THE UGANDA INTER SCHOOL VIRTUAL OLEVEL MATHEMATICS SEMINAR 2026.

Saturday 20^{th} June 2026 (9:00 a.m)

INSTRUCTIONS TO STUDENTS AND TEACHERS:

Dear students and teachers we would like to welcome you to participate in the forthcoming Mathematics seminar for senior four students. This is in preparation for the forthcoming final exams(UNEB) and the Mock Examinations. **This is a free seminar and no one should charge you any fees**.The process to be followed by both the teachers and students is suggested below:

1. Teachers share the Seminar questions with their students and ask for volunteers to discuss any of the questions. Questions should be pinned up and learners write down all the questions in their books.
2. Teachers talk to the school administrators to allow the children participate as presenters in the seminar on Saturday **20th June from 09:00am - 2:00 pm.** Other students will just be participants.
3. The student together with the teachers select atleast two best done presentations and the students to represent the school.The solutions and pictures/videos should be uploaded on padlet`https://bit.ly/S4MATHSEMINAR2023` and on email kazibastephen42@gmail.com
4. Hold a mock presentation where all your discussants present to the rest of the class.After that release the rest of the class and record your best presenter in a very quiet environment but with good light.Record each part of the question separately .
5. The teacher could now train the student on how to present on zoom as far as sharing a screen and using the whiteboard. Alternatively the students' presentation will be loaded on the computer screen and they explain to us their solution.

SEMINAR DETAILS

S.4 virtual Mathematics seminar 2026.

Time: 20th June 2026, 09:00 AM

Join Zoom Meeting
`https://zoom.us/j/93547660730?pwd=v05xfT3uhxdxA6XTrbAD3oXLmHpEpX.1`
Meeting ID:93547660730
Passcode: HeLP

Item	Element of Construct	Topics
Item one	Numbers	1. Number bases 2. Working with Integers 3. Rectangular Cartesian Coordinates in 2- Dimensions 4. Fractions,percentages and decimals 5. Numerical concepts 1 and 2 (a) Indices (b) Surds 6. Ratios and Proportions
Item two	Patterns and Algebra	1. Sequence and patterns 2. Equation of lines and curves 3. Algebra 1 and 2 4. Mappings and relations 5. Vectors and translation 6. Inequalities and regions 7. Equation of a straight line 8. Simultaneous equations 9. Quadratic equations 10. Composite functions 11. Equations and inequalities 12. Linear programming 13. Loci
Item three and four	Data and Probability	1. Data collection/display and presentation 2. Graphs 3. Set theory 4. Matrices 5. Probability
Item five and six	Geometry and Measures	1. Geometric Constructions Skills 2. Bearings 3. General and angle properties of geometric figures 4. Reflection 5. Business mathematics 6. Time and time tables 7. Similarities and enlargement 8. Circles 9. Rotation 10. Length and area properties of two-dimensional geometrical figures. 11. Nets, areas and volumes of solids 12. Trigonometry 13. Vectors 14. Matrix transformations 15. Circle properties 16. Lines and planes in three dimensions

NUMBERS

1. The Agriculture Club of a secondary school harvested 50 tomatoes from the school garden and planned to sell them to the surrounding community during the school market day. The club members proposed selling the tomatoes in groups of 7 tomatoes, with each group sold at UGX 5,000.
   However, the agriculture teacher suggested that the tomatoes should instead be sold in kilograms.After weighing the tomatoes, the members found out that 1 kilogram contained 4 tomatoes and each kilogram would be sold at UGX 3,500. The club also agreed that 60% of the money obtained from the sales would be reinvested into the school garden project, while the remaining amount would be shared equally among the 7 club members. All the tomatoes harvested were sold during the market day.
   The club harvestes tomatoes after every 5 days while the community market day is organised after every 4 days. On 24th May 2026, both the harvesting and the market day happened on the same day.
   Task
   (a) Advise the club on the better method of selling the tomatoes. Give a reason for your answer.
   (b) If the club uses the better method of selling, determine:
      i. the amount of money that would be reinvested into the school garden project;
      ii. the amount of money each club member would receive.
   (c) Determine the next date on which the harvesting and the market day will again happen on the same day.
2. Christine is a poultry farmer who keeps 1,000 layer birds. During a routine visit to a Koudijs Company agent, she received the feed formulation guide shown on the poster provided.

KLC5 - 100KGS (LAYER)								
Ingredients	Pre-Starter Stage	Starter Stage	Grower Stage	Developer Stage	Pre-Layer Stage	Pre-Peak Stage	Layer 1 Stage	Layer 2 Stage
	0-7 Days	2-6 Wks	7-10 Wks	11-17 Wks	18-19 wks	20-28 Wks	29-45 Wks	46Wks-End
Galdus Layer	Galdus - 84 gms/birds							
KBC 30/35		35	30					
KLC 5				5	5	5	5	5
Broken Maize		53	52	56	35	36	39	39
Maize Bran		12	18	26	26	24	24	23
Soya Cake				11	18	20	15	15
Sun Flower					10	7	6	6
Limestone/Shells				2	6	8	11	12
TOTAL		100	100	100	100	100	100	100

Figure 1: Formulation guide for layer concentrate

At the time of receiving the guide, Christine's birds were 13 weeks old. She intends to prepare feed according to the recommended formulation for birds at that stage of growth.

Christine has bought a full 50kg bag of concentrate and would like to use it all while maintaining the recommended feed mixture.

Each bird consumes $90g$ of feed per day. Christine wishes to plan her feeding programme effectively so that she can determine when additional feed ingredients will be required.

Due to the increasing number of birds on the farm and her plans to expand production, Christine intends to construct a larger poultry structure. The plan of the proposed structure was drawn using a scale of $1 : 50$. The area of the structure on the drawing is 96 cm^2. Before construction begins, she would like to know the actual floor area of the proposed structure.

Task

Using information from the feed formulation guide and appropriate mathematical methods:

(a) Support Christine in preparing the required feed mixture using the entire (50)-kg bag of concentrate while maintaining the recommended formulation for her birds.

(b) Advise Christine on when she is likely to require additional feed ingredients for the birds.

(c) Determine the actual area of the proposed poultry structure in square metres.

PATTERNS AND ALGEBRA

3. A self employed telecommunications engineer receives more online technical support requests than can be handled in a single 8-hour working day. The engineer provides two types of online services:network troubleshooting and software configuration. The engineer can spend at most 5 hours on network troubleshooting services, which earn \$60 per hour, and at most 6 hours on software configuration services, which earn \$70 per hour.To complete the services, the engineer uses cloud service credits purchased from an online provider.A total of 41 cloud service credits are available for the day. Network troubleshooting requires 4 credits per hour, while software configuration requires 6 credits per hour.The engineer wants to determine the most suitable combination of services that would maximise earnings without exceeding the available working time and cloud service credits.
Task

Support the engineer with the information needed.

4. A fuel importer is preparing for increased customer demand during a festive holiday season. The importer supplies petrol and diesel to several fuel stations in the region. The importer purchases petrol at \$1.25 per litre and diesel at \$1.00 per litre. Due to storage limitations at the distribution depot, the importer can store at most 18,000 litres of petrol and 12,000 litres of diesel. At the time of ordering fuel, the petrol tank already contains 8,000 litres while the diesel tank contains 4,000 litres. From previous sales records, the importer expects the amount of diesel imported to be at most half the amount of petrol imported during

the holiday period. The importer has $14,000 available for purchasing fuel and wishes to determine the quantities of petrol and diesel that maximises the total amount without exceeding the available storage space and budget. The importer also hires truck drivers to transport the fuel from the depot to fuel stations during the holiday distribution exercise. During the previous delivery, the petrol truck driver spent 2 days while the diesel truck driver spent 3 days transporting fuel, and together they were paid UGX 500,000. For the coming delivery, the petrol truck driver is expected to spend 4 days while the diesel truck driver is expected to spend 1 day, and the total transport payment is expected to be UGX 350,000. The importer wants to establish which driver earns more money per day before the deliveries are made.

Task

Support the importer with the information needed.

5. During the third term holiday, a parent became concerned about the increasing amount of time his child was spending on a mobile phone at home. In order to monitor the child's behaviour, the parent recorded the total number of hours spent on the phone each week during the holiday. The child spent a total of 5 hours on the phone during the first week, 6.5 hours during the second week and 8 hours during the third week. The child continued increasing the time spent on the phone following the same pattern. The parent also read from the internet that spending more than 15 hours on a mobile phone in a week may be excessive for a child. The parent wants to predict the child's future phone usage and determine when the phone may need to be withdrawn.

   Task:

   (a) determine the relationship between the week number and the number of hours the child spent on the phone.

   (b) represent the relationship between the week number and the number of hours spent on the phone for the first 7 weeks on a suitable graph and comment on the child's phone usage during the holiday.

   (c) calculate the weeks during which the parent may need to withdraw the phone from the child.

6. A road construction engineer in western Uganda is designing a sloping road section in a hilly area to improve transport and reduce accidents during the rainy season. The engineer proposes that the run of the road should be 20 metres more than the rise. During planning, the engineer estimated that the side section formed by the rise and the run of the road would cover an area of 150 m^2 Road safety guidelines recommend that if the percentage incline of a road section exceeds 30%, the road should be redesigned to reduce steepness. The engineer wants to help the supervision team determine whether the proposed road section is suitable for road users before construction begins.

   Task

   (a) determine the dimensions of the proposed road section.

   (b) comment on the suitability of the proposed road section for road users.

7. A family is planning a grand graduation party and approached a local hotel for venue and catering services. The hotel management offered them a choice between two hosting packages.

   - Package Alpha required a fixed venue booking fee of six hundred thousand shillings together with an additional charge of eighteen thousand shillings per guest for food and refreshments. However, toencourage larger gatherings, the hotel offered a 10% discount on the total food and refreshments bill whenever the number of guests exceeded 80.
   - Package Beta required no venue booking fee, but the hotel charged a flat rate of twenty two thousand shillings per guest for food and refreshments. The package also required a minimum attendance of 40 guests.

   The organising committee consisted of 15 members and planned not to exceed a total expenditure of two million two hundred twenty thousand shillings . The committee members agreed to contribute equal amounts of money towards the planned budget. However, before making their contributions, 3 members withdrew from the committee, forcing the remaining members to adjust their contributions so as to meet the original budget target.

   Immediately after the graduation party, the hotel venue had to be thoroughly cleaned before another function could take place. The hotel's regular cleaning crew could complete the cleaning work in 24 hours. To ensure that the venue was ready within 16 hours, the hotel manager deployed eight additional labourers of the same capability.

   Task:

   (a) advise the organising committee on the most suitable package for the graduation party if they intend to maximise attendance while remaining within the planned budget. Give reasons for your answer.

   (b) determine the effect of the withdrawal of the committee members on the contribution of each remaining member.

   (c) determine the original number of labourers in the hotel's regular cleaning crew before the additional labourers were deployed.

8. The administration of a secondary school wanted to determine whether extra study time was associated with better performance in Mathematics. A sample of ten learners was selected and the number of hours spent studying for a Mathematics test together with the corresponding test scores were recorded. The findings would be used to guide future academic support programmes and to advise learners on effective study habits.

Hours of study	5	5	13	6	12	16	8	14	7	11
Test score	34	45	80	56	78	90	68	88	58	75

   Task:
   Help the school administration to:

   (a) present the data on a suitable graph;

(b) describe the relationship between study time and performance in Mathematics;

(c) estimate the score that may be obtained by a learner who studies for 10 hours and hence comment on the usefulness of the data collected.

DATA AND PROBABILITY

9. Due to the increasing number of road accidents associated with mechanical failure, the Ministry of Works and Transport intensified vehicle inspection exercises in selected regions of Uganda. The Ministry is particularly concerned about vehicles operating with multiple defects because such vehicles are considered highly risky to road users. A team of engineers was assigned to analyse inspection findings from one region after concerns were raised about the condition of vehicles operating along major highways. According to the Ministry guidelines, a new inspection centre should only be considered if less than half of the inspected vehicles are found with only one defect. During the inspection exercise, 94 vehicles were randomly selected and inspected for faulty tyres, faulty steering systems and faulty bodywork. The inspection findings showed that 34 vehicles had faulty tyres, 40 had faulty steering systems and 29 had faulty bodywork. Some vehicles were found with more than one defect. In particular, 7 vehicles had both faulty tyres and steering systems, 6 had both faulty steering systems and bodywork, while 11 had both faulty bodywork and tyres. The engineers also established that 11 vehicles did not have any of the three defects under investigation.

   Task:

   (a) Using a suitable representation, support the engineers in establishing the exact number of vehicles that had all the three defects.

   (b) Using evidence from the inspection findings, give a recommendation to the Ministry concerning the establishment of another vehicle inspection centre in the region.

10. Kakira Sugar Limited (KSL) supplies premium sugar to supermarkets across Uganda. The sugar is packed in bales containing small household packets and in bags intended for bulk purchasers.

    At the beginning of June, KSL supplied Mega Supermarket with 25 bales and 10 bags of sugar. During the same period, Quality Supermarket received 30 bales and 6 bags, while Capital Shoppers Supermarket received 15 bales and 12 bags. KSL charged a wholesale price of eighty thousand shillings per bale and two hundred and twenty thousand shillings per bag.

    At the end of the month, Mega Supermarket reported selling 22 bales and 8 bags of sugar. Quality Supermarket reported selling 28 bales of sugar. In addition, 2 bags were damaged during storage and could not be sold. Capital Shoppers Supermarket reported selling 14 bales and 11 bags of sugar.

    The supermarkets sold sugar to customers at ninety-five thousand shillings per bale and two hundred and fifty thousand shillings per bag. Before deciding on the distribution of sugar for the following month, the finance manager requested a monthly review report showing the value of sugar supplied to each supermarket, the revenue generated from sales

and the stock remaining at the end of the month. The report would be used to determine which supermarket should receive additional stock in the following month.

Task

Help Kakira Sugar Limited to:

(a) organise the supply, sales and pricing information in rows and columns, clearly stating the order of the data used;

(b) prepare the monthly review report required by the finance manager and hence advise the company on the allocation of sugar stock for the following month . Give reasons for your answer.

11. MTN Uganda has recently received complaints from customers about delays experienced while seeking assistance from the company's help centre. The management suspects that some telephone calls are taking longer than expected, which may be affecting the efficiency of customer care services. To investigate the matter, a data analyst randomly selected 40 telephone calls made to the help centre on a particular day and presented the information on the graph(Figure 2). According to the company policy:

- the average duration of calls made to the help centre should not exceed 5 minutes;
- fewer than 40% of the calls should last more than 7 minutes;
- not more than 5 calls should last beyond 13 minutes.

MTN management wants to use the information from the graph to assess the efficiency of the help centre.

Task

Provide MTN Uganda with the help they need.

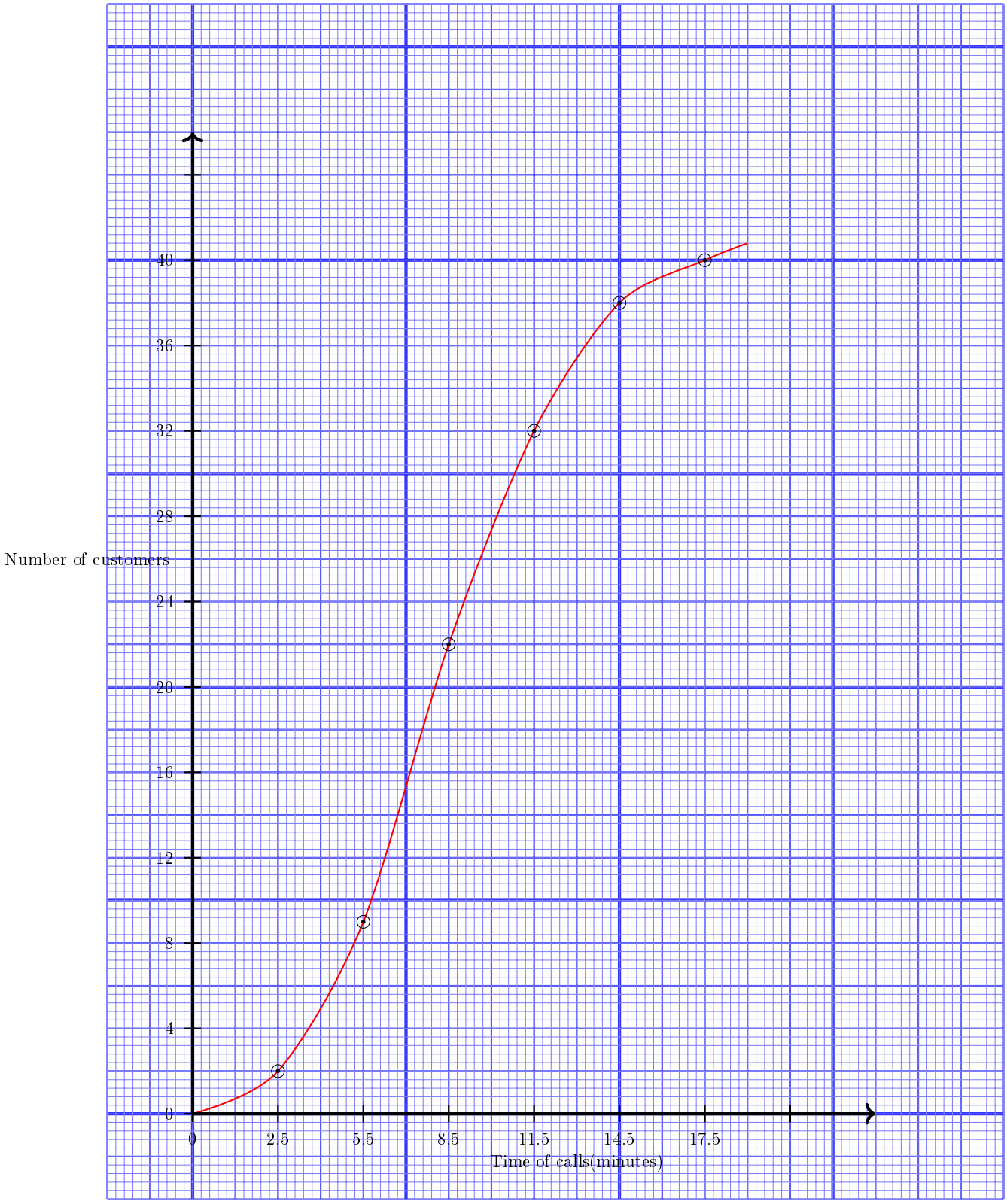

Figure 2: Graph showing the Number of customers and the Time of calls

12. A nutritionist at a community health centre is preparing a feeding programme for women, men and children aged $5-10$ years during a community health camp. The nutritionist needs to determine the total nutritional requirements for the participants before food supplies are purchased. According to the recommended daily allowance guidelines used by the health centre, a woman requires 2000 kcal of calories, 45 g of protein, 230 g of carbohydrates and 70 g of fat per day. A man requires 2500 kcal of calories, 55 g of protein, 300 g of carbohydrates and 95 g of fat per day, while a child aged $5-10$ years requires 1800 kcal of calories, 24 g of protein, 220 g of carbohydrates and 70 g of fat per day.

    During the programme, meals are to be prepared for 2 women, 3 men and 4 children aged 5 - 10 years. The nutritionist wants to organise and present the information in a form that can simplify analysis and comparison of the nutritional requirements for the group.

    Task:
    Help the nutritionist to:

    (a) organise the information into rows and columns, stating the order of each arrangement.

    (b) determine the total nutritional requirements for the group per day.

    (c) present the nutritional requirements in a suitable graphical form and hence identify the nutrient required in the greatest quantity.

13. A television company is organising a quiz competition for secondary school learners. In the first round of the competition, a contestant must answer at least one question correctly in order to qualify for the second round. Each contestant may be asked at most two questions. A contestant who answers the first question correctly automatically qualifies for the second round and is not asked another question. However, a contestant who fails the first question is given a second question. A contestant who answers the second question correctly qualifies for the second round, while one who fails the second question is eliminated from the competition. The organisers analysed past performances and established that the probability of a contestant answering any question correctly is 0.6.The company has only prepared space and learning materials for contestants in the second round if the probability of contestants qualifying is greater than the probability of contestants being eliminated.

    Task:
    Help the organisers to:

    (a) present the possible outcomes of the competition and their probabilities in a suitable form.

    (b) determine whether the preparations made for the second round are likely to be enough. Give a reason for your answer.

14. A businessman in Jinja wanted to import urgent goods from China and received transport proposals from two logistics agents. The businessman needed the goods to reach him within 15 days after departure so as to fulfil customer orders on time. The first agent proposed air transport. The goods would leave China at 9:00 a.m. on a cargo plane travelling $1,200$ km at an average speed of 240 km/h to Guangzhou. After spending 4 hours in customs clearance,

another plane would transport the goods 7,200 km to Addis Ababa at the same average speed. The goods would then spend another 3.5 hours in clearance before being flown 3,500 km to Entebbe at an average speed of 200 km/h. On arrival at Entebbe, the goods would spend 5 hours in customs clearance before being transported by truck to Jinja, a distance of 75 km, at an average speed of 50 km/h. The first agent charged according to the total active flying time, excluding all clearance hours, using the following conditions:

- the first 30 hours were charged at Shs 50,000 per hour;
- the next 15 hours were charged at Shs 80,000 per hour;
- any additional active flying time above 45 hours was charged at Shs 100,000 per hour.
- Free road transport from Entebbe to Jinja.

The second agent proposed transporting the goods by ship from Guangzhou to Mombasa over a distance of 8,800 km at an average speed of 40 km/h. After spending 24 hours in customs clearance at Mombasa, the goods would then be transported by freight train to Jinja over a distance of 1,350 km at an average speed of 80 km/h. The second agent charged Shs 2,500 per kilometre travelled. However, a 12% discount would be offered if the total transport distance exceeded 9,000 km .

Task

Using appropriate mathematical methods,advise the businessman on the most suitable logistics agent for transporting the goods.Give reasons for your answer

GEOMETRY AND MEASURES

15. An inspector of schools travelled from his home at 6 : 00 a.m. to inspect a certain school. He first travelled in the direction $N60°W$ at an average speed of 80 km/h and reached a trading centre at 8 : 30 a.m. After resting for 15 minutes, the inspector continued his journey in a bearing of 250° at an average speed of 150 km/h and reached the district headquarters at 9 : 33 a.m. He then spent 10 minutes in a meeting with the District Education Officer before travelling directly to the school,which was 40 km away from the headquarters. The inspector arrived at the school at 10 : 02 a.m. At the school, the inspector supervised lessons for 2 hours and later met the school administration for 1 hour and 30 minutes. After the meeting, the inspector travelled back to the district headquarters to submit the inspection report. After submitting the report, the inspector was informed that he could either:

    - use the route through the trading centre to return home, or
    - go through the school and then use the direct route from the school to his home.

    The inspector's vehicle had 35 litres of fuel at the beginning of the journey, and the vehicle consumed 0.06 litres of fuel per kilometre travelled.

    Task:

(a) advise the inspector on the better route to use in returning home. Give reasons for your answer.

(b) determine whether the fuel available at the beginning of the journey would be enough for the inspector to complete the entire journey using the better route. Give reasons for your answer.

16. A farmer has a rectangular brooding room whose diagonal is 12 m long and one side measures 6 m. The diagonal divides the room into two congruent triangular sections. The farmer wanted to use one triangular section to construct a circular brooder for chicks. The farmer wanted to minimise wastage of space while ensuring that the circular brooder touched the two perpendicular sides of the triangular section and the diagonal partition. To construct the circular fence, the farmer used rectangular plywood sheets measuring 100 cm $\times$ 90 cm. Each plywood sheet cost two thousand five hundred shillings. The rectangular plywood sheets were folded to form the circular fence around the brooder. The farmer also planned to use the other part of the triangular section not occupied by the circular brooder for storing feeds but was not sure about its exact area.

Task

(a) construct an accurate diagram showing the brooder section, clearly indicating the exact angle of inclination of the diagonal with the side of the room.

(b) determine the amount of money the farmer would spend on plywood for constructing the circular brooder.

(c) help the farmer to determine, in the simplest exact form, the area for storing feeds.

17. A fishing company operates cargo boats that transport fish from islands on Lake Victoria to a processing plant near a harbour. The harbour authority has observed that the depth of water at the harbour entrance varies throughout the day due to tidal effects. On a particular day, the depth of water, d metres, at the harbour entrance can be modelled by

$$d = 11 + 5\sin 30t$$

where:

- d is the depth of water in metres;
- t is the number of hours after midnight $0 \leq t \leq 24$

The company's largest cargo boat can only enter or leave the harbour when the depth of water is at least 14 metres. A cargo boat carrying fresh fish is expected to arrive at the harbour entrance at 8 : 00 a.m. If the boat is unable to enter the harbour immediately, the company incurs additional fuel and fish preservation costs of Shs 150, 000 per hour for the time spent waiting outside the harbour. The management of the fishing company wishes to minimise delays and avoid unnecessary operational costs while ensuring the safe movement of the cargo boat.

Task

(a) Using a suitable graphical representation, determine the periods during which the cargo boat can safely enter or leave the harbour.

(b) Advise the management of the fishing company on whether the planned arrival time is suitable. Give reasons for your answer.

18. A school management committee planned to renovate one of its classrooms in preparation for the new academic year. The classroom measures 8 m long, 6 m wide and 3.5 m high. The classroom has one doorway measuring 2.1 m by 1.2 m and four glass windows, each measuring 1.5 m by 1.2 m. As part of the renovation, the committee intends to repaint the classroom walls to improve the appearance of the learning environment. The paint was supplied in a cylindrical bucket of internal radius 10 cm and height 30 cm, filled completely with paint. It is known that 1 litre of paint covers 10 m^2.

    The committee also plans to cover the entire classroom floor with square ceramic tiles measuring 25 cm . To cater for breakages and wastage during installation, the contractor recommended purchasing an additional 5% of the required tiles.

    Two suppliers submitted quotations for supplying the tiles. According to the quotations received, Supplier A would supply tiles in boxes containing 20 tiles at a cost of forty-five thousand shillings per box, while Supplier B would supply tiles in boxes containing 30 tiles at a cost of sixty-eight thousand shillings per box. The school management committee wishes to minimise expenditure while ensuring that the renovation work is completed successfully.
    Task

    (a) Support the school management committee in determining whether the paint supplied will be adequate for the painting work.

    (b) Advise the committee on the most suitable supplier for completing the floor renovation. Give reasons for your answer.

19. A maize company was transporting maize from Jinja City to Wakiso District using a Fuso Fighter truck. The driver travelled from Jinja on a bearing of $N40°W$ for 52 km to Kayunga. As the driver approached Kayunga, he noticed dark clouds and suspected that it would soon rain. Since the maize was being transported in an open-bodied truck, he decided to purchase tarpaulin in Kayunga to cover the cargo section and protect the maize from getting wet. However, he was not sure how much tarpaulin would be required or the cost involved.

    The cargo section of the truck consisted of a rectangular body measuring 6m long, 2.4m wide and 2.0m high. Above the rectangular body was a triangular roof frame of height 80cm running along the entire length of the truck. The driver intended to cover the roof and all the side surfaces of the cargo section with tarpaulin, leaving the floor uncovered. The tarpaulin was sold in sheets measuring 4 m by 6 m. Each sheet cost Uganda Shillings eighty- five thousand.

    After securing the maize, the driver continued the journey to Wakiso, travelling 80 km on a bearing of 225°. The company plans to use the direct route between Jinja and Wakiso

for future deliveries. It is known that the truck consumes 1 litre of fuel for every 5 km travelled.

Task

Help the maize company to:

(a) determine the least amount of tarpaulin required to cover the cargo section of the truck and the amount the driver spent on acquiring it;

(b) determine the distance of the direct route from Jinja to Wakiso and hence estimate the amount of fuel required for a future direct journey.

20. A school football team was preparing for an inter-school competition. During a training session, the coach marked out a jogging area using cones placed at points $A(-2,-2)$, $B(1,-2)$, $C(1,3)$ and $D(-2,3)$ on a coordinate grid.

    To improve movement patterns during the second training session, the coach repositioned the cones by rotating the jogging area through a positive quarter turn about the point $(1,1)$.

    To accommodate additional players during the final training session, the coach doubled the distances of all the corners of the repositioned training area from the origin, creating a larger training ground. The school field has a running-track boundary modelled by the line $y=-5$. The coach wanted to ensure that the enlarged training area remained within the designated training zone.

    Task

    Help the coach to:

    (a) represent the original training area and the adjusted training areas on a suitable coordinate grid;

    (b) determine the positions of the cones in the final training area and hence determine the size of the training ground;

    (c) determine whether the final training area remains within the designated training zone.

END