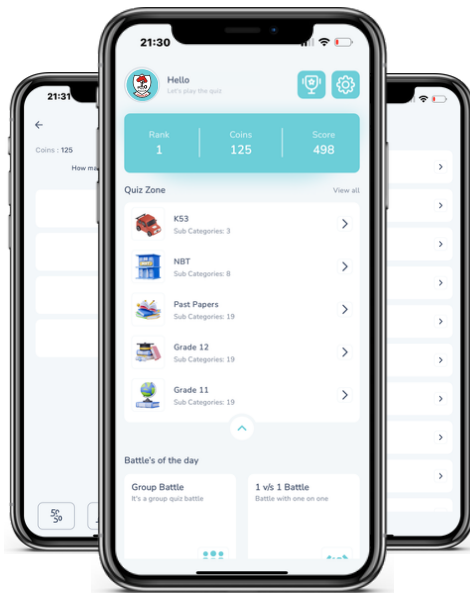




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GRADE 11

NOVEMBER 2016

**MATHEMATICAL LITERACY P1
MEMORANDUM**

MARKS: 100

This memorandum consists of 4 pages.

KEY

Symbol	Explanation
M	Method
A	Accuracy
CA	Consistent accuracy
RT/G/M/	Reading from the table/graph/map/plan
SF	Substitution in a formula
S	Simplification
P	Penalty (no units, incorrect rounding etc.)

QUESTION 1 [23]

Q	Solution	Explanation	Mark
1.1.1	Bennie's Service Station Motors Buffalo City ✓✓	2M	L1(2)
1.1.2	$A = R3\ 390,96 - R2\ 093,46$ ✓ $= R1\ 297,50$ ✓	1RT 1A	L1(2)
1.1.3	$\frac{R\ 1\ 234,96}{R2\ 469,92} \times 100$ ✓ $= 50\%$ ✓	1M numerator and denominator 1M multiply by 100	L2(2)
1.1.4	$R212,82 + R4,99 + R75,87 + R697,13 +$ $R2\ 469,92 + R726,16$ ✓ $= R4\ 186,89$ ✓	1M 1CA if one value is omitted or R159,50 is added	L1(2)
1.1.5	$B = VAT = R3\ 390,96 \times 14\%$ ✓ $= R474,73$ ✓ OR $B = R3\ 865,96 + R0,09 - R3\ 390,96$ ✓ $= R\ 474,73$ ✓	1M 1A	L1(2)
1.1.6	$R2\ 469,92 - R4,99$ ✓✓ $= R2\ 464,93$ ✓	1 Correct values 1 M 1CA	L1(3)
1.2.1	Opening balance is the balance that is reflected or displayed on the first day listed in the statement before any other transactions.	2 A Explanation	L1(2)
1.2.2	$\frac{9,50}{500} \times 100$ ✓ $= 0,019 \times 100$ ✓ $= 1,9\%$ ✓	1M dividing by 500 1M 1CA when the different value from the statement is used	L1(3)
1.2.3	$R110,00 + R55,00 + R1,10 \times 2$ ✓ $R165,00 + R2,20$ ✓ $= R167,20$ ✓	1M 1S 1CA	L2 (3)
1.2.4	Eighteen Thousand, Five Hundred ✓ and Eighty Two Rand, and Seven Cents ✓	2A expanding	L1(2)

QUESTION 2 [19]

Q	Solution	Explanation	Mark
2.1.1	Length= 30 ft✓ Width = 25 ft✓	2 RD	L1(2)
2.1.2	$30 \text{ ft} \times 25 \text{ ft} \checkmark$ $= 750 \text{ ft}^2 \checkmark$ $= \frac{750 \text{ ft}^2}{10,764} \checkmark$ $= 69,68 \text{ m}^2 \checkmark$ (Accept 69,677 m^2) OR $30 \text{ ft} = 9,1435$ $25 \text{ ft} = 7,6196$ $\therefore A = 9,1435 \times 7,6196$ $= 69,6698 \text{ m}^2$ $= 69,67 \text{ m}^2$	1M 1S 1 M Dividing by 10,764 1CA	L2 (4)
2.1.3	Amount of fertiliser = $\frac{20 \times 15 \checkmark}{100 \checkmark}$ $= \frac{300 \text{ ft}^2}{100 \text{ ft}^2} \checkmark$ $= 3 \times 2 \checkmark$ pounds $= 6 \text{ pounds} \checkmark$ OR 2 pounds $\times 3 \checkmark \checkmark = 100 \text{ ft}^2 \times 3 \checkmark$ 6 pounds $\checkmark = 300 \text{ ft}^2 \checkmark$	1M numerator 1M denominator 1S 1M Multiply by 2 1CA	L2 (5)
2.1.4	$0,15 \times 2 \checkmark$ $= 0,3 \checkmark$ Approximately = $\frac{1}{3}$ cup \checkmark OR $\frac{1}{0,15} \checkmark = 6,66666667$ Therefore $\frac{2}{0,666666667} \checkmark$ $= 0,3 \text{ cups} = \frac{1}{3} \text{ cup} \checkmark$	1M Multiply by 2 1 A 1A	L1(3)
2.2.1	Morning + Evening $(10 \text{ ml} + 15 \text{ ml} + 10 \text{ ml}) \checkmark \times 2 \checkmark$ $= 35 \text{ ml} \times 2$ $= 70 \text{ ml} \checkmark$	2 M 1CA	L1(3)
2.2.2	$10 \text{ ml} + 10 \text{ ml} \checkmark = 20 \text{ ml} \checkmark$	1M 1A	L1(2)

QUESTION 3 [19]

Q	Solution	Explanation	Mark
3.1.1	4✓✓	2 RT	L1(2)
3.1.2	Water monitoring station ✓✓	2 RT	L1 (2)
3.1.3	MA-1 ✓✓	2 RT	L1(2)
3.1.4	103 mm ✓✓ (10,3 cm)	2 RT	L1(2)
3.1.5	$10,3 \times 250\,000 \checkmark$ $\frac{100\,000 \checkmark}{10,3}$ $= 25,75 \text{ km} \checkmark$	1C 1 Division 1CA	L3(3)
3.2.1	Table B✓✓ (Accept H/I)	2A RP	L1(2)
3.2.2	South East ✓✓	2A RP	L1(2)
3.2.3	Impossible/Zero/0%✓✓	2A	L1(2)
3.2.4	Table C ✓✓	2RP	L1(2)

QUESTION 4 [27]

✓

Q	Solution					Explanation	Mark
4.1	32,49; 29,63; 23,62; 17,89 ; 14,59; 12,03; 10,31; 9,89; 9,57✓✓					2 M	L1(2)
4.2	Median=R14,59✓✓					2 M	L2(2)
4.3	Range=R 33,73 – R9,68✓✓ =R24,05 ✓					2RT	L2(3)
4.4	R-3,32 ✓✓					2M	L1(3)
4.5	Margarine 500g✓✓					2 RT	L1(2)
4.6	No Mode ✓✓					2RT	L2 (2)
4.7	Area	Margarine	Rice	Sunflower	Ceylon Tea	White Sugar	
	Urban	21,68	23,45	17,25	9,68	26,31	
<div><div>Urban food prices</div><div><p>Prices in Rands</p><p>Selected food items</p></div></div>							
1mark per food item correctly plotted × 5 = 5 marks + 1 = 6 marks 1mark for correct graph							L2(6)
4.8	Rural area people pay more or less on certain items ✓✓					2A Explanation	L3(2)
4.9	$0,56 + 0,72 + 1,11 + 1,24 + 3,79 + (-0,17) + 2,66 + (-0,21) + (-3,32) ✓$ $\frac{R6,38}{9}✓ = R0,71✓$					1M 1Dividing 1CA	L2(3)
4.10	$\frac{2}{9}✓ \times 100 = 22,2\% = 22\% ✓$					1numerator 1denominator 1CA	L2(3)

QUESTION 5 [12]

Q	Solution	Explanation	Mark
5.1	R36,99 ✓✓	2RT	L1(2)
5.2	R200,00 ✓✓	2 RT	L1(2)
5.3	$\frac{R278,78}{13} ✓ = R21,44 ✓ = R20,00 ✓$	1M dividing by 13 1S 1A	L1(3)
5.4	$6 \times R17,99$ OR $\frac{17,99}{1,14} ✓ = 15,78 ✓ \times 6$ $= \frac{R107,94}{1,14} ✓ = R94,68 ✓$ $= R94,68 ✓$	1A for 6 1M ÷ 1,14 1CA	L2(3)
5.5	$\frac{R99,98}{2} ✓ = R49,99 ✓$	1M 1A	L1(2)
5.6	Total = 22,49 + 29,26 + 25,59 + 99,98 + 22,00 + 17,99 + 9,99 + 13,49 + 1,00 ✓ = R241,79 ✓ OR Total = 478,78 – 200 – 278,78 = R241,79	1M 1CA	L2(2)

TOTAL: 100