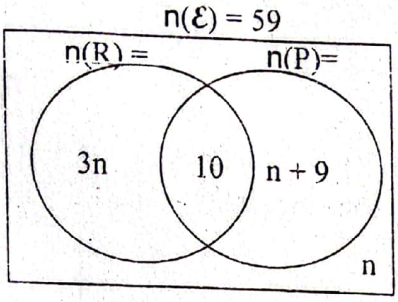


Turn over

SECTION B : 60 MARKS

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

21. The Venn diagram below shows number of candidates who eat rice (R) and posho (P).



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

(b) If a candidate is picked at random to collect the textbooks. What is the chance of picking a candidate who doesn't eat rice? *(2 marks)*

22. A county in Uganda has 30,000 people. Of these people, $\frac{1}{3}$ are females and $\frac{1}{2}$ of the females are girls.

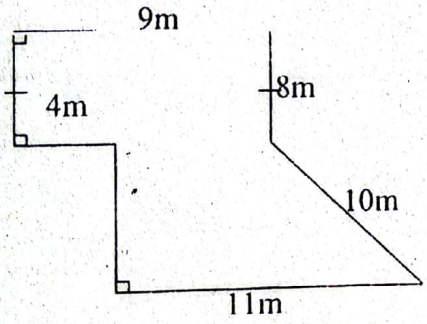
(a) If $\frac{1}{4}$ of males among the population are boys, work out the ratio of boys to girls. *(4 marks)*

(b) How many more males than females are in the county? *(2 marks)*

23. Study and complete Andrew's shopping bill table below correctly. *(5 marks)*

S/NO	ITEM	QUANTITY	UNIT COST	AMOUNT
(i)	Sugar	a kg	Shs. .....per kg	Shs. 6000
(ii)	Milk	500ml	Shs. 2000 a litre	Shs. .....
(iii)	Salt	.....gms	Shs. 2000@kg	Shs. 1000
(iv)	Rice	$2\frac{1}{2}$ Kg	Shs. 5000per kg	Shs. .....
(v)	TOTAL EXPENDITURE			Shs. .....

24. The figure below shows Tom's coffee garden.



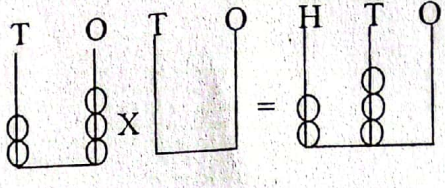
(a) Calculate the area of the coffee garden. *(4 marks)*

(b) Find the total distance round the coffee garden above. *(2 marks)*

25. (a) One hundred one poles were fixed in a straight line a long the road at an interval of 10 metres. How long is the road? *(2 marks)*

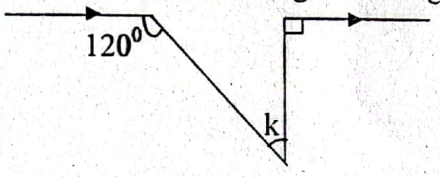
(b) Express 307×10^{-2} as a single numeral. *(2 marks)*

(c) Work out using the abacus. *(2 marks)*



26. (a) The interior angle of a regular polygon is four times its exterior angle. Find the size of each exterior angle. *(2 marks)*

(b) Solve for the size of angle k in degrees. *(2 marks)*



27. Abdul bought a 20 litre Jerrycan of liquid soap at Shs. 30,000. He filled the soap into half litre plastic bottles and sold off the soap making a profit of 20%.

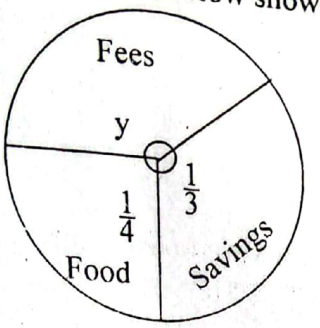
(a) How many half litre bottles did he fill? *(2 marks)*

(b) Calculate his total selling price of the soap. *(3 marks)*

28. (a) Solve for a: $\frac{1}{3}a - 6 = 6$. *(2 marks)*

(b) If $t = -11$, find the value of $4t^2$. *(2 marks)*

29. The pie-chart below shows how a parent spends his monthly income.

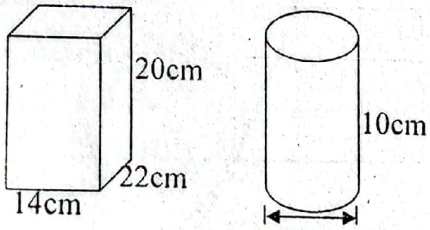


(a) What fraction of money is spent on fees? *(2 marks)*

(b) Express the amount of money he saves in degrees. *(1 mark)*

(c) If he spent Shs. 85,000 on food, calculate his total monthly income. *(2 marks)*

30. A rectangular tank and a cylindrical tank below hold the same amount of milk when full.



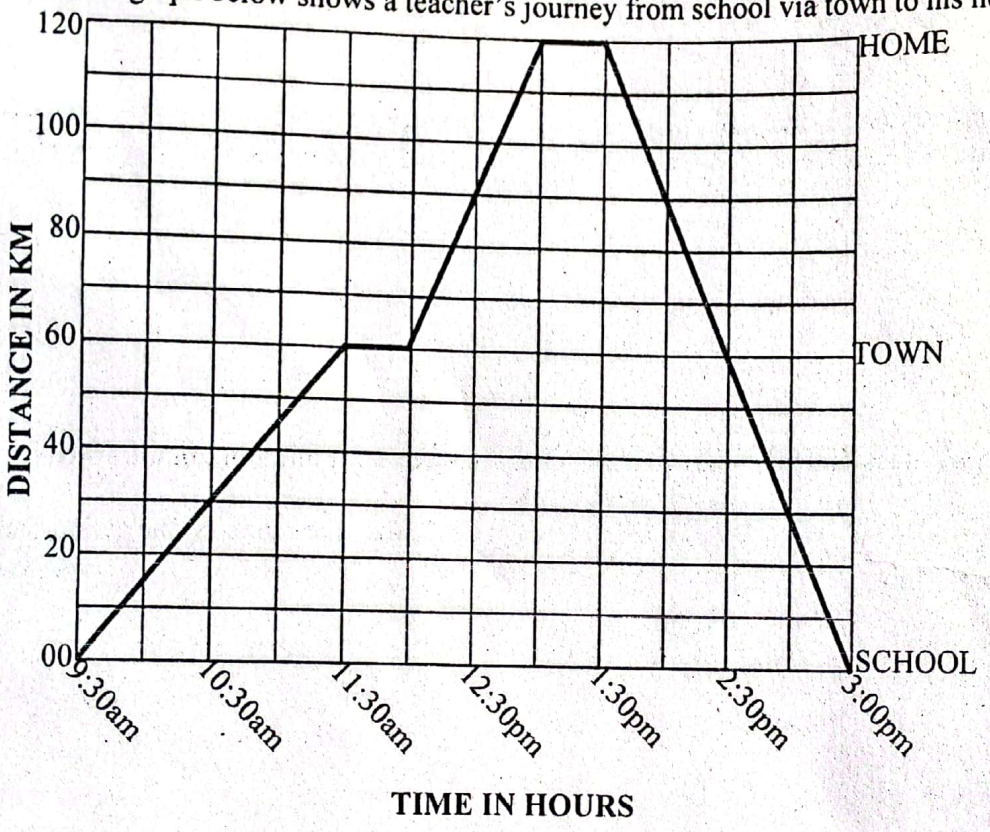
(a) Calculate the radius of the cylindrical tank. *(3 marks)*

(b) How many litres of milk does the cylindrical tank hold when full? *(3 marks)*

Turn Over

31. With the help of a ruler, a pencil and a pair of compasses only, construct a parallelogram WXYZ of length WX = 7cm, XY =4cm and angle WXY = 120^0. *(4 marks)*

32. The travel graph below shows a teacher's journey from school via town to his home.



(a) At what time did the teacher arrive home? *(1 mark)*

(b) How far is the teacher's home from town? *(1 mark)*

(c) For how long did he rest in the whole journey. *(1 mark)*

(d) Calculate his average speed for the whole journey. *(2 marks)*

END