

NAKASANA JOINT MOCK EXAMINATION 2025

MATHEMATICS

Time allowed: 2 hours 30 minutes

INDEX NO.									
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Candidate's Name:

Candidate's Signature:

Candidate's School:

Stream:

Read the following instructions carefully:

1. This paper has **two** 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 spaces provided.
5. All answers must be written using a blue or black ballpoint pen or ink. Diagrams should be drawn in pencil.
6. Unnecessary alteration of work will 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 box indicated for examiner's use only.

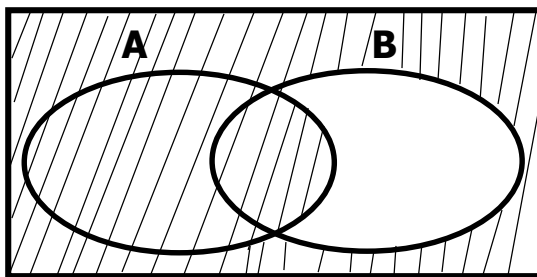
FOR EXAMINERS' USE ONLY		
QN. NO	MARK	SIGN
1-5		
6-10		
11-15		
16-20		
21-22		
23-24		
25-26		
27-28		
29-30		
31-32		
TOTAL		

SECTION A (40 MARKS)

Answer all questions in this section

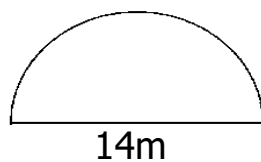
Question 1 to 20 carry two marks each

1. Work out: $56 + 12$
2. Express CDI in Hindu Arabic numeral.
3. Describe the unshaded region of the Venn diagram below.

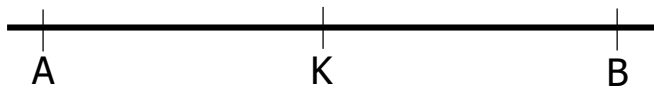


4. Work out: $\frac{2}{3} - \frac{3}{5}$
5. Write 0015hours in a 12 hour clock system.

6. Find the maximum number of boys who can share 20 or 48 sweets without leaving a remainder.
7. Correct 279.53 to one place of decimal.
8. Calculate the mean of $2d+3$, 0, $3d-1$, 6 and 2
9. A bullet which was fired moved at 150 metres in every minute. Express its speed in km/h.
10. Find the total distance around the figure below.

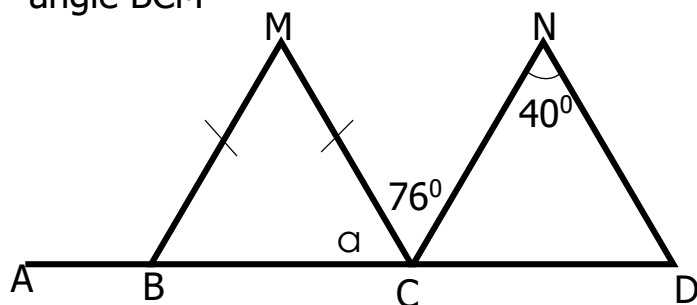


11. Represent two thousand twenty three on a bar abacus.
12. If $B = \{\text{factors of } 18\}$. Find the $n(B)$.
13. Use a ruler, a pencil and a pair of compasses only to construct an angle of 135° at k.



14. A bottle of soda contains 350ml. How many litres are in 24 similar bottles?
15. Gracious went to a supermarket with a ten thousand Uganda shilling note and bought 2 apples at sh. 2,500. She was given change in only coins of five hundred Uganda shillings. How many coins did she get?

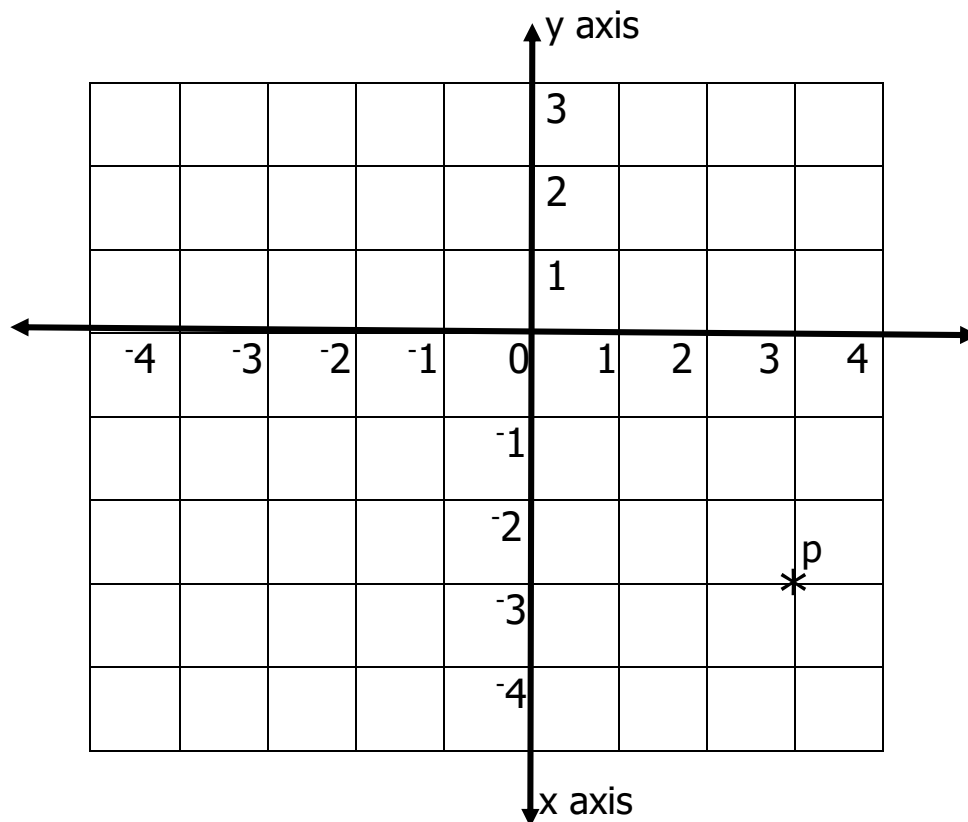
16. In the figure below, angle CDN is twice angle BCM. Find the size of angle BCM



17. The sum of three consecutive odd numbers is 93. If the second number is $k + 2$, find the value of k .

18. Given that $x = -3$, $y = 3$ and $t = 6$. Find the value of $\frac{3t - 2x^3}{y}$

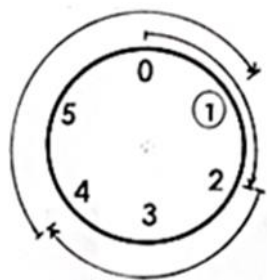
19. Use the grid below to answer the questions that follow.



a) Plot point D(-2, 3)

b) Write the coordinates of point p.

20. Write the mathematical sentence shown on the dial.



SECTION B (60 MARKS)

21. a) Work out: 100_{two}

(02 marks)

$$\begin{array}{r} - 11_{\text{two}} \\ \hline \end{array}$$

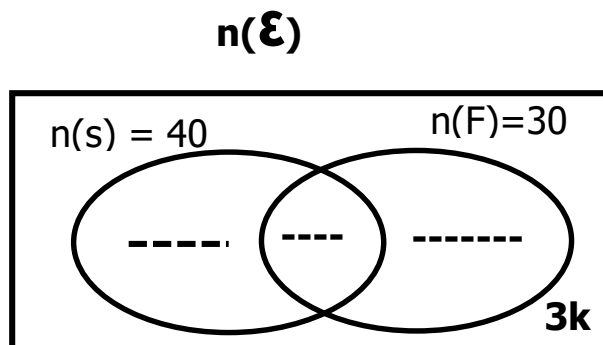
b) Given that $101_x = 1101_{\text{three}}$, find the value of x .

(03 marks)

22. In a class of 70 pupils, 40 pupils like swimming (S), 30 pupils like Football (F), $3k$ pupils like other games. Of these that like swimming, $\frac{5}{8}$ of them like swimming only.

a) Use the given information to complete the Venn diagram below.

(03 marks)

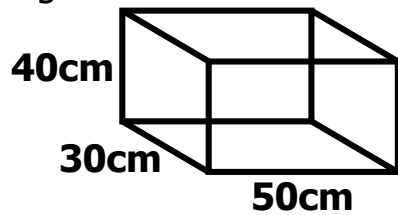


b) Find the value of k .

(02 marks)

- c) Find the number of pupils who like only one game. **(01 mark)**

23. The figure below show a cuboidal tank that was filled with water.



- a) Find its capacity in litres. **(03 marks)**
- b) Calculate the base area of a cylindrical tank of height 60cm, given that it has the same volume like the above cuboidal tank. **(03 marks)**

24. The table below shows how pupils in a certain school performed in Mock Mathematics Exam.

Mark	60	90	70	80	40
Number of pupils	9	2	16	n	3

- a) If the total marks of the pupils who scored above 70 marks is 1220, find the value of m. **(03 marks)**

b) Find the probability of getting a pupil what got 80 marks. **(02 marks)**

25. Using a ruler, a pencil and a pair of compasses only, construct a parallelogram PQRS in which $PQ=8\text{cm}$, $QR=5.2\text{cm}$ and angle $PQR=75^\circ$. Drop a perpendicular from R to meet PQ at T. **(05 marks)**

26. Victor drove from Kampala to Mbale at an average speed of 72km/h for $2\frac{1}{2}$ h. He then drove back to Kampala using the same route at a speed which was 18km/h more than the first journey.

a) How far is Mbale from Kampala?

(02 marks)

b) Calculate the average speed for the whole journey. **(03 marks)**

27. a) Solve and find the solution set for the inequality.

$$2x + 7 \leq 5x - 14$$

(03 marks)

b) Solve for the value of k

(02 marks)

$$\frac{k+2}{4} + \frac{k}{3} = 4$$

28. Below is the buying and selling rate at a certain commercial bank.

currency	Ush. 28	Ush. 30
K sh. 1	Ush. 3500	Ush. 3700
Euro (€)1	Ush. 4500	Ush. 4600

a) Convert K sh. 2500 to Uganda shillings.

(03 marks)

b) Ben exchanged € 1480 to United States dollars (\$). How many Us dollars did he get?

(02 marks)

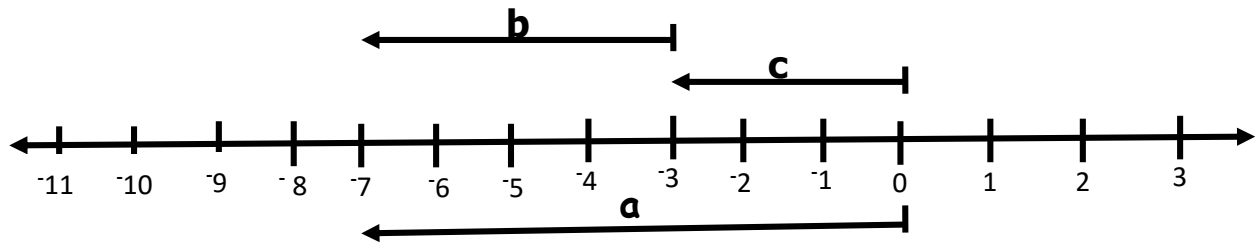
29. a) Find the square of $1\frac{2}{3}$

(02 marks)

b) A square garden covers an area of 1024m^2 . Find its perimeter.

(03 marks)

30. a) Write down the integers indicated by the arrows. **(03 marks)**



a = _____ b = _____ c = _____

- b) Write down the subtraction sentence for the above numberline. **(02 marks)**

31. Three people Able, Ben and Chad shared a certain amount of money.
Able got sh. 6000, Ben got sh. 9000 and Chad got 40% of the money.

- a) How much money was shared altogether? **(03 marks)**

- b) What percentage of the whole amount did Able get? **(02 marks)**

32. Two numbers **a** and **b** are in the ratio of 2:3 respectively. If their LCM is 120, find the two numbers. **(04 marks)**

END