

# basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

# NATIONAL SENIOR CERTIFICATE NASIONALE SENIOR SETIFIKAAT

GRADE/GRAAD 12

## MATHEMATICAL LITERACY P1/ WISKUNDIGE GELETTERDHEID V1

**NOVEMBER 2019** 

MARKING GUIDELINES/NASIENRIGLYNE

MARKS/PUNTE: 150

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

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) pogin 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.

QUES	QUESTION/VRAAG 1 [30 MARKS/PUNTE] AO			
Q/V	Solution/Oplossing	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/Modale toelaag	2A mode	D L1	
	= R1 780 ✓✓A	(2)		
1.1.3	R1 715; R1 715; R1 695; R1 695; R1 695; R960; R405 🗸 🗸	2A descending order Accept the names	D L1	
		(2)		
1.1.4	Increase in rand/Verhoging in rand		F L1	
	✓RT R1 780 – R1 695	1RT correct 2 values		
	= R85,00 ✓A	1A simplification (2)		
1.1.5	Pension allowances older than 75 ✓ A  Staatsouderdomstoelae ouer as 75	1A correct allowance	D L1	
	War veteran allowances/Oorlogsveteranetoelae/Toelaes vir oorlogsveterane ✓ A	1A correct allowance (2)		

$\mathbf{Q}/V$	Solution/Oplossing	Explanation/Verduideliking	T&L
1.2.1	1 kg = 1 000 g ? = 400 g		M L1
	∴ Quantity/ massa in kg = $\frac{400 \mathrm{g}}{1000}$ ✓MA = 0.4 kg ✓A	1MA dividing by 1 000 1A amount in kg	
	OR/OF	OR/OF	
	$400 \text{ g} = \frac{400}{1000} \text{ kg}  \checkmark \text{MA}$ $= 0.4 \text{ kg}  \checkmark \text{A}$	1MA dividing by 1 000 1A amount in kg	
	OR/OF	OR/OF	
	$400 \text{ g} = 400 \times 0.001 \text{kg}$	1MA multiply by 0,001	
	$= 0.4 \text{ kg} \checkmark \text{A}$	1A amount in kg NPU (2)	
1.2.2	✓RT Profit/Wins = R14,30 - R10,99 ✓M = R3,31 ✓CA	1RT correct values 1M subtracting values 1CA simplification (3)	F L1
1.2.3	Number of packets/Getal pakkies		M L1
	$2.5 \text{ kg} \times \frac{1000}{250} \checkmark \text{MA}$ $= 10 \text{ packets/pakkies} \checkmark \text{CA}$	1MA multiply by 1 000 1M dividing by 250g 1CA simplification	
	OR/OF	OR/OF	
	$\frac{2.5 \text{ kg}}{0.25 \text{ kg}} \checkmark C$ $= 10 \text{ packets } \checkmark CA$	1C converting into kg 1M dividing by 0,25 kg 1CA simplification	
	OR/OF	OR/OF	
	250g : 2,5kg ✓MA 250g : 2500g ✓C	1MA ratio concept 1C conversion to same unit	
	1: 10 = 10 packets ✓CA	1CA simplification (3)	

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
1.2.4	Selling price/Verkoopsprys		F L1
	$\frac{R29,20}{8} \checkmark MA$	1MA dividing correct value by 8	
	=R3,65 ✓CA	1CA simplification (only if dividing by 8 or correct value used)	
	OR/OF	OR/OF	
	$\frac{2 \mathrm{kg}}{8} = 0.25 \mathrm{kg}$		
	$\therefore 2kg = R29,20$		
	$0.25 \text{ kg} = \frac{0.25 \times R29.20}{2}$ $\checkmark MA$	1MA dividing by 2 AND multiply by 0,25	
	= R3,65 ✓CA	1CA simplification (2)	
1.3.1 (a)	69 <b>OR/OF</b> 69% ✓✓A	2A correct value (2)	D L1
1.3.1 (b)	80 <b>OR/OF</b> 80% ✓✓A	2A correct value (2)	D L1
1.3.2	Difference/ <i>Verskil</i> ✓RT	1RT both correct values	D L1
	84% − 64% = 20% ✓ CA	1CA simplification (2)	
1.4.1	16:00 <b>OR</b> / <b>OF</b> four o'clock in the afternoon/vier uur in die middag <b>OR</b> / <b>OF V P</b> ( <b>N</b> )nm	2A correct value (2)	D L1

$\mathbf{Q}/V$	Solution/Oplossing	Explanation/Verduideliking	T&L
1.4.2	Probability/Waarskynlikheid $= 20\% \text{ OR/OF } 0.2 \text{ OR/OF } \frac{20}{100} \text{ OR/OF } \frac{2}{10} \text{ OR/OF } \frac{1}{5}$ OR/OF unlikely/onwaarskynlik	2A correct value/words	P L1
	OR/OF		
	less likely/minder waarskynlik ✓✓A	(2)	
		[30]	

QUES	STION/VRAAG 2 [42 MARKS/PUNTE]		
Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
2.1.1	Market value/ <i>Markwaarde</i> = R944 630,00		F L1
	Nine hundred and forty four thousand six hundred and thirty		
	rand. $\checkmark \checkmark A$ Negehonderd vier en veertig duisend ses honderd en dertig rand.	2A correct value in words NPU	
	runa.	(2)	
2.1.2	Amount of VAT/Bedrag vir BTW		F L1
	$R836,02 \times \frac{15}{100} \checkmark MA$	1MA correct value $\times \frac{15}{100}$	
	$= R125,40 \checkmark CA$	1CA simplification	
	OR/OF	OR/OF	
	R836,02 × 1,15 ✓MA	1MA correct value × 1,15	
	= R961,42		
	$R961,42 - R836,02 = R125,40 \checkmark CA$	1CA simplification (2)	
2.1.3	Litres/liter $\mathbf{OR}/\mathbf{OF}$ $\ell$ $\checkmark$ $\checkmark$ A	2A correct unit Accept dm <sup>3</sup> (2)	F L1
2.1.4	Monthly sewer charge/Maandelikse rioolverwyderingskoste		F L1
	$\mathbf{A} = R378,95  \checkmark \checkmark \mathbf{A}$	2A correct charge (2)	
2.1.5	Total water charge/Totale water koste $\checkmark$ MA $\checkmark$ RT $\mathbf{B} = (6 \times R8,28) + (4 \times R8,79) + (2 \times R15,00)$	1MA identify 6, 4, 2 1RT identify R8,28; R8,79; R15,00	F L2
	$= R49,68 + R35,16 + R30,00 \checkmark M$ $= R114,84 \checkmark CA$	1M adding (at least 2 correct values) 1CA simplification (4)	
2.2.1	Inverse proportion/Omgekeerde eweredigheid ✓✓A	(4)	F L1
	OR/ <i>0F</i>	2A type of proportion	
	Indirect proportion /Indirekte eweredigheid	(2)	

$\mathbf{Q}/V$	Solution/Oplossing	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		F L1
	$=\frac{R3000,00}{7\checkmark_{MA}}$	1RT correct cost (R3 000) 1MA dividing by 7	
	= R428,57 ✓CA	1CA simplification (3)	
2.2.4 (a)	R17 000,00 R500 00 ✓MA	1MA dividing by R500,00	F L1
(4)	R500,00 = 34 months/maande ✓CA	1CA simplification <b>AO</b>	
		(2)	F
2.2.4 (b)	Interest rate/Rentekoers = 8,30% ✓✓A	2A correct interest rate	L1
	$= 8,30\%$ $\checkmark$ $\checkmark$ A	(2)	
2.2.4 (c)	Interest for 1 year/Rente vir 1 jaar $= R17\ 000,00 \times \frac{8,30}{100}  \checkmark M$	CA from Question 2.2.4 (b)	F L2
	Interest for 3 years/Rente vir 3 jaar	1M interest calculation	
	$= R1 \ 411,00 \times 3$ $= R4 \ 233,00 \ \checkmark CA$ $= R4 \ 200,00 \ \checkmark R$	1CA simplification 1R rounding	
	OR/OF	OR/OF	
	Interest earned for 3 years /Rente verdien vir 3 jaar		
	R17 000,00 × $\frac{8,30}{100}$ × 3 $\checkmark$ M	1M interest calculation	
	$= R4 233,00 \checkmark CA = R4 200,00 \checkmark R$	1CA simplification 1R rounding (3)	
2.2.4 (d)	Percentage point difference/Persentasiepunte verskil		F L1
(u)	8,46% - 7,76% ✓RT = 0,7% ✓CA	1RT correct values 1CA simplification <b>AO</b> (2)	

$\mathbf{Q}/V$	Solution/Oplossing	Explanation/Verduideliking	
2.2.4 (e)	✓RT 18 months/maande  ✓A ✓A = 1 year and 6 months/1 jaar en 6 maande	1RT reading from table 1A number of years 1A number of months AO (3)	F L1
2.3.1	✓RT R242 700 million/miljoen ✓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/ $Totale$ inkomste ontvang: 1 370 + 242,7 + 180,3 + 31,5 $\checkmark$ MA $A = 1 824,5 \checkmark$ CA	1MA adding ALL correct values 1CA simplification NPU (wrote billions or rands) AO (2)	F L1
2.3.3	Other/Ander  ✓RT  1 823,72 – (278,4+262,4+222,6+211,0+209,2+208,5+202,2+112,7) ✓M <b>B</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/Gemeenskapsontwikkeling $ \sqrt{RT} $ $ = \frac{R208,5}{R1823,72} \times 100\%  \sqrt{M} $ $ = 11,43267607\%  \sqrt{CA} $ ACCEPT ONLY FOR AFRIKAANS CANDIDATES:  Social development/Maatskaplikesontwikkeling $ \sqrt{RT} $ $ = \frac{R278,4}{R1823,72} \times 100\%  \sqrt{M} $ $ = 15,26550128\%  \sqrt{CA} $	1RT both correct values 1M percentage calculation  1CA simplification  1RT both correct values 1M percentage calculation 1CA simplification NPR  (3)	F L2
		[42]	<u> </u>

$\mathbf{Q}/V$	Solution/Oplossing	Explanation/Verduideliking	T&L
3.1.1	Volume = It is the amount of solids or liquids an object can take/hold.  Volume = Is die hoeveelheid vaste of vloeistowwe 'n voorwerp kan vat.  OR/OF	2A explanation	M L1
	Volume is the amount of space occupied by an object <i>Volume is die hoeveelheid spasie opgeneem deur die voorwerp.</i>	(2)	
3.1.2	Volume = side × side × height/sy × sy × hoogte $\checkmark$ C = 0,5 m × 0,5 m × 0,08 m $\checkmark$ SF = 0,02 m <sup>3</sup> $\checkmark$ CA	1SF correct substitution 1C conversion 1CA simplification	M L2
	<b>OR/</b> <i>OF</i> 20 000 cm³ ✓ SF	OR/OF	
	$\frac{20\ 000\ \text{cm}^3}{1000\ 000}  \checkmark \text{SF}$		
	50 cm × 50 cm × 8 cm	1 SF correct substitution 1C conversion	
	$= 0.02 \text{ m}^3 \checkmark \text{C}$	1CA simplification (3)	
3.2.1	Area of one block = length × breadth = $50 \text{ cm} \times 50 \text{ cm} \checkmark \text{SF}$ = $2500 \text{ cm}^2$ Area of 12 blocks = $0.25 \text{ m}^2 \times 12 \checkmark \text{MA}$ = $3 \text{ m}^2 \checkmark \text{CA}$	CA from Question 3.1.2  1SF substituting correct values 1MA multiply by 12 1CA answer in m <sup>2</sup>	M L2
	OR/OF	OR/OF	
	Area of one block = length × breadth = 0.5 m × 0.5 m $\checkmark$ SF = 0.25 m <sup>2</sup> Area of 12 blocks = 0.25 m <sup>2</sup> × 12 $\checkmark$ MA = 3 m <sup>2</sup> $\checkmark$ CA	1SF substituting correct values 1MA multiply by 12 1CA answer in m <sup>2</sup>	
	OR/OF	OR/OF	

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
	Area of 12 blocks = $12 \times (\text{side} \times \text{side})$ Area van 12 blokke = $12 \times (0.5 \text{ m} \times 0.5 \text{ m}) \checkmark \text{SF}$ = $12 \times 0.25 \text{ m}^2 \checkmark \text{MA}$ = $3 \text{ m}^2 \checkmark \text{CA}$	1SF substituting correct values 1MA multiply by 12 1CA answer in m <sup>2</sup>	
	OR/OF	OR/OF	
	Area of 12 blocks Area van 12 blokke $= 12 \times (\text{side} \times \text{side})$ $= 12 \times (50 \text{ cm} \times 50 \text{ cm}) \checkmark \text{SF}$ $= 12 \times 2500 \text{ cm}^2 \checkmark \text{MA}$ $= 3 \text{ m}^2 \checkmark \text{CA}$	1SF substituting correct values 1MA multiply by 12 1CA answer in m <sup>2</sup> (3)	
3.2.2	Area of walkway	CA from Question 3.2.1	M L3
	✓SF 4,05 m × 1,45 m	1SF substitution	
	$= 5,8725 \text{ m}^2 \checkmark \text{A}$	1A simplification	
	Area to be covered with pebbles = $5.8725 \text{ m}^2 - 3 \text{ m}^2 \checkmark \text{MCA}$ = $2.8725 \text{ m}^2 \checkmark \text{CA}$ OR/OF	1MCA subtracting area of blocks 1CA simplification OR/OF	
	Area to be covered with pebbles $ \begin{array}{l} \checkmark \text{SF} \\ (4,05 \text{ m} \times 1,45 \text{ m}) - 3 \text{ m}^2 \\ \checkmark \text{A} \\ = 5,8725 \text{ m}^2 - 3 \text{ m}^2 \checkmark \text{MCA} \\ = 2,8725 \text{ m}^2 \checkmark \text{CA} \end{array} $	1SF substitution 1A simplification 1MCA subtracting area of blocks 1CA simplification	
	OR/OF	OR/OF	
	Area of walkway $\checkmark SF$ $405 \text{ cm} \times 145 \text{ cm}$ $= 58 725 \text{ cm}^2 \checkmark A$	1SF substitution 1A simplification	
	Area to be covered with pebbles = $58725 \text{ cm}^2 - 30000 \text{ cm}^2  \checkmark \text{MCA}$ = $28725 \text{ cm}^2  \checkmark \text{CA}$	1MCA subtracting area of blocks 1CA simplification	
	OR/OF	OR/OF	

Q/V	Solution/Oplossing	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	$\frac{5.7 \text{ m}^2}{0.36 \text{ m}^2}$ ✓MA $= 15.833$ ✓CA $= 16 \text{ bags of pebbles/sakkies klippies}$ ✓RCA	1MA dividing by 0,36 m <sup>2</sup> 1CA simplification 1RCA rounding  (3)	M L2
3.3.1	Length of large window frame/Lengte van die groot vensterraam		M L1
	$\frac{890 \mathrm{mm}}{10} \checkmark \mathrm{MA}$ $= 89 \mathrm{cm} \checkmark \mathrm{CA}$	1MA dividing by 10  1CA simplification  AO  (2)	
3.3.2	Perimeter/ <i>Omtrek</i> ✓ MA  = 18,5 cm + 18,5 cm + 18,5 cm  = 74 cm ✓ CA	1MA adding 4 sides 1CA simplification	M L1
	OR/OF	OR/OF	
	Perimeter/Omtrek		
	= 4 × 18,5 cm ✓MA = 74 cm ✓CA	1MA side multiplied by four 1CA simplification	
	AFRIKAANS ONLY OMIT SUB QUESTION 3.3.2 – UPSCALE FROM 24 TO 26	(2)	
3.3.3	Diameter/Deursnee = 1,85 cm $\times$ 2 = 3,7 cm $\checkmark$ A	1A diameter	M L2
	$\frac{18.5 \text{ cm}}{3.7 \text{ cm}} \checkmark M$ = 5 beads $\checkmark$ CA	1M dividing by diameter 1CA simplification (3)	

$\mathbf{Q}/V$	Solution/Oplossing	Explanation/Verduideliking	T&L
3.3.4	$\checkmark$ MA $2 \times 18,5 \text{ cm} = \frac{3}{4}$ of the width of the large window/van die	1MA multiply 18,5 by 2	M L2
	wydte van die grooter venster  37 cm = $\frac{3}{4}$ of the width of the large window/van die	1A simplification	
	wydte van die grooter venster		
	Width of large window/breedte van groot venster		
	$=37 \text{ cm} \times \frac{4}{3} \checkmark \text{MA}$	1MA multiply with inverse	
	= 49,33 cm ✓ CA	1CA simplification NPR	
		(4)	
		[26]	

QUESTION/VRAAG 4 [24 MARKS/PUNTE]			
Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
4.1.1	Camping, swimming, dining(eating) and checking-in (enquiries/registration/making payments).		MP L1
	Kampeer, swem en eet en inboek (navrae/registrasie/betalings maak).	4A 4 correct activities (4)	
4.1.2	Umngeni ✓✓ 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 Accept: Line scale/Lynskaal/ Balkskaal (2)	MP L1
4.1.5	✓A 4,2 cm = 4 km 1 cm = 0,9524 km ✓M ✓MA ∴10 cm = 9,524 km ≈ 10 km ✓CA	1A measure bar scale 1M concept of scale 1MA multiply by scale 1CA conversion	MP L2
	OR/OF $ \frac{10 \text{ cm}}{4.2 \text{ cm}} \times 4 \text{ km} \checkmark M $ $ \checkmark A $ = 9,524 km $ \approx 10 \text{ km} \checkmark CA $	OR/OF  1A measure bar scale  1M concept of scale  1MA multiply by scale  1CA conversion	
	OR/OF  ✓A  2,1 cm = 2 km  1 cm = 0,9524 km ✓M  ✓MA	OR/OF  1A measure bar scale	
	∴10 cm = 9,524 km $ ≈ 10 km ✓ CA $ OR/OF	1M concept of scale 1MA multiply by scale 1CA conversion <b>OR/OF</b>	

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
4.1.5	$\frac{10 \text{ cm}}{2.1 \text{ cm}} \times 2 \text{ km}  \checkmark MA$ $\frac{10 \text{ cm}}{2.1 \text{ cm}} \times 2 \text{ km}  \checkmark MA$ $= 9.524 \text{ km}$ $\approx 10 \text{ km}  \checkmark CA$	1A measure bar scale  1M concept of scale 1MA multiply by scale  1CA conversion  Accept 4,1 cm – 4,3 cm Accept 2 cm – 2,1 cm  (4)	
4.1.6	Total distance/Totale afstand = $10 \text{ km} \times 2$ = $20 \text{ km} \checkmark \text{MA}$ Time/ $tyd = \frac{20 \text{ km}}{30 \text{ km/h}} \checkmark \text{SF}$ Time/ $tyd = 0,66666666666666666666666666666666666$	1MA total distance (20 km)  1SF correct substitution  1C conversion 1CA simplification	MP L2
	OR/OF	OR/OF	
	Time/tyd = $\frac{10 \text{ km}}{30 \text{ km/h}}$ ✓SF = 0,3333 ∴ In minutes/minute = 0,3333 × 60 = 20 minutes/minute ✓MA ∴ Total time/Totale tyd = 20 ×2 = 40 minutes/minute ✓CA	1C conversion 1MA simplification 1CA simplification (4)	
4.2.1	2 ✓✓A	2A number of doors Accept 3 (2)	MP L2

$\mathbf{Q}/V$	Solution/Oplossing	Explanation/Verduideliking	T&L
4.2.2	✓RT ✓RT Bedroom 1, Bathroom and Bedroom 2 / Slaapkamer 1, Badkamer en Slaapkamer 2	1RT first room 1RT other 2 rooms	MP L2
	OR/OF	OR/OF	
	ONLY AFRIKAANS CANDIDATES:  ✓RT ✓RT  Slaapkamer 1, Kombuis	1RT bedroom 1 1RT kitchen (2)	
4.2.3	$\frac{0}{2} \text{ OR/OF } 0 \text{ OR/OF } 0\%$ $\text{OR/OF}$ $\text{Impossible/}Onmoontlik$	2A probability (2)	P L2
		[24]	

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
5.1.1	Questionnaires <b>OR</b> Interviews <b>OR</b> Survey <b>OR</b> Document analysis <b>OR</b> Research <b>OR</b> Observation  Vraelys <b>OF</b> Onderhoud <b>OF</b> Meningspeiling (opname) <b>OF</b> Dokument analise <b>OF</b> Navorsing <b>OF</b> Observeer	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 plastick $\checkmark$ RT  91 160 000 × $\frac{3.4}{100}$ ✓ MA  = 3 099 440 tons/ton $\checkmark$ CA  OR/OF $\checkmark$ RT  91,16 × $\frac{3.4}{100}$ ✓ MA  = 3,09944 million tons/ton $\checkmark$ 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 <b>OR</b> any other product that includes metal /  Blikke, dele van 'n motorfiets, afvalmetaal <b>OF</b> enige ander produk wat metaal bevat. $\checkmark \land$ A	2A metal products that are	D L1

$\mathbf{Q}/V$	Solution/Oplossing	Explanation/Verduideliking	T&L
5.1.6	Stacked bar graph <b>OR</b> Compound bar graph <b>OR</b> Bar graph  Saamgestelde staaf grafiek <b>OF</b> Stapel/balk grafiek <b>OF</b> Staaf grafiek  VVA	2A type of graph (2)	D L1
5.1.7	Probability/Waarskynlikheid Other/Ander = 11,2% $\checkmark$ RT $\checkmark$ MA 1,7% + 1,6% + 2,3% + 2,9% = 8,5% $\frac{8,5}{11,2}$ $\checkmark$ M = 0,7589285 $\checkmark$ CA OR/OF $\checkmark$ A $\overset{\checkmark}{}$ RT $1 - \frac{2,7}{11,2}$ $\checkmark$ MA = 0,7589285 $\checkmark$ 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  Nasionale Vryheidsparty/NVP/NFP ✓✓RT	2RT reading from table (2)	D L1

