



VICTORY STEP EDUCATION SERVICES

**PRE-PLE EXAMINATION SUPER MAGIC SET THREE**

2022

**MATHEMATICS**

*Time allowed: 2hours 15 minutes*

EMIS No.						Personal No.		

**Candidate's Name:** .....

**Candidate's signature:** .....

**School Random No:** .....

**District ID:**

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**Read the following instructions carefully:**

1. Do not write your **school** or **district name** anywhere on this paper.
2. Section **A** and **B**. Section **A** has 20 questions and section **B** has **12 questions**. This paper has **8** pages printed together.
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 **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 examiner's use only**" and the boxes inside the paper.

FOR EXAMINER'S USE ONLY		
Qn. No.	MARK	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

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

1. Subtract 14 from 85

2. Simplify:  $5n - 4n + 6n$

3. An item that costs Shs. 15,000 has a market price of Shs. 20,000. Calculate the percentage discount.

4. Round off 54321 to the nearest ten thousand.

5. Solve:  $2(y - 3) < 14$

6. Convert 180 minutes into hours.

7. Work out the value of  $3^2 - 3^\circ$

8. Given that 1 Kenya shillings exchanges 30 Uganda shillings and 1 US dollar exchanges 2500 Uganda shillings. A trader has 75 US dollars, how much Kenya shillings does he have?

9. The interior angle of a polygon is 4 times its exterior angle. Find the exterior angle of a polygon

10. Calculate the distance around the figure below



11. In a class there are 20% more boys than girls. If the class has 30 boys  
How many pupils are in class?

12. The bearing of Kasese from Kabale is  $250^\circ$ .  
Work out the bearing of Kabale from Kasese

13. The area of the square garden is 1600 square metres. Find its perimeter.

14. Amuge deposited Sh.60,000 in a bank that gives an interest rate of 5% per month for a period of 6 months. Find the simple interest Amuge will get by the end of the period.

15. Using a protractor, draw an angle of  $70^\circ$  in the space below

16. Simplify:  $a^2(a - b)$

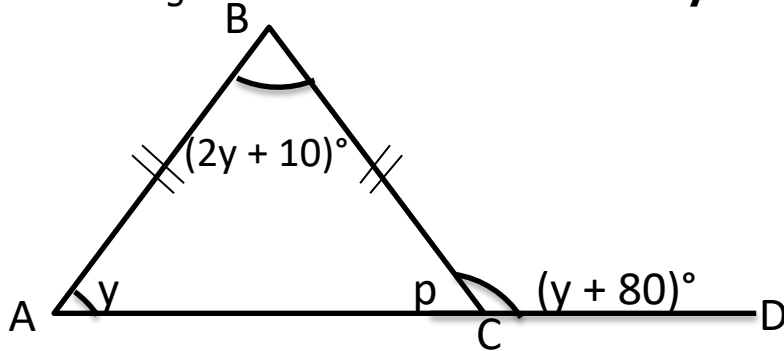
17. What number has been expanded to give  $(4 \times 10^3) + (8 \times 10^1) + (9 \times 10^{-1})$

18. Lwanga can ran 400 metres in only 45 seconds  
Experess his speed in km/hr

19. What mathematical property will  
make the statement below correct.

$$2 + 7 + 8 = 2 + 8 + 7$$

20. Use the figure below to find the value of **y**



### SECTION B: 60 MARKS

21. A father is 25 years older than his son. In ten years time , the father will be twice as old as his son. How old is the father and the son? **(03marks)**

b) Express the age of the son as a percentage of the age of the father.

**(02marks)**

22.(a) Work out  $\frac{3.6 \times 0.02}{0.018}$

**(03mks)**

(b) Simplify:  $\frac{1}{3} + \frac{2}{9} - \frac{1}{6}$

**(02mks)** 23.a) The cost of buying 300 Kenya shilling is Uganda Sh.9000. How many Kenya shilling will one buy with Uganda Sh.42000?

24(a) Simplify:  $\frac{x^0 + y^0 + z^0}{3}$

b) In this year's contest every candidate paid Sh.6000 to participate. If a school presented 50 candidates for the contest How much did the school pay?

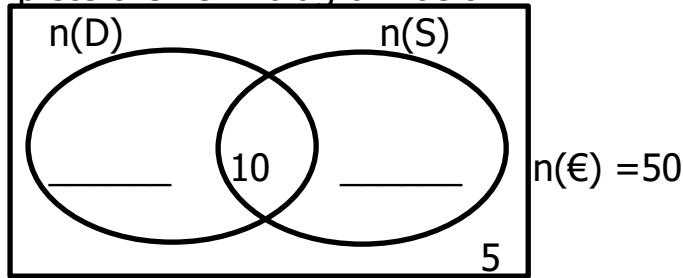
b) Solve:  $5 \times 5^{2y} = 125$

**(03mks)** 25.(a) Today is Thursday 18<sup>th</sup>, August. What day of the week was 15<sup>th</sup> April of the same year? **(05mks)**

26. The sum of 5 consecutive even numbers is 80. What is the least of the five numbers?

(b) Find the median of the number.

27. In a class of 50 members , 25 like dancing(D) q like singing(S) only , 10 like both activities while 5 do not like any of the two activities. Complete the venn diagram below.



- b) Find the number of members who like singing.

28. Stellah went shopping and bought the following items.

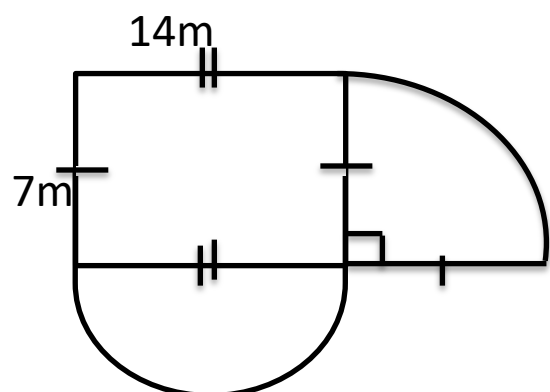
3kg of beans at Sh.3000 each kg  
 $1\frac{1}{2}$  kg of salt at Sh.1500 per kg  
 500g of meat at sh.15000 per kg  
 8 apples at 800 per apple.

- a) How much money did she spend altogether?

- b) If she was given a discount of Sh.2595.Find her percentage discount.

- 29.(a) In athletics competition which started at 10:00am. Kato , Kakuru and Musa took 30 minutes, 40 minutes ,60 minutes respectively to reach at their starting point for the first lap. If they continued running other laps.At what time will they reach again their starting point at the same time?

30. The figure below is of a banana garden.Use it to answer the questions that follow.



- (a) Find the area of the square garden.

b) Find the total distance around the square garden.

31. A plane flew from airport B , a distance of 800km on a bearing of  $090^\circ$  to airport A. It then continued its journey to the south of A a distance of 600km to airport C.

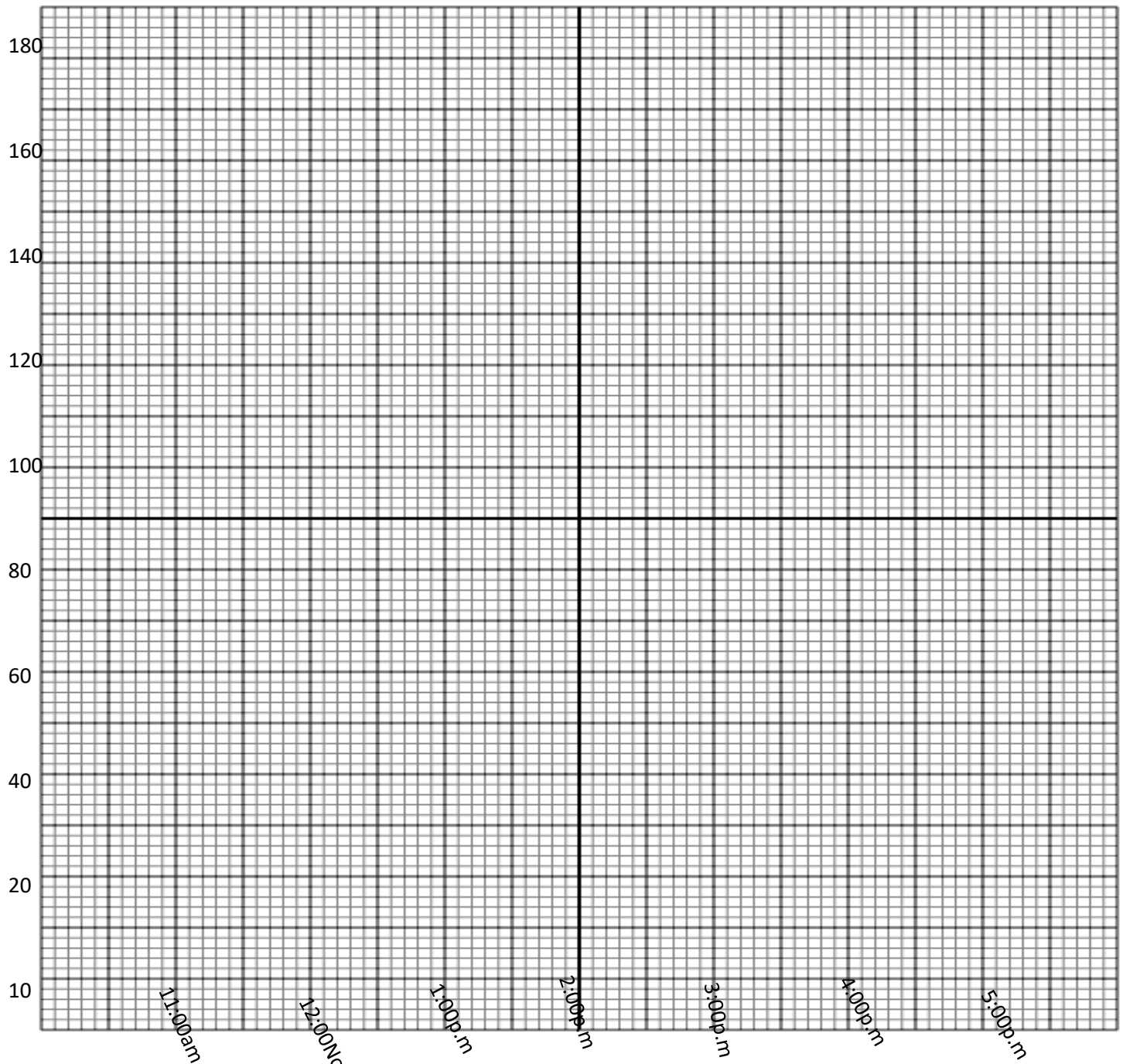
(a) Sketch the plane's movement.

b) Using a scale of 1cm:100km draw an accurate diagram to show the plane's journey.

c) Calculate the shortest distance from airport C to airport B in km.

32. A motorist drove from Kampala to Jinja through Mukono. He started the journey at 11:30am and drove at a speed of 50km/hr for  $1\frac{1}{2}$  hours. He rested at Mukono for 30 Minutes and then continued with the journey to Jinja which is at a distance of 34km/hr.

(a) Show the motorist journey on the graph below.



b) At what time will the motorist reach Jinja?



