LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

NATIONAL SENIOR CERTIFICATE
CAPS

SENIOR CERTIFICATE

MOPANI EAST DISTRICT

MATHEMATICAL LITERACY GRADE 11

ASSIGNMENT 2 (TASK 5)

12 August 2024

MARKS: 75
WEIGHT: 10

TIME: 1½ Hours

This question paper consist of 8 pages.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of **FOUR** questions. Answer **ALL** the questions.

2. Use **ANSWERSHEET A** to answer **QUESTION 2.2.3**.

3. Number your answers correctly according to the numbering system used in this question paper.

4. Start **EACH** question on a **NEW** page.

5. You may use an approved calculator (non-programmable and non-graphical), unless stated otherwise.

6. Show **ALL** calculations clearly.

7. Round **ALL** final answers according to the context given, unless stated otherwise.

8. Indicate units of measurements, where applicable.

9. Write neatly and legibly.

10. Maps and diagrams are **NOT** necessarily drawn to scale, unless stated otherwise.

QUESTION 1

1.1 Ms Mokhethi has a Savings Banking account at ABC bank. Below is an extract from one of his statements as well as an extract of the fee brochure for this type of an account. All amounts shown in the statement are in rands.

Table 1: Ms Mokhethi's bank statement

Date	Description	Debit	Credit	Balance
01/12	Opening balance			15 339,14
02/12	Cash withdrawal at ABC ATM	700.00		14 639,14
02/12	Cash withdrawal fee	**A**		14 633,89
09/12	POS cash withdrawal at P&P	521,89		14 112,00
09/12	POS cash withdrawal	400,00		13 712,00
09/12	POS purchase and withdrawal fee	4,30		13 707,70
17/12	Cash deposit at branch counter		600,00	14 307,70
17/12	Cash deposit fee	19.70		**B**

Table 2: ABC banking fee brochure

Transaction	Fee description
Deposits	
Cash deposit: Branch counter	R8,00 + R1,95 per R100
Cash deposit: ABC ATM	R4,00 + R1,80 per R100
Withdrawals	
Cash withdrawal: Branch counter	R50,00 + R1,90 per R100
Cash withdrawal: ABC ATM	R5,25 per withdrawal
Cash withdrawal: Point of sale (POS)	R2,15 per transaction

Use the tables above to answer the questions that follow.

1.1.1 Write down the month on which the bank statement was issued. (2)

1.1.2 Explain the term *debit* in the context of the bank statement. (2)

1.1.3 Determine:
(a) **A**, the withdrawal fee on 02/12. (2)

(b) **B**, the balance on 17/12. (2)

1.1.4 Show how the deposit fee of R19,70 on 17/12 was calculated. (2)

1.1.5 Calculate the total amount withdrawn from this account shown in the extract of the bank statement above. (2)

-3-

1.2	Mr Mokhethi invested R10 000 at another bank at an interest rate of 7,5% compounded annually. Determine the value of the investment after 2 years.	(6)

1.3 | Below is the list of groceries with the average prices for each item in 2022 and in 2023.

| Item	Price 2022	Price 2023	% Change
Bread (loaf)	R 17.00	R 19.50	**A**
Milk (*l*)	R 16.49	**B**	14%
Wild Island (juice)	**C**	R 16.99	5%
Chicken (2kg)	R 55.00	R 72.50	**D**

[Adapted from www.pricecheck.co.za]

1.3.1   Define the term inflation.   (2)

1.3.2   Determine the price of milk in 2023 if the average inflation rate was 14%.   (2)
Round off your answer to two decimal places.

1.3.3   Calculate the percentage change of bread.   (3)

1.3.4   Explain what it means if the inflation rate is 5,3%.   (2)

1.3.5   Calculate the price of the juice (Wild Island) in 2022 if it has increased by 5%.   (3)

[30]

QUESTION 2

2.1   The graphs below show the 2022 income and expenditure for Amina Spaza Shop. Use the graphs to answer the questions that follow.

2022 income and expenditure
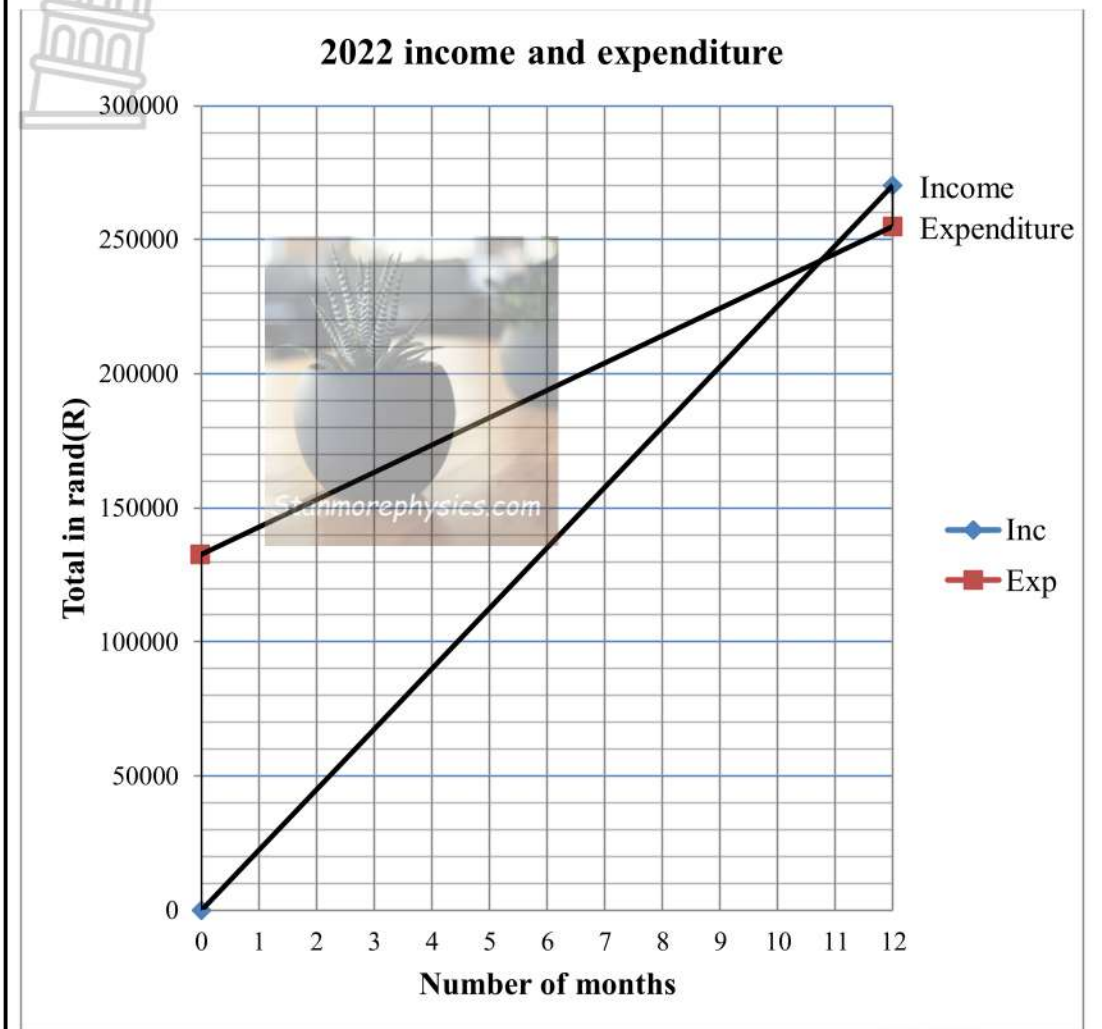
2.1.1   Define the term break-even point in the given context.   (2)

2.1.2   Determine the approximate points for the break-even point.   (2)

2.1.3   Determine the month in which the income started to be more than the expenditure.   (2)

2.2 Leon wants to buy a new car, but before he signs any contract, he wants to look at various options. He is interested in buying a used Hyundai i30. He makes an appointment with a salesperson to show him the various options.

|	Option 1 Linked Rate	Option 2 Balloon Payment
Cash Price	R249 995	R249 995
Deposit	R20 000	R0
Loan Amount	R231 135	R251 135
Interest Rate	10,25%	10,25%
Term of loan	6 years	6 years
Monthly repayment	R4 290,00	R3 905,00
Balloon Payment	R0	30% of cash price

NOTE: A compulsory once-off payment of R1 140,00 is payable.
      A monthly administration fee of R57,00 is added to the monthly repayment.
      A Balloon Payment is a final amount that is payable in the last month of the contract.

2.2.1   Define the term loan.   (2)

2.2.2   Show how the Loan Amount for Option 1 was calculated.   (2)

2.2.3   Calculate the total amount that Leon will pay after the six years on Option 1.   (3)

2.2.4   Calculate the total amount that Leon will pay after six year on Option 2.   (3)

2.2.5   Calculate the difference between the amounts in 2.2.3 and 2.2.4.   (2)

2.2.6   Explain why the monthly repayment of Option 2 is lower than that of   (2)
        Option 1 where a deposit has been paid.

                                                                                                [20]

QUESTION 3

3.1 The diagram below shows the side views and the respective elevations.
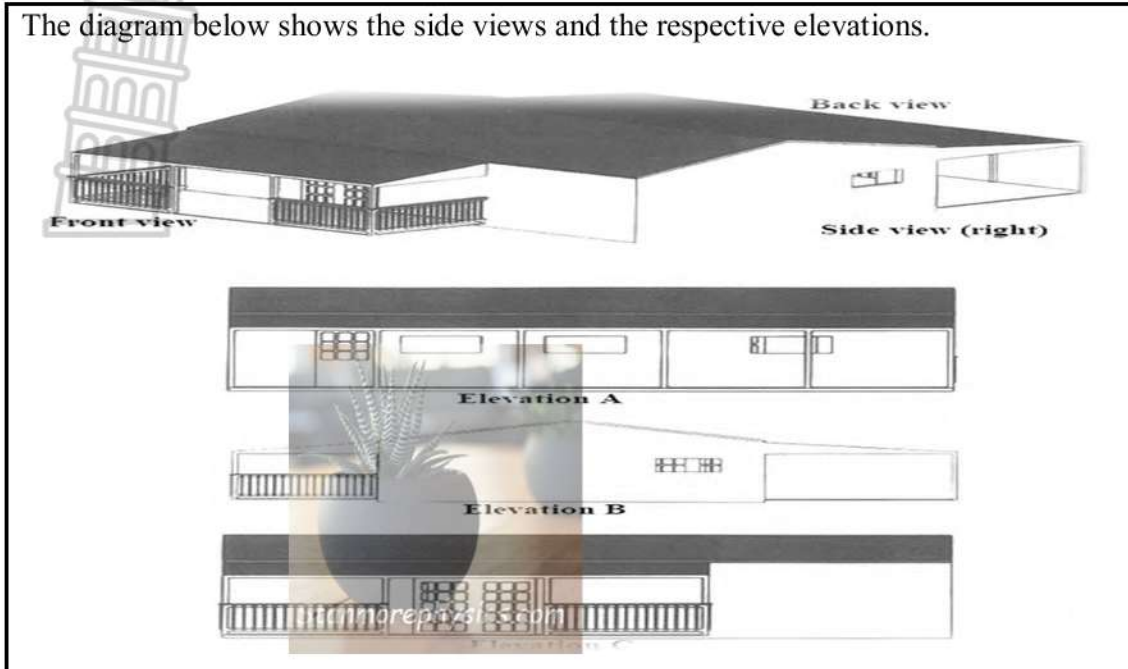
3.1.1 Define the term *elevation*. (2)

3.1.2 Match each side view with the correct elevation A, B and C. (3)

3.2 The TVs boxes are packed into the shipping containers before they are exported. The boxes of TVs packaged are having the dimensions of **97cm × 10cm × 59cm**. The shipping containers have the dimensions of **6m × 2.4m × 2.6m** as illustrated on the picture below.


www.bigboxcontainers.co.za

Study the picture above to determine how many TVs boxes can fit into this container. (5)

[10]

QUESTION 4

A floor plan for StarNet offices is given below. The length of the building on the plan is 11.70 cm and the width is 10.41 cm. An electrical plan is also attached to the floor plan. Use the information on the floor plan to answer the following questions.
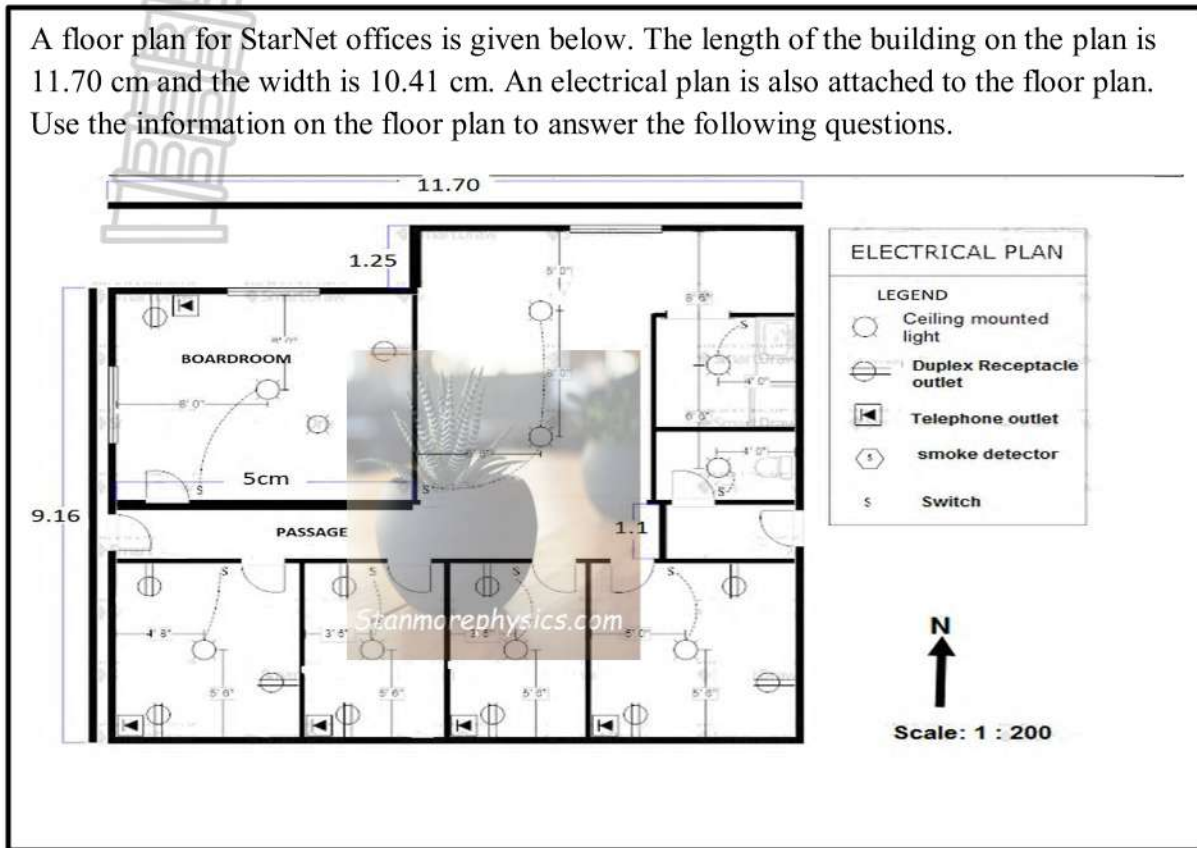
Use the above plan to answer the following questions.

4.1   Determine the number of telephone outlets in the building.   (2)

4.2   Write down the ratio of the outside doors to the inside doors in simplest form.   (3)

4.3   Explain the meaning of the scale 1:200 on the plan.   (2)

4.4   Use the given scale to determine the actual dimensions of the building.   (3)

4.5   The width of the building is 10.41cm. Verify if the width is correct. Show all   (3)
      calculations and write the answer in metres.

4.6   Determine the probability of finding a window on the eastern wall of the offices.   (2)

[15]

TOTAL MARKS : 75

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

MOPANI EAST DISTRICT

GRADE 11

MATHEMATICAL LITERACY
ASSIGNMENT
TERM 3   2024
MARKING GUIDELINES
MARKS : 75

Symbol	Explanation
M	Method
MA	Method with accuracy
MCA	Method with consistent Accuracy
CA	Consistent Accuracy
RCA	Rounding consistent accuracy
A	Accuracy
C	Conversion
S	Simplification
RT /RG/RD/RM/RP	Reading from a table/graph/map
F	Choosing the correct formula
SF	Correct substitution in a formula
O	Opinion/Example/Reasoning
J	Justification
P	Penalty e.g. for no units, incorrect rounding off etc.
R	Rounding Off
Re	Reason
Ro	Rounding
AO	Answer only

This marking guidelines consists of 6 pages

QUESTION 1 [30 Marks]

	Ques.	Solution	Explanation
1.1	1.1.1	December✓✓RT or 12th month✓✓ RT	2RT correct month (2)
	1.1.2	Money taken out of Ms Mokhethi's ABC saving bank account. ✓✓A	2A Correct definition (2)
	1.1.3	(a) A = R 14 639,14 – R 14 633,89 ✓MA = R 5,25✓A	2MA subtracting correct values 1A Simplification **AO** (2)
		(b) B = R14 307,70 - R19,70✓ MA = R14 288,00✓A	1MA subtracting correct values 1A Simplification **AO** (2)
	1.1.4	Deposit fee = R8,00 + R1,95 per R100 = R8,00 + R1,95 × 6✓✓MA = R19,70 **or** Deposit fee = R8,00 + R1,95 per R100 ✓✓MA = R8,00 + R1,95 + R1,95 + R1,95 + R1,95 + R1,95 + R1,95 = R19,70	2MA Multiplying by 6 2MA Adding R1,95 six times (2)
	1.1.5	Total amount = R700 + R400 + R521,89✓MA = R1 621,89✓A	1MA Adding correct values 1A Simplification (2)
1.2		1st year interest = R10 000,00 × $\frac{7,5}{100}$ ✓MA = R750 ✓A Amount after 1st year = R10 000,00 + R750 = R10 750,00 ✓A 2nd year interest = R10 750,00 × $\frac{7,5}{100}$ = R806,25✓CA Amount after 2nd year = R10 750.00 + R806,25 ✓MCA =R11 556,25✓CA	1MA calculating % 1A Answer 1A value after 1 year. 1CA simplification 1MCA adding correct values. 1CA simplification. (6)

1.3	1.3.1	Inflation is a general increase in the prices of goods and services over a period. ✓✓A	2A Correct definition. (2)
	1.3.2	Increase of 14% = R16.49 × $\frac{14}{100}$ ✓MA = R2,31 Price of milk = R16,49 + R2,31 = R18,80 ✓R OR Price of milk = R16,49 × $\frac{114}{100}$ ✓MA = R18,7986 =R18,80 ✓R	1MA calculating% 1R rounding 1MA calculating % 1R rounding (2)
	1.3.3	Price increase of bread = R19,50 – R17,00 = R2,50 ✓MA Percentage change of bread = $\frac{R2,50}{R17,00}$ × 100 ✓MA = 14,71% ✓A	1MA calculating increase. 1MA Multiplying by 100 1A Simplification (3)
	1.3.4	The prices of goods and services will increase by 5.3%. ✓✓O	2O Correct explanation (2)
	1.3.5	= R16.99 × $\frac{5}{105}$ ✓MA = R0.8090 Price of the juice = R16,99 – R0.8090 ✓MA = R R16,180952…. = R16.18 ✓A OR ✓MA Price of the juice = R16,99 × $\frac{100}{105}$ ✓MA = R16,180952…. = R16.18 ✓A	1MA calculating % 1MA Subtracting correct values 1A simplification 1MA multiplying with correct % 1MA Correct % 1A Correct rounding decimal (3)
			[30]

QUESTION 2 [20]

2.1	2.1.1	Break-even is a point where income and expenses for Amina Spaza Shop is the same✓✓A	2A Correct definition. (2)
	2.1.2	Accept (10,7✓ RT; R242 000) ✓RT	2RT Approximate points **Accept 10,6 – 10,8 and 242 000 – 244 000** (2)
	2.1.3	11 months.✓✓RT	2RT Correct month (2)
2.2	2.2.1	A loan is money borrowed to pay for a house, car or personal use where interest is charged. ✓✓A	2A correct definition. (2)
	2.2.2	✓MA R249 995 – R20 000+ R1 140✓MA = R231 135	1MA Subtracting R20 000 1MA Adding R1 140 (2)
	2.2.3	Loan amount for Option 1 = R4 290 + R57✓MA = R4 347 × 72 months✓MA = R312 984✓CA	1MA Adding correct values 1MA Multiplying by 72 months 1CA Simplification (3)
	2.2.4	Loan amount for Option 2 $R249\ 995 \times \dfrac{30}{100} = R74\ 998{,}50$✓MA = R3 905 + R57 = R3 962 × 71✓MA = R281 302 + R74 998,50 = R356 300.50✓CA	1MA calculating Ballon amount. 1MA multiply by 71 1CA simplification (3)
	2.2.5	Difference between Option 1 and Option 2 = R356 300,50 – R312 984,00✓MCA = R43 316,50✓CA	**CA from 2.2.3 and 2.2.4** 1MCA subtracting correct values. 1CA Simplification (2)
	2.2.6	Option 2 is lower because of the balloon payment. ✓✓O	2O correct explanation. (2)

[20]

QUESTION 3 [10 marks]			
Que	**Solution**		**Explanation**
3.1	3.1.1	Elevation is a view of a buiding seen from one side ✓✓A **or** Elevation is used to describe the external appearance of a building.✓✓A	2A correct definition. (2)
	3.1.2	Front view: Elevation C ✓A Back view: Elevation A ✓A Right Side view: Elevation B ✓A	3A Correct answer (3)
3.2	TV dimension in meters = 0.97 m × 0.1 m × 0.59 m✓C ✓MA No. of TVs along the length = 6m ÷ 0.97m = 6 No of TVs along the width = 2.4m ÷ 0.1m = 24✓ A No of TVs along the height = 2.6 m ÷ 0.59 = 4✓A Total number of TVs in the container = 6 × 24 × 4 = 576 ✓CA	1C conversion 1MA dividing correct values 1A simplification 1A simplification 1 CA simplification. (5)
			[10]

QUESTION 4 [15]

4.1	5 (five) telephone outlets. ✓✓RT	2RT Correct telephone outlets (2)
4.2	✓RT Ratio = 2: 6 ✓A = 1: 3✓CA	1RT both correct values' 1A correct order. 1CA ratio in simplified form. (3)
4.3	1unit on the plan reperesents 200 units in reality✓✓O	2O correce Explanation (2)
4.4	Actual width = 10,41cm × 200 ✓MA = 2 082 cm = 2 082 ÷ 100 ✓C = 20,82m ✓A Actual length = 11.70cm × 200 = 2 340 cm = 2 340cm ÷ 100 = 23.40m ✓ A	1MA multiply by the scale. 1C conversion 1Asimplification 1A simplification (3)
4.5	Width of the building = 9,16cm + 1,25cm ✓MA = 10,41cm = 10,41 cm ÷ 100✓C = 0.1041 m ✓A	1MA adding correct values 1C conversion. 1A simplification (3)
4.6	Probability of a window = Zero (0) ✓✓ A / Impossible✓✓A	2A correct probability (2)
		[15]
	TOTAL MARKS: 75	