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**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

JUNE 2022

**MATHEMATICAL LITERACY P2
MARKING GUIDELINE**

MARKS: 100

Symbol	Explanation
M	Method
M/A	Method with Accuracy
MCA	Method with Consistent Accuracy
CA	Consistent Accuracy
A	Accuracy
C	Conversion
S	Simplification
RT/RG/RM	Reading from a table OR Reading from a graph OR Read from map
F	Choosing the correct formula
SF	Substitution in a formula
J	Justification
P	Penalty, e.g. for no units, incorrect rounding off etc.
R	Rounding Off OR Reason
AO	Answer only
NPR	No penalty for rounding

This marking guideline consists of 7 pages.

QUESTION 1 [20]			
Ques.	Solutions	Explanations	Level
1.1.1	Mozambique ✓✓	2RT correct country (2)	L1 Maps
1.1.2	3 ✓✓	2A no of tented camps (2)	L1 Maps
1.1.3	9 ✓✓	2A correct number (2)	LI Maps
1.1.4	Main camp ✓✓	2A type of camp (2)	L1 Maps
1.2.1	260 ÷ 10 ✓ 26 cm ✓	1C dividing by 10 1A answer (2)	L1 Meas.
1.2.2	150 – 40 ✓ 110 mm ÷ 1 000 ✓ 0,11 m ✓	1MA subtraction 1C dividing by 1 000 1A answer (3)	LI Meas.
1.2.3	100 : 150 ✓✓ 2 : 3 ✓	1RT correct values 1M ratio concept 1S simplification (3)	LI Meas.
1.3.1	14 x 2 + 3 ✓ 31 ✓	1MA multiplication and addition 1A answer (2)	L1 Meas
1.3.2	6 ✓✓	2A (2)	L1 Probl.
		[20]	

QUESTION 2 [32]			
Ques.	Solutions	Explanations	Level
2.1.1	Distance = 1 029 km ✓ $1\ 029 \times 1\ 000$ ✓ $1\ 029\ 000$ m ✓	1RT correct distance 1C conversion 1CA answer (3)	L2 Maps
2.1.2	Cape Town to Johannesburg = 1 402 km ✓ Johannesburg to Bloemfontein = 417 km ✓ Total = 1 402 + 417 $= 1\ 819$ km ✓ Cape Town to Nelspruit = 1 779 km ✓ Difference = 1 819 – 1 779 = 40 km ✓ Valid ✓	1RT distance CT to Johannesburg 1RT distance to Bloemfontein 1CA total distance 1RT Nelspruit 1CA difference 1O valid (6)	L4 Maps
2.1.3	Distance = 1 393 km ✓ Distance = Speed x Time $1\ 393 = 105 \times T$ ✓ $T = 1\ 393/105$ ✓ $T = 13,2666$ hrs $= 0,2666 \times 60$ ✓ $= 16$ min $T = 13\text{hrs } 16\text{ min} + 2\text{ hrs } 30\text{min}$ ✓ $= 15\text{hrs } 46\text{min}$ ✓	1RT correct distance 1A substitution 1S simplification 1C hours to minutes 1M adding times 1CA answer (6)	L3 Maps
2.2.1	Bar scale ✓✓	1A type of scale (2)	L1 Maps
2.2.2	Scale $1,2\text{ cm} = 5\text{ km}$ ✓ $4,3\text{ cm} = 5 \times 4,3$ ✓ $= \frac{21,5}{1,2}$ ✓ $= 17,916666 \times 1\ 000$ $= 17\ 917\text{ m}$ ✓	1A measuring the scale Accept 1,1 cm–1,3 cm 1A measuring the map Accept 4,1 cm–4,4 cm 1S simplification 1CA distance in metres (4)	L3 Maps

2.2.3	South East ✓✓	2A direction (2)	L2 Maps
2.2.4	$2\ 850 = 870$ $\frac{870}{2\ 850} \checkmark$ $0,30526 \times 100 \checkmark$ $30,526 \checkmark$ $= 30,53 \text{ cm} \checkmark$	1MA dividing by 2 850 1C to cm 1CA answer 1R rounding to two decimals (4)	L2 Maps
2.2.5	Fuel consumed: $10 \text{ km} = 1 \text{ litre}$ $1 \text{ km} = \frac{1}{10} \text{ litre}$ Therefore 929 km will require: $929 \times \frac{1}{10} \text{ litre} \checkmark \text{M}$ $= 929 \div 10$ $= 92,9 \text{ litre} \checkmark \text{A}$ Cost of return journey = $2 (92,9 \times \text{R}16,98) \checkmark \text{M}$ $= 2 (\text{R}1\ 577,442)$ $= \text{R}3\ 154,884 \checkmark \text{S}$ $= \text{R}3\ 154,88 \checkmark \text{CA}$	1M Determine litres 1A correct answer 1M using 929 km 1S simplifying CA correct answer (5)	L3 Maps
			[32]

QUESTION 3 [29]			
Ques.	Solutions	Explanations	Level
3.1.1	$274 + 15,25 + 15,25 \checkmark\checkmark$ $= 304,5 \text{ cm } \checkmark$ <p style="text-align: center;">OR</p> $274 + 2(15,25) \checkmark$ $274 + 30,5 \checkmark$ $= 304,5 \text{ cm } \checkmark$	1RT all values correct 1MA adding overhang 1CA answer <p style="text-align: right;">(3)</p>	L1 Meas.
3.1.2	$274 - 152,5 \checkmark$ $121,5 \times 10 \checkmark$ $1\ 215 \text{ mm } \checkmark$ <p style="text-align: center;">OR</p> $(274 \times 10) - (152,5 \times 10) \checkmark$ $= 2\ 740 - 1\ 525 \checkmark$ $= 1\ 215 \text{ mm } \checkmark$	1MA subtraction 1C to mm 1CA answer <p style="text-align: right;">(3)</p>	L2 Meas.
3.1.3	$10:08 + 1:58 \checkmark$ $11:66 \checkmark$ $12:06 \checkmark$	1MA adding time 1S simplification 1A correct time <p style="text-align: right;">(3)</p>	L2 Meas.
3.1.4	$76 + 15,25 \checkmark$ $= 91,25$ $152,5 - 91,25 \checkmark$ $= 61,25 \checkmark$ Not valid \checkmark	1MA addition 1MA subtraction 1A answer 1O not valid <p style="text-align: right;">(4)</p>	L4 Meas.
3.2.1	$100 + 40 + 40 + 60 + 20 + 60 + 60 + 120 + 20 + 40 \checkmark\checkmark$ $= 560 \text{ cm } \checkmark$	1A all values correct 1MA adding all values 1A answer <p style="text-align: right;">(3)</p>	L1 Meas.

3.2.2	<p>Area = Length x Width</p> <p>FIGURE 1 = 100×40 = $4\,000 \text{ cm}^2$ ✓</p> <p>FIGURE 2 = 20×60 = $1\,200 \text{ cm}^2$ ✓</p> <p>FIGURE 3 = 120×40 = $4\,800 \text{ cm}^2$ ✓</p> <p>Total area = $4\,000 + 1\,200 + 4\,800$ = $10\,000 / 10\,000$ ✓ = 1 m^2 ✓</p>	<p>1A area 1 1A area 2 1A area 3 1MA total area</p> <p>1CA area in square metres</p> <p>(5)</p>	L2 Meas.
3.2.3	<p>Area to paint = $1 \times 2 \times 2$ ✓</p> <p>= 4 m^2 ✓</p> <p>Litres needed = $\frac{4}{6,2}$ ✓</p> <p>= $0,645$ ✓</p> <p>= $0,65 \text{ m}^2$ ✓</p>	<p>1 MA multiplying by coats and no. of shapes</p> <p>1 CA area to be painted</p> <p>1 S simplification</p> <p>1 CA no of litres</p> <p>1 R rounding (5)</p>	L3 Meas.
3.2.4	<p>$0,65 \times 1\,000$ ✓</p> <p>= 650 ml ✓</p> <p>Valid ✓</p>	<p>1 MCA multiplying by 1 000</p> <p>1 CA simplification</p> <p>1 O verification (3)</p>	L4 Meas.
[29]			

QUESTION 4 [19]			
Ques.	Solutions	Explanations	Level
4.1.1	$\frac{17}{255} \times 100 \checkmark\checkmark$ $= 6,67\% \checkmark$	1A numerator 1A denominator 1CA percentage NPR (3)	L2 Prob
4.1.2	D44 $\checkmark\checkmark$	1A letter 1A number (2)	L1 Maps
4.1.3	D = 29 \checkmark E = 32 \checkmark H = 41 \checkmark Total = 29 + 32 + 41 = 102 \checkmark	3A all rows 1 mark for each row 1A correct total (4)	L2 Maps
4.2.1	29,9 $\checkmark\checkmark$	2RT correct amount (2)	L1 Meas.
4.2.2	(height) ² x BMI = Weight 1,7 x 1,7 x BMI = 95 \checkmark 2,89 x BMI = 95 BMI = 95/2,89 \checkmark = 32,87 \checkmark Obese / High health risk. Not valid \checkmark	1SF substitution 1S simplification 1CA 1O verification (4)	L4 Meas.
4.2.3	Exercise $\checkmark\checkmark$ Eat healthy food $\checkmark\checkmark$ OR Any other relevant answer.	2A 2A 2 for each suggestion (4)	L4 Meas.
		[19]	
TOTAL: 100			