

# SUCCESS ACADEMIC FOUNDATION OF UGANDA (SAFU)

## R7 MID TERM EXAMINATION, 2023



### 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		
<b>TOTAL</b>		

Turn Over



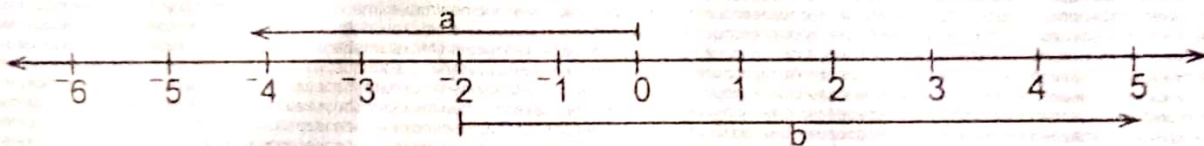
## SECTION A: ( 40 MARKS)

Questions 1 to 20 carry two marks each.

1. Work out:  $\frac{5}{7} - \frac{2}{7}$

2. Write 99 in Roman numerals.

3. Find the Integers represented by arrows on the number line below.



a = \_\_\_\_\_

b = \_\_\_\_\_

4. Mukasa is 32 years old. Represent his age using tallies.

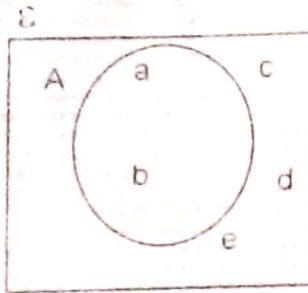
5. Round off 3523 to the nearest hundred.

6. Fati is 1.52 metres tall. What is his height in cm?



7. Divide 2121 by 3.

8. Given the Venn diagram below. Find  $n(A)$



9. Increase sh. 4,800 by 20%

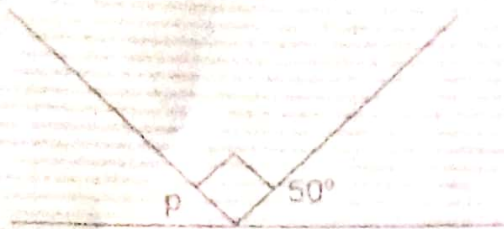
10. The average of two numbers is 30. Find their total?

11. Solve.  $2x + 4 = 14$

12. Write "Seventeen thousand eight hundred four" in figures

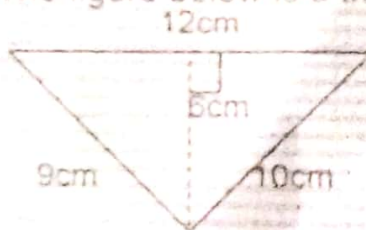


13. Use the diagram below to find the value of  $p$  in degrees.



14. The cost of four kg of sugar is sh. 1600. What is the cost of 6 kg at the same rate?

15. The figure below is a triangle. Calculate its area.

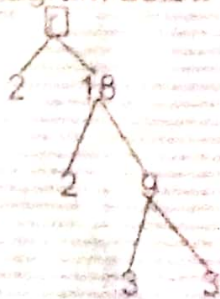


16. What is the next number in the sequence below?

36, 30, 25, 21, 18, \_\_\_\_\_

17. A car travelled at a distance of 120 km for  $2\frac{1}{2}$  hours. What is its speed in km/hr?

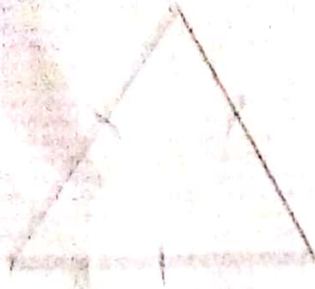
18. The diagram below shows the prime factorised method. Find the value of  $r$ .



19. There are 5 oranges, 7 mangoes and 6 apples in a basket. What is the probability of picking an apple from the basket?



20 How many lines of folding symmetry has the figure below?

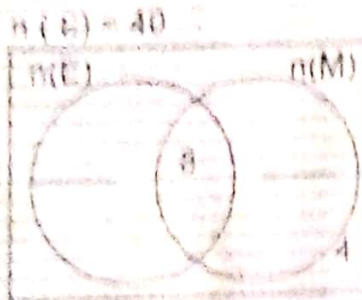


### SECTION B

21 In a class of 40 pupils, 20 like English (E),  $x$  pupils like Maths (M) only, 8 like both subjects while 4 like other subjects.

a) Complete the Venn diagram

(2 marks)



b) Find the value of  $x$

(2 marks)

c) Find  $n(M \cap E)$

(1 mark)

22 a) Work out  $\frac{1}{3} + \frac{1}{2} + \frac{1}{6}$

(3 marks)

b) Simplify  $\frac{0.25 \times 0.6}{0.05}$

(3 marks)

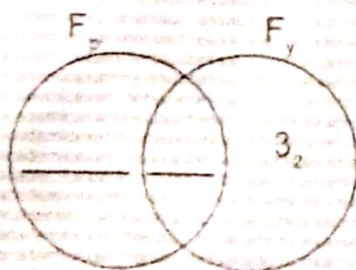


- 23 a) Using a ruler, pencil and a pair of compasses only Construct a triangle ABC such that  $AB = 6\text{cm}$ ,  $AC = 5.5\text{ cm}$  and angle  $BAC = 60^\circ$ . (4 marks)

- b) Measure BC. (1 mark)

24. Given the prime factorisation of  $F_p = \{2, 2, x, 5\}$  and  $F_y = \{2, 2, 2, x, 3\}$

- a) Complete the Venn diagram below. (2 marks)

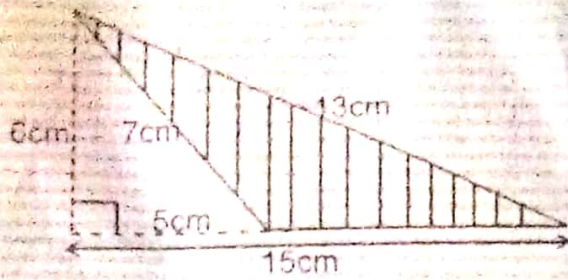


- b) Find the value of  $x$ , if the G.C.F of  $p$  and  $y$  is 12. (2 marks)

- c) Work out the value of  $p$ . (1 mark)



25. The figure below is a triangle.



a) Find the area of the shaded part. (3 marks)

b) Work out the distance around the shaded part. (2 marks)

26. Given the number 24675.

i) What number is a half the value of 4? (2 marks)

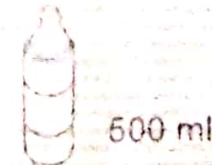
ii) Find the square of the place value of 6 in the number above. (2 marks)

27. The diagrams below are full of honey. Study it and answer questions that follow.

Bottle A



Bottle B



a) Express the number of litres in bottle A in millilitres. (2 marks)



b) How many bottles of B can be got from bottle A?

(1 mark)

c) If a  $\frac{1}{4}$  of honey costs sh. 3000, how much can one get from the sale of honey in bottle A? (2 marks)

28. The table below shows Mr. Kitaka's shopping bill.

Item	Unit cost	Total cost
3 kg of sugar	sh. 4200	sh. _____
_____ kg of cowpeas	sh. 3600	sh. 7200
$\frac{1}{2}$ kg of millet flour	sh. _____	sh. 1500
		sh. _____

a) Complete the table above.

(4 marks)

b) Apio was given a change of sh. 2500 after buying all the items. How much did he go with? (1 mark)

29. The table below shows the marks scored by a pupil in the different subject.

Subjects	ENG	MATHS	SCI	S.S.T	R.E
Marks	65	50	70	65	75

a) Find the mode.

(1 mark)



h) What did the Great Lord

1/1/1/1

h) Which animal did the people want to have?

1/1/1/1

h) Which animal did the people want to have?

1/1/1/1

h) What did the people want to have?

1/1/1/1

31. a) What is the answer?

1/1/1/1

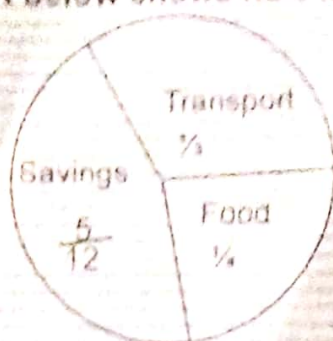
h) What is the answer?

1/1/1/1



32

The pie chart below shows how Mr. Wasswa spends his salary of sh. 240,000.



- a) Express the sector for savings in degree. (1 mark)
- b) Express the sector for food as a percentage. (1 mark)
- c) If he spends sh.120,000 on transport, how much will he earn as salary? (3 marks)
- d) How much will he spend on food? (1 mark)