BROAD EXAMINATIONS®

P.7 MATHEMATICS EXAMINATION

MOCK I 2024

Time allowed: 2 hours 30 minutes.

Random No.	Personal No.

Pupil's Name: .....

School Name: .....

District Name: .....

Read the following instructions carefully:

1. This paper is made up of two sections: **A** and **B**.
2. Section **A** has **20** questions (**40 Marks**).
3. Section **B** has **12** questions (**60 Marks**).
4. Answer **ALL** questions in both sections **A** and **B**.
5. All answers must be written in the space provided in blue or black ball point pens and ink. **Only diagrams should be done in pencil.**
6. Unnecessary crossing of answers will lead to loss of marks.
7. Any handwriting, which cannot be easily read, may lead to loss of marks.
8. Do **not** fill anything in the boxes indicated for Examiners' use only.

FOR EXAMINER'S USE ONLY		
PAGES	MARKS	SIGN
Page 2		
Page 3		
Page 4		
Page 5		
Page 6		
Page 7		
Page 8		
TOTAL		

Teacher's comment to the learner

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Approved by:

Team Head Mathematics Dept.

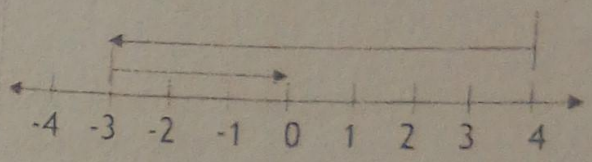
SECTION .A. (40 Marks)

1. Subtract; 93 - 63 =

2. How many tens are in 100?

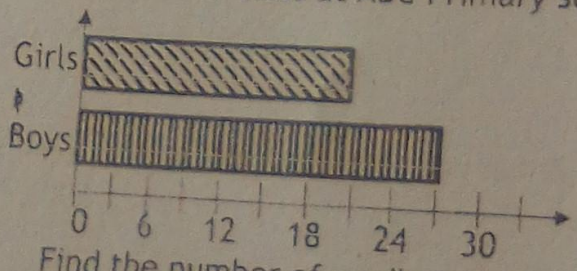
3. Set G = {t, e, a, m} and set H = {d, r, e, a, m}. Find H ∩ G.

4. What mathematical statement is shown on the number line below?



5. Find the next number in the sequence below.
1, 2, 10, 37, _____

6. The graph below shows the number of pupils in P.7 class at ABC Primary school.



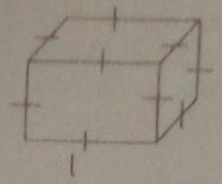
Find the number of pupils in P.7.

7. George had sh.5000 and bought 3 sugarcanes at sh.600 each. Find the change he got after paying for all sugarcanes.

8. Sally received 45% of the 800 tonnes of goods imported from China. How many tonnes did she receive?

9. What angle is made when one turns clockwise from Southeast to Northeast?

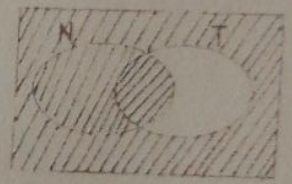
10. The total surface area of the cube below is 150cm^2.



Find the length of the cube.

11. What morning time is shown on the clock face below?

12. Describe the unshaded region in the diagram below.



13. If $2^k = 16$, find the value of k.

14. Find the place value of 9 in the number 6902.

15. The average number of pupils in P.4, P.5 and P.6 is 45. Given that there are 60 pupils in P.4 and 50 pupils in P.5, find the number of pupils in P.6.

16. Using a ruler, a pencil and a pair of compasses only, construct an angle of 150^0 in the space below.

17. A seminar which started at 11:25a.m ended at 1:05p.m. How long was the seminar?

18. A bank buys and sells one US dollar at Ug sh. 3700 and Ug sh. 3750 respectively. How much profit in Uganda shillings does the bank make after selling 5000 US dollars?

19. Express CDIX in Hindu Arabic numerals.

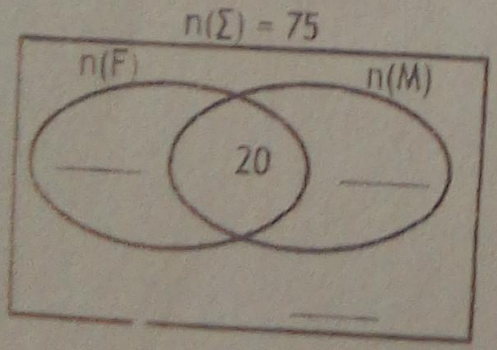
20. What number has been expanded to give $(3 \times 10^3) + (4 \times 10^2) + (7 \times 10^{-2})$?

SECTION .B. (60 Marks)

21. A group of 75 examiners were served with sodas. 50 took Fanta (F), h took Mirinda (M) only, 20 took both Fanta and Mirinda while 5 did not take any of the types of soda.

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

(b) How many examiners took Mirinda altogether?



22. A woman has two baskets containing 540 tomatoes altogether. The woman grouped all tomatoes in heaps of fives selling each heap at sh. 1500. (05 Marks)

(a) How many heaps did she make?

(b) How much money did she get after selling all the heaps?

23. Work out;

(a) $\frac{3}{14} \cdot \frac{3}{7} + \frac{5}{14}$

(b) $\frac{0.36 \div 0.3}{0.12}$

24. The average mark of these scores 2a, 60, (a+10) and 46 is 47. (05 Marks)

(a) Find the value of a.

(b) Work out the range of the scores.

25. A mother went shopping and bought the following items; (05 Marks)

A dozen of pencils for sh.4800

A pair of slippers for sh.8000

A packet of pampers for sh.14000

(a) Find her total expenditure.

(b) If the packet of pampers contained 30 pieces, how much money will she get from selling a half packet at sh.500 each piece?

26. The interior angle of a regular polygon is 36^0 more than the exterior angle.

(a) Find the size of each exterior angle of the polygon.

(b) Calculate the interior angle sum of the polygon.

27. (a) The temperature on top of a hill increased by 15^0C to 8^0C. Find the original temperature before increase.

(05 Marks)

(b) At Tripple A P/S, Mathematics teachers' workshop started on Friday and took 2 weeks. On which day of the week did it end?

28. The table below shows the arrival time and departure time of a bus from town M to town Q.

(04 Marks)

Town	Arrival	Departure
M	_____	7:30a.m
N	8:50a.m	9:00a.m
P	10:30a.m	10:45a.m
Q	12:00noon	_____

(a) Express the arrival time at town P in 24 hour clock system.

(b) Calculate the total time spent on all the stoppages on the way.

(c) If town M is about 180km from town Q, find the average speed of the bus for the whole journey.

29. (a) Simplify; $\frac{x}{6} - \frac{x+2}{12}$

(b) Solve for d; $\frac{d+3}{4} = \frac{2d+6}{5}$

30. Town X is 50km Southeast of town Y and town Z is 65km from town X on a bearing of 250^0. (05 Marks)

(a) Using a scale of 1cm to represent 10km, construct an accurate figure to show the positions of the three towns.

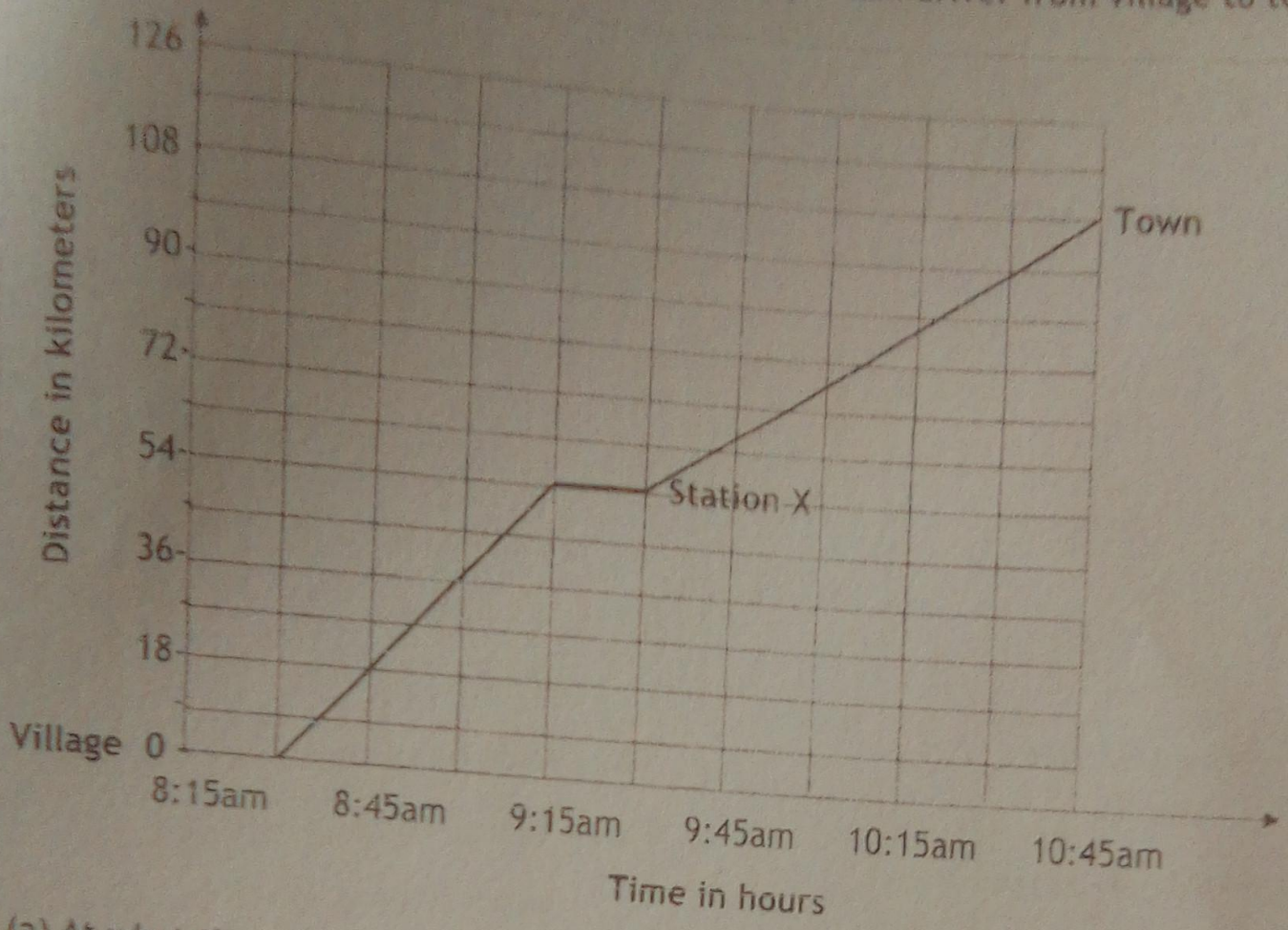
(b) Find the shortest distance in kilometres from town Z to town Y.

31. A rectangular prism is 14cm long, 8cm wide and 7cm high. (06 marks)

(a) Find its base area.

(b) Calculate the total length of all its edges.

32. The graph below shows a journey made by a taxi driver from village to town via station X.



(a) At what time did the taxi start the journey?

(b) For how long did the taxi stay at station X?

(c) How far is the town from station X?

(d) Calculate the average speed of the taxi for the whole journey.