456
MATHEMATICS
August, 2023
2 hours

TESO INTEGRATED SECONDARY SCHOOL EXAMINATIONS BOARD

Uganda Certificate of Lower Secondary Education

END OF TERM 2 ACTIVITY 2023

S.1 Mathematics

2 hours

INSTRUCTIONS TO LEARNERS:

- *Answer all the questions in both sections.*
- *Each question in section A carries 4 marks and each question in section B carries 15 marks.*
- *Show all the working and explanation on the answer sheets provided.*
- *No sharing of materials like calculators, rulers etc*

SECTION A (40MARKS)

1. Find the value of n; $102_n = 33_{five}$ (4marks)
2. Convert 110010_{two} to base six (4marks)
3. Write the following figures that were recorded in a warehouse's books of accounts in words.
   (a) UGX 4, 006, 846,234,156
   (b) 10, 425 books (4marks)
4. (a) Write down all factors of 100 between 0 and 25. (2marks)
   (b) Write down all multiples of 4 between 5 and 40 (2marks)
5. Workout –3 – -2 using a number line (4marks)
6. Find the HCF of 12, 20 and 28 (4marks).
7. Express 10564 as a product of its prime factors giving your answer in power form.

   (4marks)
8. Teso Integrated secondary school is both 'O' and 'A' level. The bell for changing lessons for 'O' level rings after 40 minutes while that for 'A' level rings after 60 minutes. Lessons for both 'O' and 'A' level begin at 7:20am with the sounding of the bells. Find the time in hours the two bells ring together again.
   (4marks)
9. Mr. Wamboko divided his piece of land into 8 equal plots. He gave his son 3 plots and his two daughters 2 plots each.
   (a) What fraction of the land was given to the children?
   (b) What fraction of the land did he keep to himself? (4marks)
10. Find the next two terms in the following sequences
    (a) 1, 4, 9, 16, _, _
    (b) 3, 9, 27,_,_ (4marks)

SECTION B (60marks)

11. Using a ruler and a pair of compasses only, construct a parallelogram ABCD such that AB = 6cm, BC = 4.8cm and angles ABC = 150^0

(a) Draw a perpendicular from D onto AB to meet it at M. Measure the length AD, hence find the area of the parallelogram ABCD

(b) Draw a circle through the points M, A and D. Measure the radius of the circle.

(15marks)

12. Teso Integrated SS started the distribution of food to the community in Ngora district as a way of appreciating the community for supporting the school. Each member in the household was given a package containing 6kgs of maize flour and 3kg of beans. There are 10 households in the community with 3,5,7,4,6,5,8,12,13 and 4 members respectively.

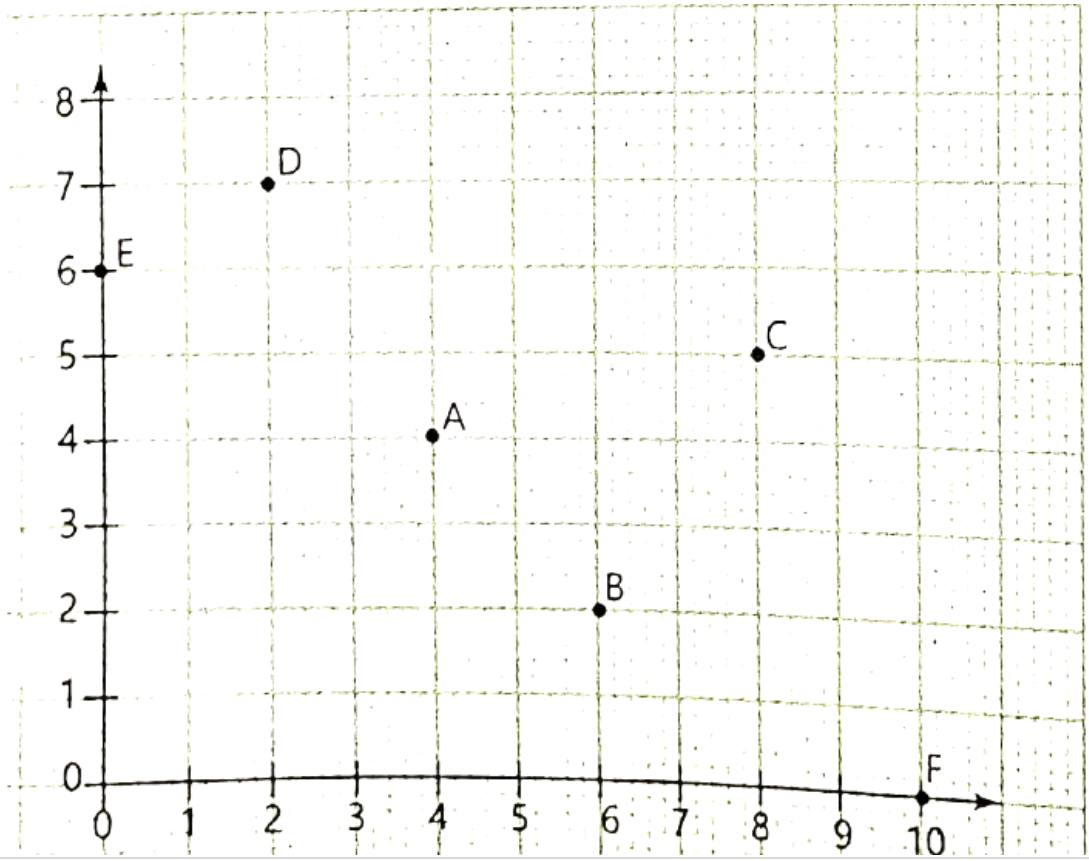
(a) Determine the number of packages the school distributed in Ngora district.

(b) Determine the total weight of the maize flour that was distributed in the district.

(c) Incase there are some remaining packages, discuss what the school should do with them.

(d) The prices of beans and maize flour was approximated to be at 4,000UGX and 2,500UGX per kilogram respectively. What is the total amount of money spent by the school on maize flour and beans in the 10 households (15marks)

13 (a) Locate the points A, B, C , D, E and F on the graph below. (6marks)



(b) The price of a mathematical set was UGX 2,400 a month ago, and now it is UGX 3,000.Find the percentage increase in the price. (4marks)

(c) Express 0.65444… as a fraction in its simplest form (5marks)

14. (a) The table below shows how Imukeka Spends her monthly income.

Item	food	rent	savings	transport
Percentage	35%	20%	q%	15%

(i) What percentage of her salary is spent on savings?

(ii) If she spends ugx 560,000 on rent, how much does she earn a year?

(iii) If Imukeka wants to buy a car from her 3 years savings, what is the cost of the car?

(iv) How much more money does she spend on food than on rent per month? (10marks)

b) Kabasingwire was given UGX 650,000 while going back to school and she used UGX 5,000 as transport to school. Of the remainder, she spent 25% on shopping and 60 % on school fees.

(i) What percentage did she spend on transport?

(ii) What percentage did he remain with after all the expenditure?

(5marks)

END

HAPPY HOLIDAYS

"There is no abiding success without commitment"

By Mr Wamboko Paul