STUDENT'S NAME……..…….… STREAM……..

PRESIDENT'S OFFICE REAGIONAL ADMINISTRATION AND LOCAL GOVERNMENT

UKEREWE DISTRICT ANNUAL JOINT EXAM 2024

FORM ONE

BASIC MATHEMATICS

TIME: 2.30 HOURS

Instructions

1. This paper consists of **10 compulsory questions.**
2. **All** necessary working and answers for each question done must be shown clearly.
3. Mathematical tables may be used unless otherwise stated.
4. Calculators and cellular phones are **not** allowed in the examination room.
5. Write your **name** on every page of your answer sheet(s) provided.

QUESTION NUMBER.	MARKS	SIGNATURE
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
TOTAL		

STUDENT'S NAME……..……..… STREAM……..

1. (a) If $x = 0.\dot{3}$ and $y = 3.\dot{2}\dot{1}$, find $z = x + y$ and hence express z as fraction in its lowest form.

(b) A bicycle was bought at Tshs. 1 400 000/- and then sold at a loss of 25% of the price he paid for it.

(i) What was the loss incurred?

(ii) How much did he pay for a bicycle?

STUDENT'S NAME……..……..… STREAM……..

2. (a) Azam biscuit factory packs biscuits in packets of 16, 48 or 84 biscuits each. What is the highest and the smallest number of biscuits that can be packed in any of these quantities without any biscuit left over?

(b) The populations of three towns are 65600, 13400 and 29700. Approximate the total the population of the three towns to the nearest thousands.

3. (a) Find the equation of a line of the points $N(-2,-5)$ and $M(4,7)$ in form $y = mx + c$.

(b) (i) If the slope of the straight line through the points $(7, 4)$ and $(-2, 2k)$ is 2, find the value of k.

(ii) Rewrite $3x + 2y = 8$ in form of $y = mx + c$ and hence find the slope and y-intercept of the line.

4. (a) Solve $\begin{cases} x + y = 4 \\ 2x - y = 5 \end{cases}$ by substitution method.

STUDENT'S NAME……..……..… STREAM……..

(b) A roll of a string 13.5 meters long. Pieces of string of length $2.30\ m$, $1.8\ m$, $2.37\ m$ and $0.95\ m$ are cut off. The remaining part is divided into equal piece each of length $32\ cm$, how many equal pieces are there?

5. (a) Daud got an interest of Sh. 36,000 after depositing Sh. 240,000 in a certain bank. If the money stayed in the bank for 24 months, what interest rate does that bank offer annually?

(b) The age of Joyce is seven years more than Zena's age. Five years ago the sum of their ages was 87 years, what is the present age of Joyce?

STUDENT'S NAME……..……..… STREAM……..

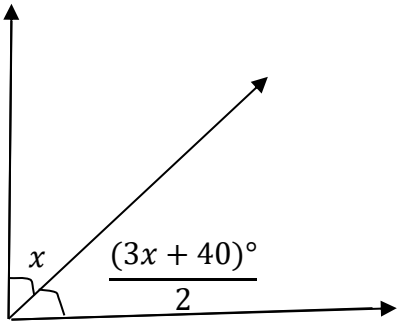
6. (a) The sum of two angles in a quadrilateral is $2y$. The other two angles are $70°$ and $80°$. Find the value of y.

(b) Solve the value of y if $|2y - 4| \leq 4$ and hence represent it on a number line.

7. (a) Find the value of x if $\frac{x-1}{2} - \frac{(x+2)}{3} = \frac{1}{3}$

(b) Rehema spent $\frac{1}{8}$ of her salary on transport and $\frac{1}{4}$ on food. If she remained with Tshs 80000/-, what was her salary?

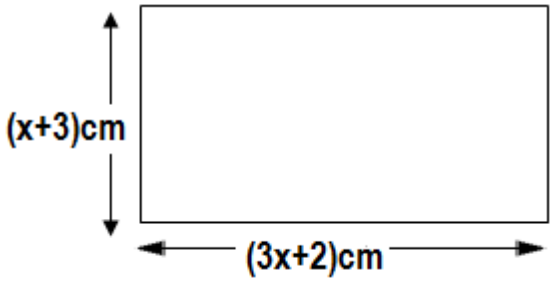
8. (a) Find the value of x in the figure.



(b) A father divided Tshs 150, 000 among Rose and Japheth in the ratio 2:3 respectively. How much money did each get?

STUDENT'S NAME……..…….…. STREAM……..

9. (a) If the perimeter of the rectangle below is 26 cm. Find its area.



(b) Find the area of triangle ABC if $\overline{AB} = 16\ cm, \overline{BC} = 12\ cm$ and $\overline{AC} = 20\ cm$ and the right angle is at B.

STUDENT'S NAME……..……..… STREAM……..

10. A regular polygon has an exterior angle measure of $(x + 6)°$ and an interior angle measure of $(6x - 36)°$. Find

(a) The size of interior and exterior angles

(b) The number of sides of a regular polygon

(c) Give the name of regular polygon above.

(d) The sum of interior angles of a regular polygon.