IGANGA MUNICIPAL COUNCIL SCHOOLS

PRIMARY LEAVING MOCK, 2023

MATHEMATICS

Time Allowed: 2 hours 30 minutes

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 **12 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 examination room.
6. Unnecessary **changes** in your work and hand writing 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. Work out:
$$\begin{array}{r} 301 \\ \times\ \ 3 \\ \hline \\ \hline \end{array}$$

2. Given that set K = {a, n}
List all subsets of set K.

3. Round off 70.84 to the nearest whole number.

4. Simplify: $5m - 3(2-m)$.

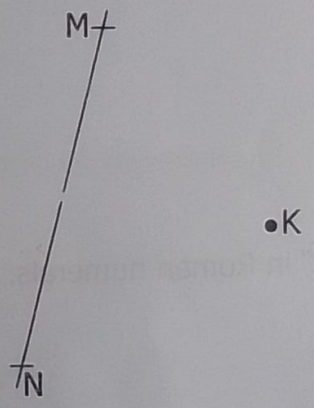
5. From the counting numbers less than 16, select and circle;
   (a) Triangle numbers.

   (b) Prime numbers.

11. The distance round a bigger wheel is 20m. Another small wheel is $\frac{1}{2}$ of the bigger one. How many revolutions will the small wheel take to complete a distance of 80m?

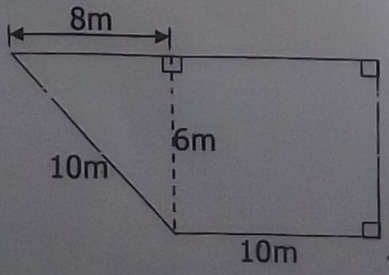
12. Express 0.0803 to scientific notation.

13. Using a ruler, a pencil and a pair of compasses only, construct a perpendicular bisector from point K to meet line MN at X.



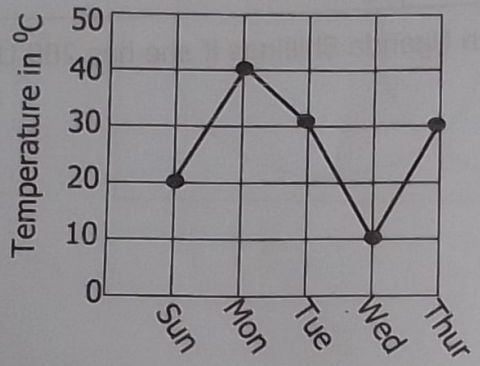
14. Given that $53_y = 28_{ten}$.
Solve for the base y.

15. Calculate the area of the figure below.



16. Abdul banked notes worth Shs. 2000 each numbered from XP00809 to XP00918. How much money did he bank?

17. Calculate the average temperature recorded on the graph below.



18. Given that $a = \frac{2}{3}$ and $m = 21$.
Find the value of am.

19. If today is Friday, what day of the week will it be 69 days from now?

20. Work out: $\frac{0.14 + 0.22}{1.8}$

Turn Over

SECTION B : 60 MARKS.

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

Marks for each question are indicated in the brackets.

21. The exchange rates to Uganda shillings at the forex bureau are as below;

Currency	**Buying Uganda Shillings**
1 US dollar ($)	Ug Shs. 3750
1 Kenya Shilling (K Sh.)	Ug Shs. 27

(a) How much will Linette get in Uganda Shillings if she has 200 US dollars? *(2 marks)*

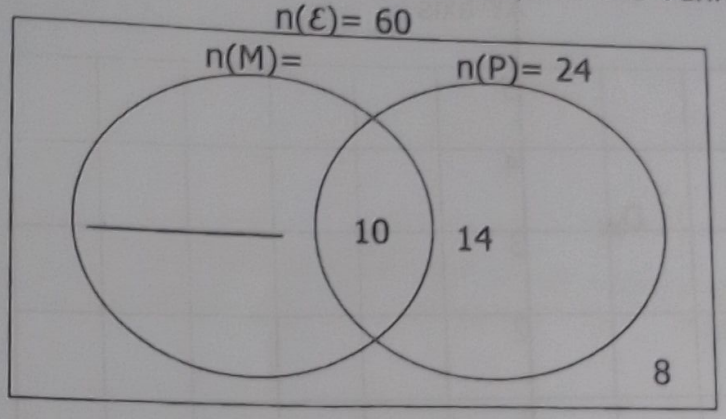
(b) If Tom has 85,000 Kenya Shillings, how many US dollars can he get from the forex bureau? *(3 marks)*

22. (a) The sum of three consecutive odd numbers is 39. Find the three numbers. *(3 marks)*

(b) Calculate the least number of pens when divided by 15 boys or 18 girls equally, leaves 5 pens as remainder. *(2 marks)*

23. In a class of 60 candidates who were registered for PLE, 24 of them eat posho (P), (t + 8) eat meat (M) only, 10 eat both posho and meat while 8 eat neither of the two foods.

(a) Use the above information to complete the Venn diagram below. *(1 mark)*

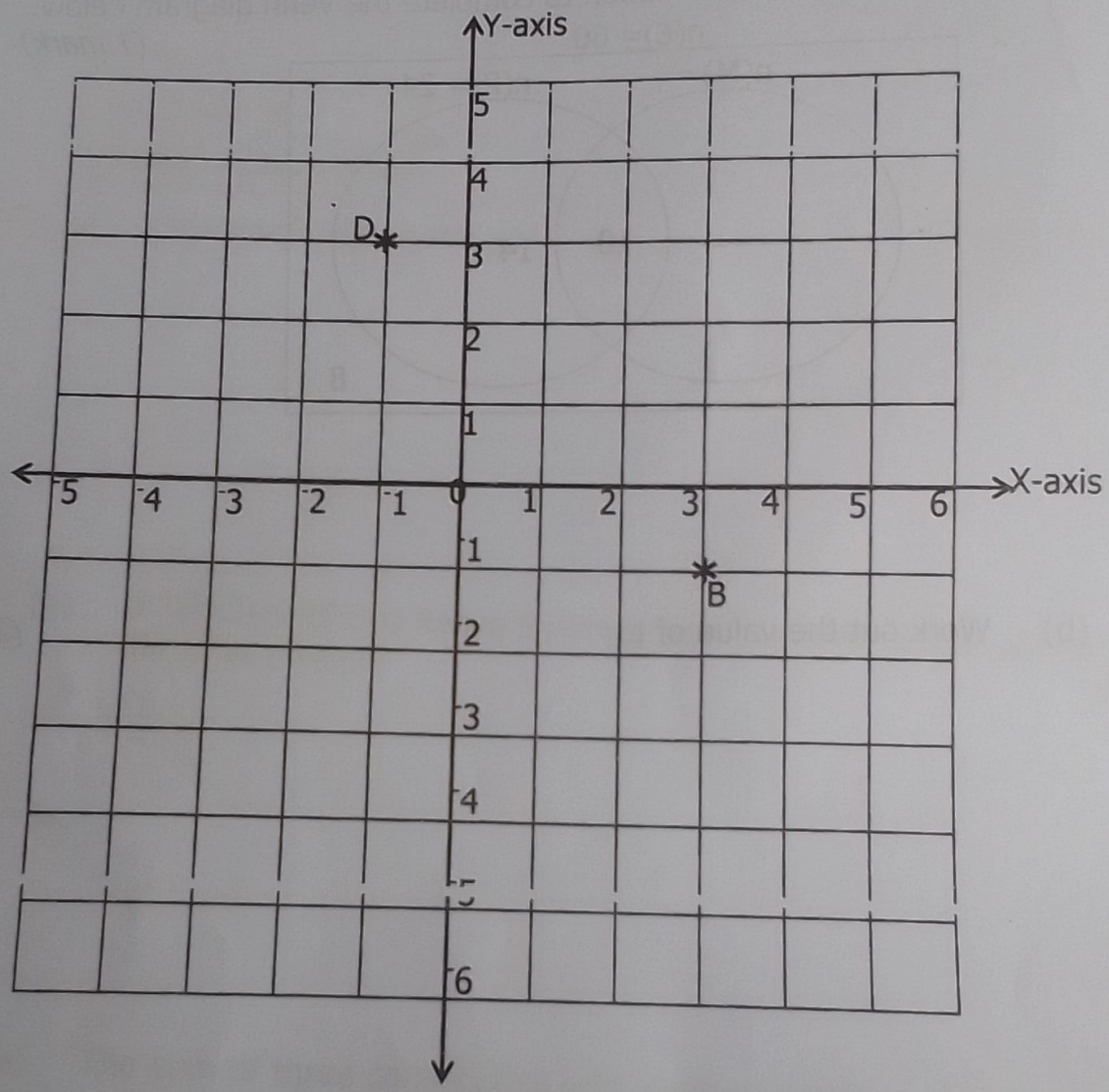


(b) Work out the value of t. *(2 marks)*

(c) If a candidate is picked at random to pray, what is the probability that a candidate picked eats meat only? *(1 mark)*

24. (a) On the grid graph below, state the co-ordinates for points B and D.

(i) B *(1 mark)* (ii) D *(1 mark)*



(b) Plot the points A ($^{-}3$, $^{-}1$) and C (5, 3) *(2 marks)*

(c) Join A to B, B to C , C to D, A to D and name the quadrilateral formed. *(2 marks)*

25. In a school of 1600 pupils, 60% of them are girls and the rest are boys. If 30% of the boys and 40% of the girls are in lower primary.

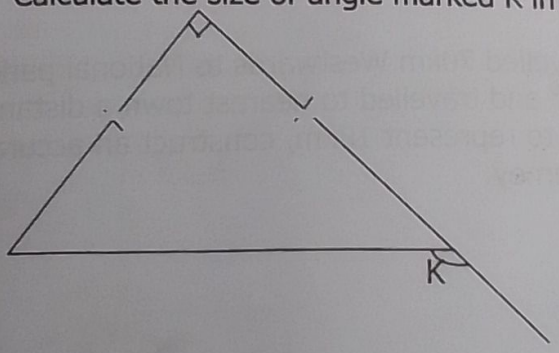
(a) Find the number of boys in the school.

(2 marks)

(b) How many pupils in the school are in lower and upper primary?

(i) Lower primary *(2 marks)* (ii) Upper primary *(1 mark)*

26. (a) Calculate the size of angle marked K in degrees. *(2 marks)*

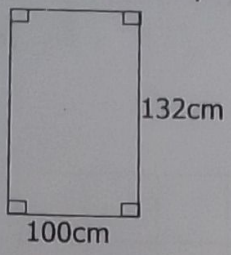


(b) The interior angle of a regular polygon is 4 times its exterior angle.

(i) How many sides has the polygon? *(2 marks)*

(ii) Work out its interior angle sum of the polygon. *(2 marks)*

27. The figure below shows a rectangular sheet of metal which is to be folded to form a hollow cylindrical tank.



(a) Work out the radius of the cylindrical tank formed. *(2 marks)*

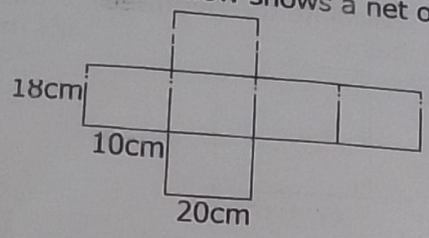
(b) Calculate the volume of the cylindrical tank formed. *(2 marks)*

28. A tourist left home and travelled 70km Westwards to National park. He then turned on a bearing of 210^0 and travelled to nearest town a distance of 60km.

(a) Using a scale of 1cm to represent 10km, construct an accurate diagram to show the tourist's journey. *(4 marks)*

(b) Find the shortest distance from the town to his home in km. *(1 mark)*

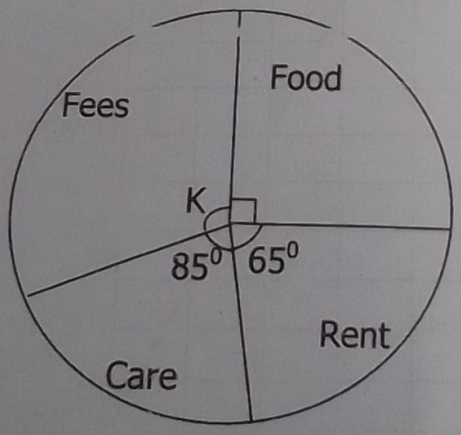
29. The figure below shows a net of a cuboid water container.



(a) Find the total surface area of the figure. *(2 marks)*

(b) How many litres of water does it hold when completely full? *(3 marks)*

30. Use the pie-chart below showing how a parent spends his income worth Shs. 240,000 to answer the questions that follow.



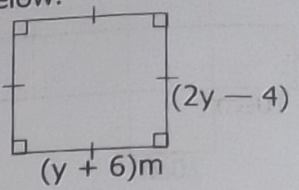
(a) Solve for the value of k in degrees. *(2 marks)*

(b) How much money does he spend on fees? *(2 marks)*

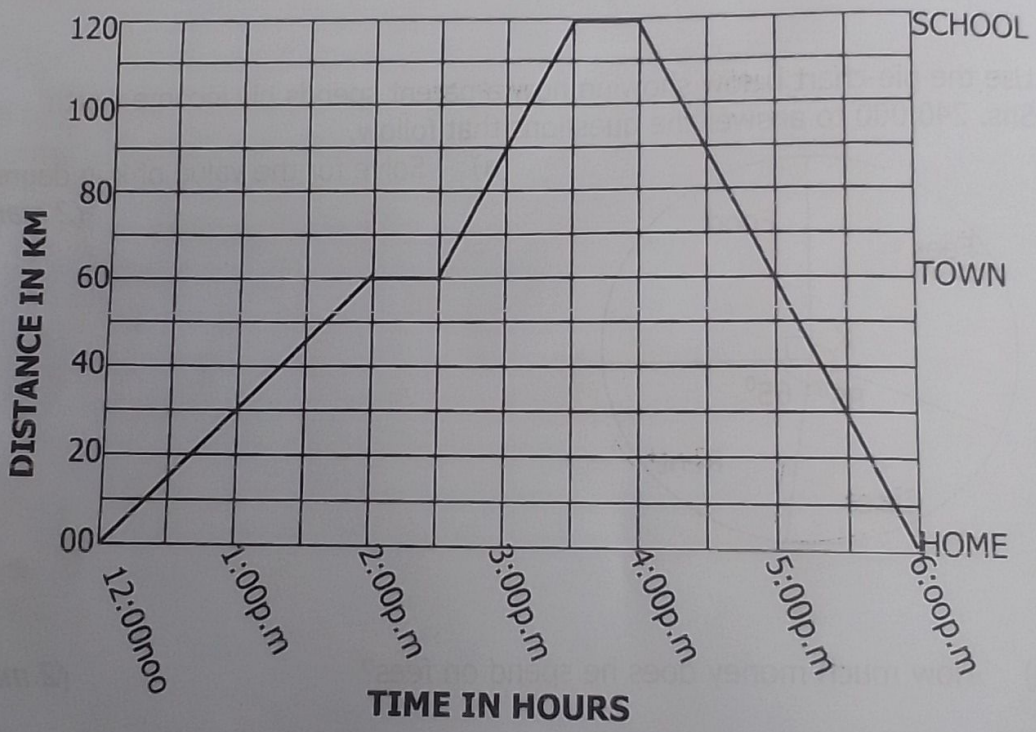
(c) Work out the ratio of food to fees expenses. *(1 mark)*

31. (a) Solve the inequality: $3a - 4 \geq 11$. *(2 marks)*

(b) Calculate the perimeter of the figure below. *(3 marks)*



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



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

(b) For how long did he rest in the whole journey? *(1 mark)*

(c) How far is the school from the town? *(1 mark)*

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

END