Province of the
EASTERN CAPE
EDUCATION

NATIONAL SENIOR CERTIFICATE

GRADE 11

NOVEMBER 2017

MATHEMATICAL LITERACY P1
MARKING GUIDELINE

MARKS: 100

Symbol	Explanation
M	Method
M/A	Method with Accuracy
A	Accuracy
CA	Consistent accuracy
RT/RG/RM	Reading from a table/Reading from a graph/Read from map
SF	Substitution in a formula
P	Penalty, e.g. for no units, incorrect rounding off etc.
NP	No Penalty
S	Simplification
R	Rounding/Reason

This marking guideline consists of 7 pages.

QUESTION 1			
Quest.	**Solution** **AWARD FULL MARKS FOR ANSWER ONLY**	**Explanation**	**Marks**
1.1.1	January 2017 ✓✓	2RT Correct month	L1 (2)
1.1.2	R258,20 + R4 956,38 + R2 582 + R1 956,20 ✓ = R9 753,08 ✓	1M Count correct values 1CA Total deductions	L1 (2)
1.1.3	Unemployment Insurance Fund ✓✓	2A Write in full	L1 (2)
1.1.4	$\frac{3}{5}$ x 1 290 ✓ = R774,00 ✓	1M Correct ratio 1 CA Amount	L1 (2)
1.2	Perimeter 4 cm x 2 + 2 cm + 3 cm + 6 cm + 7 cm ✓ =26 cm ✓	1M/A correct values 1A Perimeter	L1 (2)
1.3.1	North East ✓✓	2A Direction	L1 (2)
1.3.2	1 cm on the map represents 250 000 cm on the ground/in reality. ✓✓	2A Explanation	L1 (2)
1.4.1	17, 19, 21, 23, 25, 26, 26, 27, 28, 29 ✓✓	2A Arrangement	L1 (12)
1.4.2	7 ✓✓	2A Minimum temperature	L1 (2)
1.4.3	Number appearing most frequently. ✓✓	2A explanation	L1 (2)
			[20]

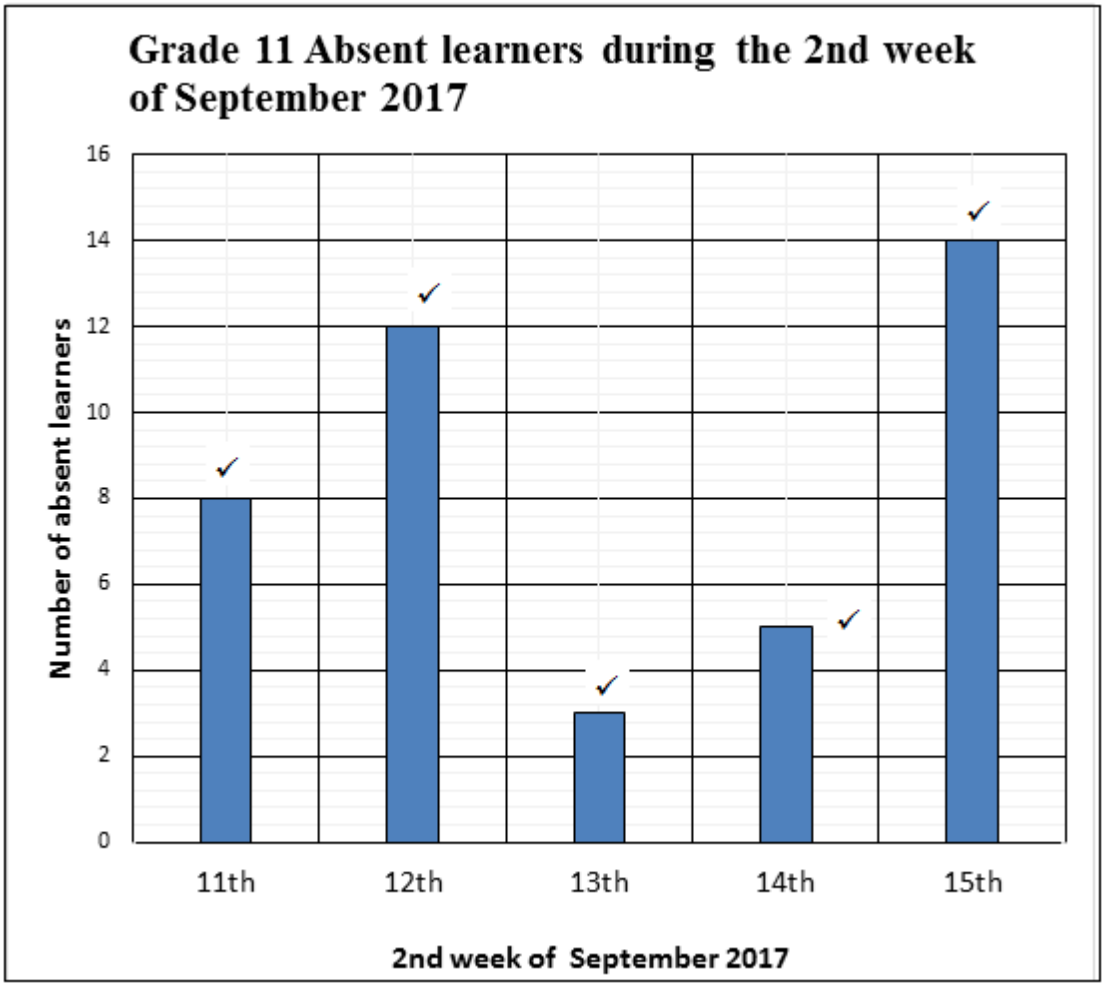
QUESTION 2			
Quest.	**Solution**	**Explanation**	**Marks**
2.1.1	R1 450,00 ✓✓	2RT amount	L1 (2)
2.1.2	$\frac{1\ 450\ ✓}{1\ 495}$ x 100 ✓ = 96,98 ✓ = 97,0% ✓	1M Correct values 1M (x100)	L1 (4)
2.1.3	Total amount to be paid per day. R1 400 x 3 = R4 200,00 ✓ R1 035 x 2 = R2 070,00 ✓ R1 495 x 1 = R1 495,00 ✓ Total = R7 765,00 ✓	 1A 6 sleeper 1A 4 sleeper 1A 8 sleeper 1A Total	L1 (4)
2.1.4	Total cost for 4 days = R7 765 x 4 ✓ = R31 060,00 ✓ 31 060 x 14% = R4 348,40 ✓ R31 060 + R4 348,40 ✓ = R35 408,40 ✓ **OR** R7 765 x4 ✓ = R31 060 ✓ R31 060 x 114% ✓ R35 408,40 ✓✓	**CA from 2.1.2** 1M multiplying by 4 1M R7 765 1CA Cost without VAT 1M x 14% 1CA	L3 (5)
2.2.1	Deposit = 12,5% ✓ x R31 060 ✓ = R3 882,50 ✓	**CA from 2.1.2** 2M Multiplying by 12,5% and 31 060 1CA	L1 (3)
2.2.2	Balance = R35 408 – R3 882,50 ✓ = R31 525,90 ✓ **OR** VAT on Deposit = 3 882,50 x 0,14 = R543,55 Balance including VAT R27 177,50 x 1,14 = R30 982,35 + 543,55 = R31 525,90	**CA from 2.1.2 and 2.2.1** 1M Subtraction 1CA Balance	L1 (2)

Quest.	Solution	Explanation	Marks
2.2.3	Thirty one thousand five hundred twenty five rands and ninety cents ✓✓		(2)
2.2.4	Donation = 20 x R14,2058 ✓ = R284,116 ✓ = R284,12 ✓	2M Multiplying 1S 1A Donation **(Accept R284,10)**	L3 (3)
2.3.	Cost of parking = 4 x R12,00 ✓ = R48,00 ✓	1M/A (Multiply 4 days by 12) 1CA Parking fees	L1 (2)
			[27]

QUESTION 3			
Quest.	**Solution**	**Explanation**	**Marks**
3.1.1	Minimum daily food = 250g + 500 g ✓ cups $= \frac{750\text{ g}\ ✓}{125\text{ g}}$ = 6 cups ✓	1M Addition 1M Division 1CA Cups	L1 (3)
3.1.2	Number of days $= \frac{10\,000\ g}{750\ g}$ ✓✓ = 13,3 ✓ = 13 days ✓	1SF, 1 C (kg to g) 1S Division 1CA Days -	L2 (4)
3.1.3	Tommy's weight = $\frac{42}{1\,000}$ ✓ = 0,042 tons ✓	1C 1A Ton	L1 (2)
3.2.1	$\frac{43}{100}$ ✓ = 0,43 ✓	1MA 1A	L1 (2)
3.2.2	Area of a main bedroom = 3 m x 3,5 m ✓ = 10,5 m^2 ✓	1M 1CA Area	L2 (2)
3.2.3	Number of boxes of tiles $= \frac{10{,}5\ m^2}{(0{,}43 \times 0{,}43)\ m^2 \times 13}$ ✓✓ $= \frac{10{,}5\ m^2}{0{,}1849\ m^2 \times 13}$ ✓ $= \frac{56{,}79}{13}$ = 4,37 ✓ = 5 boxes ✓	1SF and 1C 1S 1CA 1CA (rounding upward for boxes)	L2 (5)
			[18]

QUESTION 5			
Quest.	**Solution** **ANSWER ONLY (FULL MARKS)**	**Explanation**	**Marks**
5.1.1	445 million cubic metres ✓ Heyshope dam ✓	1A Maximum 1A units	L2 (2)
5.1.2	Difference = 445 – 180,9 ✓✓ = 246,1 ✓	1A Correct values 1M subtraction 1CA Difference	L1 (3)
5.1.3	$\frac{57,9+36,3+71,5+20,8+57+18,9+13,5+18,1+180,9}{9}$ ✓ Mean = $\frac{474,9}{9}$ ✓ = 52,77 million cubic metres ✓	 1M division by 9 1S 1CA	L2 (3)
5.1.4	(i) Klipfontein ✓ (ii) Ohrigstad ✓ (iii) Glen Alpine ✓	2 RT any two dams identified	L1 (2)
5.1.5	Range = 445 – 10 ✓ = 435 ✓	1M 1CA (using values from a wrong column)	L2 (2)

Quest.	Solution	Explanation	Marks
5.2.1	Absentees Week1 = 47 Absentees Week 2 = 42 Therefore Week 1 had most absentees ✓✓	M/A A	(2)
5.2.2			



Each bar correctly plotted -allocate 1 mark [5x 1= 5] L2 (5)

5.3.1	P(Green ball) = $\frac{5}{18}$ ✓✓ (Allow answer in % or decimal and no penalty for rounding) Accept 0,278 **OR** 27,8%.	1M numerator 1M denominator	L2 (2)
5.3.2	P(Blue ball)= $\frac{10}{18}$ ✓ × 100 ✓ = 55,56% ✓	1M numerator 1M multiplication by 100 1CA Percentage to 2 decimal places	L2 (3)
			[24]
		TOTAL:	**100**