KIRYANDONGO DISTRICT PRIMARY HEADTEACHERS' ASSOCIATION

PRIMARY LEAVING MOCK ASSESSMENT

2024

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 answer or 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		

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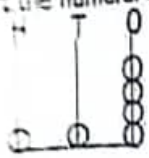
SECTION A : 40 MARKS.

Answer **all** *questions in this section.*
Questions **1** *to* **20** *carry* **two** *marks each.*

Work out: 1580 − 570

2. Convert the numeral shown on abacus below to Roman numerals.



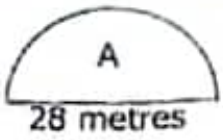
3. Given that set P = {n, e, a}
Form all subsets in set P.

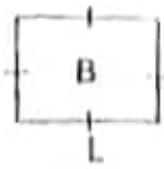
4. Use the table below to calculate the mean score.

Number of pupils	—			
Marks scored	11	31	35	40

5. Simplify: 4(p + m − 3 − 2m)

6. Figure A and square B have the same perimeter.
Calculate the length (L) of the square.





7. Solve for y: $16 \div 2^{y} = 2^{3y}$

8. A television set in a box weighs 13.8kg. Express the net weight of the television set in grams if its box weighs 0.9kg.

9. The time table below shows the journey of a taxi driver from town to school.

STATION	ARRIVAL TIME	DEPARTURE TIME
Town	_____	11 : 40a.m
School	3 : 25p.m	

(a) Change the arrival time of the taxi into 24-hour clock system.

(b) How long did the taxi take to travel from town to school?

10. Given the prime factors of P and M as;
$F_P = 2^2 \times 3 \times 5$
$F_M = 2 \times 3^2 \times 5$
Find the Lowest Common Multiple (LCM) of P and M.

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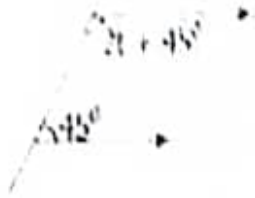
12. Use the figure below to work out the value of t in degrees.



13. A fuel pump K takes 5 minutes to draw fuel from the tank while pump M takes 4 minutes to fill it fully with fuel.
How many minutes will it take to fill the tank if both pumps are opened at the same time?

14. A fishmonger sells fish as shown on the pictograph below.

Given that ... stands for 18 fish, how much does the fishmonger earn daily if he sells each fish at Shs 15,000?

15. Write "One hundred fifty" in Roman numerals.

SECTION B

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

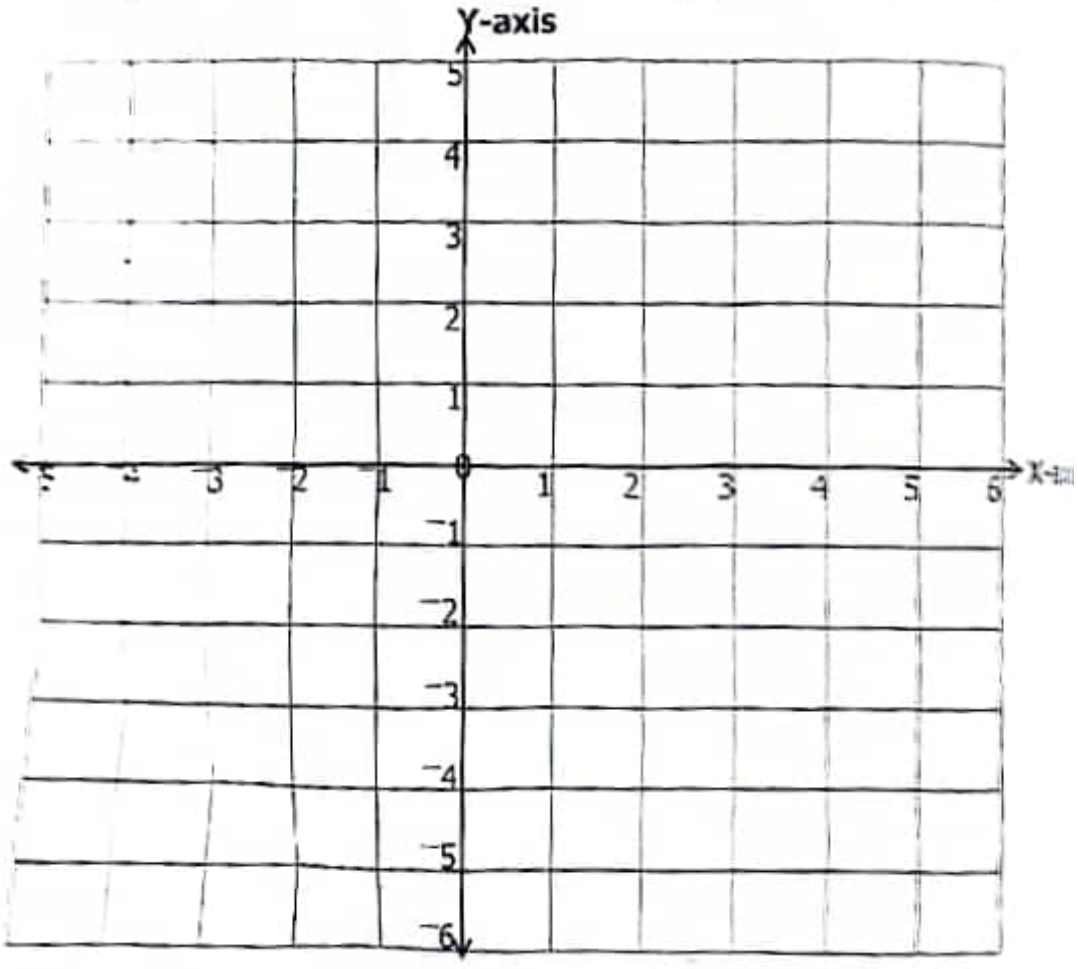
Marks for each question are indicated in the brackets.

5. Given the equation of a line; $Y = 2x - 2$.

(a) Form pairs of co-ordinates from the table below. *(3 marks)*

X	-2	-1	_____	_____	3
Y	-6	-4	-2	0	_____

(b) Plot the above pairs of co-ordinates on the grid below. *(2 marks)*



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22. (a) Simplify: $\frac{0.3 + 0.06}{1.8}$ *(2 marks)*

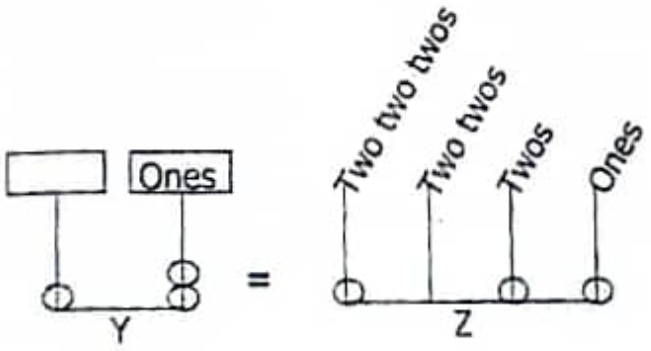
(b) Arrange $\frac{1}{2}$, $\frac{1}{3}$ and $\frac{1}{4}$ in ascending order. *(2 marks)*

(c) Abdul bought 108 shares from a municipal SACCO at a simple interest rate of 20% per annum. If each share costs Shs. 5000, what total interest did he earn in a period of $1\frac{1}{2}$ years? *(2 marks)*

23. (a) Complete the 3 by 3 magic puzzle below to find the values of p, q and r correctly. *(3 marks)*

p	12	19
q	r	14
13	20	15

(b) Use the abaci Y and Z below to answer questions that follow.



(i) Write the numeral shown on abacus Z. *(1 mark)*

(ii) Find the missing place value on abacus Y. *(2 marks)*

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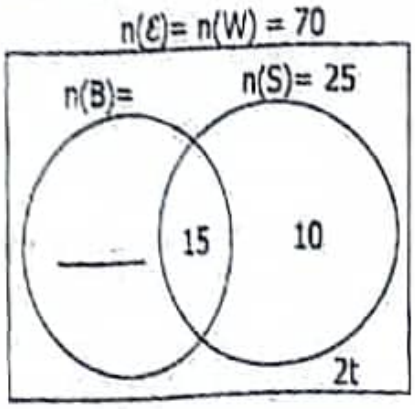
24. At a birthday picnic, all 70 guests were [illegible] guests served with soda (S), (t + 15) served with beer (B) only and 15 guests served with all three drinks while 2t guests were served with water only.

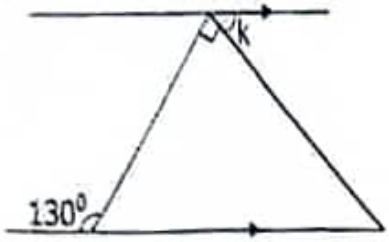
(a) Use the given information to complete the Venn diagram below. *(1 mark)*



(b) Solve for the value of t. *(2 marks)*

(c) Find the probability that a guest picked at random did not drink beer. *(1 mark)*

25. (a) Work out the size of the angle marked k in degrees. *(2 marks)*



(b) The interior angle sum of a regular polygon is 1440^0. Calculate its exterior angle. *(3 marks)*

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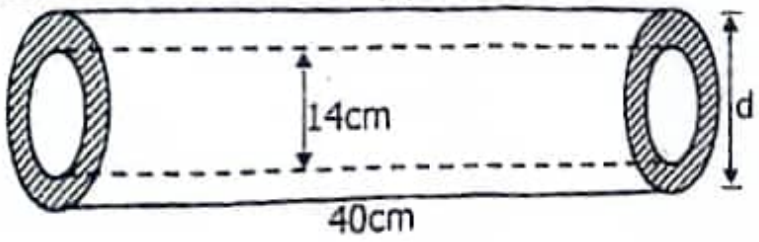
26. Hadija went shopping and bought the following items;
(i) $1\frac{1}{2}$ kg of sugar at Shs. 4000 per kg
(ii) A box of 8 bars of soap at Shs. 40,000
(iii) 3 heaps of tomatoes at Shs. 6,000
If Hadija paid Shs. 46,800 for all the items, find the percentage discount offered. *(4 marks)*

27. The volume of the concrete used to make a cylindrical metal pipe is 18480cm
Calculate the diameter (d) in centimetres. *(5 marks)*



Turn Ov

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28. A parent spends 25% of his salary on food, $\frac{1}{3}$ on rent, $\frac{1}{6}$ on fees and saves Shs. 45,000.
How much does he earn as his salary? *(4 marks)*

29. (a) A mathematical set costs three time as much as a pen from a shop.
A parent bought 3 sets and $\frac{1}{2}$ dozen of pens at a total cost of Shs. 13,500.
How much is a pen? *(2 marks)*

(b) Solve for n; $8n^2 - 5n^2 = 48$ *(2 marks)*

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30. A plane flew from airport A to airport B on a bearing of 090^0 for a distance of 800km. It then left airport B for airport C on a bearing 180^0 a distance of 500km. It then changed direction to airport D a distance of 400km on a bearing of 270^0.

(a) Sketch the journey made by the plane. *(1 mark)*

(b) Using a ruler, a pencil, a pair of compasses and a scale of 1cm to represent 100km, draw an accurate diagram to show the plane's journey. *(4 marks)*

31. Andrew used a barbed wire 52.8 metres long to fence his circular garden 40 turns.

(a) Work out the radius of the garden. *(4 marks)*

(b) If he used poles 6cm apart at Shs. 3000 per pole, how much did he spend? *(2 marks)*

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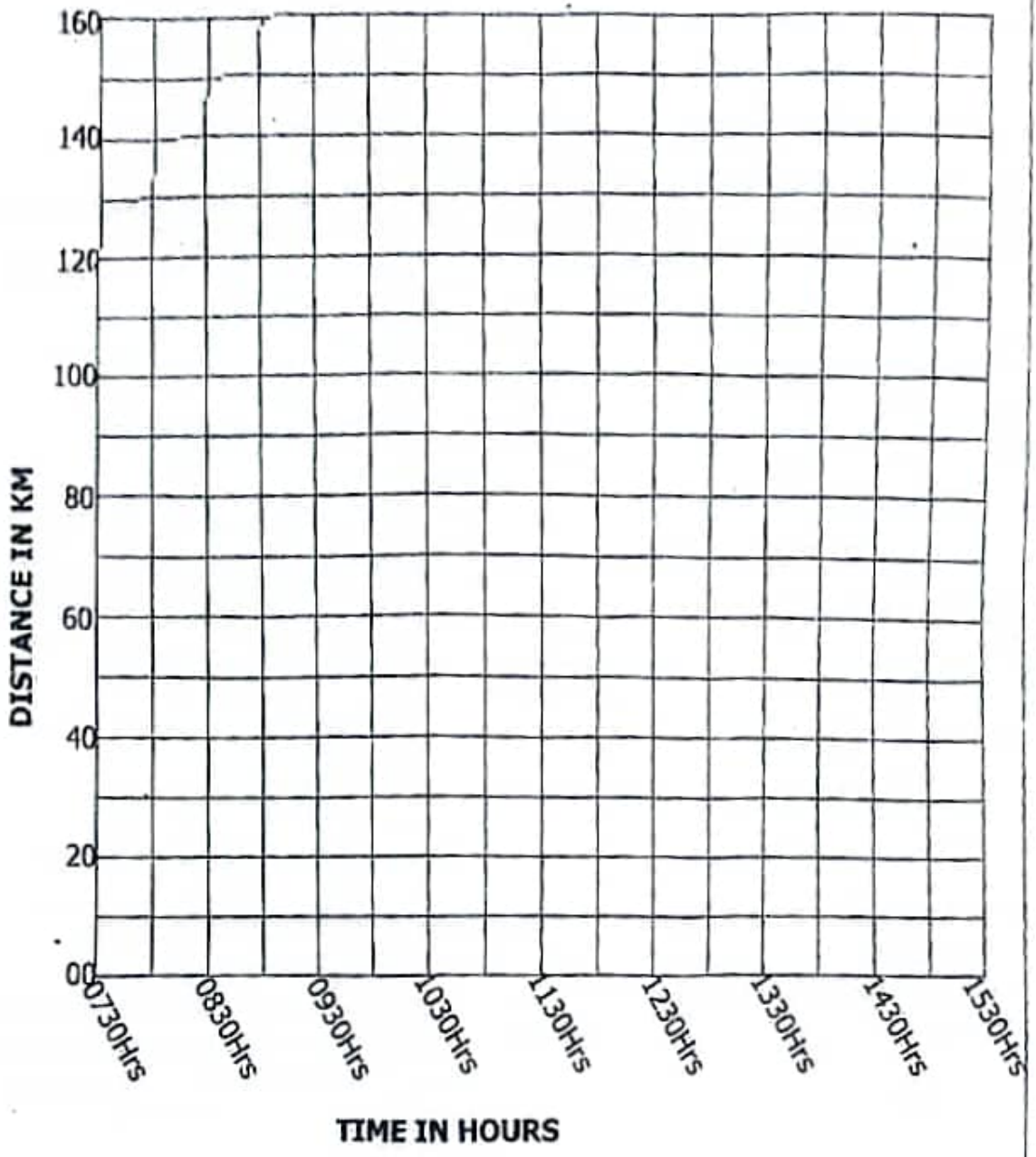
32. A school bus left school at 0730Hrs for a trip to a factory via town travelling at 40km/hr for 2 hours to reach town. It had a stop over for $\frac{1}{2}$ an hour in the town. It then left town to the factory 50km away from town for 2 hours. They toured the factory for an hour and then returned back to school at a speed of 64km/hr.

(a) Show the school bus journey on the travel graph below. *(4 marks)*



(b) Calculate the average speed of the school bus for the whole journey. *(2 marks)*

END