



THE DESTINY ACADEMIC RESEARCHERS CONSULTANCY - KAMPALA

THE PLE UNIQUE PREPARATION SERIES

(2024 PRE-PLE SET ONE)

MATHEMATICS

Index No.

Random No.						Personal No.		

Time Allowed: 2 hours 15 minutes

Candidate's name:

Candidate's signature:

School Random number:

District No.

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Read the following instructions carefully:

1. Do not write your **school** or **district name** anywhere on this paper.
2. This paper has two sections: **A** and **B**. Section **A** has **40** questions and section **B** has **15** questions. The paper has **12 printed pages** altogether.
3. Answer **all** questions. **All** the working for both sections **A** and **B** must be shown in the spaces provided.
4. **All** working must be done using a **blue** or **black** ball point pen or ink. Any work done in pencil other than graphs and diagrams will **NOT** be marked.
5. Unnecessary **changes** in your work and handwriting that cannot easily be read may lead to loss of marks.
6. Do not fill anything in the table indicated:
"For examiners' use only" and the boxes inside the question paper.

FOR EXAMINER'S USE ONLY		
Qn. No.	MARKS	EXR'S NO.
1 - 10		
11 - 20		
21 - 30		
31 - 40		
41 - 50		
51		
52		
53		
54		
55		
TOTAL		

SECTION: 40 MARKS

**Answer all the questions in this section.
Questions 1 to 20 carry two marks each**

1. Work out. $126 - 98$

2. Write 24096 in words.

3. Given that set $M = \{\text{odd numbers less than } 10\}$. Find $n(M)$.

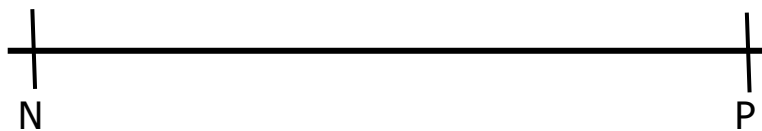
4. Work out: $-3 - -7$

5. Express 2600ml as litres.

6. Find the next number in sequence.
62, 51, 44, 39, 36,

7. Peter drove at a speed of 40m/sec. express Peter's speed in kilometres per hour.

8. Using a pair of compasses, a ruler and pencil only, construct a perpendicular bisector through line NP.



9. A man deposited Shs 240,000 in the bank at a rate of 10% per month, how much interest did he get after five months?

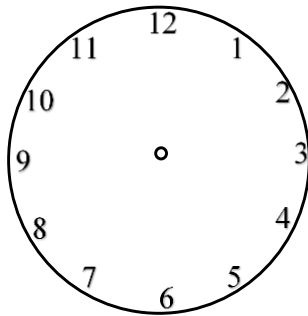
10. Use distribute property to work out. $(37 \div 5) + (13 \div 5)$

11. Given That;

$$P_{fq} = \{2_1, 2_2, 3_1, 3_2\}$$

$P_{fw} = \{2_1, 2_2, 2_3, 3_1\}$ find the greatest common factor of Q and W.

12. Represent a half past eight in the clock face below



13. Given that $r = p = -5$ and $m = 7$. Find the value of $mr + p^2$

14. Set W has 31 proper subsets, how many elements does set W have?

15. 6 men take 8 days to plough a garden. How long will 4 men working at the same rate take to plough the same garden?

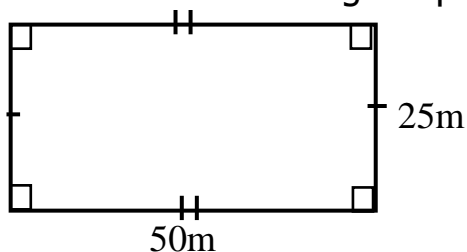
16. Round off 2894 to the nearest hundreds.

17. Simplify; $5(r+2q) - 2(r+3q)$

18. A basket has 25 fruits, 12 of the fruits are mangoes while the rest are apples. If a fruit is picked at random from the basket, what is the probability of picking an apple?

19. The cost of 3kg of sugar is Shs. 10,500. What is the cost of 5kilograms of sugar?

20. Andrew fenced his rectangular plot below.



If the fencing poles were 5metres apart, how many poles did he use?

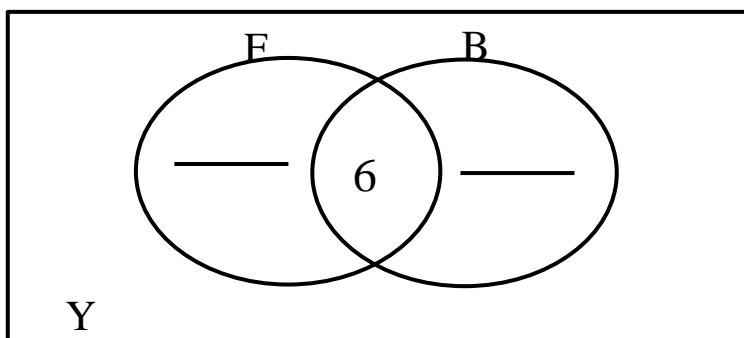
SECTION B: 60 MARKS

Answer all questions in this section

Marks for each quesstio are indicated in brackets.

21. In a class, $(Y+4)$ pupils play football (F) only, 2y Play basketball (B), 6 play both games while Y play neither of the two games.

a) Use the above information to complete the Venn diagram. (1 mark @)

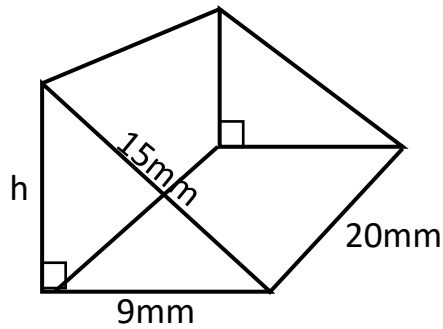


b) If 25 pupils play either football or basketball, find the value of Y. (2 marks)

c) How many pupils are in the class?

(2 marks)

22. Use the figure below to answer the questions that follow.



a) Find the value of h. (2 marks)

b) Workout the volume of the above figure. (2 marks)

23. Amos went to the market and bought the items shown below.

$2\frac{1}{2}$ kg of rice at Sh. 2400 per kg.

7 oranges at Sh. 600 every 3 oranges.

250g of salt at Sh. 2800 per kg.

3 books at Sh. 4800

a) Find his total expenditure. (4 marks)

b) If he was given a discount of 5% how much money did he pay? (2 marks)

24. a) Using a pair of compasses and a ruler only, construct a parallelogram WXYZ where by line WX = 6cm, angle ZWX = 45° and line XY = 5cm. (4 marks)

b) Measure diagonal XZ (1 mark)

25. The average weight of 8 pupils is 45kg. If 3 pupils whose average weight is 10kg leave the group, workout the average weight of the remaining pupils. (4 marks)

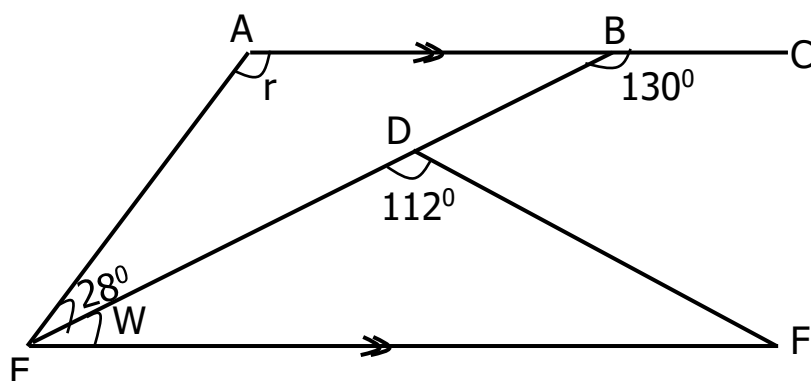
26. a) What number has been expanded to give? (2 marks)
 $(8 \times 10^2) + (5 \times 10^0) + (9 \times 10^{-1})$.

b) Workout the quotient of the place value of 8 and value of 5 in 8259. (3 marks)

27. In a party, 40% of the money was spent on food, $\frac{1}{4}$ of the remainder on drinks and the rest on transport.
a) Find the percentage of the money spent on transport. (3 marks)

b) If Shs. 360,000 was spent on transport, how much money was spent altogether? (2 marks)

28. In the diagram below, line AC is parallel to line EF, ABE and DEF are triangles. Use it to answer the questions that follow.



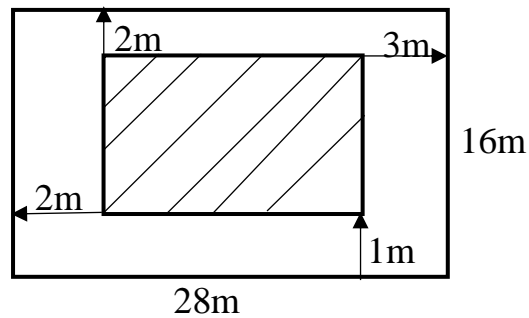
Find the value of (2 marks @)

(i) angle r

(ii) angle w

29. The cost of a basin is thrice the cost of a book. The cost of a book is Sh.2,000 more than the cost of a pen. If a man paid Sh.10,500 for all the items, find the cost of each item. (6 marks)

30. A carpet was laid in a rectangular room measuring 28m by 16m as shown in the figure below. Use it to answer the questions that follow.



- a) Find the area of the carpet. (3 marks)

- b) Work out the area of the space in the room not covered by the carpet. (2 marks)

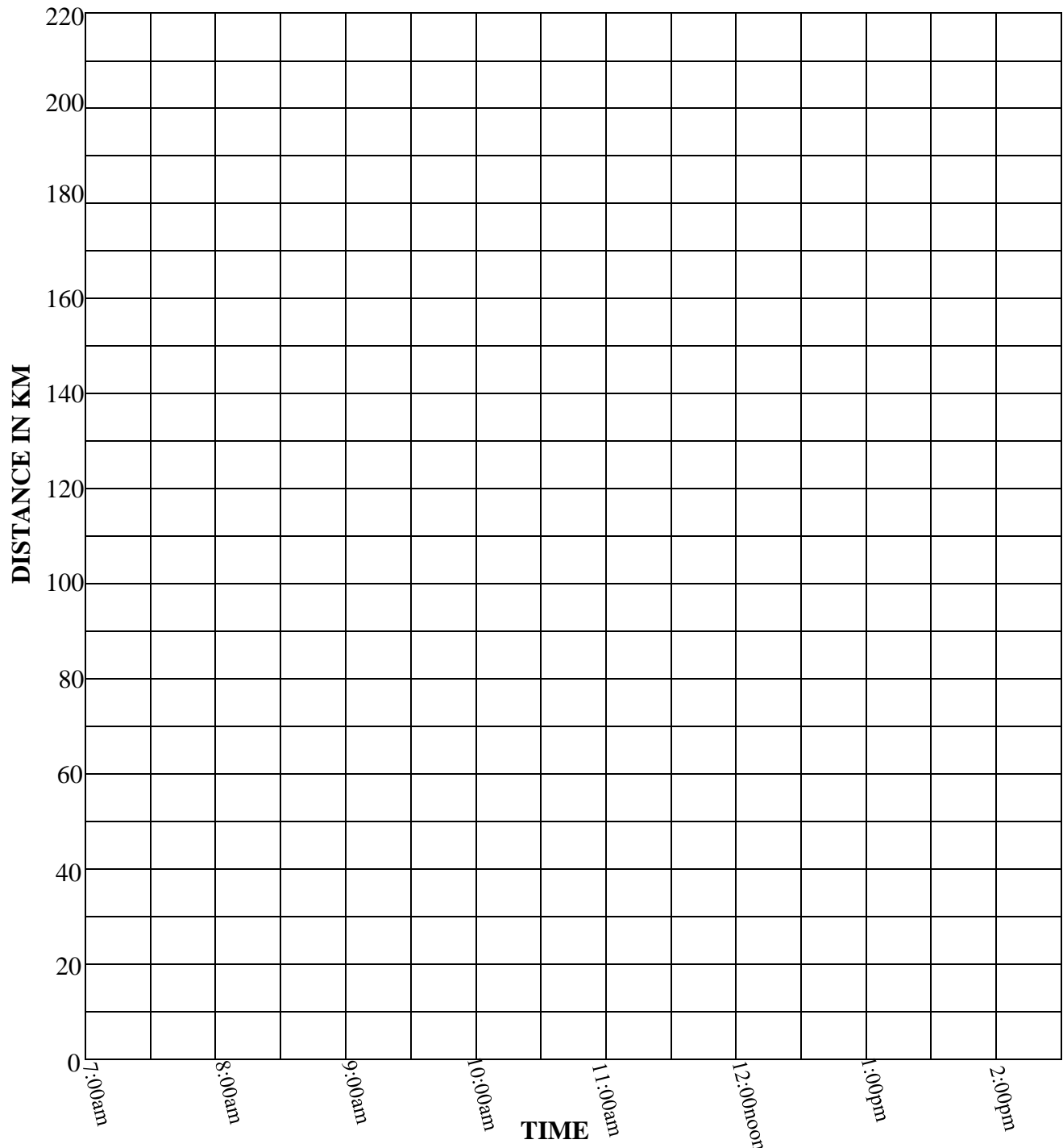
31. The sum of three consecutive numbers is 78. If the middle number is $W-4$,
a) Find the value of W . (2 marks)

- b) Find the numbers (2 marks)

- c) Find their range (1 mark)

32. A motorist left town X at 7:30am travelling at a speed of 40km/hr for $2\frac{1}{2}$ hours to town Y. At town Y, he rested for $\frac{1}{2}$ an hour then continued to town Z at an average speed of 45km/hr for 2 hours.

a) Represent the above information on the graph below. (3 marks)



b) Calculate the motorist's average speed for the whole journey. (2 marks)