KWAZULU-NATAL PROVINCE

EDUCATION
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 10

MATHEMATICAL LITERACY P1

JUNE EXAMINATION

2025

MARKS: 50

TIME: 1 hour

This question paper consists of 7 pages, including 1 Answer Sheet.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of FOUR questions. Answer ALL the questions.
2. Number the answers correctly according to the numbering system used in this question paper.
3. Start EACH question on a NEW page.
4. You may use an approved calculator (non-programmable and non-graphical), unless stated otherwise.
5. Show ALL calculations clearly.
6. Round off ALL final answers appropriately to two decimal places, unless stated otherwise.
7. Indicate units of measurement, where applicable.
8. Diagrams are NOT necessarily drawn to scale, unless stated otherwise.
9. Write neatly and legibly.

QUESTION 1

1. Mr Luthuli received a slip after he bought some goods at Mevamamhlophe Supermarket. Below is a copy of the slip with some of the details omitted.

MEVAMAMHLOPHE SUPERMARKET
Tel: (+2738) 1234567
VAT Reg No: 461010565
TAX INVOICE

1705359 Reg 1 ID 41 13:54 01/01/25

CHOCOLATE SLAB	3 @ R **(A)**	R44,85
BANGLES	**(B)** @ R13,95	R 97,65
JOY MAGAZINE	1 @ R25,17	R 25,17
SUB TOTAL (EXCLUDING VAT)		**(D)**
SUB TOTAL (INCLUDING VAT)		R 192,82
CASH PAYMENT		R 192,82
AMOUNT TENDERED		R 200,00
CHANGE		**(C)**

Receipt total includes 15% VAT

RETAIN AS PROOF OF PURCHASE

NOTE: # represent VAT exempt

Source: Adapted from www.diveinnguest.com

Use the information above to answer the questions that follow.

1.1 Calculate the value of **A**, the cost of one chocolate slab. (2)

1.2 Determine the value of **B**, the number of bangles bought by Mr Luthuli. (2)

1.3 Write down the acronym **VAT** in full. (2)

1.4 Calculate the value of **C**, the change that Mr Luthuli received. (2)

1.5 Calculate the value of **D**, the total (excluding VAT) for the goods bought. (2)

1.6 State whether the price of the items is discrete or continuous. (2)

1.7 Determine the probability as a percentage, of finding a VAT exempt item on Mr Luthuli's slip. (2)

[14]

QUESTION 2

2. A local cellular service provider charges the following for a standard contract:

- Monthly subscription: R 100
- Mandatory monthly itemised billing: R 22

This monthly contract includes R 140 worth of airtime and R 40 worth of free local SMS's. Calls, SMS's and MMS's are charged according to the tariffs given below. The rates, monthly subscription and itemized billing are VAT inclusive.

TABLE 1: CHARGES FOR CELLPHONE USAGE

Rate per minute for the first 5 minutes of the day	R 1,95
Rate per minute (60 seconds) thereafter	R 1,55
All calls to same network	R 0,99 per 60 seconds
International	R 1,20 per SMS
Local	R 0,60 per SMS
MMS	R 0,75 per MMS

NOTE: An SMS is a text message, and an MMS is a multimedia message, that may include a photo.

[Adapted from www.wikipedia.org]

Use TABLE 1 and the information above to answer the questions that follow.

2.1 Bongani has the above contract, he does not use more than R 140 airtime per month, but he sends 10 local SMS's and 5 MMS's each month. Calculate his monthly cell phone bill. (4)

2.2 Write the rate per Local SMS to the rate per MMS as a simplified ratio. (2)

2.3 Bongani makes a call to his father (on a different network) and they talk for 6 minutes. He claimed that he will be charged R3,50 for the call. Verify by showing calculations if the statement is valid. (4)

2.4 Bongani calls his sister who uses the same network for a long call, and uses R 20 airtime in one day. Calculate the duration of his call. Write your answer in minutes and seconds. (4)

2.5 Bongani is a teacher and he wants to administer a questionnaire to his learners to determine the number of learners who prefer a contract. Develop two appropriate questions that the teacher may use in his questionnaire. (4)

[18]

QUESTION 3

3. The data shown below represents the Grade 10 Mathematical Literacy test 1 marks, as percentages, for learners from Shoba Secondary School.

TABLE 2: PERCENTAGE MARKS FOR TEST 1

45	34	48	47	42	39	22	54	17	17
32	67	25	39	34	64	47	62	62	62

Use TABLE 2 and the information above to answer the questions that follow.

3.1 Determine the mode of the data represented above. (2)

3.2 Show by calculation that the range is 50%. (2)

3.3 A grade 10 educator states that the mean percentage of this Grade 10 class is 40%.

Verify by showing calculations if the statement is valid. (4)

3.4 Is the learner performance represented as categorical data or numerical data? (2)

[10]

QUESTION 4

4. Mr Nkwanyana is planning a trip for grade 10 Shoba Secondary School learners who will participate in a soccer tournament at Cicel Emmet.

TABLE 3 below shows the budgeted expense for the trip.

TABLE 3: BUDGETED EXPENSE FOR THE TRIP

Cost of transport	R50 per learner

Use TABLE 3 and the information above to answer the questions that follow.

4.1 The table below represents the cost of transport per learner.

TABLE 4: COST OF TRANSPORT PER LEARNER

Number of learners	1	2	3	4	5	6	7	8	9
Cost in Rands	50	100	150	200	250	**P**	350	400	450

4.1.1 Complete the table by calculating the missing value **P**. (2)

4.1.2 Determine the median cost of TABLE 4. (2)

4.1.3 Use TABLE 4, showing the cost for transport, to draw a line graph on the ANSWER SHEET provided. (4)

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TOTAL MARKS: 50

ANSWER SHEET 1

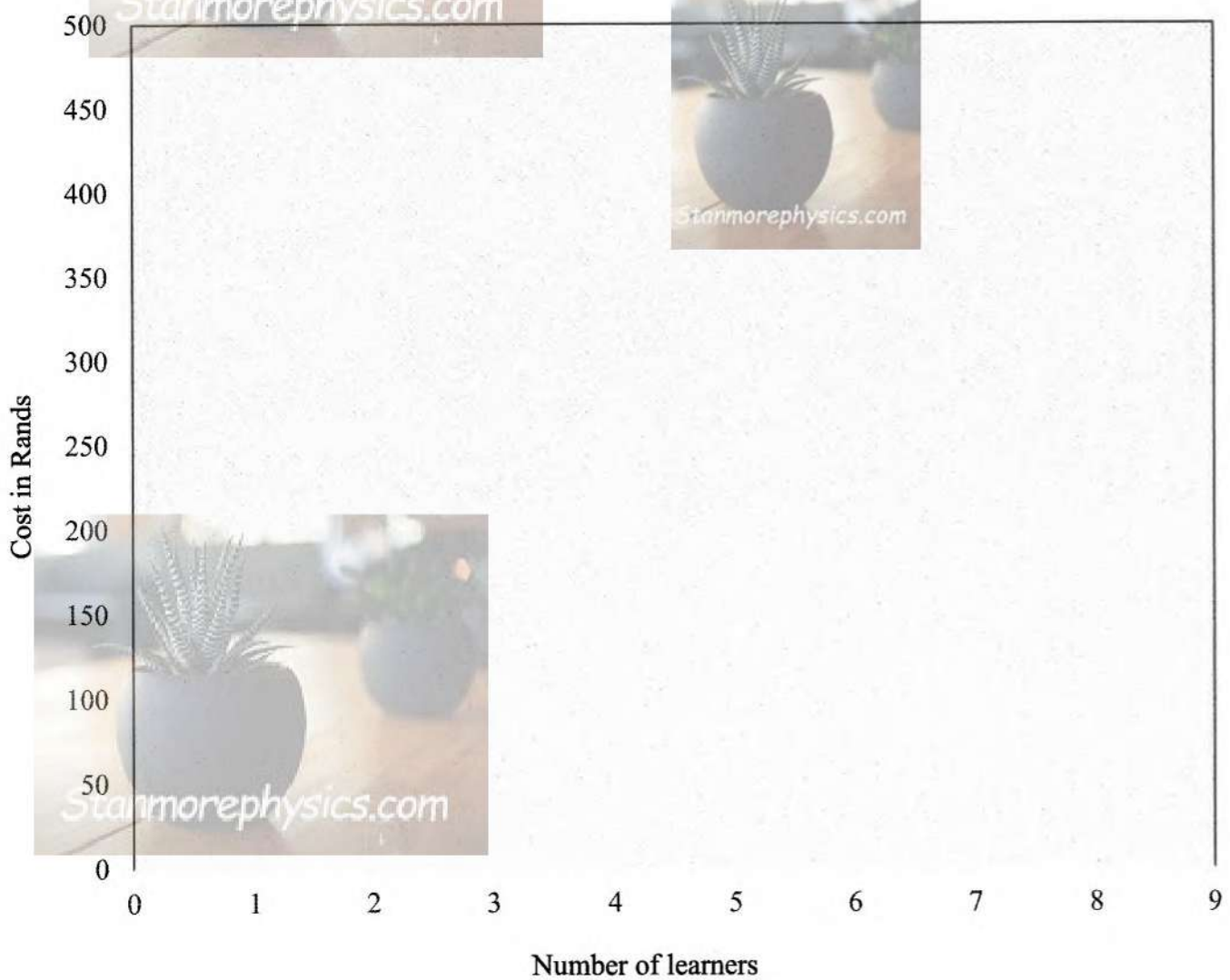
QUESTION 4.1

NAME: _____ **GRADE:** _____

TABLE 4: COST OF TRANSPORT PER LEARNER

Number of learners	1	2	3	4	5	6	7	8	9
Cost in Rands	50	100	150	200	250	**P**	350	400	450

COST OF TRANSPORT PER LEARNER



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MARKING GUIDELINES

JUNE EXAMINATION

2025

MARKS: 50

SYMBOL	EXPLANATION
MA	Method with accuracy
MCA	Method with consistent accuracy
CA	Consistent accuracy
A	Accuracy (Answer)
C	Conversion
S	Simplification
RT	Reading from a table/ graph/ diagram
SF	Correct substitution in a formula
O	Opinion/ reason/deduction/example
P	Penalty e.g., for no units, incorrect rounding off, etc.
NPR	No penalty for correct rounding
NPU	No penalty for omitting unit, but wrong unit is penalised
AO	Answer only

This marking guideline consists of 5 pages.

NOTE:

- If a learner answers a question TWICE, only mark the FIRST attempt.
- If a learner has crossed out (cancelled) an attempt to a question and NOT redone the solution, mark the crossed out (cancelled) version.
- Consistent accuracy (CA) applies in ALL aspects of the marking guideline; however, it stops at the second calculation error or breakdown.
- If the learner presents an extra solution when reading from a graph, table, layout plan or map, then penalise for every extra item presented.
- Rounding is an independent mark.
- General principle of making, if the candidate makes one mistake one mark is deducted.
- A conclusion mark can only be given if relevant calculations of at least $\frac{1}{3}$ of the maximum mark of the sub-question has been awarded.
- No penalty for rounding (NPR) if the first decimal is correct, except questions involving money.

QUESTION 1 [14] ANSWER ONLY FULL MARKS

Q	Solution	Explanation	T&L
1.1	A = 44,85 ÷ 3✓MA = R14,95✓A	1 MA dividing correct values 1 A correct answer (2)	F L1 E
1.2	B = $\frac{\text{R97,65}}{\text{R13,95}}$ ✓MA = 7 ✓A	1 MA dividing correct values 1 A correct answer (2)	F L1 M
1.3	Value Added Tax ✓✓A	2 A correct answer (2)	F L1 E
1.4	C = R200 - R192,82✓MA = R7,18✓A	1 MA subtracting correct values 1 A correct answer **Accept R7,10** (2)	F L1 E
1.5	D = R97,65+ R44,85 +R25,17✓MA = R167,67 ✓A **OR** ✓MA D = R192,82 ÷ 1,15 = R167,67 ✓A **OR** ✓MA D= R192,82 × $\frac{100}{115}$ = R167,67 ✓A	1 MA adding correct values 1 A correct answer **OR** 1 MA dividing by 1,15 1 A for the answer **OR** 1 MA multiplying by $\frac{100}{115}$ 1 A for the answer (2)	F L1 E

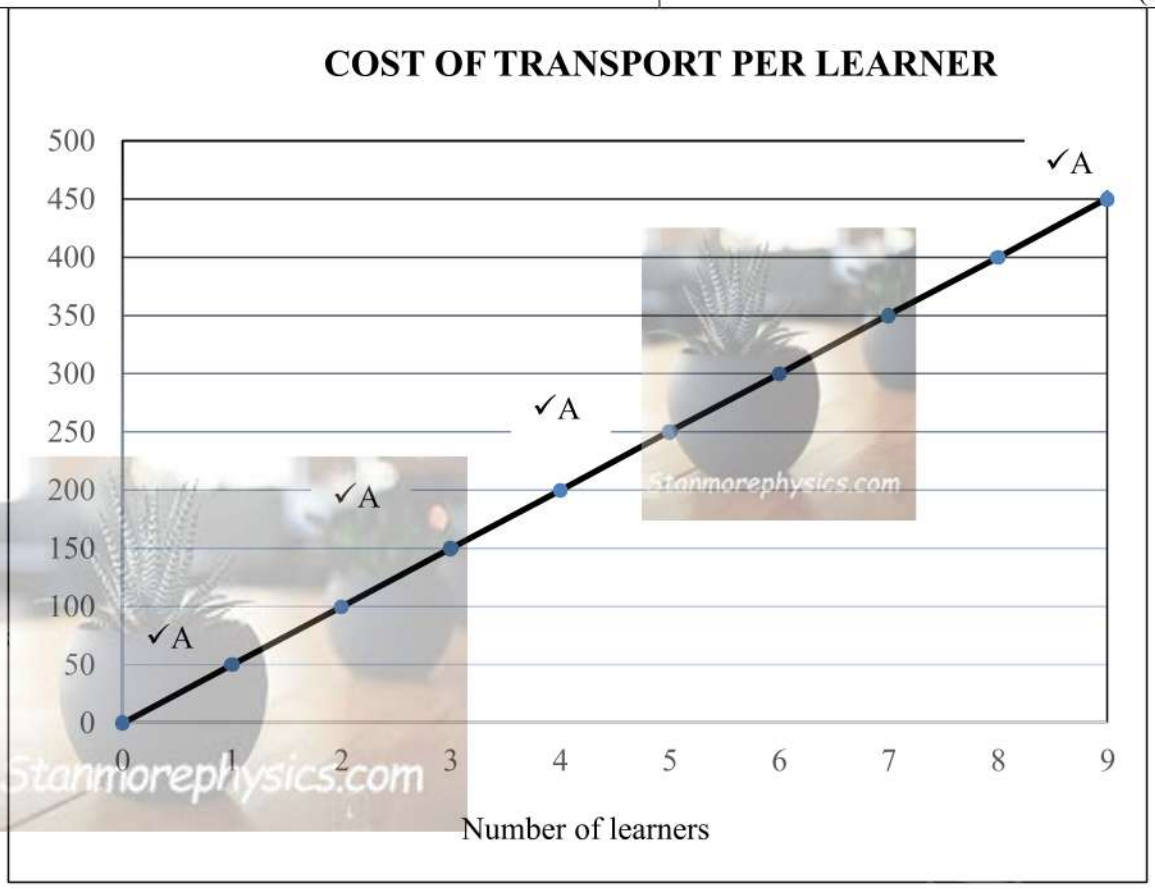
1.6	Discrete✓✓A	2 A correct answer (2)	D L1 E
1.7	P(VAT exempted) = 0 ×100%✓MA 11 = 0%✓A	MA dividing correct values 1A correct answer (2)	P L1 M
			[14]

QUESTION 2 [18 MARKS]

Q	Solution	Explanation	T&L
2.1	Monthly cell phone bill ✓RT = R 100 + R 22 + (5 ×0,75) ✓MA = R122 + R3,75 ✓A = R125,75✓CA	1RT correct values 1MA multiplying 5 by 0,75 1 A for cost of MMS's 1 CA correct answer (4)	F L3 D
2.2	R0,60: R0,75✓MA 4 : 5✓S	1 MA correct values in correct order 1 S Simplification (2)	F L2 E
2.3	✓RT Cost of call = (R1,95 × 5) +(1 × R1,55) ✓MA = R9,75 + R1,55 = R11,30✓CA Bongani's statement is invalid✓O	1 RT for both correct rates 1 MA adding correct values 1 CA correct answer 1 O conclusion (4)	F L4 D
2.4	Duration of the call = R20 / 0,99 ✓MA = 20 ,2020202 minutes✓S = 20 minutes + (0, 2020202 × 60) ✓C = 20 minutes and 12,12 seconds✓A	1 MA dividing by R0,99 1 S simplification 1 C conversion 1 A correct answer **Accept 20 minutes and 12 seconds** (4)	F L3 D
2.5	Do you prefer a contract or prepaid cell phone? ✓✓A Do people in your family prefer contract or prepaid? ✓✓A Can you afford a contract? ✓✓A Any other appropriate question	4 A for any two correct questions (4)	F L3 M
			[18]

QUESTION 3 [10 MARKS]			
Q	**Solution**	**Explanation**	**T&L**
3.1	62 ✓✓A	2A correct answer (2)	D L2 E
3.2	✓RT Range = 67% - 17%✓MA = 50%	1 RT reading correct values 1 MA concept of range (2)	D L2 E
3.3	Mean percentage $=\frac{45+34+48+47+42+39+22+54+17+17+32+67+25+39+34+64+47+62+62+62}{20}$✓MA $=\frac{859}{20}$✓MA = 42, 95✓CA The statement is invalid✓O	1 MA concept of a mean 1 MA dividing by 20 1 CA correct answer 1 O conclusion (4)	D L4 M
3.4	Numerical data. ✓ ✓ A	2 A for correct answer (2)	D L1 M
			[10]

QUESTION 4 [8 MARKS]

Q	Solution	Explanation	T&L
4.1.1	The value of P = (6 x 50) ✓MA = 300✓A	1 MA multiplying correct values 1 A correct answer (2)	F L2 E
4.1.2	Median = 250 ✓✓A	2 A median concept (2)	D L2 M
4.1.3	 **CA from 4.1** 1 A start (0;0) 1 A any other point plotted correctly 1 A end point (9;450) 1 A joining the points plotted (4)	F L2 M
		[8]	
		TOTAL MARKS: 50	