BISHOP DDUNGU BOARDING PRIMARY SCHOOL & UGANDA MARTYRS KATWE DAY & BOARDING PRI. SCHOOL
PRIMARY SEVEN JOINT EXAMINATION, 2023
MATHEMATICS

Time allowed:2 Hours 30 Minutes

	EMIS NO.						PERSONAL NO.		
Index No.									

SCHOOL NAME: ……..

CANDIDATE'S NAME: .....

Read the following instructions carefully:

1. This paper has **two** Sections: **A** and **B**.
2. All the working for both sections A and B must be shown in the spaces provided.
3. All working must be done using a blue or black ball point pen or fountain pen. Any work done in pencil other than graphs, pictures and diagrams will not be marked.
4. No calculators are allowed in the examination room.
5. Unnecessary changes of work may lead to loss of marks.
6. Any hand writing that cannot easily be read may lead to loss of marks.
7. Do not fill anything in the boxes indicated "**For Examiner's Use Only**".

SECTION	EXAMINER'S MARKS	T/L MARKS
A		
B		
TOTAL		

"**For Examiner's Use Only**"

FOR EXAMINER'S USE ONLY		
QN. NO	**MARKS**	**SIGN**
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31-32		
TOTAL		

Turn Over

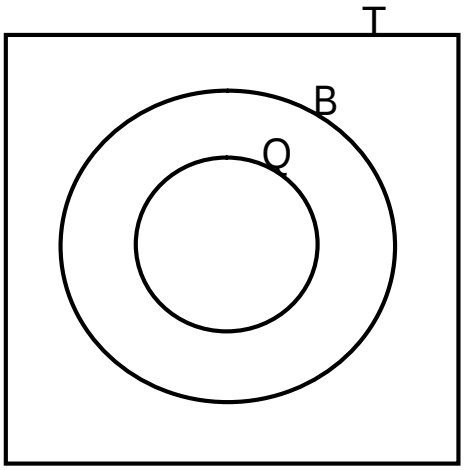
SECTIONA (40 marks)

1. Work out : 2×4

2. Write the numeral XLVIII in standard form .

3. Find the value of m in $4 - m = 1$

4. Shade $(B \cap Q)$ complement on the Venn diagram below .



5. Simplify: $^{+}7 - {}^{-}4$

6. Square the next number in the sequence below .

   27, 23, 21, 17, 15, ...

7. Express 180 seconds as minutes .

8. Amuron bought 8 apples at sh. 1,000 each. She sold them and got sh. 9,600 . Find her percentage profit .

9. Fill in the missing number in the box .

$$21 - \square = 15$$

10. The average weight of 4 pupils and their teacher is 30kg . Find the total weight of the pupils if the teacher weighs 58kg .

11. Express $\frac{3}{8}$ as a decimal number .

12. Find the number of right angles formed in a regular nonagon .

13. Simplify: $5d + 9k - 8d - 7k$

14. Work out $321_{five} - 44_{five}$

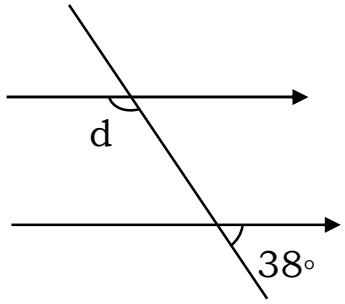
15. How many $12\frac{1}{2}$ kg sacks can be obtained from a 125kg bag?

16. Solve the inequality below .

$14 - 5r < -1$

17. The length of a rectangle is 7cm more than its width. If the perimeter of the rectangle is 34cm , find its length .

18. Find the value of **d** in the figure below.



19. Find the biggest number that can divide 12 and 16 without leaving any remainder .

20. Increase 840kg in the ratio of 13:12 .

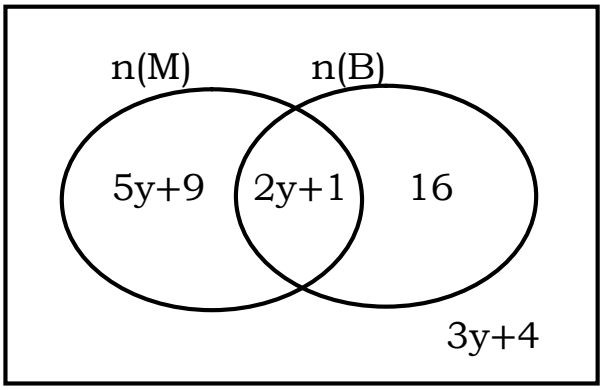
SECTION B (60 MARKS)

21. Jupiter read 111 pages of his novel in 3 days. He was reading two pages more than the previous day. If there were more pages to be read, how many pages did he read on the fourth day ?

(4 marks)

22. (a) The Venn diagram below shows the number of farmers who grow beans (B) and maize (M) . Study and use it to answer the questions that follow .

$n(\mathcal{E})=$



(a) If the number of farmers who grow either maize or beans is 40 , find the value of y . (3 marks)

(b) What is the probability of selecting a farmer at random who does not grow maize ? (2 marks)

23. Three TV stations; NTV, NBS and ABS play the MTN advert at intervals of 20 minutes, 30 minutes and 40 minutes respectively.

(a) After how long will the advert be played by the stations together? (2 marks)

(b) If they last played the advert at 10:00a.m, at what time will they play it together again ? (3 marks)

24(a) Express 414_{five} to senary base . (3 marks)

(b)If $10\mathbf{m}_{six} = 39_{six}$, find the value of **m** . (2 marks)

25. The chief guest moved from the gate to the Head teacher's office a distance of 50 metres in 2 minutes. She stayed in the office for 1 minute. She then continued to the Mathematics village covering a distance of 40 metres in 2 minutes .

(a) Find the speed she used from the gate to the Headmistress' office in m/min . (2 marks)

(b) Calculate her average speed for the whole journey in m/min. (2 marks)

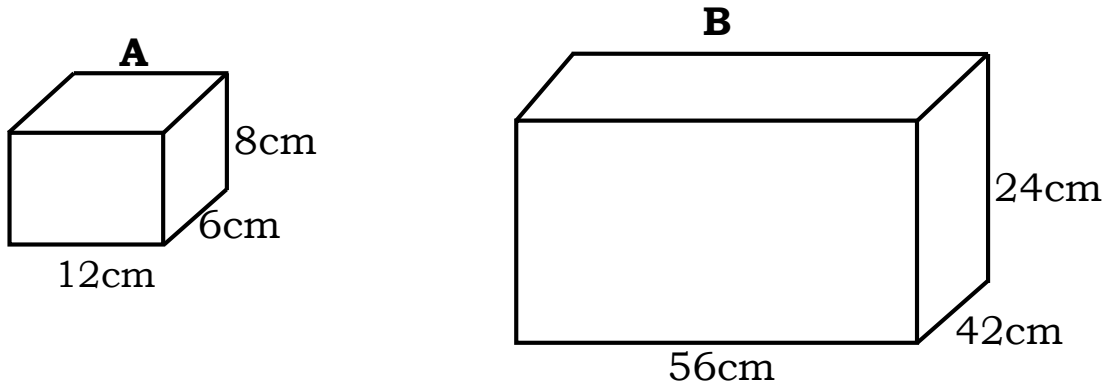
26. Given the table below. Use it to answer questions that follow .

Marks	80	x	90	60
Number of pupils	4	1	2	8

(a) If their average mark was 70, find the value of x.
(3 marks)

(b) How many pupils scored above 70 . (2 marks)

27. Below are cuboids **A** and **B** . Use them to answer the questions that follow .



(a) If the cuboids above are boxes and boxes '**A**' are packed in box **B**, what is the maximum number that can be packed ?
(3 marks)

(b) Given that they are open metallic cuboids where cuboid **A** is used to fill cuboid **B** with water. How many such full containers '**A**' can fill the big container '**B**' ? (3 marks)

28(a) Kidde went to the market with 3 notes of sh. 20,000 each and bought the following items .

$2\frac{1}{2}$kg of meat sh. 14,000 per kilo .
500g of salt at sh. 1,200 per kg .
20 oranges at sh. 1,000 every 4 oranges .
3 bars of soap at sh. 16,500 .

(a) If he was given a discount of sh. 3100, how much money did he pay ? (5 marks)

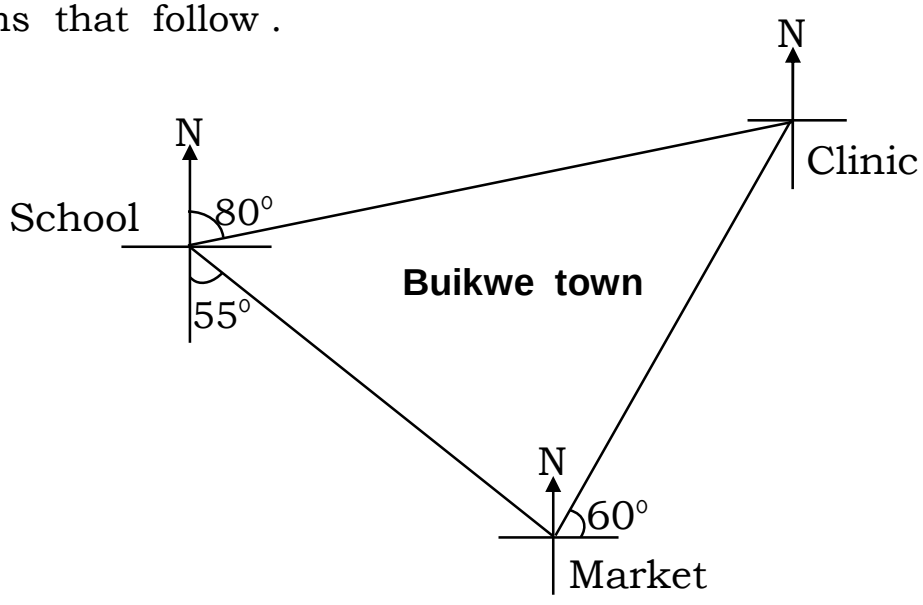
(b) Calculate his change. (1 marks)

29. The interior angle of a regular polygon is 100^0 more than its exterior angle .

(a) Name the polygon . (3 marks)

(b) Find the interior angle sum of the polygon named above . (2 marks)

30. Study the trading centre below and use it to answer the questions that follow .



(a) What is the direction of the;

(i) market from the clinic ? (1 mark)

(ii) school from the clinic ? (2 marks)

(b) Calculate the bearing of the school from the market . (2 marks)

31. Aaron , Amon and Apple contributed some money to buy a laptop in the ratio of 3:5:2 respectively. Amon contributed sh. 400,000 .

(a) How much more did Aaron contribute than Apple ? (3 marks)

(b) Express Apple's contribution as a percentage of the total contribution . (2 marks)

32(a) Odong is 7years younger than Opeta, in 10 years time, Opeta will be twice as old as Odong. How old is Odong now ? (3 marks)

(b) If $k = 2$,$m = 8$ and $c = 7$,
Find the value of $\frac{3ck}{m}$ of $6k$. (2marks)

END