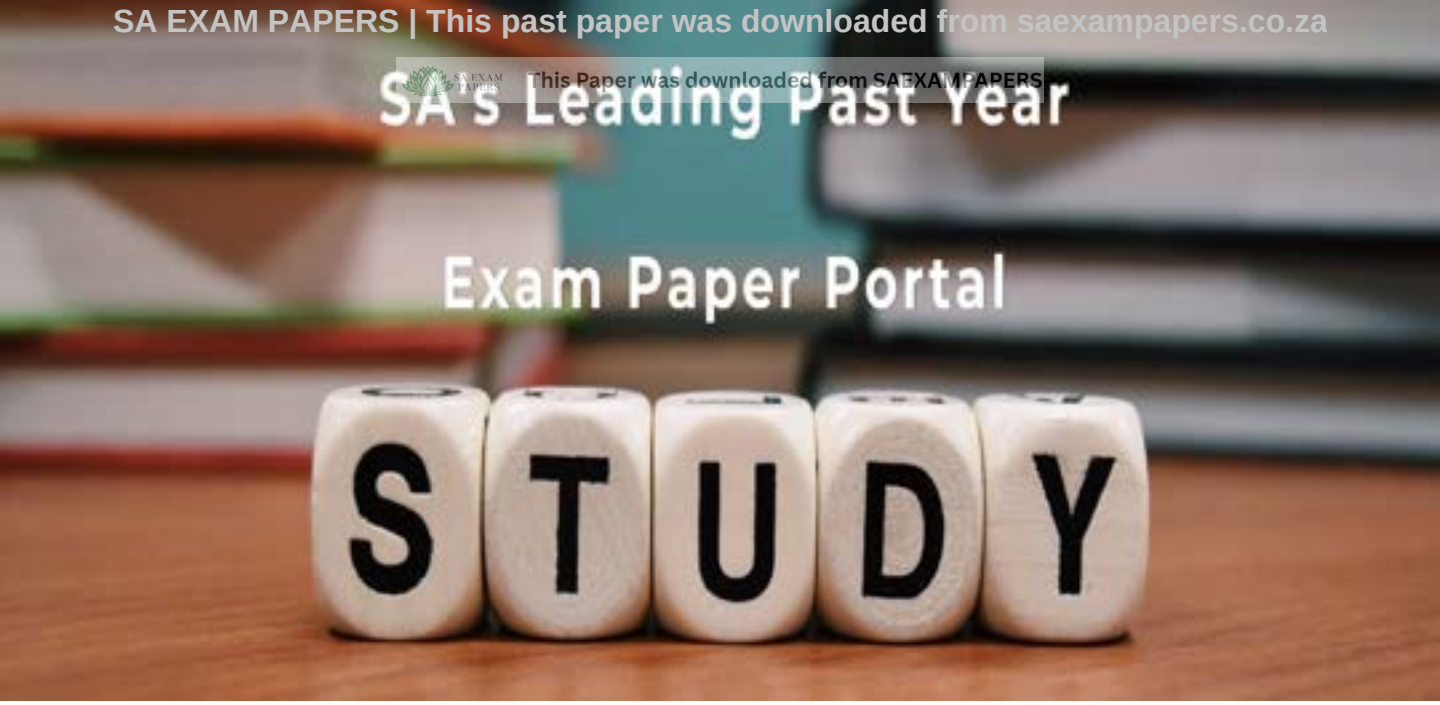


Province of the
EASTERN CAPE
EDUCATION

Iphondo leMpuma Kapa: Isebe leMfundo
Provinsie van die Oos Kaap: Department van Onderwys
Porafensie Ya Kapa Botjahabela: Lefapha la Thuto

NATIONAL SENIOR CERTIFICATE

GRADE 12

SEPTEMBER 2025

MATHEMATICAL LITERACY P1
MARKING GUIDELINE

MARKS: 150

Symbol	Explanation
M	Method
MA	Method with accuracy
CA	Consistent accuracy
A	Accuracy
C	Conversion
S	Simplification
RT	Reading from a table/graph/document/diagram
SF	Correct substitution in a formula
O	Opinion/Explanation
P	Penalty, e.g., for no units, incorrect rounding off, etc.
R	Rounding off/Reason
NPR	No penalty for correct rounding minimum two decimal places
AO	Answer only
MCA	Method with constant accuracy

This marking guideline consists of 9 pages.

MARKING GUIDELINE

NOTE:

- If a candidate answers a question TWICE, only mark the FIRST attempt.
- If a candidate has crossed out an attempt of a question and not redone the question, mark the crossed-out version.
- Consistent accuracy applies in ALL aspects of the marking guideline. Stop marking at the second calculation error.
- NOTE: Consistent accuracy (CA) does NOT apply in cases of a breakdown.
- If the candidate presents any extra solution when reading from a graph and table, then penalise for every extra item presented.
- As a general marking principle, if a candidate has incurred one mistake and there is evidence of sound Mathematics thereafter, then that candidate should lose ONE mark only.

Topics: F – Finance, DH – Data Handling, P – Probability

QUESTION 1 [34 MARKS]			
Que.	**Solution**	**Explanation**	**T&L**
1.1.1	December ✓✓A	2A reading correct month (2)	F L1
1.1.2	Mr Ravenswood ✓✓A	2A correct name (2)	F L1
1.1.3	Costs = R631,70 + R1 399,00 + R243,50 + R243,50 + R64,37 + R68,02 + R21,28 + R94,43 ✓MA = R2 765,80 ✓CA	1MA Adding correct amounts 1CA answer (2)	F L1
1.2.1	Cost = R325,50 × 12 ✓MA = R3 906,00 ✓CA	1MA multiplying by 12 (2)	F L1
1.2.2	Cost for one tyre in cents = R899,00 × 100 = 89 900 cents ✓✓A	2A correct amount (2)	F L1
1.2.3	R225 : R398 ✓RT $\frac{225}{225} : \frac{398}{225}$ ✓M 1 : 1,77 ✓CA	1RT correct amounts 1 M division 1CA simplification (3)	F L1
1.3.1	Rent ✓✓A **OR** Cell phone contract ✓✓A **OR** transport ✓✓A **OR** savings ✓✓A	2A correct fixed expense (2)	F L1

1.3.2	✓MA Total Expenses = R6 000,00 + R3 500,00 + R2 000,00 + R300,00 + R2 000 = R15 800,00 ✓CA	1MA for adding correct values 1CA simplification (2)	F L1
1.3.3	Deficit ✓✓A	2A correct identification (2)	F L1
1.4.1	IsiZulu ✓✓A	2A answer (2)	D L1
1.4.2	**Response** / **Tally** / **Frequency** English / 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ✓A / 45 Afrikaans / 𝍸 || ✓A / 7 IsiXhosa / 𝍸 𝍸 𝍸 𝍸 ||| / 23 IsiZulu / 𝍸 𝍸 |||| ✓A / 14	1 A for English 1 A for Afrikaans 1 A for IsiXhosa and IsiZulu (3)	D L1
1.4.3	Probability (IsiXhosa) = 25,8% ✓✓RT **OR** $\frac{23}{89}$ ✓RT = 0,26 **OR** 26% ✓A	2RT correct percentage (2)	P L1
1.5.1	D ✓✓A	2 A answer (2)	F L1
1.5.2	C ✓✓A	2 A answer (2)	F L1
1.5.3	B ✓✓A	2 A answer (2)	P L1
1.5.4	A ✓✓A	2 A answer (2)	D L1
		[34]	

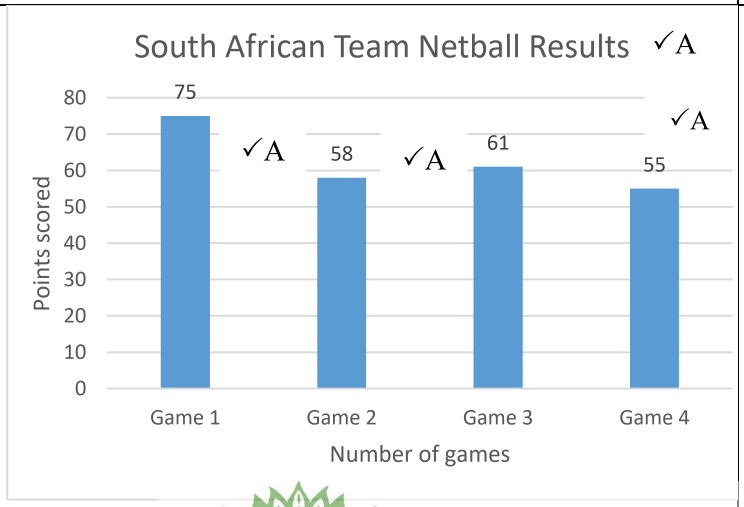
QUESTION 2 [31 MARKS]			
Que.	**Solution**	**Explanation**	**T&L**
2.1.1	Max monthly earnings = R13 766 ✓✓RT	2RT Correct monthly earnings (2)	F L1
2.1.2	Annual earnings = R165 192 ✓✓RT	2RT correct annual earnings (2)	F L1
2.1.3	Annual Tax = R165 192 × $\frac{18}{100}$ ✓A = R29 734,56 ✓A = R29 734,56 – (R17 235,00 + R9 444,00 + R3 145) ✓MA = -R89,44 ✓A The employee does not pay any tax because the rebate is larger than the amount of tax. SARS must pay the employee a refund of R89,44 ✓✓J	CA from 2.1.2 1A correct bracket 1A simplification 1MA subtracting all rebate 1A answer 2A justification (6)	F L3
2.2	Monthly salary = R4 118,40 × 100 ✓MA = R411 840,00 ✓M = R411 840,00 ÷ 12 ✓MA = R34 320 ✓CA	1MA multiplying by 100 1M simplification 1MA dividing by 100 1CA answer (4)	F L2
2.3.1	Cost for 20 laptops = R5 000,00 × 20 ✓MA = R100 000,00 ✓A Selling price for 10 laptops = R6 000,00 × 10 = R60 000,00 ✓MA Discount on remaining = R60 000 × $\frac{10}{100}$ = R6 000 ✓CA = R60 000,00 – R6 000 = R54 000,00 ✓CA Income = R60 000,00 + R54 000,00 ✓M = R114 000,00 Profit = Income - Expenses = R114 000,00 – R100 000,00 ✓MCA = R14 000,00 ✓CA	1MA multiplying by 20 1A simplification 1MA simplification 1CA simplification 1CA discount 1M adding correct amounts 1MCA subtracting correct values 1CA simplification	F L4

	OR Cost for 20 laptops = R5 000,00 × 20 ✓MA = R100 000,00 ✓A Selling price for 10 laptops = R6 000,00 × 10 = R60 000,00 ✓MA Discount on remaining = R60 000 × $\frac{90}{100}$ ✓M = R54 000,00 ✓CA Income = R60 000,00 + R54 000,00 ✓M = R114 000,00 Profit = Income - Expenses = R114 000,00 – R100 000,00 ✓MCA = R14 000,00 ✓CA	**OR** 1MA multiplying by 20 1A simplification 1MA simplification 1M multiplication 1CA discount 1M adding correct amounts 1MCA subtracting correct values 1CA simplification (8)	
2.3.2	% profit = $\frac{\text{Profit}}{\text{Cost}}$ × 100 = $\frac{R14\,000,00}{100\,000\ \checkmark RT}$ × 100 ✓MA = 14% ✓CA	**CA from 2.3.1** 1 RT correct value 1MA multiplying by 100 1CA simplification (3)	F L3
2.4	1 Euro(€) = R19,92 ? = R10 000,00 = $\frac{\text{R10 000,00}}{\text{R19,92}}$ ✓C = € 502,00 ✓CA = €502 – € 500 ✓MA = € 2 ✓CA Remaining = R19,92 × € 2 ✓C = R39,84 = R40 ✓R **OR** 1 Euro(€) = R19,92 500(€) = R? = 500 ✓RT × 19,92 ✓C = 9 960 ✓CA Remaining = R10 000 ✓RT – R9 960 ✓M = R40 ✓CA	1C conversion 1CA answer 1MA subtracting currencies 1CA simplification 1C conversion 1R rounding **OR** 1RT correct value 1C conversion 1CA answer 1RT correct value 1M subtraction 1CA answer (6)	F L2
		[31]	

QUESTION 3 [28 MARKS]			
Que.	**Solution**	**Explanation**	**T&L**
3.1.1	2022 ✓✓A	2A correct year (2)	D L1
3.1.2	2 ✓✓A	2A answer (2)	D L1
3.1.3	Difference = 6,883 – 5,424 ✓RT ✓MA = 1,459 thousands **OR** 1459 ✓CA **OR** Difference = 6 883 – 5 424 ✓RT ✓MA = 1 459 ✓CA	1RT reading correct values from the table 1MA subtracting correct values 1CA answer (3)	D L2
3.1.4	Total number (2023): = 8,860 + 6,765 + 5,821 + 5,689 + 4,742 + 3,871 + 3,338 + 3,274 ✓MA = 42,36 thousand ✓CA ✓RT P (United Kingdom) = $\frac{5,821 + 5,689 + 4,742}{42,36}$ = $\frac{16,252}{42,36} \times 100$ ✓M = 38,37% ✓CA	1MA correct values 1CA total 1RT correct value 1M multiplying by 100 1CA correct percentage (5)	D L2
3.1.5	Discreet ✓✓A	2A answer (2)	D L1
3.2.1	FET % = 15% +10% ✓RT ✓MA = 25% ✓A	1RT correct % 1MA adding correct % 1A correct % (3)	D L2
3.2.2	✓ RT No of learners = 780 × $\frac{20}{100}$ ✓MA = 156 learners ✓CA	1RT correct total 1MA multiplying by 20% 1CA correct answer (3)	D L2
3.2.3	Grade 8 = 780 × $\frac{30}{100}$ ✓MA = 234 learners ✓A Grade 9 = 780 × $\frac{25}{100}$ ✓MA = 195 ✓A Difference = 234 – 195 ✓MA = 39 learners ✓CA	1MA multiplying by 30% 1A correct number of grade 8 learners 1MA multiplying by 25% 1A correct number of grade 9 learners 1MA subtracting correct numbers 1CA answer (6)	D L3
		[26]	

QUESTION 4 [26 MARKS]			
Que.	**Solution**	**Explanation**	**T&L**
4.1.1	Developing questions; collecting data; ✓A Organising data; Summarising data; ✓A Representing data graphically; Analyse data ✓A	1A 1st two stages 1A for 2nd two stages 1A for 3rd two stages (3)	D L1
4.1.2	Bar graph, Double bar graph, Histogram, Stacked bar graph, Scatter Plot, Line graph ✓✓✓A	3A any three correct graphs (3)	D L2
4.2.1	2022/23 fare: R14,50 2023/24 fare: R15,00 ✓ RT % increase = $\frac{\text{R15,00 – R14,50}}{\text{R14,50}}$ × 100 ✓MA ✓M = $\frac{0,5}{14,5}$ × 100 = 3,45% ✓CA	1RT correct values 1MA multiplying by 100 1M dividing by R14,50 1CA answer (4)	F L2
4.2.2	✓A ✓MA 5 km × R10,00 = R50,00 ✓A 5 km × R12,50 = R62,00 5 km × R15,00 = R75,00 9,1 km × R17,00 = R154,70 = R341,70 ✓CA × 1,15 ✓M = R393,53 ✓CA Nancy's statement is correct ✓J	1A for max distances 1MA multiplying by tariff 1A 4 amounts 1CA total before VAT 1M VAT 1CA VAT inclusive 1J justification (7)	F L3
4.3.1	36,5 ✓✓A	2A correct value (2)	D L2
4.3.2	20 ✓✓A	2A correct age (2)	D L2
4.4.	BMI = $\frac{\text{mass(kg)}}{(\text{Height(m)})^2}$ = $\frac{75\text{ kg}}{(1,71\text{m})^2}$ ✓SF ✓C = $\frac{75\text{ kg}}{2,9241\text{ m}^2}$ ✓S = 25,6489 kg/m^2 ✓CA = 25,6 kg/m^2 ✓R	1 SF correct substituting in a formula 1 C conversion 1S squaring 1,71 1CA simplification 1R rounding (5)	D L3
		[26]	

QUESTION 5 [31 MARKS]

Que.	Solution	Explanation	T&L
5.1	Deposit = R12 000 × $\frac{25}{100}$ ✓MA = R3 000,00 ✓A Loan = R12 000,00 – R3 000,00 = R9 000 ✓A Interest charged = $\frac{15}{100}$ × R9 000 × 3 years ✓MA = R1 350 × 3 = R4 050,00 ✓CA Total repayment amount = R9 000,00 + R4 050 = R13 050 ✓A Monthly instalment = R13 050,00 ÷ 36 ✓MA = R362,25 ✓CA **OR** Loan = 100% – 25% = 75% ✓MA = $\frac{75}{100}$ × R12 000 ✓M = R9 000 ✓A Interest charged = $\frac{15}{100}$ × R9 000 × 3 years ✓MA = R1 350 × 3 = R4 050,00 ✓CA Total repayment amount = R9 000,00 + R4 050 = R13 050 ✓A Monthly instalment = R13 050,00 ÷ 36 ✓MA = R362,25 ✓CA	1MA multiplying by 25% 1A simplification 1A loan 1MA multiplying by 3 years 1CA interest 1A total amount 1MA dividing by 36 1CA simplification **OR** 1MA subtraction 1M multiplication 1A loan 1MA multiplying by 3 years 1CA interest 1A total amount 1MA dividing by 36 1CA simplification (8)	F L4
5.2.1		1A title 3A for game 1,2 and 4 bars (4)	D L4

5.2.2	Mean $= \frac{55 + 58 + 61 + 75}{4}$ ✓RT ✓M $= \frac{249}{4}$ = 62,25 ✓CA Median: 55 58 61 75 ✓M $= \frac{58 + 61}{2}$ ✓M = 59,5 ✓A Difference = 62,25 – 59,5 ✓M = 2,75 The coach is correct ✓J	1RT correct values 1M dividing by 4 1CA simplification 1M arranging in ascending or descending order 1M correct values 1A simplification 1M subtracting 2 values 1J explanation (8)	D L4
5.3.1	Credit card ✓✓A	2A answer (2)	**F** **L2**
5.3.2	Total cost of comfort luxury = R72,99 × 2 ✓M = R145,98 ✓A Discount R45,98 ✓RT Percentage discount: $\frac{45,98}{145,98} \times 100$ ✓M = 31,50% ✓A	1 M multiply by 2 1 A total amount 1RT correct discount 1 M multiply by 100 1 A answer (5)	F L2
5.3.3	15% = R54,97 115% = ? VAT inclusive = $\frac{115}{15}$ × 54,97 ✓M = 421,44 ✓CA Amount paid = R421,44 – R63,50 ✓MA = R357,94 ✓CA **OR** Total amount = R1,48 + R72,99 + R72,99 + R25,99 + R24,99 + R57,98 + R82,99 + R34,99 + R105,00 – (R11,98 + R45,98) ✓MA = R421,44 ✓CA Amount paid = R421,44 – R63,50 ✓MA = R357,94 ✓CA	1M multiplication 1 CA answer 1MA subtracting correct amounts 1CA answer **OR** 1MA adding correct values 1 CA answer 1MA subtracting correct amounts 1CA answer (4)	F L1
5.4	Real increment = R5,5% – 3,0% ✓MA = 2,5% ✓A	1MA subtracting correct % 1A answer (2)	F L4
		[33]	
		TOTAL: 150