ST. KIZITO - COLOMA JOINT PRE - P.L.E EXAMINATIONS 2024

MATHEMATICS

Time allowed: 2 hour 15 minutes

Index No.

	EMIS No.			Personal No.	

Candidate's Name:..

Candidate's Signature:..

School Name:..

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO

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. Answer all questions. All the working for both sections A and B must be shown in the spaces provided.
5. All working must be done using a blue or blackball point pen or ink. Any work done in pencil will NOT be marked.
6. Unnecessary changes in your work and handwriting that cannot be easily read may lead to loss of marks.
7. Do not fill anything in the table indicated "For Examiners' use only" and the boxes inside the question paper.
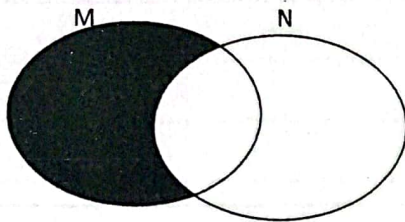
Turn Over

SECTION A (40 marks)

1. Multiply 134 by 2.

2. Round off 341.73 to the nearest whole number.

3. Describe the shaded region.
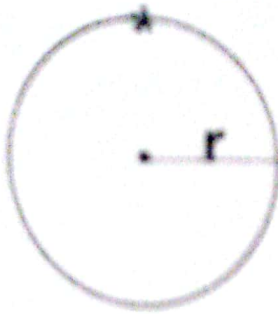

4. Solve for n: $7n + 2 = 23$

5. The profit on a shirt sold at sh.7,900 was sh. 2,100. Calculate the cost price of the shirt.

6. Write 34,014 in words.

7. Find the next number in the sequence.

   -14, -11, -8,   -5, _____

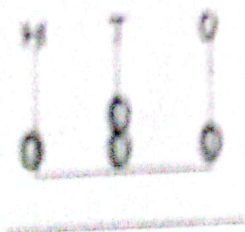8. The distance round the figure below is 132cm. Find the value of r.

9. Write 9:00a.m in 24-hour clock.

10. If $x = 2$, $y = 4$ and $z = 3$.

Find: $XY \cdot Z^b$

11. Work out: $1\frac{1}{5} - \frac{2}{5}$

12. Find the value of the digit in the place of tens.

```
H   T   O
0   8   0
```

_____

13. Write the number whose expanded form is;

$(6 \times 10^3) + (5 \times 10^0) + (7 \times 10^2)$

14. David borrowed sh. 25,000 from a money lender which generated an interest of sh. 6,000 after 3 years. Calculate the interest rate.

15. Using a ruler, a sharp pencil and a pair of Compass only, construct an angle of 150^0.

16. Express 4336 in scientific rotation.

17. Three men build a house in 20 days. How many men working at the same rate can build the same house in 12 days?

18. Find the least number of mangoes which when divided among 8 boys or 6 girls leave 3 mangoes as a remainder.

19. Express 0.4545......as a rational number in its lowest form.

20. Sixty – six poles are fixed in a straight line along one side of the road. The poles are fixed at intervals of 10memtres. Calculate the length of the road.
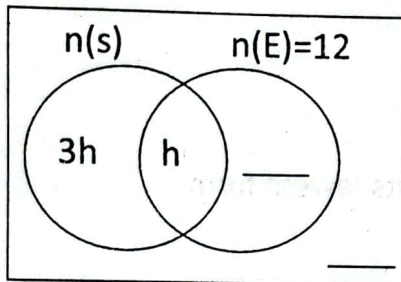
21.(a)Work out:

$3\ 3\ 4_{five}$

$\underline{-1\ 2\ 3_{five}}$

(b) Given that $34y = 112four,$ find the value of y.

22. The Venn diagram below shows the number of pupils in a class and the subjects they like. 3 of the pupils in the class do not like the two subjects.

(a) Complete the Venn diagram

(b) If 10 pupils in the class do not like science, find the value of h.

23. Suzan went to the market and bought the following items.

3 litres of milk at shs 2,400 per litre

250g of salt at sh. 2,000 per kg

18 oranges at sh. 1,500 for every 6 oranges.

(a) Calculate the total cost of all items.

(b)   If Suzan paid sh.12,000 for the items, what discount was she given?

24.   The average of 2y + 5, 4 + y, 3y + 1 and 12 is 19.

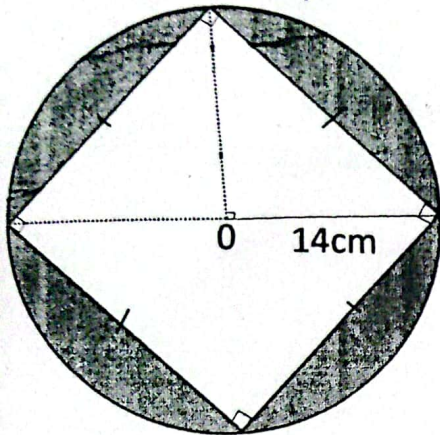(a)   Find the value of y.   (b)   Find their median

25(a) Solve the equation; $^{3X}/_4 + 6 = 2 + x$

(b)   Solve the inequality; 9 - 2k > k + 3

26. The diagram below shows a square ABCD enclosed in a circle with centre O and radius 14cm. Parts of the circle are shaded as shown. Study the diagram and use it to answer the questions that follow;

(a) Calculate the area of the circle.

(Use $\pi = \frac{22}{7}$)
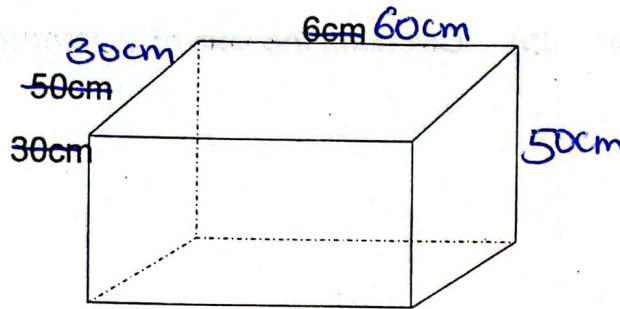

0   14cm

(b) Find the area of the shaded part.

27. In a class, $\frac{1}{5}$ of the girls are boarders while $\frac{1}{3}$ of the boys are day scholars. The percentage of the girls in the class is 60%. The class has 10 boys who are day scholars.

(a) How many pupils are in the class?

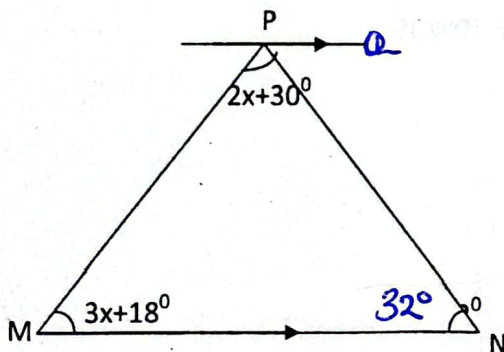(b) Find the number of girls who are boarders.

28. The diagram below shows a drinking water trough used on a farm to give animals water.

30cm ~~50cm~~
6cm 60cm
~~30cm~~ 50cm

If the farmer filled the trough with water using a 5 litre jerrycan. How many jerrycans did he use to fill two thirds of the trough?

29. In the diagram below PQ is parallel to MN. PMN is a triangle.

(a) Calculate the value of x

P
$2x+30^0$
Q
$3x+18^0$
M
32^0
N

(b) Work out the size of angle QPM

30. The interior angle of a regular polygon is four times its exterior angle.

(a) Name the regular polygon. |(b) Calculate the sum of its interior angles
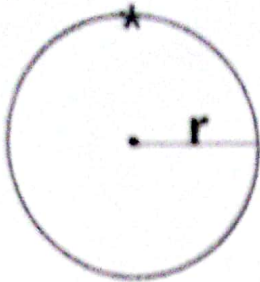
31(a) Simplify; $\dfrac{3.25 + 5.75}{0.03}$

(b) Simplify; $\dfrac{5}{6} - \dfrac{5}{9} + \dfrac{7}{18}$

32. Town B is 350km away from town A on a bearing of 130^0 and town C is 300km away from town B on a bearing of 060^0. Using a scale of 1cm to represent 50km, draw an accurate diagram showing the three towns.

(b) Find the shortest distance between town A and C in Kilometres.

SUCCESS

9

8. The distance round the figure below is 132cm. Find the value of r.

9. Write 9:00a.m in 24-hour clock.

10. If $x = 2$, $y = 4$ and $z = 3$

   Find: $XY - Z^3$

11. Work out: $1^1/_3 - ^2/_3$

12. Find the value of the digit in the place of tens.

$$
\begin{array}{ccc}
H & T & O \\
0 & 8 & 0 \\
\end{array}
$$