MASINDI DISTRICT LOCAL GOVERNMENT
PRIMARY LEAVING MOCK, 2024
MATHEMATICS

Time Allowed: 2 hours 30 minutes

	Random No.				Personal No.		
Index 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.

Turn Over

SECTION A : 40 MARKS.
Answer all questions in this section.
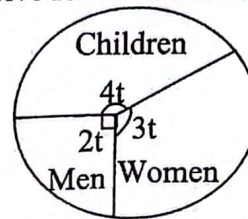*Questions 1 to 20 carry two marks each.*

1. Work out: $84 \div 7$

2. Given the sets: K = {all vowels}
   N = {e, a, t, s}

   Find n(KnN)$'$

3. Express "1 hundreds + 9 ones" in Roman numerals.

4. The pie-chart below shows the population of a village in Adjumani district.
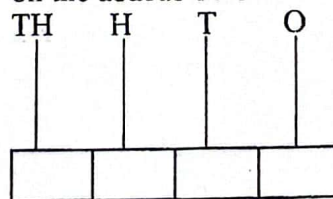   Solve for the value of t in degrees.

5. Calculate the least number of pens when divided by a class of 15 boys or 18 girls equally, leaves 11 pens as remainder.

6. A loss of Shs. 8000 was made on a dress sold at Shs. 32,000. work out its percentage loss.
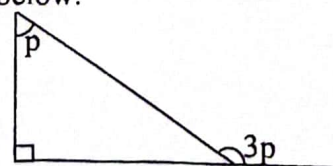
7. Change 20m/sec to km/hr.

8. Show "One thousand four hundred three" on the abacus below.


9. Simplify: $3m - 2(y + m)$

10. Find the value of p in degrees from the figure below.

11. Bottles of 500 millilitres (ml) were used to fill a 20 litre jerrycan with milk. How many full 500ml bottles were used to fully fill the jerrycan?
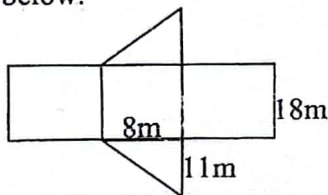
12. Change $0.\dot{5}\dot{4}$ to a rational number.

13. Using a ruler, a pencil and a pair of compasses only, drop a perpendicular line bisector from point P to meet line QR at U.

Q⊢

•P

R⌐
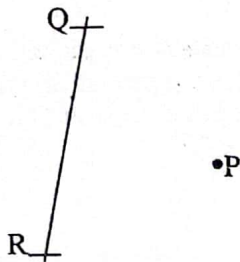
14. Express 40.7×10^{-2} as a single numeral.

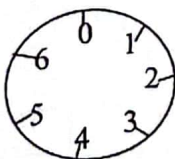15. Calculate the volume of the figure below.

8m   18m
11m

16. Abdul bought 42 pens at Shs. 9600 per dozen. How much money did he spend altogether?

17. The average age of three students is 22 years. If one of the students' age is 20 years, find the mode of their ages.

18. Solve the inequality.
$7 - x > 2x - 5$

19. Use the dial below to work out;
$4 + 5 = \boxed{}$ (finite 7)

0 1
6   2
5   3
4

20. There are 3 columns in a class. If pupils sat 20cm apart to cover a distance of 300cm in all columns, how many pupils are in the class?
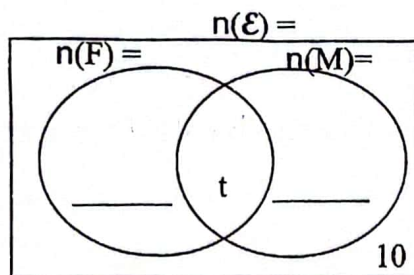
$\boxed{}$

Turn over

SECTION B : 60 MARKS
*Answer **all** questions in this section.*
Marks for each question are indicated in the brackets.

21. In a candidate class at St Maria school, $2t + 8$ candidates eat fish (F), $3t - 3$ eat meat (M), t candidates eat both fish and meat while 10 eat neither of the two dishes.

    (a) Represent the above information on the Venn diagram below. *(2 marks)*

    n(ε) =
    n(F) =   n(M)=

    t

    ____   ____
    10

    (b) Find n(ε) if 28 candidates eat fish. *(3 marks)*

    (c) If a candidate is picked randomly, what is the probability that one picked does not eat fish? *(1 mark)*

22. The exchange rates at the City Forex bureau are as below;

CURRENCY	BUYING UGANDA SHILLING
1 US dollar ($)	Ug Shs. 3700
1 Kenya Shilling (K Sh.)	Ug Shs. 129

    (a) Convert 530US dollars to Ug Shillings. *(2 marks)*

    (b) A tourist came with 18,500 Kenya Shillings to Uganda, how many US dollars did she exchange from the forex bureau? *(3 marks)*
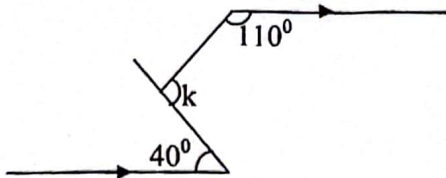
CamScanner
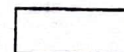
23. (a) Three angles of a triangle are in the ratio 1 : 2 : 3 respectively. Calculate the size of each angle in degrees. *(3 marks)*
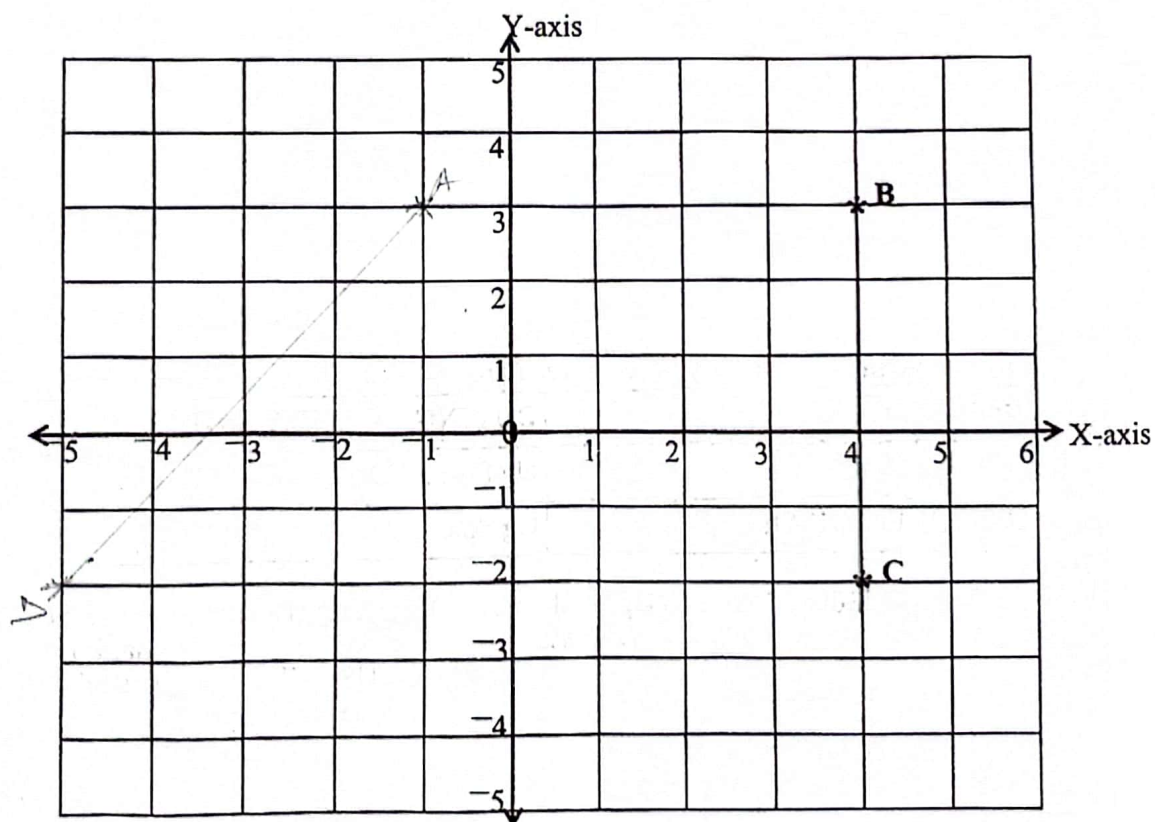
(b) Work out the size of angle k in degrees. *(2 marks)*

24. (a) On the co-ordinate graph below, state the co-ordinates for points B and C.
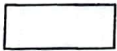(i) B *(1 mark)* (ii) C *(1 mark)*

(b) Plot the points A (⁻1, 3) and D (⁻5, ⁻2) *(2 marks)*

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

25. The rectangular sheet of metal 100cm by 88cm is to be folded to form a hollow cylinder.
    (a) Work out the radius of the cylinder formed. *(2 marks)*
    (b) Calculate the capacity of the cylinder formed in litres. *(3 marks)*

26. (a) The sum of p, p + 2 and p + 4 consecutive odd numbers is 57. Find the three numbers. *(3 marks)*

    (b) Solve for base n: $102_{three} = 23_n$. *(2 marks)*

27. With the help of a ruler, a sharp pencil and a pair of compasses only, construct a rhombus PQRS such that diagonal PR = 8cm and diagonal QS = 6cm. *(4 marks)*

28. (a) Tap A can fill a tank of water in 6 minutes only while tap B can fill the same tank in 3 minutes only.
How many minutes will two taps take to fill the tank if both taps are opened at the same time? *(2 marks)*

(b) At a class picnic, $\frac{1}{4}$ of the pupils ate rice, $\frac{2}{3}$ of the remainder ate millet while the rest ate matooke. If 50 pupils ate matooke, how many pupils are in the class? *(4 marks)*

29. The two geometric figures A and B below have the same perimeter.
Work out the area of figure A. *(4 marks)*
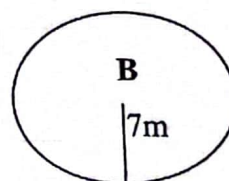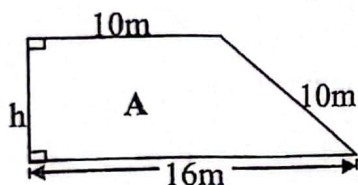
30. The table below shows different heights of pupils in a club.

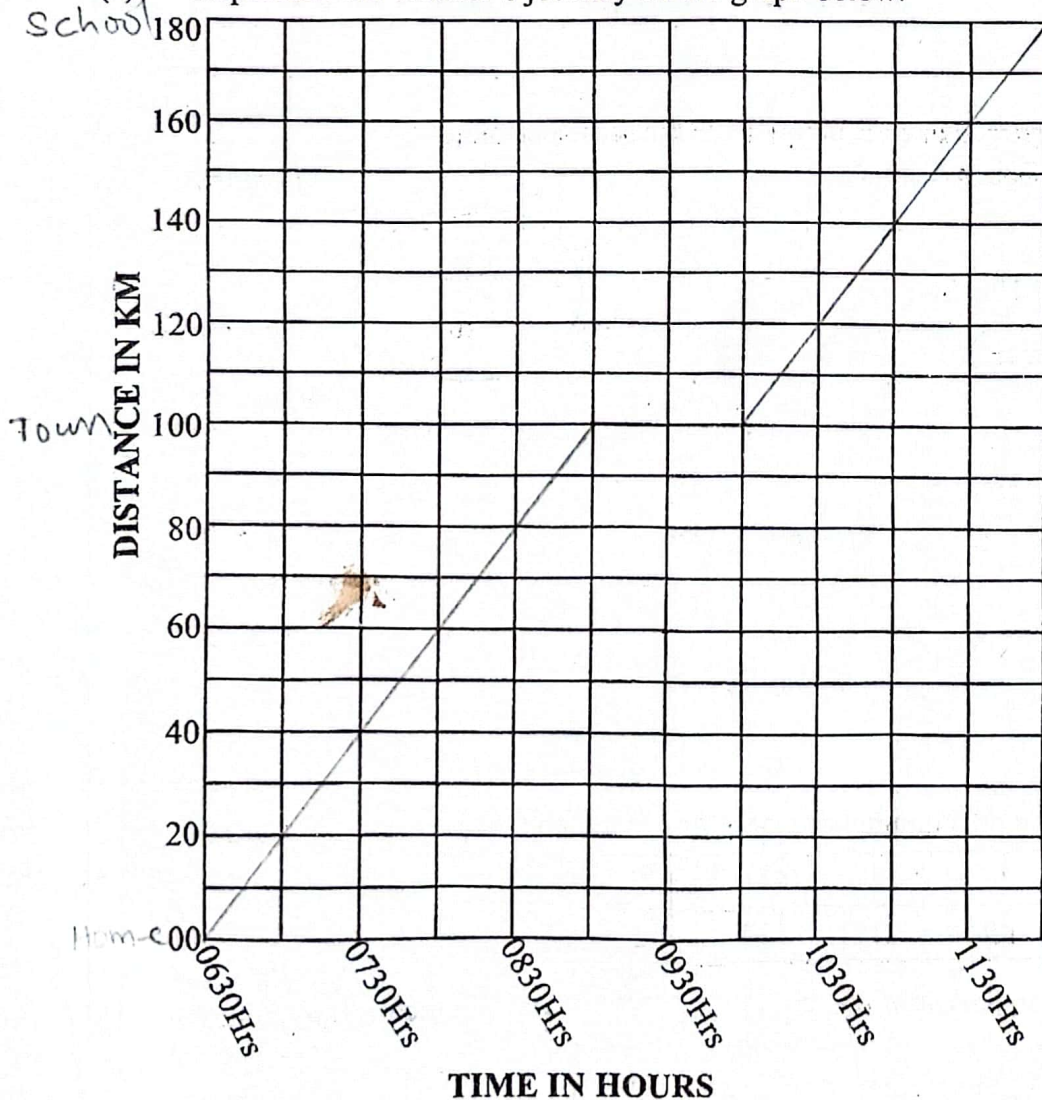| Number of pupils	2	4	1	3
Height in metres	15	10	14	12

(a) Find the median height of the pupils. *(2 marks)*

(b) Calculate the mean height of the pupils. *(2 marks)*

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31.   (a)   Solve for y: $2(3 + 3y) = 24$ (b).   The cost of a pencil is a half the cost of a
                         (2 marks)   pen. If their total cost is Shs. 1200, work
                                                        out the cost of a dozen of pens. *(3 marks)*

32.   A teacher left home at 0630Hrs driving at an average speed of 40km/hr for $2\frac{1}{2}$ hours to
       arrive town. He rested for an hour in the town and then continued to school at an average
       speed of 40km/hr for 2 hours.
       (a)   Represent the teacher's journey on the graph below.   *(3 marks)*

School 180

DISTANCE IN KM

Town

Home

TIME IN HOURS

0630Hrs 0730Hrs 0830Hrs 0930Hrs 1030Hrs 1130Hrs 1200Hrs

       (b)   Express the teacher's arrival time to school in 12-hour clock system. *(2 marks)*

                         1200Hrs
                         0000hrs