Province of the
EASTERN CAPE
EDUCATION

NATIONAL SENIOR CERTIFICATE

GRADE 10

NOVEMBER 2019

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 6 pages.

QUESTION 1			
Quest	**Solution**	**Explanation**	**Level**
1.1	R7 500,00 √√	2A correctly identifying value (2)	L1
1.2	Discrete √√	2A correct answer (2)	L1
1.3	Number of males = 120 × 45% √ = 120 × 0,45 = 54 males √	1MA multiplying correct values 1A (2)	L1
1.4.1	23:55 – 18:30 √ = 5 hours 25 min √	1M subtracting time 1A correct time in hours and minutes (2)	L1
1.4.2	Total Cost = R7 500 + R900 √√ = R8 400 √	**CA FROM 1.4.1** 1A R900 1MA adding correct values 1CA answer (3)	L1
1.4.3	Average cost = $\frac{R8\,400}{120}$ √ = R70 √	**CA FROM 1.4.2** 1M 1CA (2)	L1
1.5	Perimeter = 6 m × 4 √ = 24 m √	1SF correct values in formula 1A answer in m (2)	L1
			[15]

QUESTION 2			
Quest	**Solution**	**Explanation**	**Level**
2.1.1	R65,00 √√	2RT reading correct value from table (2)	L1
2.1.2	R1 700 – R1 500 = R200 (over R1 500) √ ∴ Cost = R12,00 + (R1,20 × 2) √ = R14,40 √ **OR** R200 ÷ 100 = 2 √ (2 × R1,20) + R12,00 √ = R14,40 √	1M subtracting amounts 1SF 1CA 1M dividing 1SF 1CA (3)	L2
2.1.3	R0,00 √√ **OR** No money √√	2RT identifying correct value from table (2)	L1
2.2	VAT = 15% × R90,80 √ = 0,15 × R90,80 = R13,62 √	1MA multiplying correct values 1A answer (2)	L1
2.3	Interest per year = R2 000 × 0,095 = R190 √ Total Interest = R190 × 2 = R380 √ Total value = R2 000 + R380 = R2 380 √	1MA calculating interest per year 1M multiplying by 2 years 1CA final answer (3)	L2
2.4.1	Variable: groceries, petrol, electricity, clothing, entertainment (CHOOSE ONE) √ Fixed: rent, car payment, insurance (Choose ONE) √	2RT one variable and one fixed (2)	L1

2.4.2	Total = 1 + 4 = 5 parts √ ∴ Electricity = $\frac{1}{5}$ × *R*3 700 √ = R740 √	1MA adding parts for ratio 1M calculating ratio 1CA answer (3)	L2
2.4.3	% = $\frac{2\,100}{11\,750}$ × 100 √ = 17,8723 … √ = 18% √	1MA multiplying correct values 1S simplifying correctly 1R rounding to nearest % (3)	L2
			[20]

QUESTION 3

Quest	Solution	Explanation	Level
3.1	5 windows √√	2RM (2)	L1
3.2	West √√	2A (2)	L1
3.3.1	One unit on the floor plan is equal to fifty units in reality. √√	2 Explanation (2)	L1
3.3.2	Real width: 4,8 cm × 50 = 240 cm ≈ 2,4 m √ Real length: 9,3 cm × 50 = 465 cm ≈ 4,65 m √ ∴ Area = 2,4 m × 4,65 m √ = 11,16 m^2 √	1MA using scale to calculate length and width 1MA converting to metres 1SF substituting correct values 1CA answer (4)	L3
			[10]

QUESTION 4			
Quest	**Solution**	**Explanation**	**Level**
4.1	¾ × 250 mℓ =187,5 mℓ √ ∴ 187,5 mℓ × 3 √ = 562,5 mℓ √ **OR** ¾ × 3 = $\frac{9}{4}$ √ ∴ $\frac{9}{4}$ × 250 mℓ √ = 562,5 mℓ √	1MA multiplying correct values 1S simplifying by multiplying by 3 1CA answer in mℓ (3)	L2
4.2	75mℓ ÷ 15 mℓ √ = 5 tbsp √	1MA dividing correct values 1A answer (2)	L1
4.3	0,23 kg × 1 000 √ = 230 g √	1MA multiplying correct values 1A answer (2)	L1
4.4.1	Radius = 32 cm ÷ 2 √ = 16 cm √ **OR** Radius = 320 mm ÷ 2 √ = 160 mm √	2A correct radius AO acceptable Accept answer in mm or cm (2)	L1
4.4.2	Volume = 3,142 × (160 mm)^2 × 12 mm √√ = 965 222,4 mm^3 √ **OR** Volume = 3,142 × (16 cm)^2 × 1,2 cm √ = 965, 2224 cm^3 √ ≈ 965 222,4 mm^3 √	**CA FROM 4.4.1 (64 cm or 640 mm)** 1C convert 1SF correct substitution 1CA answer in mm^3 (3)	L2
			[12]

QUESTION 5			
Quest	**Solution**	**Explanation**	**Level**
5.1.1	The median is the middle value of a data set, after arranging it in ascending/descending order. √√	2A Correct definition (2)	L1
5.1.2	R5 √ R29 √	2A correctly identifying R5 and R29 (2)	L1
5.1.3	Average = $\frac{383}{16}$ √√ = 23,9375 √	1MA adding correctly 1M divide by 16 1CA (3)	L2
5.1.4	√ Range = 110 – 5 √ = 105	1MA using correct values 1M subtracting (2)	L1
5.1.5	Probability (R29) = $\frac{5}{16}$ √√ = 0,3125 ≈ 0,313 √	1A correct numerator 1A correct denominator 1 Rounding (3)	L2
5.2.1	Pie chart √√	2A identifying correct graph (2)	L1
5.2.2	Adidas, Nike, Puma √√ **OR** A, C, D √√	2RG correctly identifying top 3 (2)	L1
5.2.3	32% × 300 √ = 96 learners √	1MA multiplying correct values 1A (2)	L2
			[18]
		TOTAL:	**75**