GREENHILL PRIMARY SCHOOL

PRE- PLE JOINT MOCK EXAMINATION 2024

CLASS : **P.7 (SET VII)**
SUBJECT : **MATHEMATICS**
TIME ALLOWED : **2 HOURS 30 MINUTES**

Name _____ Stream _____

Index No.: ☐☐☐☐☐☐☐☐☐

<u>DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.</u>

<u>Read the following instructions carefully</u>

1. This paper has two Sections: A and B.

2. Section A has 20 answer questions (40 marks)

3. Section B has 12 questions (60 marks)

4. Answer ALL questions. Answers to both sections must be written in the spaces provided.

5. All answers must be written using blue 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 box indicated for examiner's use only.
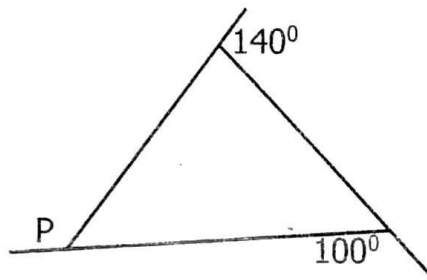
For Examiner's use only	
A	
B	
TOTAL	

SECTION A: (40 MARKS)

1. Work out: $48 \div 12$

2. Write "Forty-six thousand four" in figures.

3. Add: $4 + 5 =$ ___ (mod 7)

4. Solve: $4(m + 2) = 20$

5. If set A={a, b, c, d, e}, A∩B = {d, e} and A∪B ={a, b, c, d, e, f, g, h}, find n(B).

6. A tank was $\frac{2}{3}$ full of water, if $\frac{1}{4}$ of the water was removed, find the fraction that remained.

7. In the figure below, find the value of P.

8. Find the number that has been expanded to get
$(3 \times 10^2) + (4 \times 10^0) + (6 \times 10^{-1})$.

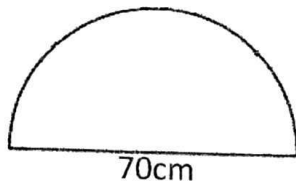9. Find the next number in the sequence 0, 2, 4, 6, 8, _____

10. A debate which lasted 100 minutes ended at 1:20p.m. At what time did it start?

11. With the help of a ruler , a sharp pencil and a pair   of compasses only, bisect the line segment MT below

M   T

12. Express $\frac{1}{8}$ as a decimal number.

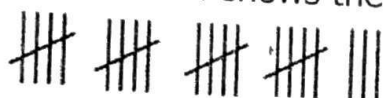13. Find the arc length of the figure below (Take π as $\frac{22}{7}$)

70cm

14. Work out: $13_{five} + 12_{five}$

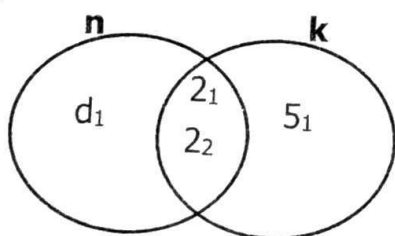15. Solve and give the solution set for; $m + 4 < 6$.

16. By selling a shirt for sh. 45,000, a trader made a loss of 10%, find amount of money a trader bought the shirt.

17. In a class 66 pupils, 37 pupils are boys and the rest are girls. The tallies below shows the number of girls who were present yesterday.

$\cancel{||||}\ \cancel{||||}\ \cancel{||||}\ \cancel{||||}\ |||$ How many girls were absent yesterday?

18. The Venn diagram below shows the prime factors of n and k. Use it to answer questions about it.

Given that the LCM of n and k is 60, find the value of d.

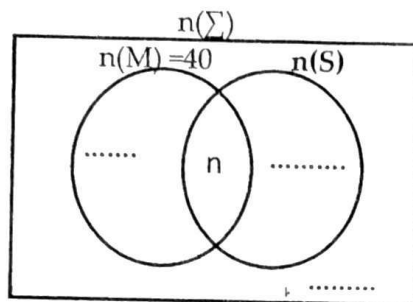19. Given that set T = {2, m}, write down all subsets of T.

20. Express 72km/h in metres per second.

SECTION B

21. In a class, 40 pupils like Mathematics(M), n + 15 like S.ST(S) only, n like both Mathematics and SST while (n + 6) do not like any of the two subjects.

    (a) Use the information above to complete the Venn diagram below.

    (**3 marks**)

    (b) If 31 pupils do not like Mathematics, find the value of n.

    (**2 marks**)

22. A retail trader bought 40 mangoes at sh.20,000. He put them in heaps of 5 mangoes and sold each heap at sh.2900.
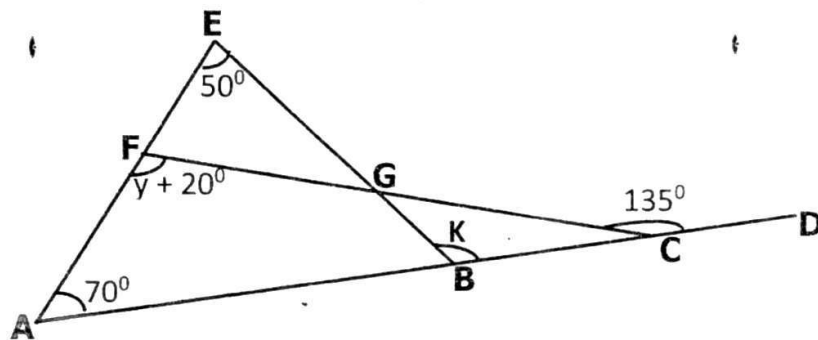
    (a) How much was his profit? (**3 marks**)

(b) Calculate the percentage profit. **(2 marks)**

23. Study the figure below carefully and answer the questions that follow.

(a) Find the value of k. **(3 marks)**

(b) Work out the size of angle AFC. **(2 marks)**
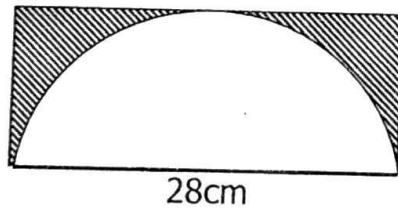
24. Given the numeral 4089,

   (a) write it in standard form.　　　(**2 marks**)

   (b) find the sum of the value of 4 and the place value of 8.

   　　　　　　　　　　　　　　　　(**3 marks**)

25. Below is a semi-circle enclosed in a rectangle. Study it carefully and calculate the area of the shaded part. (Take π as $\dfrac{22}{7}$) (**5 marks**)

   28cm

.6. (a) The median of 5 consecutive even numbers is 24. List the numbers.

(3 marks)

(b) Express 256 in powers of base 4. **(2 marks)**

27. In a P.7 class, there are 10% more girls than boys.
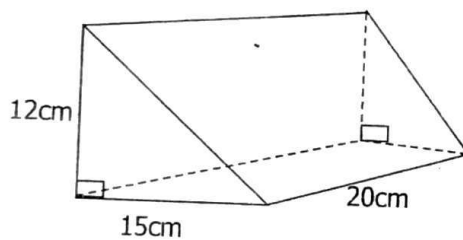
(a) Find the percentage of girls in that class. **(3 marks)**

(b) How many boys are in that class if there are 200 pupils altogether?

(2 marks)

28. Ali is 18 years older than James and their total age is 48years. How old is each now?

(4 marks)

29. Below is a triangular prism. Study it carefully and answer questions about it.

(a) Work out its volume.

(3 marks)

(b) How many faces does it have?

(2 marks)

30. Town B is 60km away from town A on a bearing of 090^0 and town C is on a bearing of 180^0 from town B 80km away.

(a) Draw a sketch diagram showing the three towns. **(1 mark)**

(b) Using a scale of 1cm to represent 10km, draw an accurate diagram showing the three towns. **(3 marks)**

(c) Find the shortest distance between town A and town C in km. **(1 mark)**

31. Waswa, Kato and Kiiza shared sweets in the ratio of 9:4:7 respectively. Given that both Kiiza and Kato got 22 sweets,

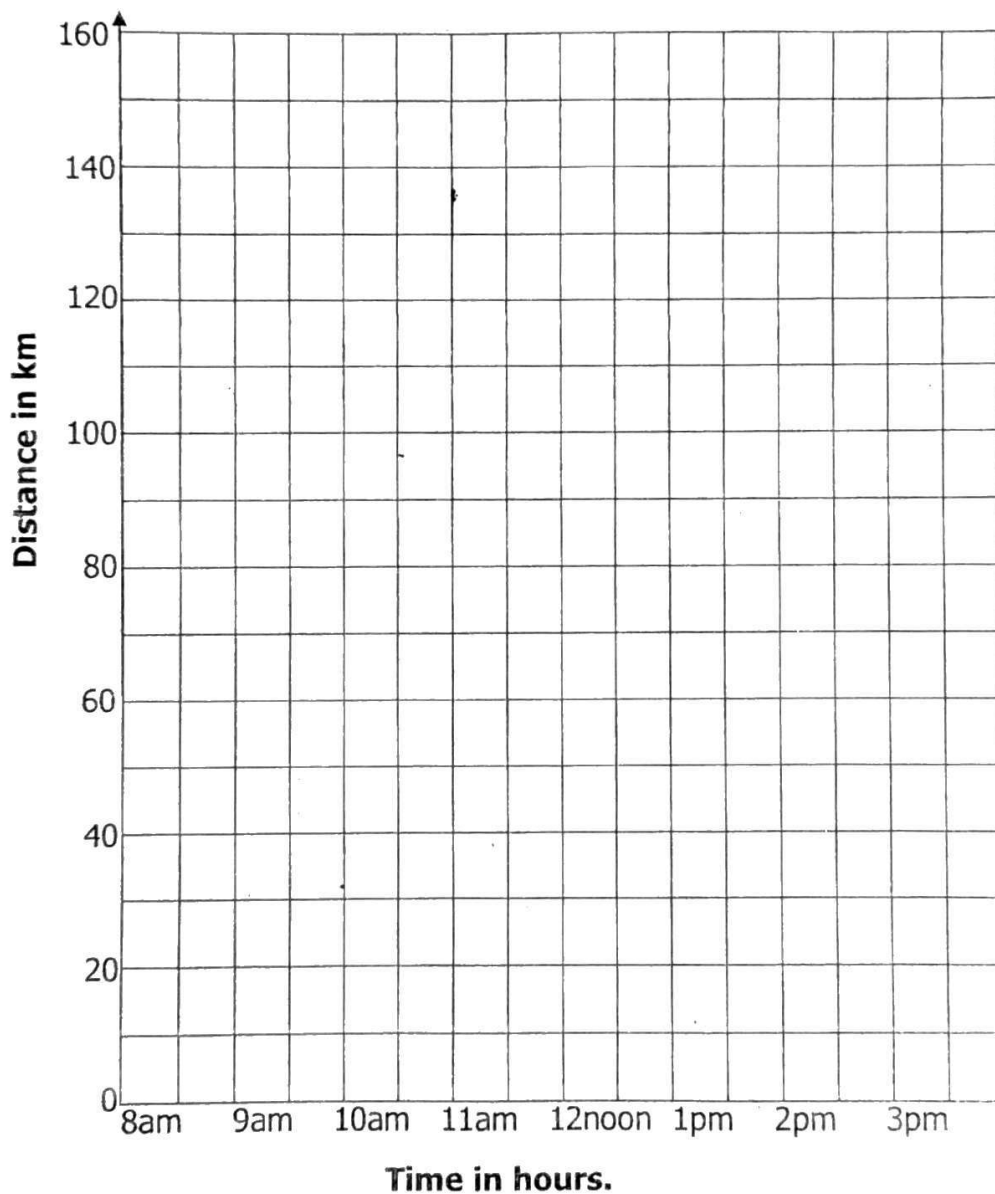(a) how many sweets did they share altogether? **(3 marks)**

(b) How many sweets did Waswa get? **(2 marks)**

32. A man driving at a speed of 40km/h left his home at 8:30a.m. and reached church in the village at 10:30a.m. He attended the church service for 1 hour and later continued to his farm which is 50km away from church in only one hour. He spent 30 minutes on his farm and after returned home at 65km/h.

Represent his journey on the graph below.   **(5 marks)**

y-axis: Distance in km

x-axis: Time in hours.

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