SUCCESS ACADEMIC FOUNDATION OF UGANDA (SAFU)

P.7 END OF TERM I EXAMINATION, 2024

MATHEMATICS

Time Allowed: 2 Hours 30 Minutes

Candidate's Name: _____

Candidate's Signature: _____

School Name: _____

District Name: _____

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

Read the instructions carefully:

1. This paper is made up of Sections **A** and **B**.
2. Section **A** has 20 short-answer questions. (**40** marks)
3. Section **B** has 12 questions. (**60** marks)
4. Answer **All** questions. **All** answers to both Sections **A** and **B** must be written in the spaces provided.
5. All answers must be written using blue or black ball point pen or ink. Diagrams should be drawn in pencil
6. Unnecessary alteration of work may lead to loss of marks.
7. Any handwriting that cannot be read may lead to loss of marks.
8. Do not fill anything in the box indicated **For Examiners' Use Only.**

FOR EXAMINERS' USE ONLY

Qn. No.	MARKS	Final Mark
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31 - 32		
TOTAL		

Turn Over

Head Offices Kampala on Gadafi Rd. Plot 201,Opposite Gateway Bus Garage. Tel:0774-488552 / 0705-004736. Branches: Mityana Taxi park on Kamusese building Tel:0753396322. Tororo Tel:0782520834 / 0705508135. Bweyogerere: Busega stage 0773055943, Buloba, Kamuli

SECTION A: (40 MARKS)

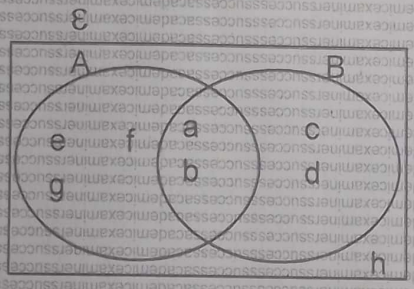
Questions 1 to 20 carry two marks each.

1. Work out: $23 - 10$

2. Express 114 in Roman numerals

3. Work out : $\frac{3}{4} \div \frac{1}{2}$

4. Use the Venn diagram below to answer the question that follow.



Find $n(A \cap B)'$

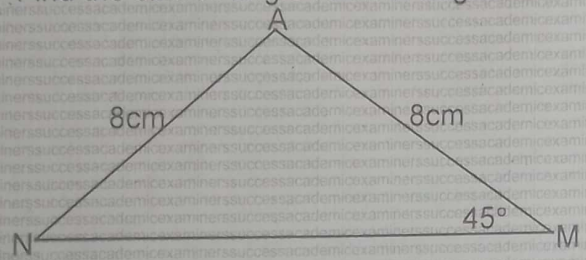
5. Arrange the following integers in a descending order : $^{-}7, ^{+}4, 0, ^{-}3, ^{+}2, ^{+}6$

6. Simplify: $3y + 4k - 2y + 4y$

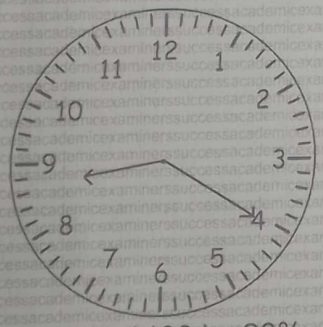
7. How many ¼ litres bottles of sanitizer can be filled in a 5 litre jerrycan placed out side the examination room?

8. Find the square root of 0.16.

9. Find the size of angle NAM in degrees.



10. A 1¼ hour mathematics lesson started at the time shown on the clock face below, when did it end?

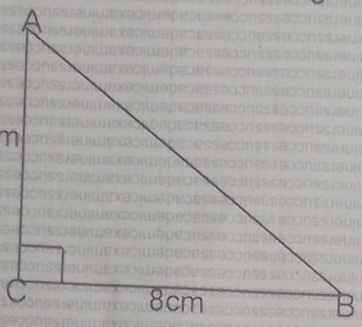


11. Increase sh. 1400 by 20%

12. Anna is thrice as old as Munaku, if the difference of their ages is 24 years, how old is Anna?

13. Using a ruler, pencil and a pair of compasses only. Construct an angle of 30°.

14. Find the length of AB in the figure below.



15. Find the next number in the sequence

1, 3, 6, 11, 18 _____

16. Change 14_{ten} to binary base.

17. A dice is tossed once, what is the probability of an even number showing up?

18. Change 72km/hr to metres per second.

19. Work out: $(30 \times 15) + (45 \times 30)$ using distributive property only.

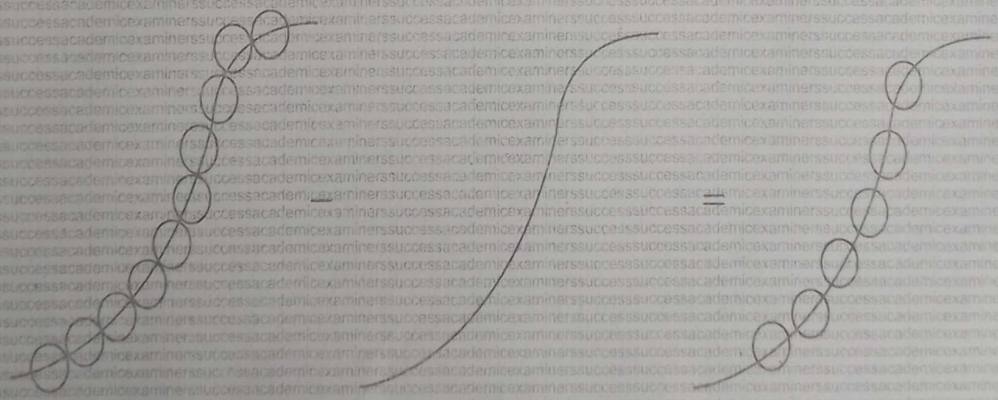
20. Find the mean of 2y, 4 , 3y and 6.

SECTION B

21. a) Fill in the missing number in the box and then write in words.

$\square + 123 = 2023$ (2 marks)

b) Draw the missing beads on the second threads to complete the subtraction statement shown below. (2 marks)

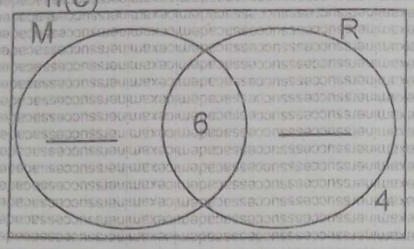


c) Write the subtraction statement shown on the threads above. (1 mark)

22. In a class of 50 pupils, 2x like only Matooke (M) 6 like both Matooke and Rice, 30 like Rice (R) while 4 like neither of the food (2 marks)

a) Complete the Venn diagram below

n(ℰ) =



b) Find the value of x. (2 marks)

c) How many pupils like Matooke? (1 mark)

23. In a school $\frac{4}{9}$ of them are girl, and the rest are boys, If there are 300 boys.

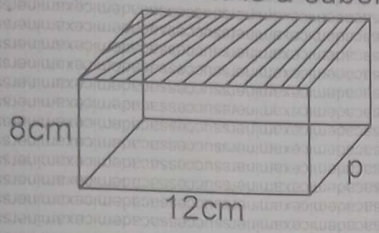
a) How many pupils are in the school? (3 marks)

b) How many girls are in the school? (2 marks)

24. a) Given that $4x^2 = y$, find y if x = 3 (2 marks)

b) Solve for y: $2^y \times 8 = 2^5$ (2 marks)

25. The figure below is a cuboid. If the area of the shaded part is 108cm2.



a) Find the value of p. (2 marks)

b) Calculate the volume of the cuboid. (2 marks)

c) Work out its total surface area. (2 marks)

26 a) Using a ruler and a pair of compasses only, construct a triangle ABC such that BC = 6cm, angle ABC = 45° and ACB = 60°. (4 marks)

b) Measure angle BAC. (1 mark)

27. A man went shopping and bought the following items
1½ litres of milk at sh. 1,800 per half litre
2kg of meat at sh. 14,000 a kg
250gm of rice at sh. 3,600 per kg
Transport at sh. 4,000

a) Find the man's total expenditure? (5 marks)

b) If he was a given a discount of 10%6, how much did he pay? (1 mark)

28 . Study the table below and answer questions that follow.

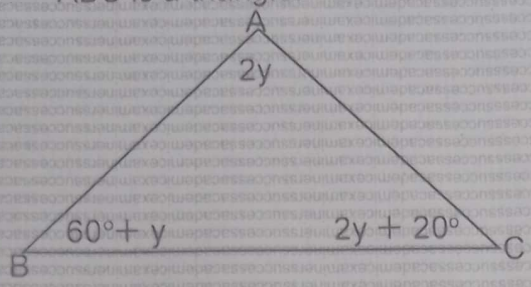
Marks	60	70	40	90
Tallies	𝍸	||	||	|

a) How many pupils in the class ? (1 mark)

b) Find the range (1 mark)

c) Work out the average score? (3 marks)

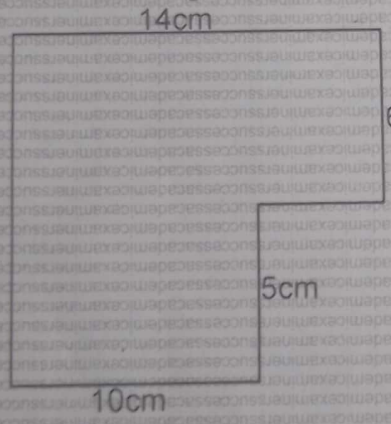
29 ABC is a triangle.



a) Find the value of y. (3 marks)

b) Find angle ABC. (2 marks)

30 Given the figure below



a) Find the area of the above figure. (3 marks)

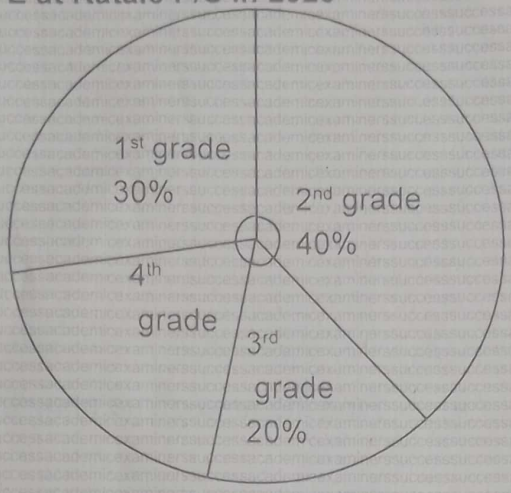
b) Calculate the distance around the figure. (2 marks)

31. A trader bought 6 packets of Soya flour each measuring 800g.

a) How many kg did he buy? (2 marks)

b) If the cost of two packets is sh. 28,000, how much 7 packets cost?(2 marks)

32. **The pie - chart below shows the grades obtained by 180 candidates who sat for their P. L. E at Katale P/S in 2020**



a) Find the percentage obtained by the 4th grade. (1 mark)

b) Express the sector for grade two in degrees (1 mark)

c) How many pupils were in grade one? (1 mark)

d) How many more pupils were in grade two than grade one? (2 marks)