

INTENSIVE CARE SCHOOLS WANDI

EMERGENCY MOCK SET 2024

PRIMARY SEVEN

MATHEMATICS

Time allowed: 2 hours 30 minutes

Index No.

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Candidate's Name: _____

Candidate's Signature: _____

Read the following instructions carefully:

1. The paper has **two** sections: **A** and **B**
2. Section **A** has 20 short 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 a 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 easily read may lead to loss of marks.
8. Do **not** fill anything in the boxes indicated for Examiner's use only.

FOR EXAMINER'S USE ONLY

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Qn. No	MARK	SIGN
1 – 10		
11 – 20		
21 – 30		
31 – 32		
TOTAL		

Turn over

SECTION A: (40 MARKS)
Questions 1 to 20 carry two marks each.

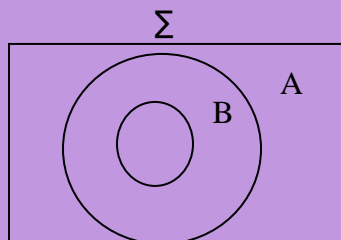
1. Work out:
$$\begin{array}{r} 24 \\ + 63 \\ \hline \end{array}$$

2. Write in figures: Nine hundred four thousand eighty.

3. Express $\frac{3}{8}$ as a percentage.

4. Simplify: $5 - 5(2y - 3) - 7y$

5. In the venn diagram below, shade B'



6. Find the next number in the sequence
169, 120, 84, 59, 43, _____.

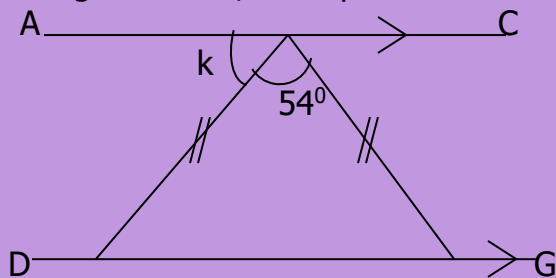
7. Using a pair of compasses, a ruler and a pencil only, construct an angle of 75° in the space below.
8. Aisha made a loss of sh.28,000 when she sold 40 textbooks for sh.120,000. What price did she buy each textbook?
9. Express 0.0065 litres in cm^3 .
10. Change 25 to binary base.
11. Solve: $7 - 3y = 11y$
12. Find the average of 27, 11, 0, 16, 17 and 19.

13. Work out: $4 \times 5 = \underline{\hspace{1cm}}$ (finite 6)

14. Simplify: $12m^5 \div 3m^2$

15. A baby slept at 8:35a.m. If the baby slept for 2hrs and 45 minutes, at what time did the baby wake up?

16. In the figure below, AC is parallel to DG. Find the value of k.



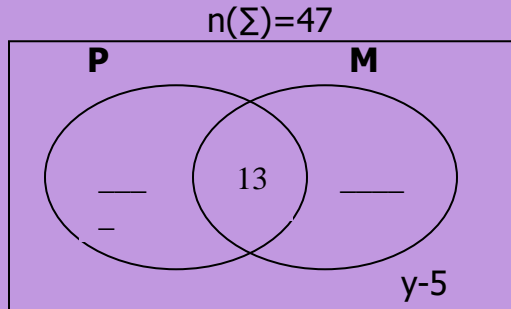
17. A bus can carry 67 passengers in a trip. How many buses will be required to carry 3752 passengers?
18. A train travelled 273km at an average speed of 78km per hour. At what time did it arrive at its destination, if it started at 8:45a.m?
19. The circumference of a circular pond 176m. Find the radius of the pond.
(Take $\pi = \frac{22}{7}$)
20. Allan had a glass $\frac{3}{4}$ full of milk. He drank $\frac{3}{8}$ of the milk in the glass.
What fraction of the glass remained with milk?

SECTION B: (60 Marks)

(Marks for each question are indicated in brackets)

21. In a class of 47 pupils, 24 drink Pepsi cola (P), $(y+6)$ drink Mirinda (M) only, 13 drink both Pepsi cola and Mirinda while $(y-5)$ drink neither of the two types of soda.

(a) Use the information above to complete the venn diagram below **(2 marks)**



(b) Find the value of Y. **(2 marks)**

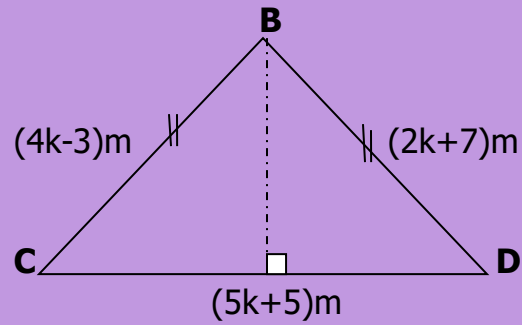
(c) Find the number of pupils who do not drink Pepsi cola. **(1 mark)**

22. (a) Round off 998 to the nearest ten. **(2 marks)**

(b) Work out: $110_{\text{two}} \times 11_{\text{two}}$

(2 marks)

23. The figure below is an isosceles triangle BCD.



(a) Find the value of k .

(2 marks)

(b) Calculate the area of triangle BCD.

(4 marks)

24. **The table below shows marks scored by the pupils in a mathematics test. Use it to answer questions that follow.**

Marks scored	70	40	30	50
Number of pupils	3	4	2	1

- (a) How many pupils did the test? **(1 mark)**
- (b) Find the modal mark **(1 mark)**
- (c) Find the mean mark. **(3 marks)**
25. Tap A can fill a tank in 4 hours, while tap B can fill the same tank in 6 hours. If the two taps are both opened at 1:30p.m. at what time does the tank fill? **(5 marks)**

26. (a) Using a pair of compasses, a pencil and a ruler only, construct a parallelogram PQRS in which $PQ=6.5\text{cm}$, $QR=5\text{cm}$ and angle $QPS= 60^\circ$.
(4 marks)

(b) Measure the length of a diagonal PR. (1 mark)

- 27 A car travels at an average speed of 15m/sec . What is this speed in km per hour?
(3 marks)

(b) A car took 1 hour 12 minutes to cover a distance of 90km . How long does it take to cover 5km ?
(2 marks)

28. Kalungi, Bogere and Ruth shared a certain amount of money in the ratio of 3:4:5 respectively. If Ruth got shs.50,000 more than Kalungi.

(a) How much did they share altogether?

(3 marks)

(b) Express Kalungi's share as a percentage of the total amount shared.

(2 marks)

29. The table below shows the exchange rates of different currencies at A forex bureau.

CURRENCY	BUYING RATE	SELLING RATE
1 united stated dollar (\$)	Ug sh.3600	Ug sh. 3,700
1 Kenya shilling (Ksh)	Uga sh. 33	Ug sh.35
1 British Pound sterling ()	Ug sh.4,300	Ug sh.4,400

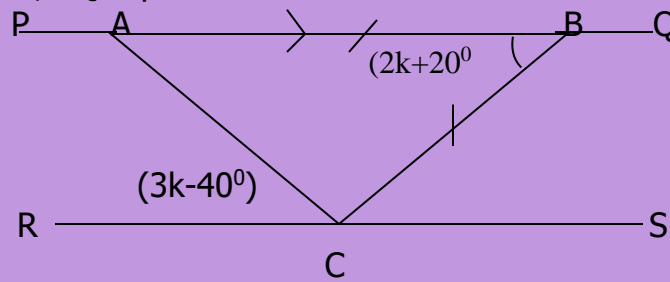
- a) If a tourist has Ug sh.2,960,000, how many US dollars can the tourist get from the forex bureau?

(2 marks)

- (b) Ssali travelled from Britain with 105. How many Kenya shillings can he get from the forex bureau?

(3 marks)

30. In the figure below, PQ is parallel to RS and AB is an isosceles triangle.



a) Find the value of k .

(3 marks)

b) Work out the size of angle CBQ

(2 marks)

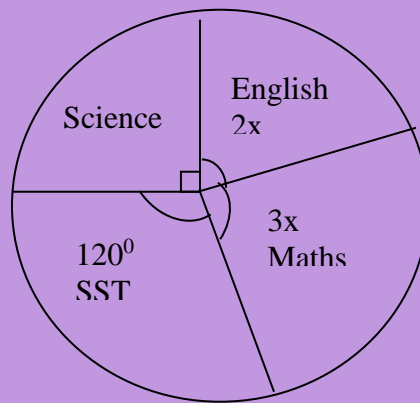
31. (a) Given that $x=3$ and $y=2$, find the value of $\frac{y^2 - xy}{x-y}$

(2 marks)

(b) Solve: $\frac{3p}{5} + 6 = 2 + p$

(3 marks)

32. The pie chart below shows the quality of books on various subjects in a certain library.



- (a) If there are 135 science books, find the number of English books in the library. **(4 marks)**
- (b) Express the number of SST books as a percentage of all books in the library. **(1 mark)**

Good Luck