

THE SIPRO PRE-MOCK EXAMINATIONS 2023

MATHEMATICS

Time Allowed: 2 Hours 30 Minutes

Random No.						Personal No.		
Index No.								

Candidate's Name: _____

Candidate's Signature: _____

School Random No: _____

District ID: _____

READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

1. This paper has two sections A and B.
2. Section A has 20 questions (40 Marks).
3. Section B has 12 questions (60 Marks).
4. Attempt all questions in both sections. All answers to both sections A and B must be written in the spaces provided.
5. All answers must be written in blue or black ball point pens or *ink*. Only diagrams and graph work must be done in *pencil*.
6. Unnecessary *alteration/crossing* of work will 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 boxes indicated.

"FOR EXAMINER'S USE ONLY"

For Examiner's Use Only;

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Total		

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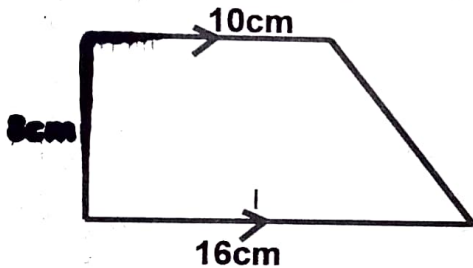
THE SIPRO EDUCATIONAL SERVICES LIMITED - KAMPALA

PUBLISHERS OF THE SIPRO TEACHERS' GUIDES, LEARNER'S WORKBOOKS & PUPIL'S COMPANIONS

SECTION A: 40 MARKS

Questions 1 to 20 carry two marks each

1. Work out: 3×4
2. Express 139 in Roman Numerals.
3. In a class of 120 pupils, 30% of the children are below 13 years of age. How many children are above 13 years?
4. Find the sum of the first five square numbers.
5. Find the area of the figure below.



6. Draw an angle of 80° in the space below.



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P.7 MATHEMATICS PRE-MOCK EXAMINATIONS 2023

IGNITE CRITICAL THINKING AND EXPERIENCE ACTUAL LEARNING WITH THE ACTIVITY BOOKS, SEMAS, TEACHER'S GUIDES & PUPIL'S COMPANIONS.



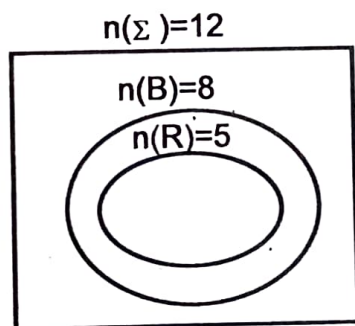
7. How many days are in 32 weeks?

8. The ratio of girls to boys at Kagoma Primary School is 3:5. If there are 78 girls less than the boys, how many pupils are boys?

9. Given that the mean of P , $P+3$, $P+5$, $P+7$, 10 and 11 is 48. Find the value of P .

10. Find the Greatest Common Factor of 6, 8 and 24.

11. The diagram below shows the number of pupils who eat beans (B) and rice (R).



How many pupils do not eat beans?



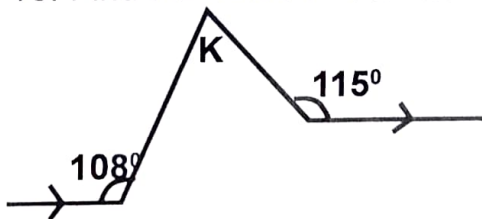
12. How many **200g** packets of salt can be obtained from $2\frac{4}{5}\text{kg}$?

13. **Simplify** $3 + 5 =$ _____ (finite 7) using a **dial**.

14. A trader bought bunches of matoke worth **sh. 1,400,000** at sh. 35,000 **each**.
How many **bunches** did he buy?

15. **Work out:** $3^{2y} = 243$

16. Find the value of **K** in the diagram below.



17. A motorist drove at a steady speed of **100 km/h** for **4** hours. On the **return journey**, he slowed down to **80km/h**. How long did the **return journey** take?
18. Kato tossed a dice once. What is the probability that a composite number appeared on top?
19. A man **bought** an article and sold it at **sh. 58,000** making a loss of **sh. 3,500**. At what price did he **buy** the article?
20. **Simplify:** $2(4p - 3) - 3(p+4)$

SECTION B: 60 MARKS

Marks for each part of the question are indicated in the brackets.

21. A square piece of land of side **8 metres** has the same area with a rectangular flower bed of **width 4m**.
- a) Calculate the **length** of the flower bed.

(03 marks)

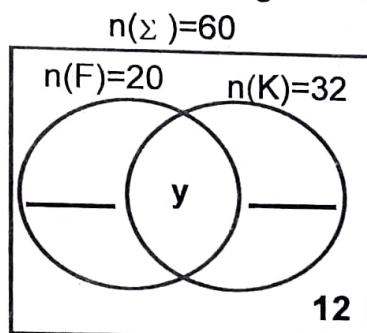


b) A wire is wound on a log of diameter 28m twelve times. Calculate the length of the wire.

(03 marks)

22. At Pioneer Junior School, all pupils in P.7 speak **English (E)**, 20 speak French (F), 32 speak Kiswahili (K). Y pupils speak all the **three** languages. 12 pupils speak only one language.

a) Complete the venn diagram using the given information.



(02 marks)

b) Find the value of y.

(02 marks)

c) What is the **probability** that a pupil picked at random speaks only one language?

(01 mark)



23. The table below shows the uniform charge of a certain school. Study and use it to answer the questions that follow.

Item	BOY	GIRL
school uniform	sh. 35,000	sh. 30,000
sweater	sh. 25,000	sh. 25,000
casual wear	sh. 18,000	sh. 15,000
sports wear	sh. 20,000	sh. 20,000

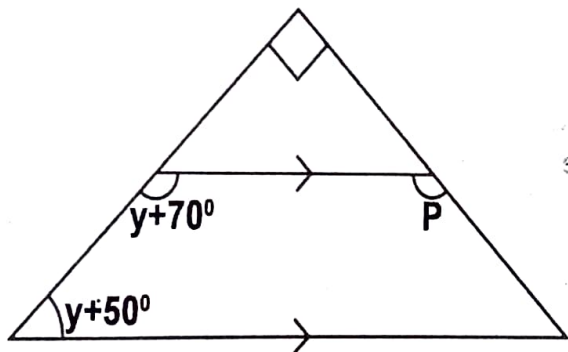
- a) If a parent has **two** boys and **three** girls, how **much** does he spend on uniform?

(03 marks)

- b) The cost of 5 balls is **sh. 500,000**. The cost of **10 desks** is **equal** to the cost of **15** such balls. Find the cost of **15 desks** of the same kind at the same rate.

(03 marks)

24. Study the figure below and answer the questions that follow.



- a) Find the **value** of **y**.

(03 marks)



b) Calculate the **interior angle** sum of a regular polygon with 15 sides.

(02 marks)

25. a) Convert 214_{five} to **decimal** system.

(02 marks)

b) **Work out:**

$$\begin{array}{r} 2 \quad 3 \quad 2_{\text{five}} \\ - 1 \quad 3 \quad 4_{\text{five}} \\ \hline \hline \end{array}$$

(02 marks)

26. A coach bus that left Mbarara at 9:30am moved at a speed of 85km/h arrived at Masaka at 11:30am. The bus stayed for 30 minutes at Masaka then it continued to Kampala covering a distance of 98km at a speed of 49km/h.

a) How **long** is Kampala from Mbarara?

(02 marks)



b) At what **time** did the bus **arrive** in Kampala?

(02 marks)

27. Four children; Maria, Gabbie, Yvonne and Michelle shared sweets in the ratio **3:1:4:2**. If Yvonne got **24** sweets;

a) How many **sweets** did they share altogether?

(03 marks)

b) How many **more** sweets did Maria get than Michelle?

(03 marks)

28. A box contains **150** pieces of chalk. **8** boxes are packed into a medium sized rectangular box and **10** medium size are packed into a carton.

a) How **many** pieces of chalk are in the carton?

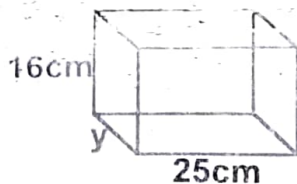
(03 marks)

b) If the trader charges **sh 4000** a box, what will it cost two medium sizes of rectangular boxes?

(02 marks)



29. The capacity of the rectangular tank below is 3.2 litres.



a) Find the value of y .

(03 marks)

b) Work out the area of the top and bottom faces.

(02 marks)

30. a) Express 72 as a product of its prime factors.

(02 marks)

b) The LCM of two numbers is 60 and the Highest Common Factor is 5. If one of the numbers is 20, what is the second number?

(03 marks)



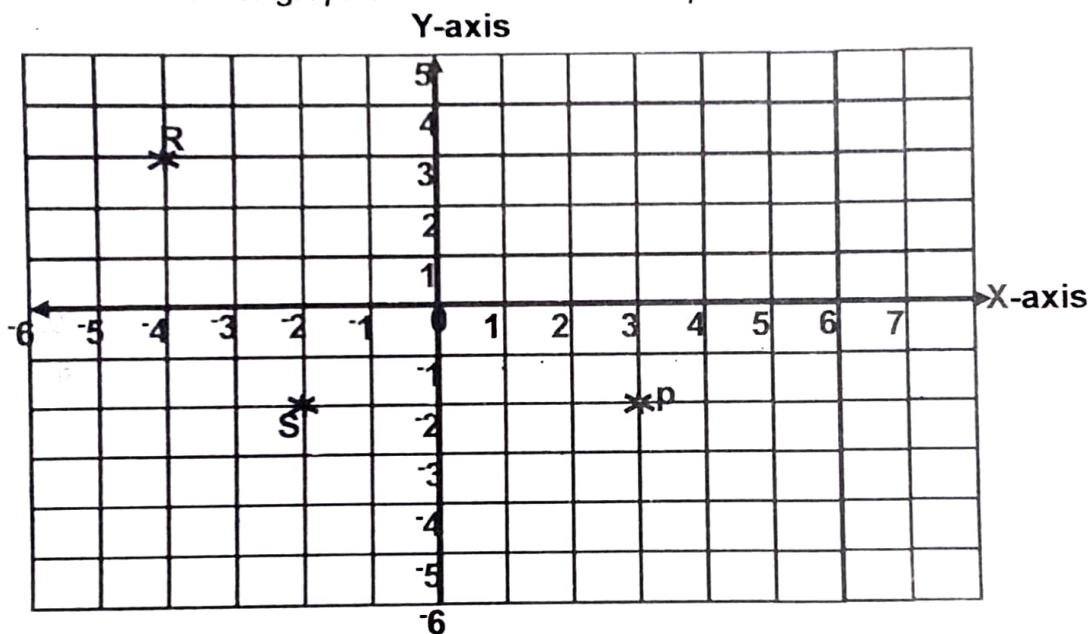
31.a) Using a pair of compasses, a pencil and a ruler only, construct a **rhombus ABCD** of side **5cm** with angle $ABC = 60^\circ$

(04 marks)

b) Measure the **length** of the diagonal **BD**.

(01 mark)

32. Use the co-ordinate graph below to answer the questions that follow.



i) Write down the co-ordinates of the **points**:

R _____

S _____

P _____

(03marks)

b) Locate and plot point **Q** on the graph such that the figure formed by the four points is a parallelogram.

(02marks)

