KWAZULU-NATAL PROVINCE

EDUCATION
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

MATHEMATICAL LITERACY P1

MARKING GUIDELINES

PREPARATORY EXAMINATION

SEPTEMBER 2025

MARKS: 150

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/map
SF	Correct substitution in a formula
O	Opinion/ reason/deduction/example/Explanation
R	Rounding off
F	deriving a formula
AO	Answer only
P	Penalty e.g. for units, incorrect rounding off etc.
NPR	No penalty for correct rounding
NPU	No penalty for omitting unit, but wrong unit is penalised
RCA	Rounding with consistent accuracy

This marking guideline consists of 8 pages.

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NOTES:

- If a candidate answers a question TWICE, only mark the FIRST attempt.
- If a candidate 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 guidelines; however, it stops at the second calculation error.
- If the candidate presents any extra solution when reading from a graph, table, layout plan and map, then penalise for every extra item presented.

QUESTION 1 [30 MARKS] ANSWER ONLY FULL MARKS

Ques	Solution	Explanation	T & L
1.1.1	Three thousand one hundred and ninety-nine rand eighty-six cents.✓✓RT	2RT reading from graph (2)	DH L1 E
1.1.2	R3 470✓✓RT	2RT correct amount (2)	DH L1 E
1.1.3	R4 900✓✓R	2R Rounding off (2)	DH L1 E
1.1.4	Difference = R5 383,38 – R4 413✓MA = R970,38✓A	1MA subtracting 1A correct answer (2)	DH L1 E
1.1.5	Step graph✓✓A	2A correct answer (2)	DH L1 E
1.1.6	Probability (minimum wage) = $\frac{5}{6}$ × 100%✓MA = 83,33%✓A	1MA % concept 1A correct answer **NPR** (2)	P L1 E
1.2.1	Contract period (years) = 36 ÷12✓MA = 3 ✓A	1MA dividing by 12 1A correct answer (2)	F L1 E
1.2.2	Total Amount = R660 + R439✓MA = R1 099 × 36✓MA = R39 564✓A	1MA adding values 1MA multiplying by 36 1A correct answer (3)	F L1 E
1.2.3	✓MA Data in megabyte = (6 × 36) × 1000✓MA = 216 000✓A	1MA multiplying by 36 1MA multiplying by 1000 1A correct answer (3)	F L1 E
1.2.4	Cost is spread over many months; it becomes affordable in the short term ✓✓O **OR** Avoid buying prepaid airtime/data which helps with managing cash flow and budgeting ✓✓O	2O correct explanation (2)	F L1 D
1.3.1	discrete✓✓A	2A correct answer (2)	DH L1 E

1.3.2	Eastern Cape ✓✓A	2A correct answer (2)	DH L1 E
1.3.3	690 schools ✓✓A	2A correct answer (2)	DH L1 E
1.3.4	= 707 053 ÷ 1 000 000 ✓MA = 0,707 million ✓A	1MA dividing by 1 000 000 1A correct answer (2)	DH L1 E
		[30]	

QUESTION 2 [32 MARKS]			
2.1.1	Debit order is an agreement that allows a service provider to take money from Mr. Sampson's bank account on a set date to pay for good/services.✓✓O	2O Correct Explanation (2)	F L1 E
2.1.2	Convenience – Statements are delivered instantly and can be accessed anytime without visiting the bank. ✓✓O **OR** Cost-saving – No printing or postage fees compared to paper statements. ✓✓O **OR** ✓✓O Eco-friendly – Reduces the use of paper, helping the environment. **OR** Faster notifications – Customers can monitor transactions more regularly and detect any errors or fraud early✓✓O **OR** Easier to share/store for online applications✓✓O	2O Correct Explanation (2)	F L4 E
2.1.3	A = R53 954,91 + R21 455,98✓MA = R75 410,89✓A **OR** A = R75275,89 – (–R135)✓MA = R75 410,89✓A	1MA adding values 1A correct answer 1MA subtracting values 1A correct answer (2)	F L2 E
2.1.4	Sum of debits = R7,50 + R2,95 + R10 600 + R880,35 + R87,01 + R135 + R995 + R1 250 + R400 + R13 000 + R7,50 + R2,95 + R2 209,87 + R50 + R673,66 + R7 + R133,15 + R433,60 + R365,09✓MA = R31 240,63✓CA	1MA adding correct values 1CA answer (2)	F L2 E
2.1.5	✓MCA Percentage = $\frac{\text{R31 240,63}}{\text{R55 748,07}}$ × 100% ✓MA = 56,04✓CA	**CA from 2.1.4** 1MCA dividing by total 1MA percentage concept 1CA answer (3)	F L2 M
2.1.6	P(Transaction > R1 000) = $\frac{5✓A}{20✓A}$ = $\frac{1}{4}$✓S	1A Numerator 1A Denominator 1S simplifying (3)	P L2 M

2.1.7	Number of R100 : R10 600 ÷ R100✓MA = 106✓A Transaction fee = R90 + (106 × R4)✓MCA : R514✓CA	1MA dividing by R100 1A simplifying 1MCA for adding and multiplying 1CA answer (4)	F L3 M
2.1.8	Reduce the lottery ticket purchases✓✓O **OR** Reduce the amount spent on non-essential items like clothing✓✓O	2O Correct Explanation (2)	F L4 E
2.2.1	✓MA ✓MA Amount to be paid = R150 + R750 + R5 850 + R900 = R7 650 ✓CA	1MA adding R150 1MA adding 3 correct values 1CA answer **Accept R7500** (3)	F L2 E
2.2.2	Outstanding amount = R19 000 – R5 850✓MA = R13 150✓A	1MA subtracting R5 850 1A correct answer (2)	F L2 E
2.2.3	Extra Maths lessons = 10 × R800✓MA = R8 000✓A ✓MCA ✓MA Discounted school fees = R13 150 – (R19 000 × 10%) = R11 250✓CA Total to be paid = R8 000 + R150 + R7 500 + R11 250 = R26 900✓CA	**CA from 2.2.1 & 2.2.2** 1MA multiplying by 10 1A correct answer 1MCA for subtracting 1MA multiplying R19 000 by 10% 1CA answer 1CA answer (6)	F L3 M
		[32]	

QUESTION 3 [25 MARKS]			
3.1.1	Sheep ✓✓RT	2RT reading from graph (2)	DH L1 E
3.1.2	✓RT Range = 19 058 – 156 = 18 902✓A	1RT for both correct values 1A correct answer (2)	DH L2 E
3.1.3	✓A 19 058 + 12 070 + 2 838 + 368 + 255 + 217 + 216 + 156 = 35 178 ✓MA $\frac{B + 35\,178}{9} = 5\,245$ ✓MA B = (9 × 5 245) – 35 178 ✓MA = 12 027 The Commissioner's statement is VALID.✓O	1A correct answer 1MA concept of mean 1MA multiplying by 9 1MA subtracting 35 178 1O opinion (5)	DH L4 D
3.1.4	% Of Poultry theft = $\frac{2838✓A}{47\,205✓A} \times 100$ = 6,01✓R	1A Numerator 1A denominator 1R Rounding off (3)	DH L2 E
3.2.1	It is a graph that is used to show the distribution of a data set displaying the five number summary. ✓✓A **OR** Visual representation of the five number summary of a data set. ✓✓A	2A correct definition	DH L1 E
3.2.2	Q_1 $6\frac{1}{2}$ ✓RT $Q_3 = 7\frac{1}{2}$ ✓RT IQR = $7\frac{1}{2} - 6\frac{1}{2}$ ✓MCA = 1✓CA	1RT for 6,5 1RT for 7,5 1MCA subtracting 1CA answer (4)	DH L3 M
3.2.3	<table><tr><th></th><th>SHARKS</th><th>SEALS</th></tr><tr><td>Q1</td><td>6½</td><td>6¼</td></tr><tr><td>Q2</td><td>7¼</td><td>6¾</td></tr><tr><td>Q3</td><td>7½</td><td>7¼</td></tr><tr><td>Max</td><td>8½</td><td>8</td></tr></table> ✓RT ✓RT ✓RT ✓RT Sharks hat sizes are bigger than Seals hat sizes ✓O	1RT for both Q1 values 1RT for both Q2 values 1RT for both Q3 values 1RT for both max values 1O conclusion (5)	DH L4 D
3.2.4	IQR is not affected by extreme values (Outliers), whereas the range can be greatly influenced by outliers. ✓✓O	2O Correct Explanation (2)	D L4 E
		[25]	

QUESTION 4 [32 MARKS]			
4.1.1	Australia✓✓A	2A Correct answer (2)	F L1 E
4.1.2	R1 = £0,0425✓RT £1 = R1 ÷ 0,0425✓MA = R23,53✓A	1RT reading from table 1MA dividing by 0,0425 1A correct answer (3)	F L2 E
4.1.3	R1 = €0,0475✓RT ✓A Euros = 25 000 × 0,0475✓MCA = 1 187,50 ✓CA	1RT for 0,0475 1A for R25 000 1MCA for multiplying 1CA answer (4)	F L3 M
4.1.4	27AUD = 27 × R11,0619 ✓MA = R298,67 ✓A 105USD = 105 ÷ 0,0571 ✓MA = R1 838,88 ✓A Total = R298,67 + R1 838,88✓MCA = R2 137,55✓CA	1MA multiplying by R11,0619 1A correct answer 1MA dividing by 0,0571 1A correct answer 1MCA adding values 1CA answer (6)	F L3 M
4.2.1	Representing/Displaying Data✓✓A	2A answer (2)	DH L1 E
4.2.2	✓A 5,4; 6,2; 6,3; 8,5; 8,5; 11,9; 12,7; 14,3; 15,8; 16,8; 17,9; 18,3 ✓MA Median = (11,9 + 12,7) ÷ 2✓MA = 12,3 °C✓A	1A for arranging the data 1MA for adding 11,9 and 12,7 1MA for dividing by 2 1A correct answer (4)	DH L2 M
4.2.3	P(min. temp. < 7,3 °C) = $\frac{7✓A}{12✓A} \times 100\%$ = 58,33% ✓A	1A for Numerator 1A for Denominator 1A correct answer **NPR** (3)	P L2 M
4.2.4	IQR = 8,9 °C – 2,35 °C ✓MA = 6,55 °C ✓A Range for High Temperature = 18,3 °C – 5,4 °C ✓MA = 12,9 °C ✓A difference = 12,9 °C – 6,55 °C ✓MCA = 6,35 °C ✓CA ≈ 6,4 °C ✓RCA Khethelo's statement is INCORRECT✓O	1MA subtracting 2,35 from 8,9 1A correct answer 1MA subtracting 5,4 from 18,3 1A correct answer 1MCA subtracting 6,55 from 12,9 1CA Simplifying 1RCA Rounding 1O opinion (8)	DH L4
		[32]	

QUESTION 5 [31 MARKS]			
5.1.1	Monthly Salary = R 584 300 ÷ 12✓MA = R48 691,67✓A	1MA dividing by 12 1A correct answer (2)	F L2 E
5.1.2	Gratuity = 6,72% × R584 300 × 30✓SF = R1 177 948.80✓S ≈ R1 200 000✓R Mbongeni's statement is CORRECT✓O	1SF substitution 1S simplifying 1R Rounding 1O opinion (4)	F L4 M
5.1.3	Annual annuity = $(\frac{1}{55}$ × R584 300 × 30) + R360✓SF = R319 069,09✓S Monthly annuity = R319 069,09 ÷ 12✓MCA = R26 589,09✓CA	1SF correct substitution 1S simplifying 1MCA dividing by 12 1CA correct answer (4)	F L3 M
5.1.4	IRR = $\frac{\text{R26 589,09}}{\text{R48 691,67}}$ × 100%✓SF ≈ 54,61%✓CA	**CA from 5.1.1&5.1.3** 1SF substitution 1CA correct answer (2)	F L2 M
5.2.1	Amount excluding VAT = R1 200 ÷ 115%✓MA = R1 043,48✓A VAT = R1 200 – R1 043,48✓MCA = R156,52✓CA **OR** VAT = R1 200 × $\frac{15✓MA}{115✓MA}$ = R156,52✓✓CA **OR** Amount excluding VAT = R1 200 × $\frac{100}{115}$✓MA = R1 043,48✓A VAT = R1 200 – R1 043,48✓MCA = R156,52✓CA	1MA dividing by 115% 1A correct answer 1MCA subtracting 1CA answer **OR** 1MA multiplying 15 1MA dividing by 115 2CA answer **OR** 1MA multiplying by $\frac{100}{115}$ 1A correct answer 1MCA for subtracting 1CA Correct answer (4)	F L3 M

5.2.2	R1200 – R156,52 = R1 043,48 Cost for 350 kWh in Block 1: 350 × R2,2162 = R775,67✓A Balance: R1 043,48 – R775,67 = R267,81✓CA Number of units in Block 2 = R267,81 ÷ R2,7110✓MCA = 98,79 kWh✓CA Total Units Received = 350 kWh + 98,79 kWh✓MCA = 448,79 kWh✓CA	**CA from Q5.2.1** 1A for R775,67 1CA for R267,81 1MCA for dividing by R2,7110 1CA correct answer 1MCA adding units 1CA answer (6)	F L3 D
5.3	R0,5 × 1 000 000 = R 500 000✓C Interest = 6,5 % ÷ 4 = 1,625%✓A ✓MA First Quarter =R 500 000 + (R 500 000 × 0,01625) = R 508 125✓A Second Quarter = R 508 125+ (R 508 125× 0,01625) = R 516 382,03✓CA Third Quarter = R 516 382,03+ (R 516 382,03 × 0,01625) = R 524 773,24✓CA Interest received = R 524 773,24 – R 500 000✓MCA = R 24 773,24✓CA His claim is correct ✓O	1C Conversion 1A for correct interest rate 1MA multiplying by 0,01625 1A answer 1CA Correct Answer 1CA Answer 1MCA for subtracting 1CA correct Interest 1O opinion (9)	F L4 M
		[31]	
		TOTAL MARKS: 150	

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