Province of the
EASTERN CAPE
EDUCATION

NATIONAL SENIOR CERTIFICATE



GRADE 10

MATHEMATICAL LITERACYMARKING

GUIDELINE



MARCH 2023

MARKS: 50

Symbol/*Simbool*	**Explanation/*Verduideliking***
M	Method/*Metode*
M/A	Method with accuracy/*Metode van akkuraatheid*
CA	Consistent accuracy/*Volgehoue akkuraatheid*
A	Accuracy/*Akkuraatheid*
C	Conversion/*Herleiding*
S	Simplification/*Vereenvoudiging*
RT	Reading from a table/graph/diagram/*Lees vanaf tabel/grafiek/diagram*
SF	Correct substitution in a formula/*Korrekte vervanging in formule*
O	Opinion/Example/Definition/Explanation/*Opinie/Voorbeeld/Definisie/Verduideliking*
P	Penalty, e.g., for no units, incorrect rounding off, etc./*Penalisasie, bv. vir geen eenhede/verkeerde afronding ens.*
R	Rounding off/*afronding*
NPR	No penalty for rounding/*Geen penalisering vir afronding nie*
NPU	No penalty for the units/*Geen penalisering vir eenhede nie*
AO	Answer only, if correct, full marks/*Slegs antwoord, indien korrek, volpunte*
MCA	Method with consistent accuracy/*Metode met volgehoue akkuraatheid*

This marking guideline consists of 05 pages

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Item	Solution [10 marks]	Explanation
1.1	One million four hundred and fifty thousand three hundred and fifty rands. ✓✓A	1A first part of number 1A second part of number (2)
1.2	R 1 450 400✓✓A	2A Correct number (2)
1.3	Jacob $= \frac{3}{7} \times$ R 1450350 = R621578,57 ✓ MA ✓ A Tshiamo $= \frac{2}{7} \times$ R1 450350 = R414 385,72 ✓ MA Lerato $= \frac{2}{7} \times$ R1 450350 = R414 385,72 ✓ CA OR $\frac{3}{7} \times$ R 1450 350 = R621 578,57 ✓MA ✓A R1 450 350 – R621578,57 ✓MA = R828 771,43 $\frac{R828\ 771,43}{2}$ = R414 385,72 ✓CA	1MA fraction 3/7 1A R621578,57 1MA multiplying by fraction 1 CA final answer 1MA fraction 3/7 1A R621578,57 1MA Subtracting correct values 1 CA final answer (4)
1.4	Jacob $= \frac{10}{100} \times$ R414 385,72 = R41 438,57 ✓ MA A ✓ CA	1M multiplying by % 1CA final answer (2)

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2.1.1	70^0C ✓ ✓RG	2A reading from the graph. (4)
2.1.2	Temperature: Dependent variable ✓ ✓A Time: Independent variable	2A correct proportion. (2)
2.1.3	**The graph of time v/s temperature**: **The graph is showing a direct proportion** – if you take two points on the graph and you multiply the values you will not get a constant value e.g. (1;100) and (2;90): 1 × 100 = 100 and 2 × 90 = 180 and 180 ≠ 100 ✓✓ A **For an inverse proportion**: if you multiply the value on x-axis with the corresponding y-value, you will always get a constant value e.g. (1:100); (2:50); (4:25) etc 1×100 =100; 2×50 = 100; 4 × 25 = 100. ✓✓A	2 A for direct proportion 2 A for inverse relationship (4)
2.1.4	11 minutes ✓✓A	2A explanation (2)
2.2.1	A = 600 ✓✓RT B = 80 ✓✓RT	2 RT 2 RT
2.2.2	R10,00 ✓ ✓A	2A (2)
3.1	Water ✓ ✓A	2A (2)
3.2	$1\frac{1}{2} = \frac{3}{2}$ ✓RT $= \frac{3}{2} \times 250$ ml ✓ MA = 375 ml ✓ CA = 1 875 ml × $\frac{2}{100}$ ✓ MA = 37,5ml + 1 875 ml = 382,5 ml ✓ CA ∴ Mr Mphatsoe's claim is not vaid ✓	1RT correct amount used 1M correct conversion 1CA 1 875 ml 1MA multiplying by 2% 1CA correct answer 1O conclusion (6)
3.3	✓ M 6 × 0,5 = 3 cup ✓ CA	1M multiplying by 5 1 CA answer (2)

3.4	✓ M ✓ MA R25,99 × 3 = R77,97 ✓ CA For AFRIKAANS: Use R25,00	1 M multiplication 1 MA multiplying by 3 1 CA correct answer (3)
3.5	$\frac{R25,99}{1,15}$ ✓ A ✓ MA = R22,60 ✓ CA For AFRIKAANS use R25	1 A correct fraction 1 MA multiplying by 100 1 CA correct answer (3)
3.6	✓ SF $\frac{R25,99 - R21,99}{R21,99} \times 100\%$ ✓ MA ✓ S = 18,2% ✓ CA For AFRIKAANS Use R25	1SF correct values 1MA division and multiplication 1S simplification 1 CA final answer (4)
		[22]
TOTAL **[50]**		

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MATHEMATICAL LITERACY GRADE 10 TEST 1 ANALYSIS GRID

		Topics						Cognitive levels				
Quest	Item	F	M	MP	D	P		TL 1	TL 2	TL3	TL 4	
1	1.1							2				10
	1.2							2				
	1.3									4		
	1.4								2			
2	2.1.1								4			17
	2.1.2								2			
	2.1.3							2				
	2.1.4										2	
	2.1.5							2				
	2.2.1									3		
	2.2.2								2			
3	3.1.1								2			23
	3.1.2									2		
	3.1.3									4		
	3.1.4							4				
	3.1.5								3			
	3.2.1							2				
	3.2.2										6	
	TOTAL						50	**14**	**15**	**13**	**08**	50
	%						0	28	30	26	16	100
	Target						**0%**	**30%**	**30%**	**20%**	**20%**	**100 %**

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