

Names:

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ITEMS	LEARNERS SCORES
Item 1	
Item 2	
Item 3	
Item 4	
Total Scores	

KIYALA HIGH SCHOOL

MID TERM TWO ASSESSMENT TEST 2025

MATHEMATICS

S.3

Time: 2 Hours

INSTRUCTIONS:

- The paper contains *four* items.
- Attempt Any Three Items

Item 1.

Adam is thinking about adding more cardio equipment for the members. The gym manager surveyed a sample of 60 members and asked which equipment they used in the previous month. He considered three types of equipment, treadmill (T), stair masters (S) and dumb bells (D). The manager would therefore come up with a decision to purchase more equipment if the probability of a member who prefers only one equipment exceeds 0.10.

15 members used treadmill, 30 used stair masters, 19 used dumb bells, 8 used treadmill and stair masters, 12 used treadmill and dumb bells, 7 used stair masters and dumb bells. While 5 used all the three equipment.

Task.

- Determine the number of members that did not use any of the equipment.
- Calculate the number of members who used:
 - atleast one of the three equipment
 - only one equipment

Item 2.

Two friends Sarah and Moses started a poultry project to which they contributed of Shs 4,000,000 and Shs 6,000,000 respectively.

They agreed to share the profit in the ratio of their contribution and the project started with 200 birds. After selling the birds they made a profit of Shs 1,500,000. They re-invested the profit in the project and the number of birds increased to 2,500. However, Moses was not sure of the amount he re-invested as well as the percentage increase in the number of birds. Due to the fatigue, Sarah felt she experienced from managing the business, Sarah fell sick and she was diagnosed with a condition that requires her to take two types of tablets. Of which one tablet must be taken every 6 hours and the other every 4 hours. But she took both tablets at 9:00 am.

Task.

- a) How much of the profit did Moses re-invest in the business?
- b) What was the percentage increase in the number of birds?
- c) Help Sarah to calculate the time she will take both tablets at the same time again.

Item 3.

The manager of the wholesale shop wants to recruit only 10 workers. He advertised these vacancies and got 40 applications. He subjected the applicants to an interview and they performed as follows:

3 applicants got from 20 to 24 points, 9 applicants got from 25 to 29 points, 9 applicants got from 30 to 34 points, 10 applicants got from 35 to 39 points, 7 applicants got from 40 to 44 points and 2 applicants got from 45 to 49 points.

Task.

- a) Advise the manager on the pass mark so as to get only the required number of workers.
- b) Your friend was an unsuccessful applicant because she did not raise the pass mark.
The manager told her that her score is what most applicants got but she could not understand. Help your friend to know her score.

Item 4.

You are an athlete and soon competing with someone. You wanted to test your chances of winning the race by testing your speed and time in relation to that of your competitor. You started to run at 4:50 pm from your home where you ran a distance of 5km north-west to place P. then from P, you turned south and ran 4 km until you were at place Q that is west of your home and then ran back and arrived at 5:12 p.m. your competitor ran the same distance during training at a speed of 10 m/s.

Tasks.

- a) What is the total distance that you ran?
- b) What is the total time you took to run that distance?
- c) How fast were you?
- d) Do you think you will win the peace race or not? Why do you think that way?