Province of the
EASTERN CAPE
EDUCATION

NATIONAL SENIOR CERTIFICATE

GRADE 12

JUNE 2023

MATHEMATICAL LITERACY P1 MARKING GUIDELINE

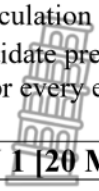
MARKS: 100

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
NPR	No penalty for correct rounding
AO	Answer only
MCA	Method with constant accuracy
RCA	Rounding consistent with accuracy

This marking guideline consist of 9 pages.

NOTE:

- 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 [20 MARKS]			
Ques.	**Solution**	**Explanation**	**T&L**
1.1.1	$\frac{6,5}{100}$ ✓ MA $= \frac{13}{200}$ ✓A	1MA dividing 6,5 by 100 1A common fraction (2)	D L1 E
1.1.2	Learners who did not go = 200 × 6,5% ✓MA = 13 ✓A Learners went = 200 – 13 = 187 ✓ A **OR** % went = 100% – 6,5% = 93,5% ✓ MA Learners went = 200 × 93,5%✓A = 187 ✓A	1MA multiply by 6,5% 1A learners who did not go 1A number of learners went 1MA % went 1M multiply by 93,5% 1A number went (3)	D L1 E
1.1.3	187 : 200 ✓RT✓CA	1RT correct values in ratio form 1A simplified ratio form (2)	D L1 E
1.1.4	6,5% ✓✓A	2A correct percentage (2)	P L1 E



1.2.1	David = 25 ✓A Sam = 30 ✓A	1A 1st age 1A 2nd age (2)	F L1 M
1.2.2	**DAVID** $= \frac{30}{55} \times$ R409 750 ✓M = R223 500 ✓ CA **SAM** $\frac{25}{55} \times$ R409 750 = R186 250 ✓ CA	1M multiplying correct fraction 1CA Simplification answer 1CA Sam's answer (3)	F L1 M
1.3.1	VAT – Value Added Tax ✓✓ A	2A explanation (2)	F L1 E
1.3.2	R0,00 ✓✓A	1RT correct values used 1CA answer (2)	F L1 E
1.3.3	Total amount = R38,99 × 15 ✓M = R584,85 ✓A	1M multiply by 15 1A total amount (2)	F L1 E
		[20]	

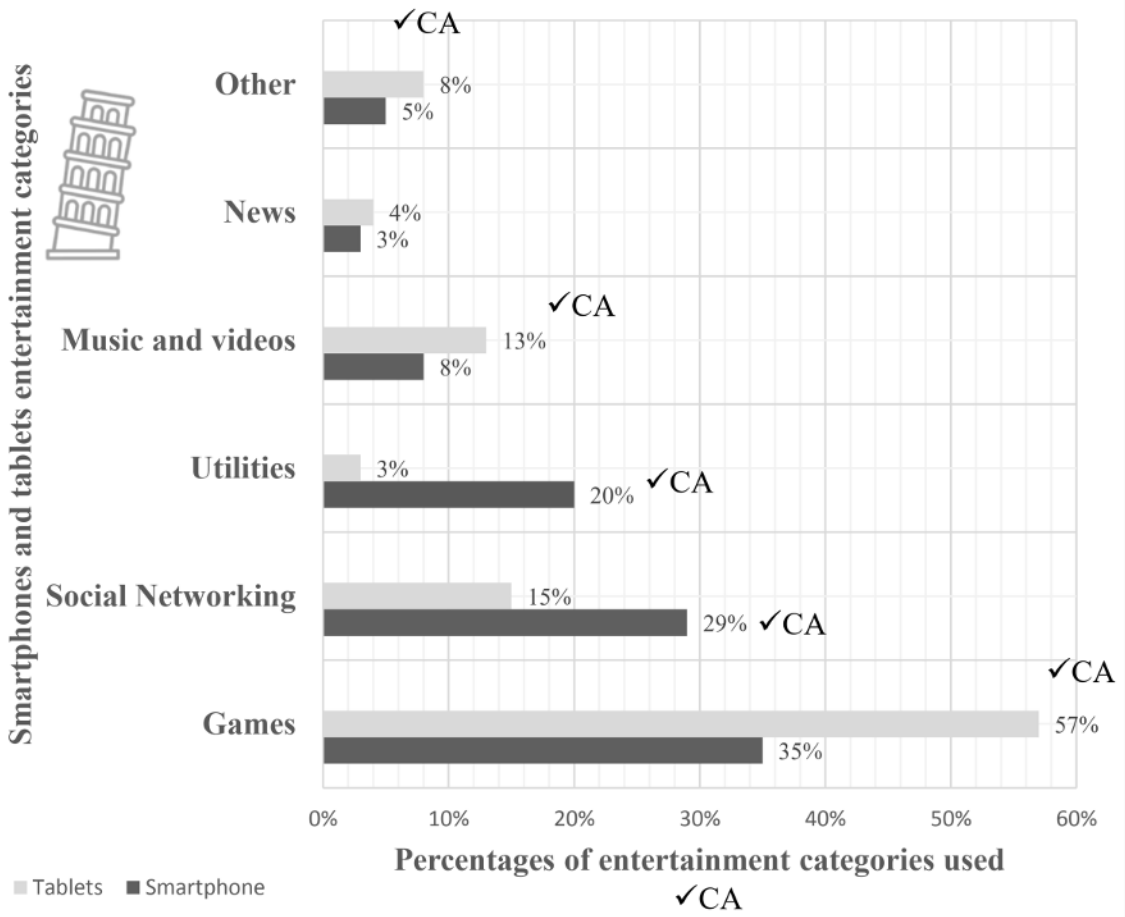
QUESTION 2 [31 MARKS]			
Ques.	**Solution**	**Explanation**	**T&L**
2.1.1	R17 000 ✓✓ RT	2 RT correct value (2)	F L1 E
2.1.2	R18 650 – R17 000 ✓M✓RT = R1 650 ✓CA	1RT correct values 1M subtracting correct values 1CA correct amount (3)	F L2 E
2.1.3	✓✓O When the accident occurs or the car get stolen then they can get their car fixed/replaced as soon as possible.	2O relevant reason (2)	F L4 M
2.1.4	✓SF Company A = 2 340,90 + 3 × (950 – 600) ✓M = R3 390,90 ✓CA Company B = R3 220,65 ✓RT Valid statement ✓O	1SF substitution 1M getting used km 1CA total interest 1RT company B amount 1O opinion (5)	F L4 M
2.1.5	The cars were in demand during 5th to 7th ✓✓A	2R acceptable reason (2)	F L4 M
2.2.1	South African Revenue Services ✓✓A	2A correct answer (2)	F L1
2.2.2	7 ✓✓RT	2RT correct value (2)	F L1 E
2.2.3	42 678 + 26% of (370 500 – 237 100) ✓SF = 42 678 + 26% of 133 400 ✓S = 42 678 + 33 046 ✓ A = R77 362	1SF substitution 1S simplification 1A correct values (3)	F L3 D
2.2.4	✓✓RT Tax rebate is an amount of money by which SARS reduces the actual taxes owing, depending on age.	2A explanation (2)	F L1 E

2.2.5	Taxable income = R34 447,22 × 7,5% = R2 583,54 ✓A = R34 447,22 – R2583,5415 ✓A = R31 863,6785 × 12 ✓A = R382 364,142 = R77 362 + 31% (382 364,14 – 370 500) ✓SF = R77 362 + 31% (11 864,14) = R77 362 + R3 677,88 = R81 039,88 – R16 425 ✓S = $\frac{\text{R64 614,88}}{12}$ ✓M = R5 384,57 – (347 × 2 + 234 × 2) ✓CA = R4 222,57 Invalid ✓ O	1A pension fund value 1A subtracting pension fund 1A multiply by 12 1CA taxable annual income 1SF substituting to the correct bracket 1S subtracting rebate 1M divide by 12 1CA monthly tax contribution 1O opinion (8)	F L4 M
		[31]	

QUESTION 3 [21 MARKS]			
Ques.	**Solution**	**Explanation**	**T&L**
3.1.1	June 2020 ✓RT	1RT month 1RT year (2)	D L1 E
3.1.2	1 097 000 1 000 000 ✓A	1RT correct value with '000' 1A nearest million (2)	D L2 M
3.1.3	✓M ✓SF Percentage change = $\frac{1\,039\,000 - 1\,036\,000}{1\,036\,000}$ ✓S × 100% = 0,29% = 0,3% ✓CA	1M difference 1SF substitution 1S simplification 1CA percentage (4)	D L3 M
3.1.4	No modal value ✓✓ A	2A correct answer (2)	D L2 M
3.1.5	Retirement age ✓✓A Death	2A (2)	D L4 M
3.1.6	That shows that the values are negative. ✓✓R	2O correct reason (2)	D L4 M
3.2.1	C = 100% – (15% + 3% + 13% + 4% + 8%) ✓ = 100% – 43% ✓ = 57% ✓	1M subtracting from 100% 1S simplification 1CA games percentage (3)	D L2 M

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3.2.2



1A plotting Other (8%) value correctly
1A plotting Music and videos (13%) value correctly
1A plotting utilities value (20%) correctly
1CA (from 3.2.2) plotting games value (57%) correctly (4)

[21]

QUESTION 4 [28 MARKS]			
Ques.	**Solution**	**Explanation**	**T&L**
4.1.1	Pie chart **OR** ✓✓A Bar graph	2A type of graph (2)	D L1 E
4.1.2	Biomedical engineer ✓✓RT Surgeon	2A names of health-related jobs (2)	D L1 E
4.1.3	✓A $\frac{12}{20} \times 100$ ✓M ✓A = 60% ✓CA	1A numerator and 1A denominator 1M multiply by 100 1CA correct percentage (4)	P L2 M
4.1.4	✓RT 106 960 × R18,42 ✓RT = 1 970 203,20 ✓S = 2 000 000 ✓R	1RT correct value 1M multiply by R18,42 1S simplification 1R rounding (4)	F L3 M
4.2.1	✓RT 5309,21 × 100 ✓M = 530 921 cents ✓CA = Five Hundred and Thirty Thousand Nine Hundred and Twenty One cents. ✓CA	IRT correct value 1M multiply correct value by 100 1CA answer in cents 1CA answer in words (4)	F L1 E
4.2.2	✓RT Admin fee = 5 309,21 - (4 529,86 ×1,15) ✓M = 99,87 ✓CA Admin fee % = $\frac{99,87}{5\ 309,21} \times 100$ ✓M = 1,88% ✓CA	2RT correct 1CA admin fee 1M divide correct values and multiply by 100 1CA admin fee percentage (5)	F L2 D
4.2.3	R5 309,21 ÷12 ✓M = R442,43 ✓S = R442 ✓CA	1M divide by 12 1CA correct monthly value 1CA monthly premium (3)	F L2 E

Ques.	Solution	Explanation	T&L
4.2.4	= R4 529,86 × 15% = R679,48 ✓CA = R99,87 – (R99,87 ÷ 1,15) = R13,03 ✓CA VAT amount = R679,48 + R13,03 ✓CA = R692,51 ✓CA **OR** R5 309,21 ÷ 1,15 ✓M = R4 616,70 ✓CA VAT amount = R5 309,21 – R4 616,70 ✓M = R692,51 ✓ CA	1CA multiply by 15% 1CA subtotal VAT amount 1CA VAT on admin fees 1CA adding two VAT values 1CA total VAT amount 1M divide by 1,15% 1CA answer 1M subtracting correct values 1CA answer (4)	F L3 D
		[28]	
		TOTAL: 100	

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