



P.L.E 2024 RESOURCEFUL EXAMINATION (SET 2)

NERDS EXAMINATION SERIES

MATHEMATICS

Time allowed: 2 hours: 30 minutes

| Random No. | | | | | Person No. | | |
|------------|--|--|--|--|------------|--|--|
| | | | | | | | |

Candidate's Name:

Candidate's Signature:

District Name:.....

Read the following instructions carefully:

1. This paper has **two Sections: A and B.**
2. Answer **all** questions. All answers to both sections **A and B** must be written in the spaces provided.
3. All answers must be done using a blue or black ball-point pen or fountain pen.
4. Unnecessary changes of work may lead to loss of marks.
5. Any handwriting that cannot be easily read may lead to loss of marks.
6. Do not fill anything in the boxes indicated: **"For Examiners' Use Only"** and those inside the question paper.

| FOR EXAMINERS' USE ONLY | | |
|-------------------------|-------|-----------|
| Qn. No. | Marks | EXRS' NO. |
| 01 - 10 | | |
| 11 - 20 | | |
| 21 - 22 | | |
| 23 - 24 | | |
| 25 - 26 | | |
| 27-28 | | |
| 29-30 | | |
| 31-32 | | |
| TOTAL | | |

SECTION A (40 MARKS)

Answer all questions in this section

Each question carries 2 marks

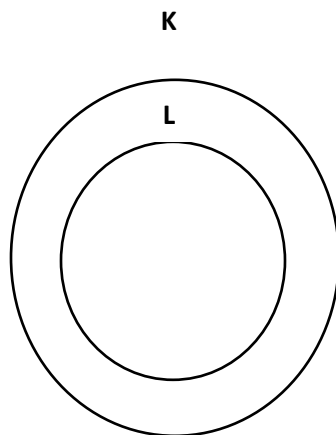
1. Work out : $36 \div 3$

2. Write “**Two hundred three and nine tenths**” in figures.

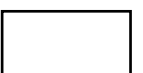
3. Find the next two numbers in the sequence below.

36, 125, 25, 64, 16 , _____ , _____

4. Shade both set K and set L on the venn diagram



5. Workout : $^{-}10 - ^{-}6$




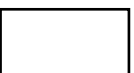
6. Find the square root of 2.56

7. Nyende had 459 votes than Mwase, Mwase had a third of Nyende's votes . If $\frac{2}{3}$ of Nyende's votes were invalid on that day. Find the number of voters on that day.

8. Solve for g: $6 - 4g < 18$.

9. Moses was facing Northwest of Mt. Sanai and he moved clockwise to his Temple on the bearing of 225° . Find the original direction of his Temple from Mt. Sanai?

10.If  represents $\frac{1}{2}$ dozens, how many cups were in the cupboard at home?



11. Find the value of P in tallies.

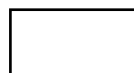
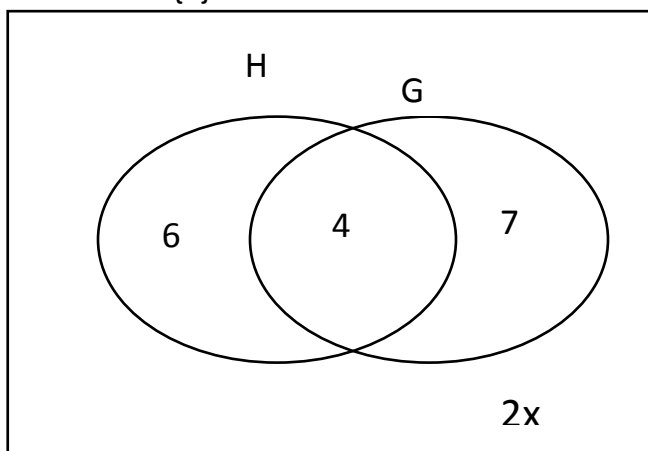
$$P \left(\begin{array}{|c|} \hline \text{|||||} \\ \hline \end{array} \right) + \begin{array}{|c|} \hline \text{|||||} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{|||||} \\ \hline \end{array} \begin{array}{|c|} \hline \text{|||||} \\ \hline \end{array} \begin{array}{|c|} \hline \text{|||||} \\ \hline \end{array} \begin{array}{|c|} \hline \text{|||||} \\ \hline \end{array}$$

12. During the president’s speech at Kololo liberation ground, he took $2\frac{2}{3}$ hours listening the Business owners about IFRIS then He spent $1\frac{3}{5}$ hours responding to them. How long did the speeches take in minutes?

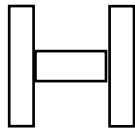
13. Using a ruler, a sharp pencil and a pair of compasses only, construct an angle 315°

14. Find the value of X below

$$N\{\epsilon\} = 23$$



15. How many lines of folding symmetry does the figure have?



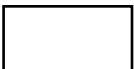
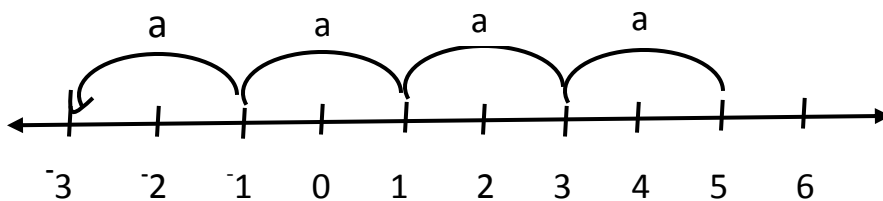
16. A sack of millet flour weighs 25kg. Calculate the total weight of 60 similar sacks in tones.

17. Work out the mean of $\{\frac{2a+4}{2}\}$, $2a+3$ and $6a + 10$.

18. Our school coach bought 16 select balls from Mwanza sports Centre at a cast of Tz shs. 5,000 each. How much did he spend altogether?

19. Sulait is 2.25 metres taller than his brother. His brother is 5.25 metres tall. Find their total height.

20. Write the mathematical statement shown on the number line below.



SECTION B: 60 MARKS

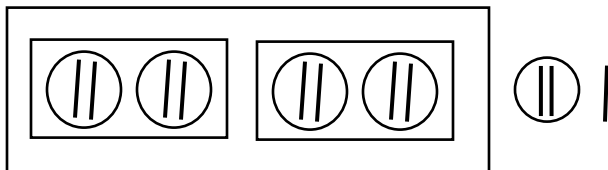
Answer **all** questions in this section

Marks for each question are indicated in brackets.

21. (a) Workout: $\frac{0.08-0.22+0.24}{0.81-0.71}$ (3marks)

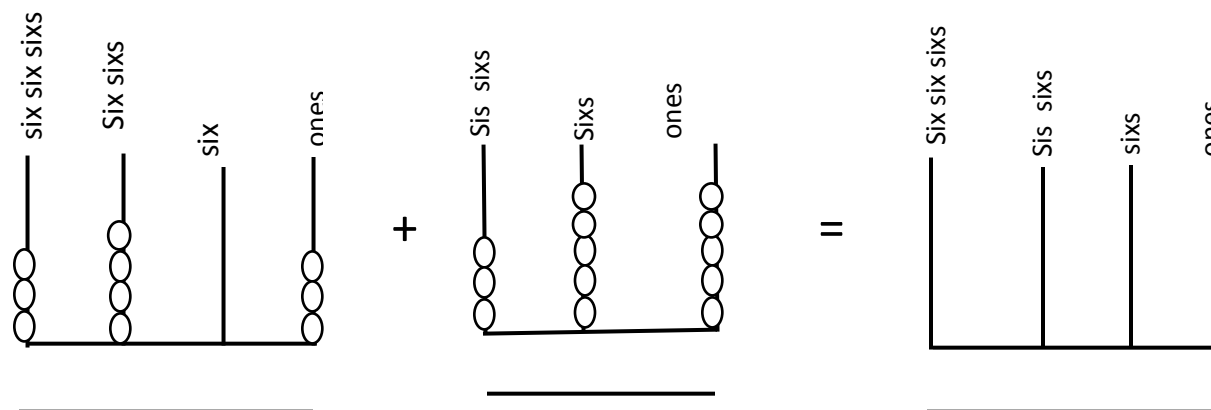
(b) Simplify: $1\frac{1}{2} \times 2\frac{1}{3} \div 2\frac{1}{4}$ (2marks)

22.(a) Express the binary below into a denary base. (2marks)



(b) Complete the abacus of senary base system below.

(3marks)



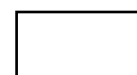
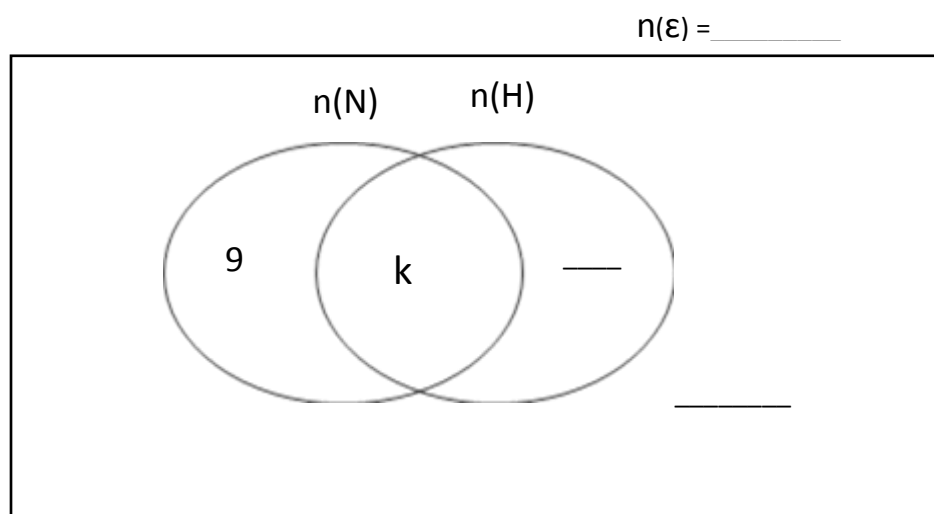
23. Out of 66 teachers at Zion Primary school – Lukindu Kiwangala. The number of male teachers was $\frac{2}{3}$ of the total number of $\frac{1}{2}$ of male teachers. 9 female teachers like Netball (N) only, K female teachers liked both Netball and Handball (H). $\frac{2}{3}$ of female teachers who liked both Netball and Handball were equal to those who liked neither of the two games. If the number of female teachers who liked Netball were 12.

(a) How many female teachers did not like any of the two games?

(3marks)

(b) Show the above information on a venn diagram below.

(3marks)



24. (a) Find the three consecutive odd numbers whose sum is 39.

(4marks)

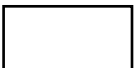
b) Find the average of the first numbers of the sequence below.

(2marks)

$x, x+y, x+2y, x+3y, \underline{\hspace{2cm}}$

25. Nakaseke DEO host chief examiners from the ministry of Education and sports for the district Inspections. He ordered district vehicles to start the journey to the whole district, he found the seats were not enough to move as group. He arranged chiefs in groups of nines but seven got no seats, he tried seating them in groups of eight but four did not get where to sit and realized that in groups of threes all chiefs will be catered for. Unfortunately one chief got no seat, finally he decided to use a public vehicle to take all. Find the number of chief Examiners hosted in the district.

(6marks)



26. Solve for f: $\frac{1}{2}$ of f : $\frac{1}{4}$ of 1 = 12

(2marks)

b) Kato is a third years younger than Paul, Paul is a half years older than Gideon and Gideon is thrice as old as Kato. The sum of Kato and Gideon's age is 24years. How old is Paul?

(2marks)

27. In Ntake Bakery, the blue band cylindrical tins of diameter 7cm and height 10cm by 42cm by 52cm. Calculate the space left unoccupied after packing. **(5marks)**



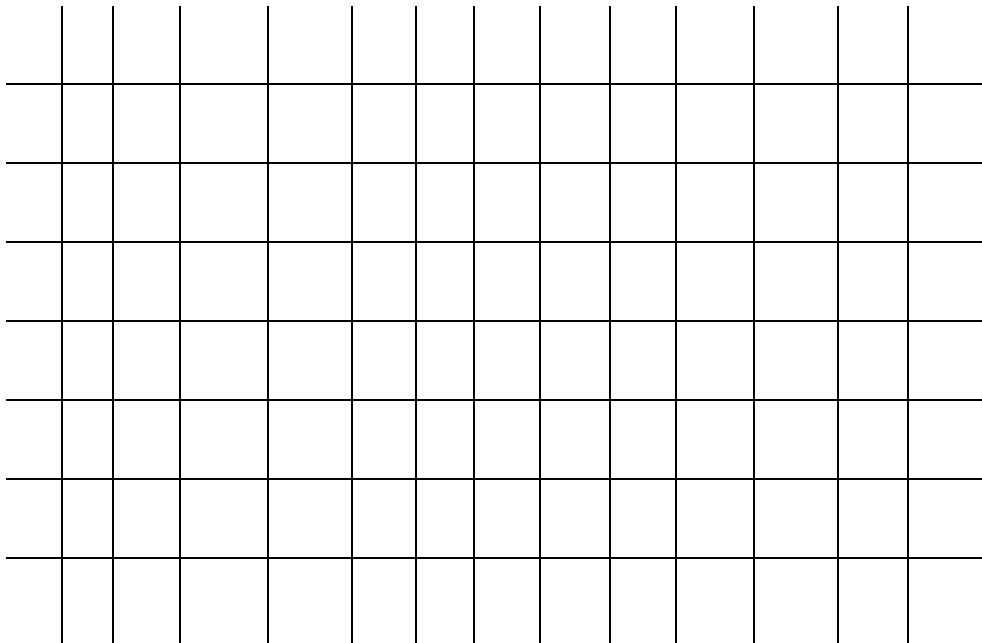
28. Using a ruler, sharp pencil and a pair of compasses only.

Construct a polygon ABC in which angle $A = 60^\circ$, $AB = 6\text{CM}$, $B = 90^\circ$. Bisect angle B and let the bisector meet AC at P. Drop a perpendicular from P to meet AB at X. **(4marks)**

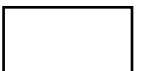
29. Plot the points $A(-2,3)$, $B(3,3)$, $C(5,-3)$, $D(-5,-3)$

(a) Using the grid below.

(5marks)



b) What is the special name given to the figure formed?



c) If each small square represents 1cm, what is the area of the above figure.

30. Mr's Dan went to the free Man's market and bought the following items. If she was given a discount of 25% of sh 140,000 before she bought the loaves of bread. Complete the table below.

(5marks)

| SERIAL /NO. | ITEM | QUANTITY | UNIT COST | TOTAL AMOUNT |
|-------------|------------------------|------------------------|-------------------|--------------|
| 133 | Apple juice | 3litre Jerrycans | Sh. 3000 @litre | Sh._____ |
| 535 | Rwenzori mineral water | 2 boxes with 4 cartons | Sh._____ @ carton | Sh.48,000 |
| 221 | Bread | _____ loaves | Sh. 7000@ | Sh._____ |
| 112 | Lato milk | 4 tins | Sh.4000@ | Sh._____ |

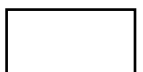
31. The regular polygon has 12 right angles, find

a) Its number of sides.

(2marks)

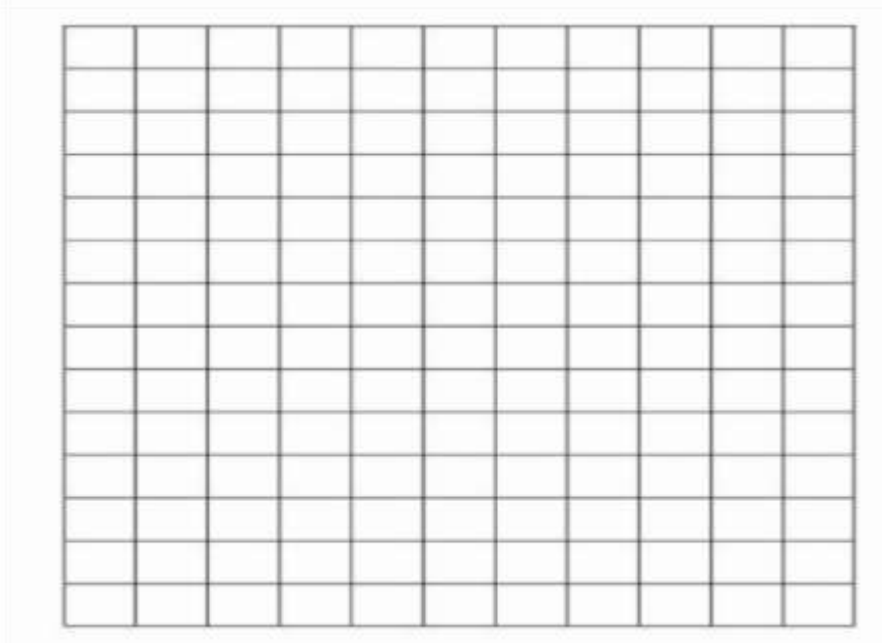
b) Its interior angle.

(2marks)



32. Hakim started his journey on Eid – Adhuha from Gombe Boarding Junior School at 8:00a.m driving at 40km/h. After 1 hour, he rested for 30 minutes. He continued at 60km/h for 1hour to Mengo Primary School. He spent 1 hour at Mengo Primary School and drove back reaching Gombe Boarding Junior School at 1:30p.m to have lunch.

(a) Draw a graph for Hakim’s Journey. (2 marks)



(b) When did he reach Mengo Primary School?

(1mark)

(c) At what speed was he driving from Gombe Junior School to Mengo Primary School?

(2marks)

END

“Nerdify Your Knowledge, Amplify Your Success.”

0770847430 / 0789265871

