



**NATIONAL  
SENIOR CERTIFICATE**

**GRADE 10**

**NOVEMBER 2020**

**MATHEMATICAL LITERACY P1  
MARKING GUIDELINE  
(EXEMPLAR)**

**MARKS: 75**

<b>INSTRUCTIONS AND INFORMATION FOR MARKING</b>	
<b>Symbol</b>	<b>Explanation</b>
M	Method
MA	Method with accuracy
A	Accuracy
CA	Consistent accuracy
RT/RG/RM	Reading from a table/graph/map
SF	Correct substitution in a formula
P	Penalty, e.g. for no units, incorrect rounding off etc.
S	Simplification
R	Rounding off
NPR	No penalty rounding or omitting units
AO	Answers only full marks
C	Conversion

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This marking guideline consists of 7 pages.

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**MARKING GUIDELINES****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 incorrect item presented.

**LET WEL:**

- *As 'n kandidaat 'n vraag TWEE keer beantwoord, merk slegs die EERSTE poging.*
- *As 'n kandidaat 'n antwoord van 'n vraag doodtrek (kanselleer) en nie oordoen nie, merk die doodgetrekte (gekanselleerde) poging.*
- *Volgehoue akkuraatheid (CA) word in ALLE aspekte van die nasienriglyn toegepas, maar dit hou by die tweede berekeningsfout op.*
- *Wanneer 'n kandidaat aflesings vanaf 'n grafiek, tabel, uitlegplan en kaart geneem en ekstra antwoorde gee, penaliseer vir elke ekstra verkeerde item.*

<b>QUESTION 1</b>			
<b>Quest.</b>	<b>Solution</b>	<b>Explanation</b>	<b>Level</b>
1.1	Those are the items that are excluded from VAT. ✓✓	2A explanation (2)	L1
1.2	Total = R10,99 × 8 ✓ = R87,92 ✓	1MA multiplying correct values 1A (2)	L1
1.3	Jellybeans : chips 25 : 15 ✓ 5 : 3 ✓	1MA correct values 1S Minus 1 mark if incorrect order (2)	L1
1.4	R1 018,97 – R69,95 = R949,02 ✓  R949,02 ÷ 1,15 = R825,23 ✓  ∴ VAT = R949,02 – R825,23 ✓ = R123,79  <b>OR</b>  $\frac{15}{115} \times R949,02 \checkmark\checkmark$  = R123,79 ✓	1M subtracting  1M  1MA  (3)	L1
1.5.1	Bar graph <b>OR</b> Vertical Bar graph ✓✓  (Accept single bar graph, column bar graph)	2A  (2)	L1
1.5.2	Total = 3 + 4 + 2 + 3 + 8 + 10 + 6 + 1 + 7 + 8 + 4 + 7 = 63 learners ✓✓	2A AO FULL MARKS (2)	L1
1.5.3	May and October ✓✓	1RG May 1RG October (2)	L1
<b>[15]</b>			

QUESTION 2			
Quest	Solution	Explanation	Level
2.1	School fees: $\frac{R1\,200 \times 2}{12}$ ✓ $= R200$ per month ✓ DSTV: $\frac{R5\,200}{12}$ $= R433,33$ ✓	1MA correct values and method 1A school fees monthly amount 1MA DSTV monthly amount (3)	L2
2.2	Total spent = R5 000 + R1 000 + R200 + R560 + R1 000 + R100 + R500 + R160 + R1 000 + R279 + R3 500 + R3 000 + R1 200 + R433,33 ✓ $= R17\,932,33$ ✓	<b>CA FROM 2.1</b> 1MA adding correct amounts 1CA Answer (2)	L2
2.3	Overspent = R17 000 – R17 932,33 ✓ $= -R932,33$ ✓	<b>CA FROM 2.2</b> 1M subtract 1CA Answer (2)	L1
2.4	$2 + 5 = 7$ ✓ $\therefore \frac{5}{7} \times 840$ ✓ $= 600$ watches ✓	1M ratio 1M multiply 1MA (3)	L3
2.5.1	R10,68 ✓✓	2 RT (2)	L1
2.5.2	$R3\,500 \div R10,68$ ✓ $= 327,72$ ℓ of diesel ✓	1M 1A (2)	L2
2.6	Cancel DSTV – not a necessity, can go without it. ✓✓ Spend less money on entertainment, eating out and clothing accounts – none of these items are basic needs, they are luxuries, and can be done without. ✓✓ <b>(Marker's discretion)</b>	2A explanation 2A explanation (4)	L4
2.7.1	Percentage loss = $\frac{R98\,000 - R55\,000}{R98\,000}$ ✓ × 100 $= \frac{R43\,000}{R98\,000} \times 100$ ✓ $= 43,88\%$ loss ✓	1MA 1M multiply by 100 1CA answer (3)	L3

2.7.2	$R55\ 000 - R32\ 500 = R22\ 500$ (investment amount) ✓ $1,75\% \times R22\ 500 = R393,75$ (per month) ✓ 1,5 years = 18 months $Total = R22\ 500 + (R393,75 \times 18)$ ✓ $= R29\ 587,50$ ✓ ∴ No, he will not have enough money to pay for the cruise. ✓	1MA subtract to get amount to invest 1M calculating interest per month 1MA 1CA final amount after 1,5 years 1A explanation (5)	L3
		[26]	
<b>QUESTION 3</b>			
<b>Quest.</b>	<b>Solution</b>	<b>Explanation</b>	<b>Level</b>
3.1	14 boys ✓✓	2RM (2)	L2
3.2	Grade 12 ✓✓	2RM (2)	L2
3.3	$Total = 50$ $Total\ that\ drink = 9 + 3 = 12$ ✓ $Total\ not\ drinking = 50 - 12$ ✓ $= 38\ learners$ ✓	1RM correct grade and values 1M subtracting boys and girls from total 1A AO FULL MARKS (3)	L3
3.4	$(143 \div 250) \times 100$ $= 57,2\%$ ✓ ∴ Yes! There seems to be a problem as her school's average is higher than the national average. ✓	2A explanation (2)	L4
		[9]	

QUESTION 4			
Quest.	Solution	Explanation	Level
4.1	Xolani ✓ 50 bpm ✓	1RT name 1RT heart rate  (2)	L2
4.2	77 bpm ✓✓	2A  (2)	L2
4.3	Average = $\frac{1\ 195}{15}$ ✓✓  = 79,67 ✓	1MA adding correctly 1M divide by 15 1CA  (3)	L2
4.4	Median Group 2 (Boys):  50; 51; 52; 60; 71; <b>77</b> ; <b>84</b> ; 84; 90; 101; 105; 118 ✓  $= \frac{77 + 84}{2}$ ✓  = 80,5 ✓	1M correct order  1MA calculating median  1CA answer  (3)	L2
4.5	Median ✓ Ignores any outliers (any very high or very low numbers) ✓	1A median 1A explanation  (2)	L4
4.6	No! ✓ Girls' median is lower. ✓	1A 1A reason  (2)	L4
<b>[14]</b>			

<b>QUESTION 5</b>			
<b>Quest.</b>	<b>Solution</b>	<b>Explanation</b>	<b>Level</b>
5.1	Time ✓✓	2A (2)	L1
5.2	Simple interest ✓✓	2A (2)	L1
5.3	Simple interest increases with the same amount every year, therefore the graph is in direct proportion, as the exact same amount is being added each year. ✓✓	2A explanation (2)	L4
5.4	10 years ✓✓	1RM (2)	L1
5.5	Interest rate = $\frac{4\ 000}{5\ 000} \times 100$ ✓  = 80% ÷ 8 years ✓ = 10% p.a. ✓	1MA 1M % divide by no. of years 1CA interest rate p.a. (3)	L2
<b>[11]</b>			
<b>TOTAL: 75</b>			