



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE NASIONALE SENIOR SETIFIKAAT

GRADE/GRAAD 12

**MATHEMATICAL LITERACY P1/
WISKUNDIGE GELETTERDHEID VI**

NOVEMBER 2019

MARKING GUIDELINES/NASIENRIGLYNE

MARKS/PUNTE: 150

Symbol/Kode	Explanation/Verduideliking
M	Method/ <i>Metode</i>
MA	Method with accuracy/ <i>Metode met akkuraatheid</i>
CA	Consistent accuracy/ <i>Volgehoue akkuraatheid</i>
A	Accuracy/ <i>Akkuraatheid</i>
C	Conversion/ <i>Herleiding</i>
S	Simplification/ <i>Vereenvoudiging</i>
RT	Reading from a table/graph/document/diagram/ <i>Lees vanaf tabel/grafiek/dokument/diagram</i>
SF	Correct substitution in a formula/ <i>Korrekte vervanging in 'n formule</i>
O	Opinion/Explanation/ <i>Opinie/Verduideliking</i>
P	Penalty, e.g. for no units, incorrect rounding off, etc./ <i>Penalisasie, bv. vir geen eenhede, verkeerde afronding, ens.</i>
R	Rounding off/ <i>Afronding</i>
NPR	No penalty for rounding/ <i>Geen penalisasie vir afronding nie</i>
AO	Answer only/ <i>Slegs antwoord</i>
MCA	Method with consistent accuracy/ <i>Metode met volgehoue akkuraatheid</i>
RCA	Rounding consistent with accuracy/ <i>Afronding met volgehoue akkuraatheid</i>

**This marking guideline consists of 18 pages and 2 pages of notes.
Hierdie nasienriglyne bestaan uit 18 bladsye en 2 bladsye notas.**

NOTE:

- If a candidate answers a question TWICE, only mark the FIRST attempt.
- If a candidate has crossed out (cancelled) an attempt to a question and NOT redone the solution, mark the crossed out (cancelled) version.
- Consistent accuracy (CA) applies in ALL aspects of the marking guidelines; however it stops at the second calculation error.
- If the candidate presents any extra solution when reading from a graph, table, layout plan and map, then penalise for every extra item presented.
- The general principle of marking is that if a candidate makes one mistake and there is sound mathematics thereafter, the candidate loses one mark.

LET WEL:

- *As 'n kandidaat 'n vraag TWEE KEER beantwoord, sien slegs die EERSTE poging na.*
- *As 'n kandidaat 'n antwoord van 'n vraag doodtrek (kanselleer) en nie oordoen nie, sien die doodgetrekte (gekanselleerde) poging na.*
- *Volgehoue akkuraatheid (CA) word in ALLE aspekte van die nasienriglyne toegepas, dit hou by die tweede berekeningsfout op.*
- *Wanneer 'n kandidaat aflesings vanaf 'n grafiek, tabel, uitlegplan en kaart geneem en ekstra antwoorde gee, penaliseer vir elke ekstra item.*
- *Die algemene beginsel van merk is as 'n leerder een fout maak verloor die leerder een punt.*

QUESTION/VRAAG 1 [30 MARKS/PUNTE] AO			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
1.1.1	Numerical data/ <i>Numeriese data</i> ✓✓A	2A correct identification (2)	D L1
1.1.2	Modal allowance/ <i>Modale toelaag</i> = R1 780 ✓✓A	2A mode (2)	D L1
1.1.3	R1 715; R1 715; R1 695; R1 695; R1 695; R960; R405 ✓✓A	2A descending order <u>Accept the names</u> (2)	D L1
1.1.4	Increase in rand/ <i>Verhoging in rand</i> ✓RT R1 780 – R1 695 = R85,00 ✓A	1RT correct 2 values 1A simplification (2)	F L1
1.1.5	Pension allowances older than 75 ✓A <i>Staatsouderdomstoelae ouer as 75</i> War veteran allowances/ <i>Oorlogsveteranetoelae/Toelae vir oorlogsveterane</i> ✓A	1A correct allowance 1A correct allowance (2)	D L1

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
1.2.1	<p>1 kg = 1 000 g ? = 400 g</p> <p>∴ Quantity/ massa in kg = $\frac{400\text{g}}{1000}$ ✓MA = 0,4 kg ✓A</p> <p>OR/OF</p> <p>400 g = $\frac{400}{1\,000}$ kg ✓MA = 0,4 kg ✓A</p> <p>OR/OF</p> <p>400 g = 400 × 0,001kg ✓MA = 0,4 kg ✓A</p>	<p>1MA dividing by 1 000 1A amount in kg</p> <p>OR/OF</p> <p>1MA dividing by 1 000 1A amount in kg</p> <p>OR/OF</p> <p>1MA multiply by 0,001 1A amount in kg NPU</p> <p>(2)</p>	<p>M L1</p>
1.2.2	<p>✓RT Profit/Wins = R14,30 – R10,99 ✓M = R3,31 ✓CA</p>	<p>1RT correct values 1M subtracting values 1CA simplification</p> <p>(3)</p>	<p>F L1</p>
1.2.3	<p>Number of packets/Getal pakkies</p> <p>2,5 kg × $\frac{1000}{250}$ ✓MA = 10 packets/pakkies ✓CA</p> <p>OR/OF</p> <p>$\frac{2,5\text{kg}}{0,25\text{kg}}$ ✓C = 10 packets ✓CA</p> <p>OR/OF</p> <p>250g : 2,5kg ✓MA 250g : 2500g ✓C 1: 10 = 10 packets ✓CA</p>	<p>1MA multiply by 1 000 1M dividing by 250g 1CA simplification</p> <p>OR/OF</p> <p>1C converting into kg 1M dividing by 0,25 kg 1CA simplification</p> <p>OR/OF</p> <p>1MA ratio concept 1C conversion to same unit 1CA simplification</p> <p>(3)</p>	<p>M L1</p>

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
1.2.4	<p>Selling price/<i>Verkoopsprys</i></p> $\frac{R29,20}{8} \checkmark MA$ $= R3,65 \checkmark CA$ <p>OR/OF</p> $\frac{2 \text{ kg}}{8} = 0,25 \text{ kg}$ $\therefore 2 \text{ kg} = R29,20$ $0,25 \text{ kg} = \frac{0,25 \times R29,20}{2} \checkmark MA$ $= R3,65 \checkmark CA$	<p>1MA dividing correct value by 8</p> <p>1CA simplification (only if dividing by 8 or correct value used)</p> <p>OR/OF</p> <p>1MA dividing by 2 AND multiply by 0,25</p> <p>1CA simplification</p> <p>(2)</p>	F L1
1.3.1 (a)	69 OR/OF 69% $\checkmark \checkmark A$	2A correct value (2)	D L1
1.3.1 (b)	80 OR/OF 80% $\checkmark \checkmark A$	2A correct value (2)	D L1
1.3.2	<p>Difference/<i>Verskil</i></p> $\checkmark RT$ $84\% - 64\%$ $= 20\% \checkmark CA$	<p>1RT both correct values</p> <p>1CA simplification</p> <p>(2)</p>	D L1
1.4.1	16:00 OR/OF four o'clock in the afternoon/ <i>vier uur in die middag</i> OR/OF 4 pm	2A correct value (2)	D L1

QUESTION/VRAAG 2 [42 MARKS/PUNTE]				
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L	
2.1.1	Market value/ <i>Markwaarde</i> = R944 630,00 Nine hundred and forty four thousand six hundred and thirty rand. ✓✓A <i>Negehonderd vier en veertig duisend ses honderd en dertig rand.</i>	2A correct value in words NPU (2)	F L1	
2.1.2	Amount of VAT/ <i>Bedrag vir BTW</i> $R836,02 \times \frac{15}{100}$ ✓MA = R125,40 ✓CA OR/OF $R836,02 \times 1,15$ ✓MA = R961,42 $R961,42 - R836,02$ = R125,40 ✓CA	1MA correct value $\times \frac{15}{100}$ 1CA simplification OR/OF 1MA correct value $\times 1,15$ 1CA simplification (2)	F L1	
2.1.3	Litres/ <i>liter</i> OR/OF ℓ ✓✓A	2A correct unit <table border="1" style="display: inline-table;"><tr><td>Accept dm^3</td></tr></table> (2)	Accept dm^3	F L1
Accept dm^3				
2.1.4	Monthly sewer charge/ <i>Maandelikse rioolverwyderingskoste</i> A = R378,95 ✓✓A	2A correct charge (2)	F L1	
2.1.5	Total water charge/ <i>Totale water koste</i> ✓MA ✓RT B = $(6 \times R8,28) + (4 \times R8,79) + (2 \times R15,00)$ = R49,68 + R35,16 + R30,00 ✓M = R114,84 ✓CA	1MA identify 6, 4, 2 1RT identify R8,28; R8,79; R15,00 1M adding (at least 2 correct values) 1CA simplification (4)	F L2	
2.2.1	Inverse proportion/ <i>Omgekeerde eweredigheid</i> ✓✓A OR/OF Indirect proportion / <i>Indirekte eweredigheid</i>	2A type of proportion (2)	F L1	

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
2.2.2	6 ✓✓A	2A correct number (2)	F L1
2.2.3	Amount per person/Bedrag per persoon ✓RT $= \frac{R3\,000,00}{7}$ ✓MA = R428,57 ✓CA	1RT correct cost (R3 000) 1MA dividing by 7 1CA simplification (3)	F L1
2.2.4 (a)	$\frac{R17\,000,00}{R500,00}$ ✓MA = 34 months/maande ✓CA	1MA dividing by R500,00 1CA simplification AO (2)	F L1
2.2.4 (b)	Interest rate/Rentekoers = 8,30% ✓✓A	2A correct interest rate (2)	F L1
2.2.4 (c)	Interest for 1 year/Rente vir 1 jaar $= R17\,000,00 \times \frac{8,30}{100}$ ✓M Interest for 3 years/Rente vir 3 jaar = R1 411,00 × 3 = R4 233,00 ✓CA = R4 200,00 ✓R OR/OF Interest earned for 3 years /Rente verdien vir 3 jaar $R17\,000,00 \times \frac{8,30}{100} \times 3$ ✓M = R4 233,00 ✓CA = R4 200,00 ✓R	CA from Question 2.2.4 (b) 1M interest calculation 1CA simplification 1R rounding OR/OF 1M interest calculation 1CA simplification 1R rounding (3)	F L2
2.2.4 (d)	Percentage point difference/Persentasiepunte verskil 8,46% – 7,76% ✓RT = 0,7% ✓CA	1RT correct values 1CA simplification AO (2)	F L1

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
2.2.4 (e)	✓RT 18 months/ <i>maande</i> ✓A ✓A = 1 year and 6 months/ <i>1 jaar en 6 maande</i>	1RT reading from table 1A number of years 1A number of months AO (3)	F L1
2.3.1	✓RT R242 700 million/ <i>miljoen</i> ✓A OR/OF ✓RT R242 700 000 000 ✓A	1RT correct value (2 427) 1A number in millions NPU (2)	F L1
2.3.2	Total income received/ <i>Totale inkomste ontvang</i> : 1 370 + 242,7 + 180,3 + 31,5 ✓MA A = 1 824,5 ✓CA	1MA adding ALL correct values 1CA simplification NPU (wrote billions or rands) AO (2)	F L1
2.3.3	Other/ <i>Ander</i> ✓RT 1 823,72 – (278,4+262,4+222,6+211,0 +209,2+208,5+ 202,2 +112,7) ✓M B = 1 823,72 – 1 707 ✓MA = 116,72 ✓CA	1RT reading correct values 1M adding all the values 1MA subtracting from total 1CA value of B NPU (4)	F L2
2.3.4	Community development/ <i>Gemeenskapsontwikkeling</i> ✓RT $= \frac{R208,5}{R1\ 823,72} \times 100\% \quad \checkmark M$ $= 11,43267607\% \quad \checkmark CA$ ACCEPT ONLY FOR AFRIKAANS CANDIDATES: Social development/ <i>Maatskaplikesontwikkeling</i> ✓RT $= \frac{R278,4}{R1\ 823,72} \times 100\% \quad \checkmark M$ $= 15,26550128\% \quad \checkmark CA$	1RT both correct values 1M percentage calculation 1CA simplification 1RT both correct values 1M percentage calculation 1CA simplification NPR (3)	F L2
		[42]	

QUESTION/VRAAG 3 [26 MARKS/PUNTE]			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
3.1.1	<p>Volume = It is the amount of solids or liquids an object can take/hold. <i>Volume = Is die hoeveelheid vaste of vloeistowwe 'n voorwerp kan vat.</i> ✓✓A</p> <p>OR/OF</p> <p>Volume is the amount of space occupied by an object <i>Volume is die hoeveelheid spasie opgeneem deur die voorwerp.</i></p>	<p>2A explanation</p> <p>(2)</p>	<p>M L1</p>
3.1.2	<p>Volume = side × side × height/<i>sy × sy × hoogte</i> ✓C = 0,5 m × 0,5 m × 0,08 m ✓SF = 0,02 m³ ✓CA</p> <p>OR/OF</p> <p>$\frac{20\,000\text{ cm}^3}{1\,000\,000}$ ✓SF 50 cm × 50 cm × 8 cm = 0,02 m³ ✓C ✓CA</p>	<p>1SF correct substitution 1C conversion 1CA simplification</p> <p>OR/OF</p> <p>1 SF correct substitution 1C conversion 1CA simplification</p> <p>(3)</p>	<p>M L2</p>
3.2.1	<p>Area of one block = length × breadth = 50 cm × 50 cm ✓SF = 2 500 cm² Area of 12 blocks = 0,25 m² × 12 ✓MA = 3 m² ✓CA</p> <p>OR/OF</p> <p>Area of one block = length × breadth = 0,5 m × 0,5 m ✓SF = 0,25 m² Area of 12 blocks = 0,25 m² × 12 ✓MA = 3 m² ✓CA</p> <p>OR/OF</p>	<p>CA from Question 3.1.2</p> <p>1SF substituting correct values 1MA multiply by 12 1CA answer in m²</p> <p>OR/OF</p> <p>1SF substituting correct values 1MA multiply by 12 1CA answer in m²</p> <p>OR/OF</p>	<p>M L2</p>

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
	<p>Area of 12 blocks = $12 \times (\text{side} \times \text{side})$ <i>Area van 12 blokke</i> = $12 \times (0,5 \text{ m} \times 0,5 \text{ m})$ ✓SF = $12 \times 0,25 \text{ m}^2$ ✓MA = 3 m^2 ✓CA</p> <p style="text-align: center;">OR/OF</p> <p>Area of 12 blocks = $12 \times (\text{side} \times \text{side})$ <i>Area van 12 blokke</i> = $12 \times (50 \text{ cm} \times 50 \text{ cm})$ ✓SF = $12 \times 2\,500 \text{ cm}^2$ ✓MA = 3 m^2 ✓CA</p>	<p>1SF substituting correct values 1MA multiply by 12 1CA answer in m^2</p> <p style="text-align: center;">OR/OF</p> <p>1SF substituting correct values 1MA multiply by 12 1CA answer in m^2</p> <p style="text-align: right;">(3)</p>	
3.2.2	<p>Area of walkway ✓SF $4,05 \text{ m} \times 1,45 \text{ m}$ = $5,8725 \text{ m}^2$ ✓A</p> <p>Area to be covered with pebbles = $5,8725 \text{ m}^2 - 3 \text{ m}^2$ ✓MCA = $2,8725 \text{ m}^2$ ✓CA</p> <p style="text-align: center;">OR/OF</p> <p>Area to be covered with pebbles ✓SF $(4,05 \text{ m} \times 1,45 \text{ m}) - 3 \text{ m}^2$ ✓A = $5,8725 \text{ m}^2 - 3 \text{ m}^2$ ✓MCA = $2,8725 \text{ m}^2$ ✓CA</p> <p style="text-align: center;">OR/OF</p> <p>Area of walkway ✓SF $405 \text{ cm} \times 145 \text{ cm}$ = $58\,725 \text{ cm}^2$ ✓A</p> <p>Area to be covered with pebbles = $58\,725 \text{ cm}^2 - 30\,000 \text{ cm}^2$ ✓MCA = $28\,725 \text{ cm}^2$ ✓CA</p> <p style="text-align: center;">OR/OF</p>	<p>CA from Question 3.2.1</p> <p>1SF substitution 1A simplification</p> <p>1MCA subtracting area of blocks 1CA simplification</p> <p style="text-align: center;">OR/OF</p> <p>1SF substitution 1A simplification 1MCA subtracting area of blocks 1CA simplification</p> <p style="text-align: center;">OR/OF</p> <p>1SF substitution 1A simplification</p> <p>1MCA subtracting area of blocks 1CA simplification</p> <p style="text-align: center;">OR/OF</p>	M L3

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
3.2.2	Area to be covered with pebbles \checkmark SF $(405 \text{ cm} \times 145 \text{ cm}) - 30\,000 \text{ cm}^2$ \checkmark A $= 58\,725 \text{ cm}^2 - 30\,000 \text{ cm}^2 \checkmark$ MCA $= 28\,725 \text{ cm}^2 \checkmark$ CA	1SF substitution 1A simplification 1MCA subtracting area of blocks 1CA simplification NPR (4)	
3.2.3	$\frac{5,7 \text{ m}^2}{0,36 \text{ m}^2} \checkmark$ MA $= 15,833 \checkmark$ CA $= 16 \text{ bags of pebbles/sakkies klippies} \checkmark$ RCA	1MA dividing by 0,36 m ² 1CA simplification 1RCA rounding (3)	M L2
3.3.1	Length of large window frame/ <i>Lengte van die groot vensterraam</i> $\frac{890 \text{ mm}}{10} \checkmark$ MA $= 89 \text{ cm} \checkmark$ CA	1MA dividing by 10 1CA simplification AO (2)	M L1
3.3.2	Perimeter/ <i>Omtrek</i> \checkmark MA $= 18,5 \text{ cm} + 18,5 \text{ cm} + 18,5 \text{ cm} + 18,5 \text{ cm}$ $= 74 \text{ cm} \checkmark$ CA <p style="text-align: center;">OR/OF</p> Perimeter/ <i>Omtrek</i> $= 4 \times 18,5 \text{ cm} \checkmark$ MA $= 74 \text{ cm} \checkmark$ CA <p>AFRIKAANS ONLY OMIT SUB QUESTION 3.3.2 – UPSCALE FROM 24 TO 26</p>	1MA adding 4 sides 1CA simplification <p style="text-align: center;">OR/OF</p> 1MA side multiplied by four 1CA simplification (2)	M L1
3.3.3	Diameter/ <i>Deursnee</i> = $1,85 \text{ cm} \times 2$ $= 3,7 \text{ cm} \checkmark$ A $\frac{18,5 \text{ cm}}{3,7 \text{ cm}} \checkmark$ M $= 5 \text{ beads} \checkmark$ CA	1A diameter 1M dividing by diameter 1CA simplification (3)	M L2

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
3.3.4	<p>✓MA $2 \times 18,5 \text{ cm} = \frac{3}{4}$ of the width of the large window/<i>van die wydte van die groter venster</i></p> <p>✓A $37 \text{ cm} = \frac{3}{4}$ of the width of the large window/<i>van die wydte van die groter venster</i></p> <p>Width of large window/<i>breedte van groot venster</i> $= 37 \text{ cm} \times \frac{4}{3}$ ✓MA $= 49,33 \text{ cm}$ ✓CA</p>	<p>1MA multiply 18,5 by 2</p> <p>1A simplification</p> <p>1MA multiply with inverse</p> <p>1CA simplification NPR</p> <p style="text-align: right;">(4)</p>	<p>M L2</p>
		[26]	

QUESTION/VRAAG 4 [24 MARKS/PUNTE]			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
4.1.1	Camping, swimming, dining(eating) and checking-in (enquiries/registration/making payments). <i>Kampeer, swem en eet en inboek (navrae/registrasie/betalings maak). ✓✓✓✓ A</i>	4A 4 correct activities (4)	MP L1
4.1.2	Umnjeni ✓✓ RT	2RT reading from map (2)	MP L1
4.1.3	5 restaurants / restaurante ✓✓ RT	2RT reading from map (2)	MP L1
4.1.4	Bar Scale/Staafskaal ✓✓A	2A correct scale <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 5px auto;">Accept: Line scale/Lynskaal/ Balkskaal</div> (2)	MP L1
4.1.5	<p>✓A 4,2 cm = 4 km 1 cm = 0,9524 km ✓M ✓MA ∴ 10 cm = 9,524 km ≈ 10 km ✓CA</p> <p style="text-align: center;">OR/OF</p> <p>$\frac{10 \text{ cm}}{4,2 \text{ cm}} \times 4 \text{ km}$ ✓M ✓MA ✓A = 9,524 km ≈ 10 km ✓CA</p> <p style="text-align: center;">OR/OF</p> <p>✓A 2,1 cm = 2 km 1 cm = 0,9524 km ✓M ✓MA ∴ 10 cm = 9,524 km ≈ 10 km ✓CA</p> <p style="text-align: center;">OR/OF</p>	<p>1A measure bar scale 1M concept of scale 1MA multiply by scale</p> <p>1CA conversion</p> <p style="text-align: center;">OR/OF</p> <p>1A measure bar scale 1M concept of scale 1MA multiply by scale</p> <p>1CA conversion</p> <p style="text-align: center;">OR/OF</p> <p>1A measure bar scale 1M concept of scale 1MA multiply by scale 1CA conversion</p> <p style="text-align: center;">OR/OF</p>	MP L2

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
4.1.5	$\frac{10 \text{ cm}}{2,1 \text{ cm}} \times 2 \text{ km} \checkmark \text{M}$ $\checkmark \text{A}$ $= 9,524 \text{ km}$ $\approx 10 \text{ km} \checkmark \text{CA}$	1A measure bar scale 1M concept of scale 1MA multiply by scale 1CA conversion <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px auto;"> Accept 4,1 cm – 4,3 cm Accept 2 cm – 2,1 cm </div> <p style="text-align: right;">(4)</p>	
4.1.6	Total distance/ <i>Totale afstand</i> $= 10 \text{ km} \times 2$ $= 20 \text{ km} \checkmark \text{MA}$ $\text{Time/tyd} = \frac{20 \text{ km}}{30 \text{ km/h}} \checkmark \text{SF}$ $\text{Time/tyd} = 0,6666666667 \text{ hours} \times 60 \checkmark \text{C}$ $= 40 \text{ minutes/minute} \checkmark \text{CA}$ <p style="text-align: center;">OR/OF</p> $\text{Time/tyd} = \frac{10 \text{ km}}{30 \text{ km/h}} \checkmark \text{SF}$ $= 0,3333 \checkmark \text{C}$ $\therefore \text{In minutes/minute} = 0,3333 \times 60$ $= 20 \text{ minutes/minute} \checkmark \text{MA}$ $\therefore \text{Total time/Totale tyd} = 20 \times 2$ $= 40 \text{ minutes/minute} \checkmark \text{CA}$	1MA total distance (20 km) 1SF correct substitution 1C conversion 1CA simplification <p style="text-align: center;">OR/OF</p> 1SF correct substitution 1C conversion 1MA simplification 1CA simplification <p style="text-align: right;">(4)</p>	MP L2
4.2.1	$2 \checkmark \checkmark \text{A}$	2A number of doors <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px auto;"> Accept 3 </div> <p style="text-align: right;">(2)</p>	MP L2

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
4.2.2	<p>✓RT ✓RT Bedroom 1, Bathroom and Bedroom 2 / <i>Slaapkamer 1, Badkamer en Slaapkamer 2</i></p> <p style="text-align: center;">OR/OF</p> <p>ONLY AFRIKAANS CANDIDATES: ✓RT ✓RT <i>Slaapkamer 1, Kombuis</i></p>	<p>1RT first room 1RT other 2 rooms</p> <p style="text-align: center;">OR/OF</p> <p>1RT bedroom 1 1RT kitchen</p> <p style="text-align: right;">(2)</p>	MP L2
4.2.3	<p>$\frac{0}{2}$ OR/OF 0 OR/OF 0%</p> <p>OR/OF ✓✓A</p> <p>Impossible/<i>Onmoontlik</i></p>	<p>2A probability</p> <p style="text-align: right;">(2)</p>	P L2
		[24]	

QUESTION/VRAAG 5 [28 MARKS/PUNTE]			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
5.1.1	Questionnaires OR Interviews OR Survey OR Document analysis OR Research OR Observation <i>Vraelys OF Onderhoud OF Meningspeiling (opname) OF</i> <i>Dokument analise OF Navorsing OF Observeer ✓✓A</i>	2A means of collecting data (2)	D L1
5.1.2	% Yard trimmings/Werfsnoeisels ✓MA $= 100\% - (3,4\% + 11,2\% + 49,7\% + 3,3\% + 9,0\%)$ $= 100\% - 76,6\%$ ✓M $= 23,4\%$ ✓CA	1MA adding all correct values 1M subtracting from 100% 1CA simplification AO (3)	D L2
5.1.3	% Textiles/Tekstiele $= 11,2\% - (1,6\% + 2,3\% + 2,9\% + 1,7\%)$ $= 11,2\% - 8,5\%$ ✓MA $= 2,7\%$ ✓CA	1MA subtracting from 11,2% 1CA simplification AO (2)	D L2
5.1.4	Tons of plastic/Ton plastiek ✓RT $91\,160\,000 \times \frac{3,4}{100}$ ✓MA $= 3\,099\,440$ tons/ton ✓CA OR/OF ✓RT $91,16 \times \frac{3,4}{100}$ ✓MA $= 3,09944$ million tons/ton ✓CA	1RT correct total 1MA multiply by 3,4% 1CA simplification OR/OF 1RT correct total 1MA multiply by 3,4% 1CA simplification NPR (3)	D L2
5.1.5	Cans, pieces of a motor vehicles, household appliances; scrap metal OR any other product that includes metal / <i>Blikke, dele van 'n motorfiets, afvalmetaal OF enige ander</i> <i>produk wat metaal bevat. ✓✓A</i>	2A metal products that are recyclable (2)	D L1

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
5.1.6	Stacked bar graph OR Compound bar graph OR Bar graph <i>Saamgestelde staaf grafiek OF Stapel/balk grafiek OF Staaf grafiek</i> ✓✓A	2A type of graph (2)	D L1
5.1.7	Probability/Waarskynlikheid Other/Ander = 11,2% ✓RT ✓MA $1,7\% + 1,6\% + 2,3\% + 2,9\% = 8,5\%$ $\frac{8,5}{11,2}$ ✓M $= 0,7589285$ ✓CA OR/OF $1 - \frac{2,7}{11,2}$ ✓MA $= 0,7589285$ ✓CA	1RT correct values 1MA adding all values 1M dividing 1CA simplification OR/OF CA from Question 5.1.3 1RT correct values 1A for the number one 1MA subtracting 1CA simplification NPR (4)	P L2
5.2.1	10 ✓✓A	2A correct number (2)	D L1
5.2.2	Number of seats/setels ✓A $33 : 27$ ✓M $= 11 : 9$ ✓CA	1A correct values 1M ratio in correct order 1CA simplified ratio Accept unit ratio or fractional form (3)	D L1
5.2.3	National Freedom Party / NFP <i>Nasionale Vryheidsparty/NVP/NFP</i> ✓✓RT	2RT reading from table (2)	D L1

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L																												
5.2.4	<table border="1"> <caption>Number of Seats by Political Party</caption> <thead> <tr> <th>Party</th> <th>Permanent</th> <th>Special</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>African National Congress</td> <td>33</td> <td>27</td> <td>60</td> </tr> <tr> <td>Democratic Alliance</td> <td>13 ✓A</td> <td>7 ✓A</td> <td>20 ✓A</td> </tr> <tr> <td>Economic Freedom Fighters</td> <td>6</td> <td>1</td> <td>7</td> </tr> <tr> <td>Inkatha Freedom Party</td> <td>1</td> <td>0</td> <td>1</td> </tr> <tr> <td>National Freedom Party</td> <td>0</td> <td>1</td> <td>1</td> </tr> <tr> <td>United Democratic Movement</td> <td>1</td> <td>0</td> <td>1</td> </tr> </tbody> </table> <p>3A bars correctly drawn (3)</p>	Party	Permanent	Special	Total	African National Congress	33	27	60	Democratic Alliance	13 ✓A	7 ✓A	20 ✓A	Economic Freedom Fighters	6	1	7	Inkatha Freedom Party	1	0	1	National Freedom Party	0	1	1	United Democratic Movement	1	0	1		D L2
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			[28]																												
		TOTAL/TOTAAL: 150																													