

MPIGI DISTRICT ACADEMIC BOARD PLE MOCK EXAMINATION 2022

MATHEMATICS PAPER

Time Allowed: 2 hours 30 minutes

Pupil's Name: _____

Index No : _____

Random No:

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Personal No.

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Signature : _____ District: _____

School: _____

**DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO
READ THE FOLLOWING INSTRUCTIONS CAREFULLY**

1. The paper is made up of **two** sections: **A & 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 & B**
5. All answers must be written in the spaces provided in **BLUE** or **BLACK** ink. Only diagrams should be drawn in pencil.
6. **Unnecessary crossing** of work will lead to **loss of marks.**
7. **Poor handwriting**, which cannot be easily read may lead to **loss of marks.**
8. Do not fill anything in the boxes shown
"For Examiner's Use Only"

FOR EXAMINERS' USE ONLY

QN. NO.	MARKS	EXAMINER'S INITIALS
1 - 10		
11 - 20		
21 - 23		
24 - 26		
27 - 29		
30 - 32		
TOTAL		

DOS' COMMENT & ADVICE TO THE LEARNER

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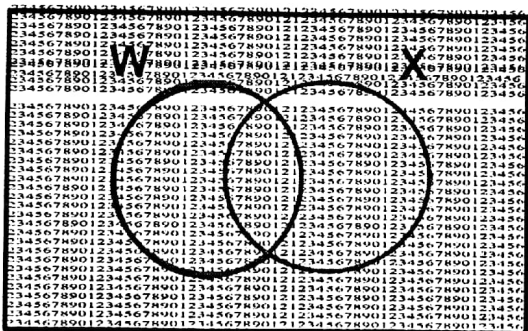
SECTION: A (40 MARKS)

1. Add:

$$\begin{array}{r} 420 \\ + 36 \\ \hline \end{array}$$

2. Write “**Thirty seven thousand forty**” in figures.

3. *Describe the shaded region on the venn diagram below.*



4. Simplify: $6y - y - w + y + 5w$

5. Use the distributive property to work out;
 $(24 \times 8) + (76 \times 8)$

6. Round off **587** to the nearest hundreds.

7. The unshaded fraction on the figure below represents the journey covered by Andrew.



If he still had **12km** to be covered, how long was the whole journey?

8. How many lines of folding symmetry does the figure below have?



9. Find the next number in the sequence below.

2, 6, 18, 54, _____.

10. Musa cut a 20metre string equally into 4 pieces. Find the length of each piece in centimetres.

11. Find the range of these integers;

-6, +8, -2, 0 and +2

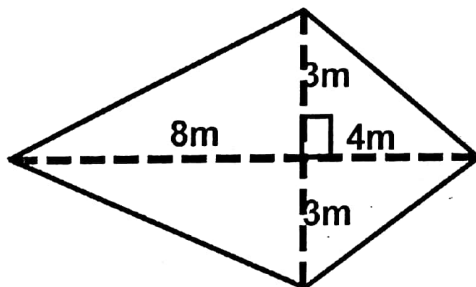
12. **Given that set;**

$K = \{\text{All prime numbers less than } 10\}$

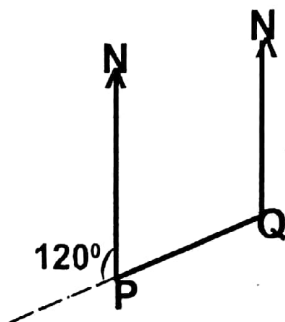
$T = \{\text{All odd numbers between } 0 \text{ and } 10\}$

Find $n(K \cap T)$

13. **Calculate the area of the figure below.**



14. In the figure below, find the bearing of **P** from **Q**.



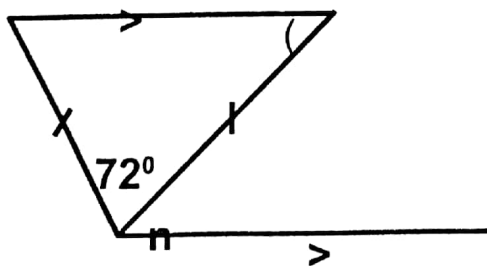
15. Using a pair of compasses, a ruler and a pencil only. Construct an angle of 45° in the space below.

16. Work out:

	Hours	Minutes
	1 8	4 5
+		
	1 2	4 0
	<hr/>	
	<hr/>	

17. The mean of 4, $2x$ and 8 is 6.
Find the value of x .

18. Find the size of the angle marked n in degrees.



19. Find the sum of values of 6 and 8 in the number 6 9 4 . 0 8 3.

20. Solve for m. $3m - 2 = 4 \pmod{5}$

SECTION: B (60 MARKS)

21a) Use the abacus to work out;

$$\begin{array}{r} 145 \\ + 21 \\ \hline \end{array}$$

(3 Marks)

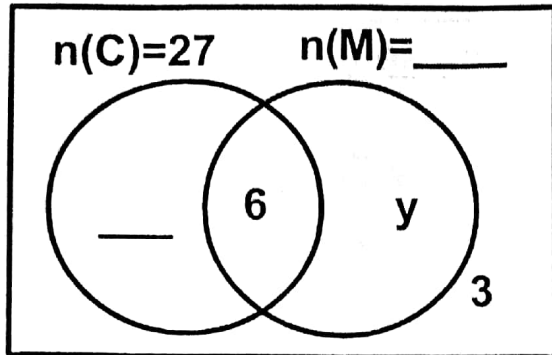
b) What number has been expanded to give;
 $(2 \times 10^3) + (9 \times 10^1) + (5 \times 10^0) + (5 \times 10^2)$?

(2 Marks)

22. In a village of 43 farmers, 27 of them grow Cassava (C) and y grow Maize only (M) 6 farmers grow both crops and 3 do not grow any of those two crops.

- a) Complete the venn diagram below using the above information.

$$n(\Sigma) = 43$$



(2 Marks)

- b) Find the value of y .

(2 Marks)

- c) How many farmers do not grow Cassava?

(1 Mark)

23. In a club, $\frac{1}{3}$ of the pupils are boys, $\frac{2}{3}$ of the boys and $\frac{1}{4}$ of the girls like swimming. The club has 720 pupils.

- a) How many pupils like swimming?

(4 Marks)

b) What percentage of the pupils in the club do not like swimming?

(2 Marks)

24. Nantale went to the market and bought these items.

2kg of rice at Shs. 3500 per kg.

$1\frac{1}{2}$ kg of sugar at Sh. 2000/- for every 500g.

24 oranges at Shs. 1500 for every 8 oranges.

3 bars of soap at Sh. 9000/-.

a) How much money did she spend altogether?

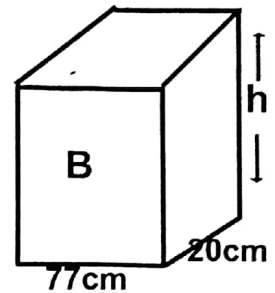
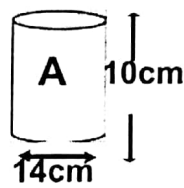
(4 Marks)

b) If she was given 10% discount, how much money did she pay?

(2 Marks)

25. In the figure below 100 tins of milk of A were used to fill container B with milk.

a) Find the value of h .



(4 Marks)

b) How many litres of water can tin A hold when full?

(2 Marks)

26. The interior angle of a regular polygon is 90° more than the exterior angle.

a) Name the polygon.

(3 Marks)

b) Find the sum of all interior angles of the above figure.

(2 Marks)

27. A driver travelled at a speed of 50km/hr from town X to town W.
He travelled from town W back to X at a speed of 70km/hr.
The total time taken for the whole journey was 6 hours.

a) Find the distance between the two towns A and B.

(3 Marks)

b) How much time did he take on the return journey?

(2 Marks)

28a) Simplify: $\frac{0.24 \times 0.3}{0.06 \times 0.08}$

(3 Marks)

b) Work out: $\frac{5}{12} - \frac{2}{12}$

(2 Marks)

29. The sum of three consecutive odd numbers is 69. The last number is n . Work out the product of the first and second number.

(4 Marks)

- 30a) Using a ruler a pencil and a pair of compasses only. Construct a triangle KLM such that line $KL = 6\text{cm}$, line $KM = 5.5\text{cm}$ and angle $LKM = 120^\circ$.

(3 Marks)

- b) Measure line LM in centimetres.

(1 Mark)

31. Find the value of x , w , p and y in the magic square below.

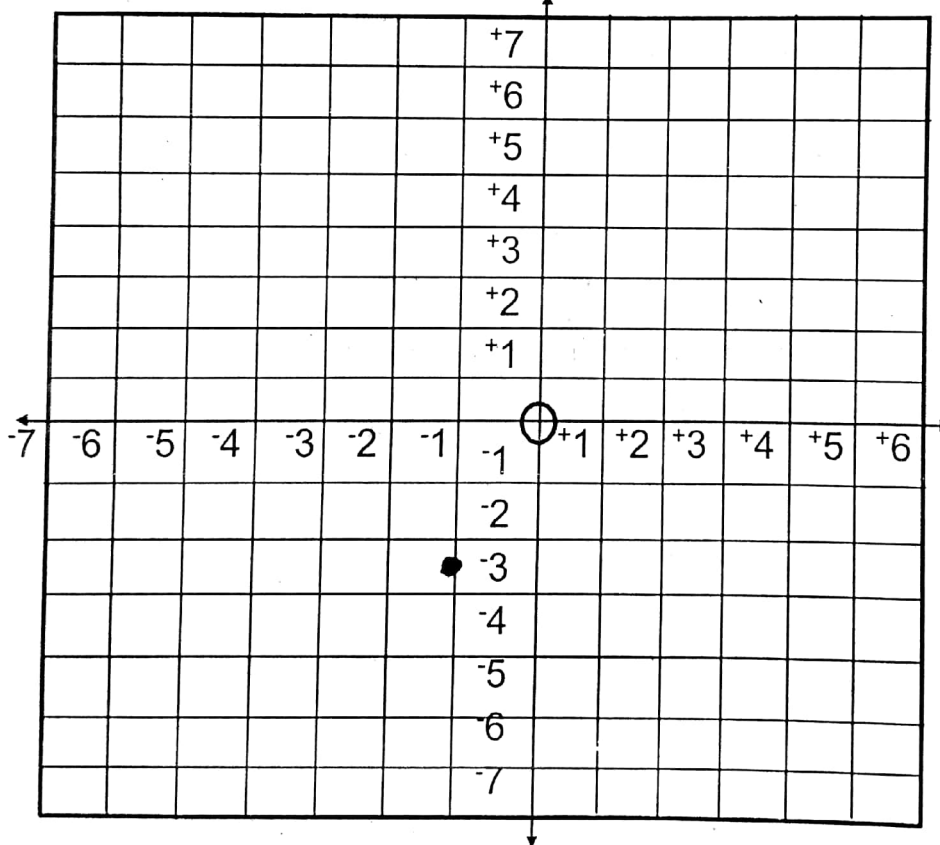
8	w	6
x	5	p
4	9	y

(5 Marks)

32a) Plot the following co-ordinates on the grid below.

$P(+1, 2)$, $Q(+4, 0)$, $R(+1, -2)$ and $S(-4, 0)$

(4 Marks)



b) Join and name the figure.

(1 Mark)