KOLFRAM EDUCATIONAL SERVICES KAMPALA

THE KOLFRAM EXAMINATIONS BOARD

NATIONAL PRIMARY LEAVING MOCK EXAMINATION

2023

MATHEMATICS

*Time allowed: **2** hours **30** minutes*

Index Number:	Random Number						Personal Number		

Candidate's Name: .....

Candidate's Signature: .....

School ID: .....

District ID: .....

DO NOT OPEN THIS BOOKLET UNLESS YOU ARE TOLD TO DO SO

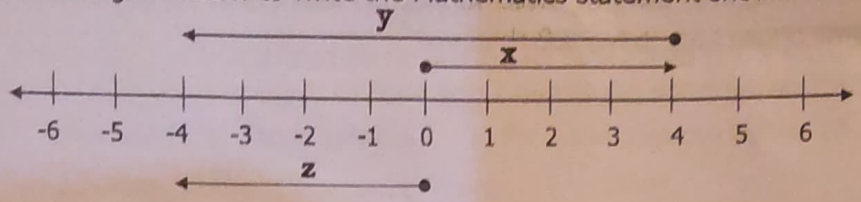
Read and follow these instructions carefully:

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 **10** printed pages.
3. Answer all questions. All answers to both sections A and B must be shown in the spaces provided.
4. All answers must be written using a blue or black ball point pen or ink. Any answer written in pencils other than on graphs and diagrams will not be marked.
5. No calculators or electronic pens 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.

FOR EXAMINER'S USE ONLY		

QN. NUMBER	MARKS	EXAMINER'S INITIAL
1 -5		
6 - 10		
11 - 15		
16 - 20		
21 - 23		
24 - 26		
27 - 29		
30 - 32		
TOTAL		

SECTION A: (40 MARKS)			
1	work out: 63 +27	2	Change 10010_{two} to be base ten
3	Arrange the following numbers beginning with the largest and ending with the smallest; 0.7070, 0.0707, 7.700, 7.070	4	A farmer has a roll of string 900 metres long. He cuts it into equal pieces, each 50 metres long. How many pieces does he get altogether?
5	Express Shs. 300 as a percentage of Shs. 1200.	6	Change 18km/hr to m/sec.
7	The average weight of 5 boys is 48kg. When a sixth boy joins them average weight becomes 45kg. What is the weight of the sixth boy?	8	Mr. Kawuuta banked 20000 sh. notes numbered from AP004300 to AP004399 consecutiveiy. How much money did he bank?

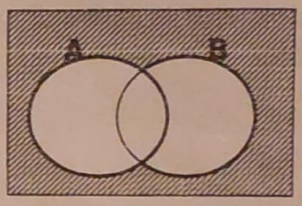
9	Use the figure below to write the Mathematics statement shown.  		
10	The cost of 6 books is shs. 4,500/= How many books did Juma buy if he went shopping with shs. 12,000 and the shopkeeper is demanding him shs. 1,500 more?	11	The range of two numbers is 12. If the smaller number is 20, find the bigger number.
12	A baby slept at 8:30 a.m. for $2\frac{1}{3} hrs.$ At what time did the baby wake up?	13	Work out: Weeks Days 6 2 - 4 5
14	If set R = {The first 8 whole numbers} List down the members of set R.	15	Factorize completely: 12 x y – 6

Turn Over

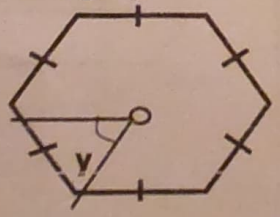
16 A school cook prepares 30kg of phoso to feed 60 learners in 20 days. How long will the same phoso take to fed 100 children?

17 How many bottles of water each 0.5 litres can be filled from a water tank of 50 litres?

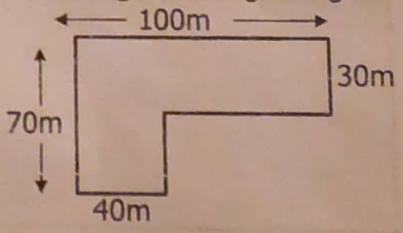
18 Describe the shaded region.



19 In the diagram below, **O** is the centre. Find the size of angle **y**.



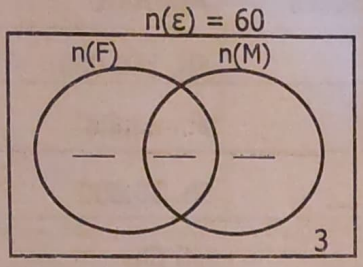
20 Find the perimeter of the figure below. All angles are right angles.



SECTION B

21 At a birthday party attended by 60 guests, 40 took Fanta (F), x took Mirinda (M), 30 took the two types of Soda and 3 guests did not drink anything.

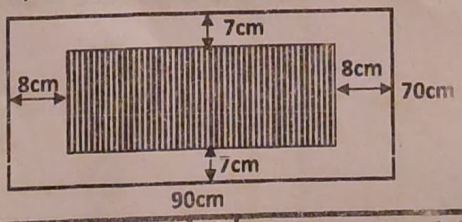
(a) Represent the above information in the Venn diagram below. *(3 marks)*



(b) How many pupils took Mirinda? *(2 marks)*

(c) How many guests took only one type of soda? *(1 mark)*

22 A piece of cloth is laid on a table 90cm long and 70cm wide as shown in the figure below. The area covered by the piece of cloth is shaded.



a) Find the length and width of the piece of cloth.

b) Find the area of the table that is not covered by the piece of cloth.

23 Mr. Kalinda went to the bank and filled in the form below.

Bank of Baroda (Deposit form)		
Denominations	**Number of notes**	**Amount**
Shs. 50000	5	Sh. 250,000
Shs. 20000	2	Sh. 40,000
Shs. 10000	(i) _____	Sh. 30,000
Sh. 5000	(ii) _____	(iii) Sh. _____
Sh. 2000	(iv) _____	Sh. 20,000
Sh. 1000	10	Sh. 10,000
Total amount		**Sh. 400,000**

(a) Complete the table. *(1 mark each)*

24 (a) Using a ruler, a pencil and a pair of compasses only, construct a rhombus ABCD with $\overline{DC}$ = 6cm and angle ADC = 60^0. *(4 marks)*

(b) Measure diagonal AC. *(1 mark)*

25 (a) Using clear working, complete the frequency table below. *(1 mark each)*

Marks	40	_____	60	20
Frequency	2	1	_____	1
Total	_____	50	300	_____

Work out the range. *(1 mark)*

Calculate the mean. *(2 marks)*

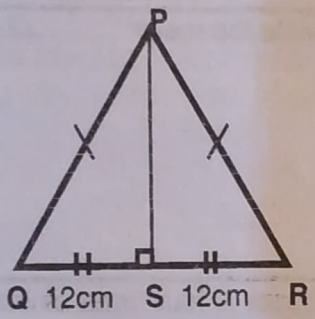
26 (a) Solve: $4y - 6 = 12 - 2y$ *(2 marks)*

b) Our Bursar is four times as old as his son. 4 years ago, their total age was 42 years. How old is the son now? *(2 marks)*

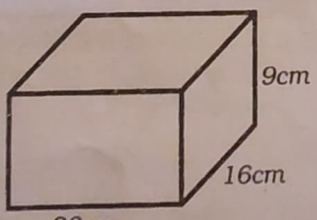
27 Sarah and Mariam shared 72 mangoes in the ratio of 7:5 respectively. How many does each get? *(3 marks)*

(b) By increasing 2000 by x% it becomes 2400. Find the value of **X**.
(2 marks)

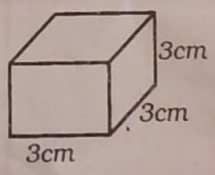
28 PQR is an isosceles triangle whose perimeter is 64cm. QS = SR = 12cm.
Calculate its area. *(6 marks)*



29 The diagram below shows a big box 30cm long, 16cm wide and 9cm high and a small box 3 cm long, 3cm wide and 3cm high.



Box A



Box B

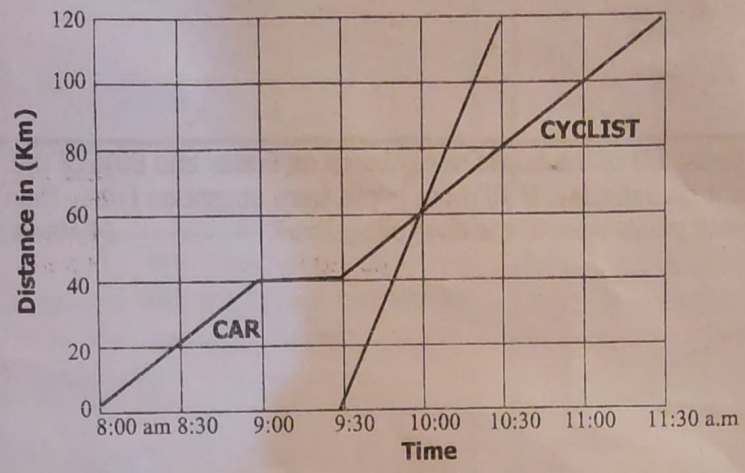
If such small boxes are to be packed into the big box,

Find the total number of small boxes that will be packed in the first layer of the big box. *(2 marks)*

How many small boxes will fill the big box? *(2 marks)*

	How many layers will fill the big box? *(1 mark)*		
30	In a primary six class, 1/3 of the pupils were absent on Friday and 80% of the pupils were present on Saturday. If 10 more pupils were absent on Friday than Saturday, how many pupils were in the class altogether? (4 Marks)		
31	The mean of the scores 7, 10, 5, 4 and X is 8.		
a)	Find the value of **X**. *(2 marks)*	b)	Work out the medium score. *(2 marks)*
c)	Find the probability that a score picked a random is below the mean. *(1 mark)*		

32 The figure below is a distance-time graph of a motorist and a cyclist travelling between two towns.



a) How long did the cyclist rest? *(1 mark)*

b) At what time did the motorist overtake the cyclist? *(1 mark)*

b) What was the average speed of the cyclist? (2 marks)

c) What was the average speed of the motorist? (2 marks)

Game Over