



LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

VHEMBE WEST DISTRICT

NATIONAL SENIOR CERTIFICATE

GRADE 12

**MATHEMATICAL LITERACY
INVESTIGATION
MEMO**

This Memorandum consists of 3 pages including the cover page

Symbol	Explanation
M	Method
MA	Method with accuracy
CA	Consistent accuracy
MCA	Method with constant accuracy
A	Accuracy
C	Conversion
S	Simplification
RT / RG / RD	Reading from a table / graph / diagram
SF	Correct substitution in a formula
O	Opinion / Example / Definition / Explanation
R	Rounding off
NPR	No penalty rounding or omitting units
AO	Answer only, full marks
J	Justify



Ques	Solution	Explanation	Marks
1.1	Credit – Money deposited into TT Mushasha’s account ✓✓ Debit – Money withdrawn or taken out from TT Mushasha’s account ✓✓	2A Correct definition of Credit 2A Correct definition of Debit	4
1.2	Elite current account ✓✓	2RT Type of account	2
1.3	–R2 895,77 ✓✓ R2 895,77 (1 Mark for positive amount)	2A Correct negative Balance	2
1.4	$R15\,761,80 + R3\,192,05$ ✓ $= R18\,954,30$ ✓	1M Adding correct values 1A Answer	2
1.5	$R20,18 + R42,37 + R17,47 + R100,88$ ✓ $= R180,82$ ✓	1M Adding correct values 1A Answer	2
1.6	$R20,18 + R296,10 + R187,27 + R4\,069,52 + R42,37 + R729,45 + R1\,800 + R17,47 + R100,88$ ✓✓ $= R7\,263,24$	2M Adding correct values 1A Answer	3
2.1	Tax bracket 4 ✓✓	1A Correct tax bracket	2
2.2	R128 650,00 ✓✓	2A Correct Tax threshold	2
2.3.1	$R35\,455 \times 12$ ✓ $= R\,425\,460,00$ ✓	1M Multiplying by 12 1A Annual gross	2
2.3.2	$R14\,958 + R8\,199$ ✓ $= R23\,157,00$ ✓	1M Adding correct rebates 1A Answer	2
2.3.3	$\frac{7,5}{100} \times R425\,460 = R31\,909,50$ ✓ Annual Taxable Income = (Annual gross – Annual Pension) $= R425\,460 - R31\,909,50$ ✓ $= R393\,550,50$ ✓	1M Calculating annual pension 1MA Subtracting Correct values 1CA	3
2.3.4	$R67\,144 + 31\% \text{ of Taxable income above } R321\,600$ ✓ $R67\,144 + 0,31 \times (R425\,460 - R321\,600)$ ✓ $R67\,144 + 0,31 \times R71\,950$ $R67\,144 + R22\,304,66$ ✓✓ $R89\,448,66 - R23\,157 \text{ (Secondary Rebate)}$ ✓ $R66\,291,66$ ✓	1F Correct tax bracket 1SF Substitution 2M Adding correct values 1MA Subtracting correct rebate 1CA Answer	6



Ques	Solution	Explanation	Marks
3.1.1	9 kl ✓✓	2A RT simplification	2
3.1.2	$25 \text{ kl} = 6 \text{ kl} + 9 \text{ kl} + 10 \text{ kl} ✓$ Block 1 = $6 \times R10,34 = R 62,04 ✓$ Block 2 = $9 \times R24,54 = R220,54 ✓$ Block 3 = $10 \times R27,63 = R275,40 ✓$ Total = $R557,98 ✓$	1A Adding values 1M rate x 6 1M rate x 10 1S R275,40 1CA Answer	5
3.2.1	Block 1 ($0 \leq 6 \text{ kl}$) = $(4 \times 0) = R0,00 ✓$ Block 2 ($> 6 \leq 10,5 \text{ kl}$) = $(4,5 \times 0) = R0,00$ Block 4 ($>10,5 \leq 35 \text{ kl}$) = $4,5 \times R36,19 ✓ = R868,56$ Total Amount Due = $R868,56 ✓$	1M rate of R0,00 1M multiply by R36,19 1CA Answer	3
3.2.2	Block 1 = $4,2 \times R15,74 = R66,11 ✓$ Block 2 = $3,15 \times R22,40 = R70,56$ Block 3 = $17,15 \times R33,52 = R574,87 ✓$ Block 4 = $0,5 \times R60,32 = R30,16$ Total Bill = $R741,70 ✓$	1M rate of 4,2 1M multiply by R33,52 1CA Answer	3
3.2.3	Bill before VAT = $R741,70 \div 1,15 ✓ ✓$ $= R644,96 ✓$	2MCA divided by 1,15 1CA Answer	3
3.2.4	$580 - 66,11 = R513,89$ is 4,2 kl ✓ $513,89 - 70,56 = R443,33$ is 3,15 kl ✓ $443,33 \div 33,52 = 13,23 \text{ kl}$ Total kilolitres = $4,2 - 3,15 + 13,23 = 10,5 \text{ kl} ✓$	1M subtraction 1S R443,33 1CA Answer	3
TOTAL MARKS: 50			