

P.7 HUB SET I TERM III 2023.
MATHEMATICS

Candidate's Name: _____

Stream: _____

Date: _____

Index No.

EMIS NO.						Personal No.			

SECTION A

1. Subtract **47 – 30**

2. Change **XLIX** to Hindu Arabic Numerals.

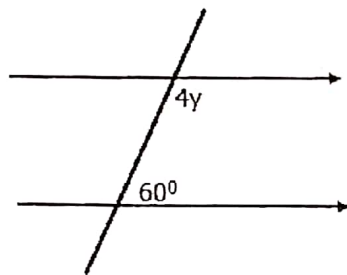
3. Find the sum of the first five prime numbers.

4. If **$P = \{ 0, 2, 4, 6, 8 \}$** and **$Q = \{ 4, 6, 8, 10 \}$**
Find **$n(P \cap Q)$**

5. Simplify: $p^4 \div p$

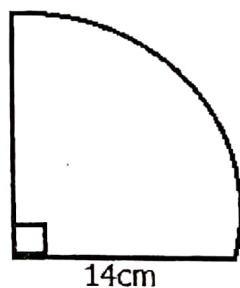
6. A taxi reached Mabira at **3:20pm** from Kireka, the journey took **70** minutes. When did it leave Kireka?

7. Find the value of **Y** in the figure below.



8. Solve: $3k + 4 = 13$

9. Find the distance around the figure below.



10. Find the mean of $\frac{1}{4}$ and $\frac{1}{2}$.

11. Arrange -8°C , $+4^{\circ}\text{C}$, -5°C , -2°C in ascending order.

12. Find the next number in the sequence below.

8, 27, 64, _____

13. The price of a book was reduced from **sh. 3000** to **sh. 2400**. What was the percentage decrease?

14. Umeme charges **sh. 300** for every **20** units of power consumed. If Mr. Opio paid **sh. 60,000**. How many units did he consume?

15. Using a pair of compasses and ruler only, draw a perpendicular line from point **Y** to line **PQ**.

•Y

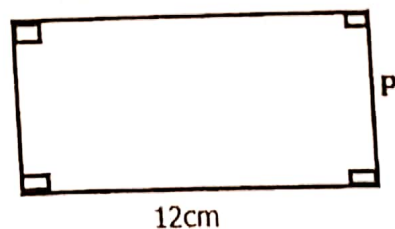


16. Work out: $2\frac{1}{2} \div \frac{1}{4}$

17. Simplify: $3(a - b) - (a + b)$

18. Mukisa scored the following marks, **70 , 85 , 90 , 100** and **47**. Find the range of his scores.

19. The area of the rectangle is **108cm^2** , find the value of **p**.

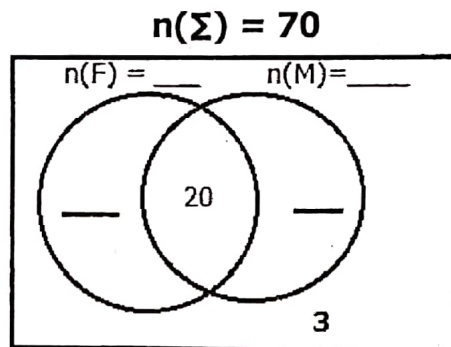


20. Find the distance covered by a bus moving at a speed of **72km/hr** for **2 hrs 15 minutes**.

SECTION B

21. In a class of **70** pupil, **45** pupils took **Fanta(F)**, **X** pupils took **Mirinda (M)**, **20** pupils took both drinks, while **3** pupils did not drink anything.

a) Represent the above information on the Venn diagram below. (2marks)



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

c) What is the probability that the pupils who swept the class drunk fanta only? (1mark)

22. Given the digits **5**, **3** and **9**

a) Form all possible 3 – digit numbers using the digits. (3marks)

(1mark)

- b) Write the smallest number formed in words.

(1mark)

- c) Express the largest number formed in standard form.

23. The exchange rates in a bank are as follows;

1 US dollar \$ 1 = Ug sh. 3400

1 British pound sterling (£) = Ug sh. 4600

1 K sh (Kenya shilling) = Ug sh. 35

(2marks)

- a) Convert **Ug sh. 575,000** to British pound sterling.

- b) If a table costs **700 US dollars**, find its cost in Kenya shillings.
(3marks)

24a) The price of a book was increased by **10%** to **sh. 5500**. Calculate the original price of the book. (3marks)

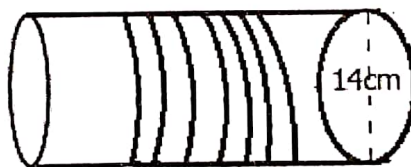
b) In how many years will **sh. 60,000** amount to **sh. 72,000** at the simple interest rate of **10%** per annum. (2marks)

25a) Use a ruler a pencil and a pair of compasses only to construct a triangle **BCD** in which $\angle BCD$ is **30°** and $\angle DBC$ is **75°** . Line **BC = 8cm**. (4marks)

b) Drop a perpendicular line from **D** to meet line **BC** at **X**. (1mark)

26. The distance between Kampala and Mubende is **240km**, a bus took **6** hours to and from.
- a) Calculate the average speed for the whole journey. (2marks)
- b) If he used a speed of **60km/hr** from Kampala to Mubende. Find the speed it used while returning. (3marks)

27. In the diagram below, a thread is wound around a circular pipe of diameter **14cm**.



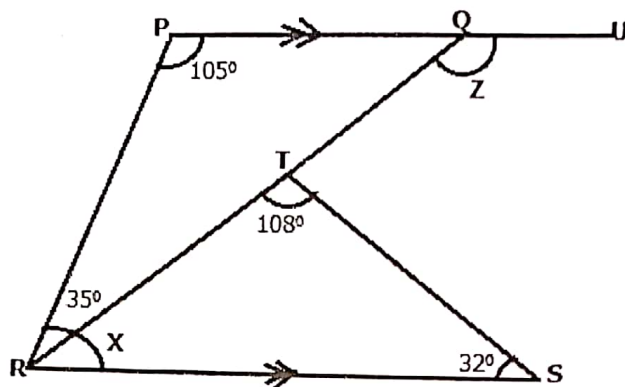
- a) If the thread is wound up **100** times, how long is the thread? (2marks)

- b) Find the number of revolutions the thread makes if it is **1.54km** long.
(3marks)

28a) Simplify: $\frac{0.24 + 0.32}{0.7 - 0.3}$ (03marks)

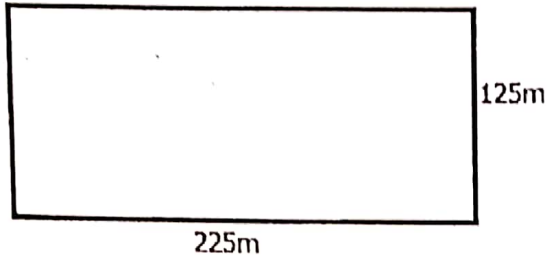
- b) In a class there are **20%** more boys than girls. If there are **160** pupils in a class. How many girls are there in a class?
(2marks)

29. Study the diagram below, **PQR** and **TRS** are triangles while line **PU** and **RS** are parallel lines. Use it to answer questions that follow.



- a) Find angle **X**. (2marks)
- b) Find angle **Z**. (1mark)
- c) The bearing of **P** from **Q** is 240° . Find the bearing of **Q** from **P**. (2marks)
(Use a diagram)

30. Kizito fenced his rectangular plot shown below. The fencing poles were 4 metres apart.



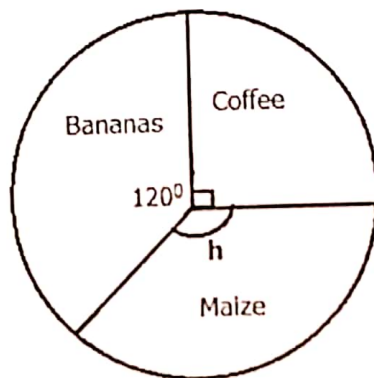
- a) How many poles will he need? (3marks)
- b) If each pole costs **sh. 5000**. How much will Kizito spend on fencing his plot? (2marks)

31a) Solve: $\frac{2x}{3} + 5 = 19$

(3marks)

- b) Barbra thinks of a number, she subtracts 6 from it. The result is the same as subtracting the same number from 8. Find the number. (2marks)

32. The pie chart below shows how Mr. Okurut uses his land. Use it to answer the questions that follow.



- a) If 75 acres are used for growing maize, what is the size of Mr. Okurut's land? (3marks)

- b) Express the angle sector for coffee as a percentage. (2marks)

THE END