# P.7 HUB SET 7 TERM III 2023
# MATHEMATICS

Candidate's Name: _____

Stream: _____ Date: _____

Index No.

| EMIS NO. | | | | | | Personal No. | | | |
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## SECTION A

1. What is the quotient of **27** and **9**?

2. Given that **a = 3** and **b = -5**. Find the value of **$(b - a)^2$**.

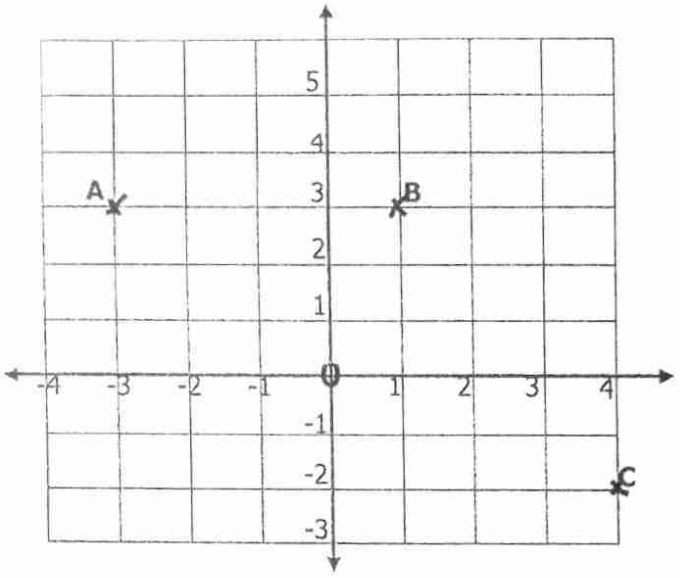
3. Simplify: **0.24 ÷ 0.02**

4. Given that set **K** = { prime numbers between **10** and **20**}
   Find **n(K)** =

5. Find the next number in the sequence below;
   1, 3, 9, 27, 81, _____

6. Write **494** in Roman Numerals.

7. Use the coordinate graph to answer the question which follow;



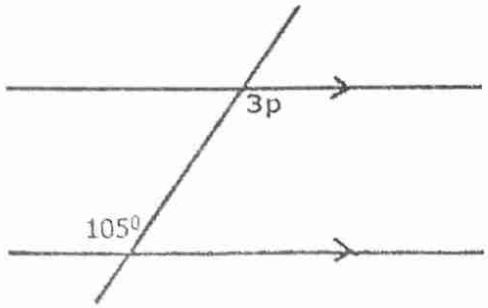

Locate and join point **D** to **A**, **A** to **B**, **B** to **C** and **C** to **D** to form a right-angle trapezium

8. Work out: **1 − 3 =** _____ (finite 7)

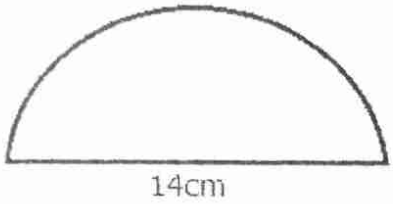
9. Subtract:

| **Days** | **Hrs** |
|---|---|
| 7 | 6 |
| - 2 | 10 |
| | |

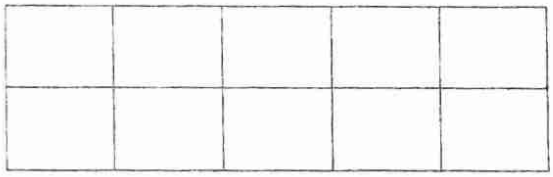
10. Calculate the value of **P** in the diagram below.




11. Find the perimeter of the semi-circle below. **(Use $\pi = \frac{22}{7}$)**



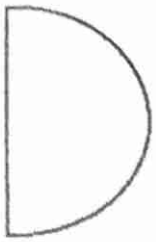

12. Shade $\frac{2}{5}$ of the diagram below.



13. A mathematics paper started at **11:20a.m** and ended at **1:50 pm**. How long did the paper last?

14. Work out: **3 ÷ 4 =** _____ (finite 5)

15. How many lines of folding symmetry has the figure below?



16. Write **4365** in scientific notation.

17. Add: **3.35 + 5**

18. Write the time below in figures.

    **"A quarter to six in the morning."**

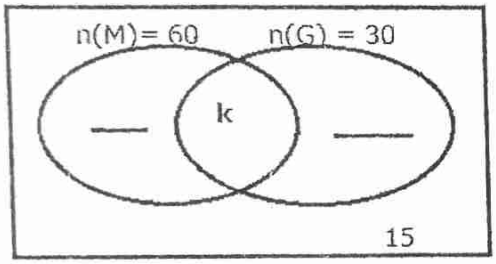
19. Three men shared **sh. 6600** as follows: **B** got twice as much as what **A** got, **C** got **600** more than **B**. What did each man get?

20. Using a ruler, a pencil and pair of compasses only to construct an angle of **$120^0$**.

## SECTION B

21. At a party attended by **100** guests, **60** guests ate **Meat (M)**, **30** guests ate **G.nuts (G)**, **15** guests did not eat any of the two foods while **K** guests ate both meat and G. nuts.

a) Complete the Venn diagram below. (2marks)




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

c) If a guest is selected at random to bless the meal, what is the probability that the guest ate either meat or G.nuts? (1mark)

22a). **Subtract:** $1\ 0\ 1_{two}$ (2marks)

$-\ 1\ 0_{two}$

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b) Find a number whose standard form gives **$2.95 \times 10^3$**. (2marks)

23. On the school trip, Zulaikah was given **sh. 20,000**, she spent $\frac{1}{2}$ of it on transport and $\frac{4}{5}$ of the remainder on her lunch.

a) What fraction did she remain with? (4marks)

b) How much money did she use for lunch? (1mark)

24a) Solve: $y - 1 = 2y + 5$ (3marks)

b) Solve the inequality: $3(2 + p) < 15$ (3marks)

25a) Use a ruler, a pencil and a pair of compasses only to construct a triangle **ABC**, such that line **AB = 6cm** , angle **ABC = 60°** and angle **BAC = 45°**. (4marks)

b) Measure line **BC**. _____ (1mark)

26. A rectangular garden of length **40** metres and width **30** metres is fenced using posts placed at an interval of **5** metres apart.

a) How many posts were used? (3marks)

b) If each post cost **sh. 1500**. How much money was used to fence the garden? (2marks)

27. A motorist leaves Hoima for Kampala a distance of **192km** at **8:00am** and travels at a speed of **60km/hr**. at **9:30am** he delays for **30** minutes due to a puncture. At what speed in **km/hr** is he supposed to drive the remaining distance to reach Kampala at noon? (5marks)

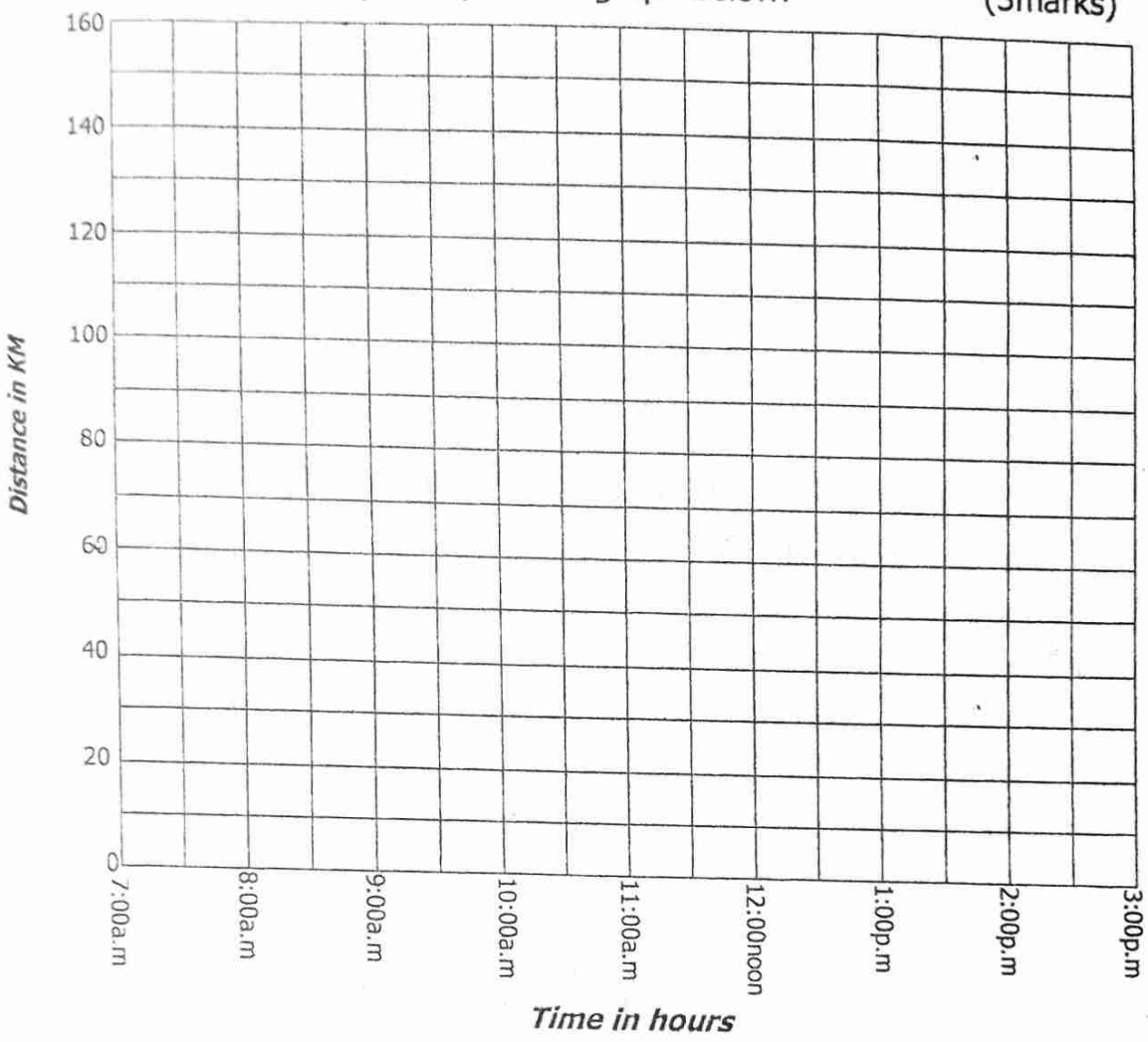
28a) In a parents' meeting at a certain school, the ratio of male to female parents was **3:5** respectively. if **30** female parents attended the meeting, how many male parents were in the meeting? **(3marks)**

b) If $\frac{1}{3}$ of the male parents were below the age of **40**. How many male parents were above the age of **40**? **(3marks)**

29. By forming an equation, find **3** consecutive odd numbers whose sum is **57**. **(4marks)**

30. A motorist left town **A** at **7:00 a.m** and drove at a speed of **60km/hr** for **$1\frac{1}{2}$hours**. After resting for one hour at town **B**, he continued to town **C** at an average speed of **30km/hr** for **2** hours.

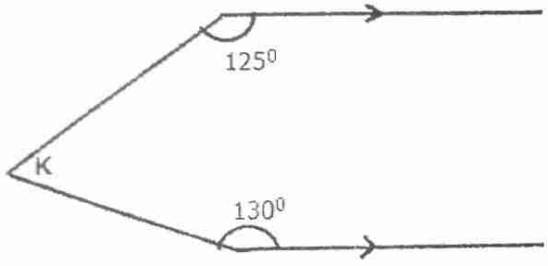
a) Show the motorist's journey on the graph below. (3marks)



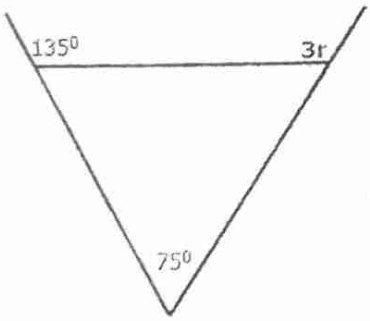

b) Calculate the average speed for the whole journey. (2marks)

31a) A teacher bought 8 books at **shs (p – 1500)** each book and **2** pens at **shs (p + 1000)** each pen. If the teacher spend **sh. 53000** shillings altogether. How much money did he spend on books? (5marks)

32a) Find the value of angle marked **K** in the diagram below. (3marks)




b) Find the size of the angle marked **r** in the diagram below. (2marks)

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