Province of the EASTERN CAPE EDUCATION

NATIONAL SENIOR CERTIFICATE

GRADE 10

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MATHEMATICAL LITERACY P1 MARKING GUIDELINE

MARKS: 75

INSTRUCTIONS AND INFORMATION FOR MARKING	
Symbol	**Explanation**
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

This marking guideline consists of 7 pages.

QUESTION 1

Quest	Solution	Explanation	L/T
1.1			
1.1.1	R499,00 ✓✓	2RT Reading value from table Answer (2)	L1 F
1.1.2	Total cost price = 90% × R499,00 ✓ = R449,10 ✓ **OR** Total cost price = $\frac{10}{100}$ × R499 = R49,90 ✓ R499,00 – R49,90 = R449,10 ✓	1M 1 CA 1M 1CA Answer (2)	L1 F

1.1.3	Original price of item = R499,00 ÷ 1,15 ✓
	    = R433,91 ✓
	    = R434,00 ✓
		1M Answer
		1Divide by 1,15
		1CA
		Answer (3)
			L1
			F

1.1.4	Deposit amount = $\frac{15}{100}$ × 499,00 ✓
	
	    = R74,85 ✓
	
	OR
	
	85% × R499,00 = R424,15 ✓
	
	R499,00 – R424,15 = R74,85 ✓
		1M Method
		
		1CA
		
		Answer
		
		1M Method
		1CA Answer
		
		    (2)
			L1
			F

Quest	Solution	Explanation	L/T
1.1.5	Length = 120 cm ÷ 100 ✓ = 1,2 metres ✓	1M division by 100 1C 2MA Answer (2)	L1 M
1.2	Discrete data is usually whole values / collected by counting people or objects. ✓ ✓ **Accept any relevant explanation.**	2A explanation (2)	L1 D
1.3	This means that every 1 unit on the plan is equivalent to 100 units in real life. ✓✓ **Accept any relevant explanation.**	2A explanation (2)	L1 MP
		[15]	

QUESTION 2

Quest	Solution	Explanation	L/T
2.1			
2.1.1	R13,27 ✓✓	2RT Reading from the table (2)	L1 F
2.1.2	$\% \ change = \frac{R13,89 - R13,27}{R13,27} \times 100\%$ ✓ $= \frac{R0,62}{R13,27} \times 100\%$ ✓ $= 4,67\%$ ✓	1SF 1S 1CA (3)	L2 F
2.2			
2.2.1	Cost = $R0,80 \times 30$ ✓ $= R24,00$ ✓	1M Multiply by 30 1CA amount (2)	L2 F
2.2.2	Time (hrs.+ min) = $2 \times 60 + 30$ ✓ $= 150$ minutes ✓ $= 150 \times 0,90$ ✓ $= R135,00$ ✓	1M 1C 1M multiply by 90 cents 1CA answer (4)	L2 F

Quest	Solution	Explanation	L/T
2.2.3	Cost in rands $= \frac{R135,00}{30}$ ✓ $= R4,50$ per day ✓	1M 1CA amount Answer from 2.2.2 (2)	L1 F
2.3	Add parts: $2 + 3 = 5$ Mandy will receive: $\frac{2}{5} \times R500$ ✓ $= R200$ ✓	1M 1CA amount (2)	L2 F
2.4			
2.4.1	R200 or two hundred rands ✓✓	2RG (2)	L2 F
2.4.2	2 people ✓✓	2RG (2)	L2 F
2.4.3	Costs $= R800 \div 9$ ✓ $= R88,888$ $= R88,89$ ✓	1M 1CA simplification NPR (2)	L2 F
		[21]	

QUESTION 3

Quest	Solution	Explanation	L/T
3.1			
3.1.1	10 : 15 ✓ 2 : 3 ✓ **OR** 1:1,5 ✓✓	1MA Correct ratio 1CA simplification answer is given as a unit ratio (2)	L1 M
3.1.2	Water: 1,5 x 500 mℓ = 750 mℓ ✓ Salt: 1,5 x 5 mℓ = 7,5 mℓ ✓	1MA 1MA (2)	L2 M
3.1.3	Flour (grams) = 0,25 x 1 000 ✓ = 250 grams ✓	1M 1CA (2)	L1 M

Quest	Solution	Explanation	L/T

3.2	Perimeter fence = 2(6,5 m+ 0,8 m) +2(4,5 m+0,8 m) ✓
	
	          = 2(7,3 m) + 2(5,3 m) ✓
	
	          = 14,6 m +10,6 m ✓
	          = 25,2 m ✓
	
	              OR
	
	Perimeter fence = 2(650 + 80) +2(450 + 80) ✓
	
	          = 1 460 cm +1 060 cm ✓
	
	          = 2 520 cm ÷100 cm ✓
	
	          = 25,2 m ✓
		1A adding correct lengths
		1C conversion to m
		
		1CA simplification
		1CA answer
		
		1A adding correct lengths
		1CA simplification
		
		1C conversion to m
		1CA answer
		
		(4)
			
			L3
			M

3.3			
3.3.1	90 ℉ ✓✓	2RT Accept 89 to 91 ℉ (2)	L1 M

3.3.2	℉ = $\frac{9}{5}$ × 32° + 32° ✓
	
	    = 57,6 + 32° ✓
	
	    = 89,6°
	
	    = 90 ℉ ✓
		1SF
		
		1Simplification
		
		1CA answer
		(3)
			
			L2
			M

		[15]	

QUESTION 4			
Quest	**Solution**	**Explanation**	**L/T**
4.1	Distance (in km) = 15 cm × 3 750 000 ✓	1M	
	= 56 250 000 ÷ 100 000✓	1C	
		1CA answer	
	= 562,5 km ✓		L1
		(3)	MP
4.2	Length 500 mm ÷ 100 mm = 5 tins ✓	1M dividing	
	Width 300 mm ÷ 100 mm = 3 tins ✓	1M dividing	
	Height 240 mm ÷ 120 mm = 2 tins ✓	1M dividing	
	Total number of tins		
	5 × 3 × 2 ✓ = 30 tins ✓	1M multiplying 1CA simplification	L2
		(5)	MP
		[8]	

QUESTION 5			
Quest	**Solution**	**Explanation**	**L/T**
5.1			
5.1.1	Mode 55 ✓✓	2RT	L1
		(2)	D
5.1.2	Mean is a type of average obtained when all the scores are added together and then divided by the number of scores. ✓✓	2A explanation	
	Accept any relevant explanation.	(2)	L1 D
5.1.3	44; 46; 47; 49; 50; 51; 52; 53; 55; 55; 55; 58; 60; 62; 64 ✓	1M arranging values in ascending order	
	Median = $\dfrac{53 + 55}{2}$		
	= $\dfrac{108}{2}$ ✓	1M simplifying	
	= 54 ✓	1A correct value (3)	L1 D

Quest	Solution	Explanation	L/T
5.1.4	Range = 64 – 44 ✓ = 20 ✓	1M 1A (2)	 L1 D
5.2			
5.2.1	A = 327 − 212 ✓ B = 212 + 101 ✓ = 115 ✓ = 313 ✓ **OR** A = 487 − 372 ✓ B = 800 − 487 ✓ = 115 ✓ = 313 ✓	2 MA for A value 2MA for B value 2MA for A value 2MA for B value (4)	 L1 D
5.3	P(Girl) = $\frac{473}{800}$ ✓ = 0,59125 x 100 ✓ = 59,125% = 59,13% ✓	1RT numerator 1M multiply by 100 CA answer NPR (3)	 L1 P
			[16]	
	TOTAL:	**75**	