

# THE SIPRO PRE - PLE SET III 2022

## MATHEMATICS

Time Allowed: 2 Hours 30 Minutes

| Index No. | Random No. |  |  |  |  |  | Personal 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 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:

| PAGES  | MARKS | INITIALS |
|--------|-------|----------|
| Page 1 |       |          |
| Page 2 |       |          |
| Page 3 |       |          |
| Page 4 |       |          |
| Page 5 |       |          |
| Page 6 |       |          |
| Page 7 |       |          |
| Page 8 |       |          |
| Page 9 |       |          |
| Total  |       |          |

Please turn over

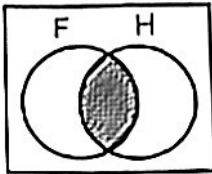


THE SIPRO EDUCATIONAL SERVICES LIMITED - KAMPALA

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

**SECTION: 40 MARKS**

Attempt all questions in this section  
Questions 1 to 20 carry two marks each

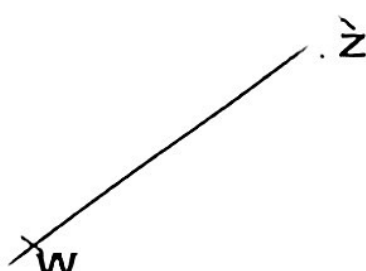
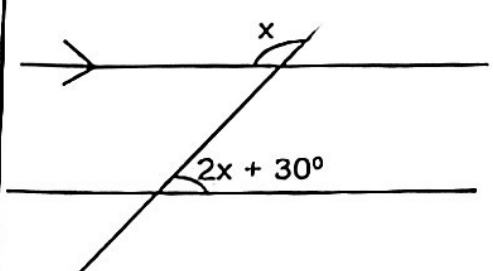
|    |   |    |  |
|----|---|----|--|
| 1. | Work out: $31 + 47$   | 2. | Write LXVI in Hindu-Arabic numerals.   |
| 3. | Find the next number in the sequence<br>2, 4, 12, 24, 72, ____                | 4. | Describe the unshaded region.<br> |
| 5. | Express 2,500ml to litres.  | 6. | Find the range of $-3, +2, -1, +5$ , and $-6$  |
| 7. | Musa moved 6 steps forward and then 12 steps backward. Find his new position. | 8. | The cost of three books is sh.3600. Find the cost of a half dozen of similar books.                                  |



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P.7 PRE - PLE SET III MATHEMATICS EXAMINATIONS - 2022

IGNITE CRITICAL THINKING AND EXPERIENCE ACTUAL LEARNING WITH THE ACTIVITY BOOKS, STUDENT'S GUIDE AND PUPIL'S BOOKS

|     |  |   |
|-----|--|---|
| 9.  | <p>Using a ruler, a pencil and a pair of compasses only, bisect the line segment WZ.</p>  | 10. If $1\frac{1}{2}$ represent $1\frac{1}{2}$ mangoes. Draw pictures to show 12 mangoes.   |
| 11. | <p>A practical lesson which ended at 8:27am took <math>1\frac{1}{3}</math> hours. At what time did the lesson start?</p>   |   |
| 12. | <p>Increase 1,800 goats in the ratio of 4:3.</p>   |   |
| 13. | <p>In the diagram below, find the value of x in degrees.</p>                            | 14. The school bursar issued receipt numbers from MK 290 to MK 349. Find the total collection if each receipt she issued was worth sh. 200,000. |

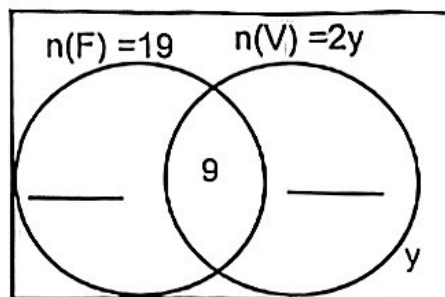


# SECTION B: 60 MARKS

Attempt all questions in this section.

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

21. In a group of 37 pupils, 19 play football (F), 9 play both football and volleyball, 2y play volleyball (V), while y play other games.
- a) Use the above information to complete the venn diagram below.



- b) How many pupils played volleyball only?

(02Marks)

(03Marks)

- 22.a) Change  $4\frac{11}{11}$  as a recurring decimal.

- b) Simplify:  $\frac{1.45 - 0.55}{0.08 + 0.28}$

(02Marks)

(03Marks)





26

The table shows the fractions of textbooks in the school library  
Study it carefully to answer the questions which follow

| Subject     | Fraction |
|-------------|----------|
| Science     |          |
| Mathematics |          |
| others      |          |

- a) Find the value of  $y$

(02Marks)

- b) Draw an accurate circle graph of radius 3.5cm to show the above information

(04Marks)

27

The table below shows the buying and selling rates of currencies at a forex bureau in Iganga.

| Currency        | Buying rate | Selling rate |
|-----------------|-------------|--------------|
| 1 US dollar     | Ug sh 3 500 | Ug sh 3 600  |
| 1 Ksh           | Ug sh 30    | Ug sh 34     |
| 1 British pound | Ug sh 4 200 | Ug sh 4 500  |

- a) How much money will a trader get in Uganda shillings when he has 400 British pounds?

(02Marks)

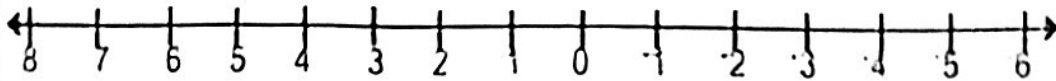


b) If a watch cost KSH. 30,000. Find the cost of this watch in US dollar

{

(03Marks)

28.a) Use the number line below to subtract  $-3 - -2$ .



(02Marks)

b) Find the least number of cows such that when divided by 6 people, 3 cows remain, when divided by 8 people, 7 cows remain

(03Marks)

29 a) Find the sum of composite numbers between 0 and 10.

(02Marks)

b) Without dividing which of the two numbers is divisible by 7; 438 and 532.

ng a

(02Marks)

30. The table below shows the journey covered by a Baby Coach from town A to town E via towns B, C, and D. Study it and answer questions that follow.

| Distance in km | Town | Arrival | Departure |
|----------------|------|---------|-----------|
| 0              | A    |         | 8:00am    |
| 56             | B    | 9:00am  | 9:45am    |
| 113            | C    | 11:00am | 11:20am   |
| 165            | D    | 1:00pm  | 2:10pm    |
| 277            | E    | 6:10pm  |           |

a) Find the distance from town C to town E.

b) How long did the bus stay at town D?

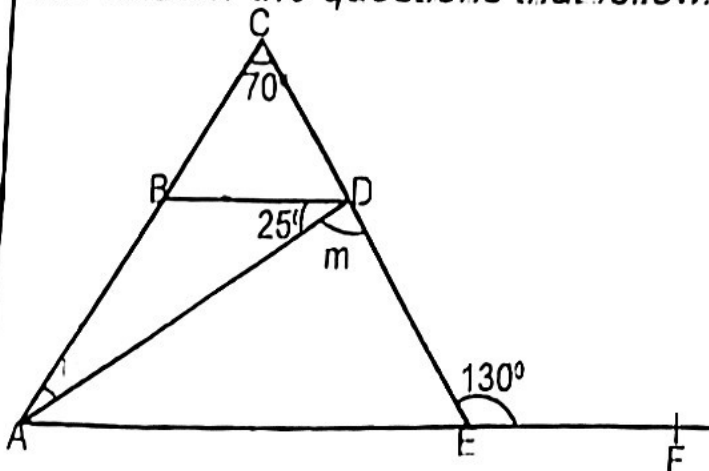
(02marks)

c) Calculate the average speed of the bus from town D to town E.

(01mark)

(02marks)

31. In the figure below, line BD is parallel to line AE. Angle BCD =  $70^\circ$ , angle ADB =  $25^\circ$  and angle DEF =  $130^\circ$ . Study the figure carefully and answer the questions that follow.



a) i) Work out the size of angle m.

(ii) Find angle n.

(02marks)

(03marks)

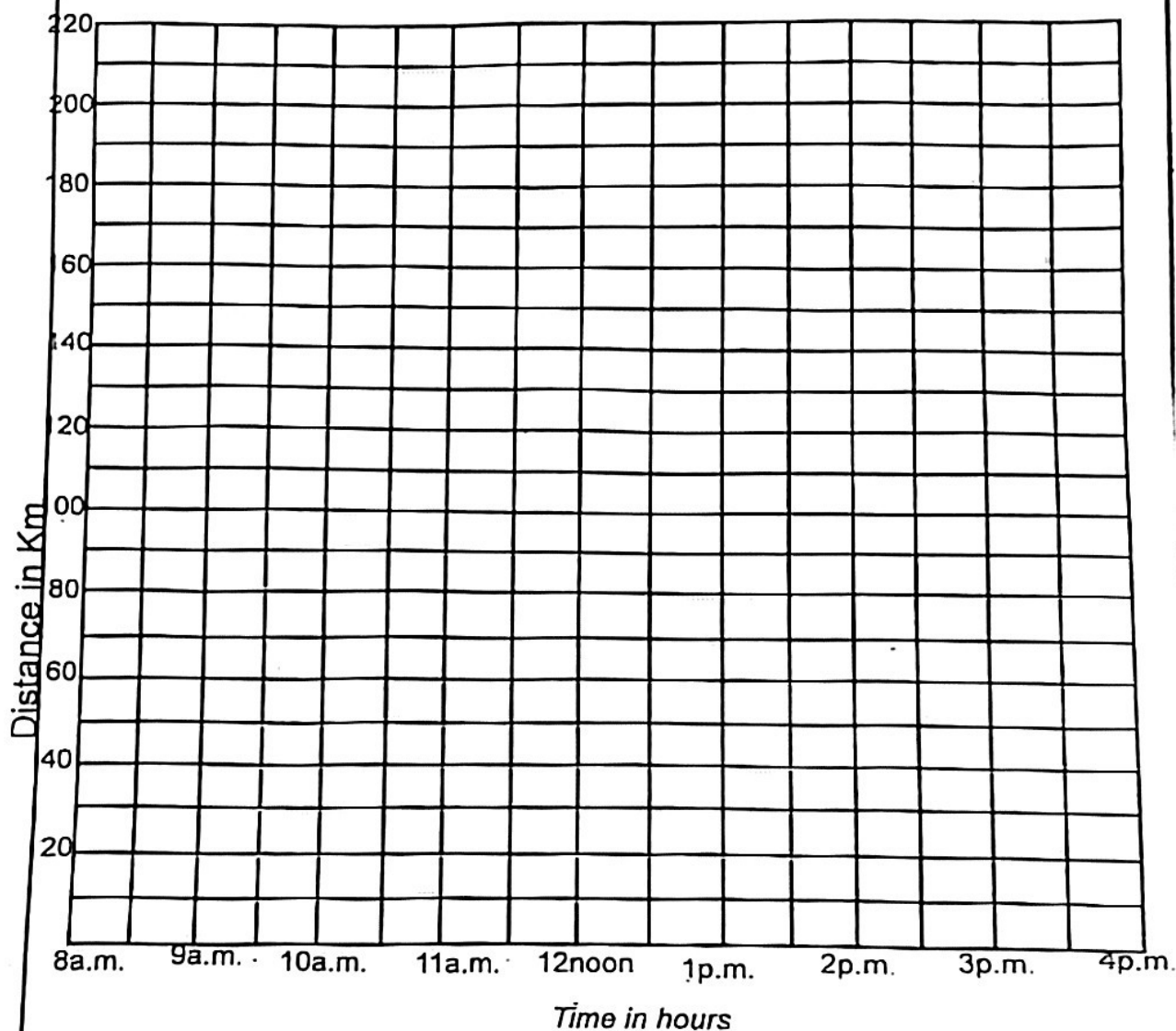


32.

Kangonya left town X at 8:00am and drove at 90km/h for one hour to town Y. He rested for half an hour at town Y. He left town Y and drove for one hour at a speed of 70km/h to town Z. He rested for half an hour at town Z. He then left town Z and drove back to town X at a steady speed of 40km/h.

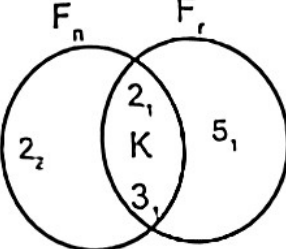
a) Draw Kangonya's journey on the graph provided.

(03marks)



b) Work out Kangonya's average speed for the whole journey.

(02marks)

|       |   |   |       |         |   |    |     |    |       |  |       |  |
|-------|---|---|-------|---------|---|----|-----|----|-------|--|-------|--|
| 15.   | Convert 12:40p.m into 24 hour clock system.   |   |       |         |   |    |     |    |       |  |       |  |
| 16.   | The venn diagram below shows prime factors of two numbers. If the GCF of the two numbers is 18, find the value of K.<br> |   |       |         |   |    |     |    |       |  |       |  |
| 17.   | The diameter of a wheel is 28cm.<br>How many revolutions will it make to cover a distance of 4.4km?   | 18<br>Work out:<br><table><tr><td>Hours</td><td>minutes</td></tr><tr><td>5</td><td>20</td></tr><tr><td>- 2</td><td>54</td></tr><tr><td colspan="2"><hr/></td></tr><tr><td colspan="2"><hr/></td></tr></table> | Hours | minutes | 5 | 20 | - 2 | 54 | <hr/> |  | <hr/> |  |
| Hours | minutes   |   |       |         |   |    |     |    |       |  |       |  |
| 5     | 20  |   |       |         |   |    |     |    |       |  |       |  |
| - 2   | 54  |   |       |         |   |    |     |    |       |  |       |  |
| <hr/> |   |   |       |         |   |    |     |    |       |  |       |  |
| <hr/> |   |   |       |         |   |    |     |    |       |  |       |  |
| 19.   | Solve the inequality $3 - 2p \geq 9$ .  |   |       |         |   |    |     |    |       |  |       |  |
| 20.   | If today is Wednesday, what day of the week was 41 days ago?  |   |       |         |   |    |     |    |       |  |       |  |

