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**SENIOR CERTIFICATE EXAMINATIONS/
NATIONAL SENIOR CERTIFICATE EXAMINATIONS
SENIORSERTIFIKAAT-EKSAMEN/
*NASIONALE SENIORSERTIFIKAAT-EKSAMEN***

MATHEMATICAL LITERACY P1/WISKUNDIGE GELETTERDHEID VI

2023

MARKING GUIDELINES/NASIENRIGLYNE

MARKS/PUNTE: 150

Symbol/Kode	Explanation/Verduideliking
M	Method/Metode
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
O	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

**These marking guidelines consist of 19 pages.
Hierdie nasienriglyne bestaan uit 19 bladsye.**

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.
- Rounding is an independent mark.
- General principle of marking, if the candidate makes one mistake he loses one mark.
- A conclusion mark can only be given if relevant calculations precedes it.

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 egter op by die tweede berekeningsfout.
- Wanneer 'n kandidaat aflesings vanaf 'n grafiek, tabel, uitlegplan en kaart geneem en ekstra antwoorde gee, penaliseer vir elke ekstra item.
- Afronding tel as 'n afsonderlike punt.
- Die algemene beginsel van merk as 'n leerder een fout maak verloor hy een punt.
- 'n Gevolgtrekkingspunt kan slegs gegee word indien relevante berekeningne dit voorgaan.

QUESTION/VRAAG 1 [31 MARKS/PUNTE] ANSWER ONLY FULL MARKS			
Q/V	Solution/<i>Oplossing</i>	Explanation/<i>Verduidelikning</i>	T&L
* 1.1.1	$\checkmark A \quad \checkmark A$ Hire-purchase / online credit (Mobicred) / Cash price. OR/OF $Huurkoop / aanlyn krediet (Mobicred) / Kontant prys.$ (Any two/Enige twee)	1A first method 1A second method (2)	F L1
* 1.1.2	You buy the generator at a monthly installment. Only after your final installment you own the generator. $Jy koop die generator teen 'n maandelikse paaiement.$ $Slegs na die laaste paaiement het jy die generator \checkmark A gekoop.$	2A correct explanation (2)	F L1
1.1.3	14,75% $\checkmark \checkmark RT$	2RT correct percentage (2)	F L1
1.1.4	Total cost / totale koste $\checkmark MA$ $R1\ 006 \times 12$ $= R12\ 072 \checkmark A$	1MA multiply by 12 1A simplification (2)	F L1

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
1.1.5	Discount / <i>afslag</i> $= R10\ 999 \times \frac{12,5}{100}$ ✓MA $= R1\ 374,88$ ✓A	1MA calculating 12,5% 1A amount discount Accept: R1 374,90 OR R1 375 (2)	F L1
1.1.6	Simple Interest / <i>Enkelvoudige rente</i> ✓✓A	2A simple interest (2)	F L1
* 1.2.1	Ascending order / <i>Stygende orde</i> ✓RT $-17,4\%; -6,7\%; -1,1\%; 10,1\%; 42,7\%; 90,1\%$; $122,2\%$ ✓A	1RT correct values 1A ascending order (2)	D L1
* 1.2.2	Sport skirt / <i>Sport rompie</i> ✓✓RT	2RT correct item (2)	D L1
1.2.3	Difference / <i>Verskil</i> $= R171,00 - R89,95$ ✓MA $= R81,05$ ✓A	1MA subtracting correct values 1A difference (2)	F L1
1.2.4	Total cost / <i>totale koste</i> $= R267,92 + R214,17 + R248,70 + R267,78$ $+ R87,75 + R48,58 + R89,95$ ✓MA $= R1\ 224,85$ ✓CA	1MA adding correct values 1CA simplification CA only if 1 value omitted (2)	F L1
* 1.2.5	Shinpads / <i>Skeenskud</i> OR/OF ✓✓A Hockey shoes / <i>Hokkieskoene.</i> <i>(Any hockey related equipment)</i>	2A correct item (2)	D L1

Q/V	Solution/<i>Oplossing</i>	Explanation/<i>Verduideliking</i>	T&L
*			
1.3.1 (a)	EC / OK ✓✓RT	2RT correct province (2)	D L1
1.3.1 (b)	WC / WK ✓✓RT	2RT correct province (2)	D L1
1.3.2	No province / <i>Geen provinsie</i> OR/OF ✓✓A No Mode / <i>Geen Modus</i>	2A correct solution (2)	D L1
1.3.3	Number of unemployed people / <i>Aantal werklose mense</i> ✓RT = $35,6\% \times 918\ 000$ ✓MA = 326 808 ✓CA	1RT correct % 1MA calculating percentage 1CA simplification (3)	D L1
		[31]	

QUESTION/VRAAG 2 33 MARKS/PUNTE 			
Q/V	Solution/<i>Oplossing</i>	Explanation/<i>Verduideliking</i>	T&L
* 2.1.1	125 Bossie Street, Upington ✓✓RT	2RT correct address (2)	F L1
2.1.2	<p>Excluding VAT / <i>BTW uitgesluit</i></p> $\begin{aligned} &\checkmark \text{RT} \\ &= \text{R}900 \times \frac{100}{115} \checkmark \text{MA} \\ &= \text{R}782,6086957 \\ &= \text{R}782,61 \checkmark \text{A} \end{aligned}$ <p style="text-align: center;">OR/OF</p> $\begin{aligned} &\checkmark \text{RT} \\ &= \frac{\text{R}900}{1,15} \checkmark \text{MA} \\ &= \text{R}782,6086957 \\ &= \text{R}782,61 \checkmark \text{A} \end{aligned}$ <p style="text-align: center;">OR/OF</p> <p>VAT / <i>BTW</i></p> $\begin{aligned} &\checkmark \text{RT} \\ &= \text{R}900 \times (15 \div 115) \\ &= \text{R}117,39 \checkmark \text{A} \end{aligned}$ <p>Excluding VAT / <i>BTW uitgesluit</i></p> $\begin{aligned} &= \text{R}900 - \text{R}117,39 \\ &= \text{R}782,61 \checkmark \text{A} \end{aligned}$	<p>1RT correct accommodation 1MA excluding calculation 1A simplification</p> <p style="text-align: center;">OR / OF</p> <p>1RT correct accommodation 1MA excluding calculation 1A simplification</p> <p style="text-align: center;">OR / OF</p> <p>1RT correct accommodation 1A vat amount</p> <p>1A simplification</p>	F L2
2.1.3	$\begin{aligned} C &= \text{R}75\ 040,00 - (\text{R}28\ 800 + \text{R}5\ 760 + \text{R}6\ 480) \\ &= \text{R}34\ 000 \checkmark \text{CA} \end{aligned}$ <p style="text-align: center;">OR / OF</p> $\begin{aligned} C &= \text{R}850 \times 2 \times 20 \checkmark \text{MA} \\ &= \text{R}34\ 000 \checkmark \text{CA} \end{aligned}$	<p>1MA correct values used 1CA simplification</p> <p style="text-align: center;">OR / OF</p> <p>1MA multiply correct values 1CA simplification</p>	F L1 (2)

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
* 2.1.4	<p>Number of guests in 4-bed rooms / <i>Aantal gaste in 'n 4-bed-kamers</i></p> $= R34\ 000 \div (2 \times 850) \quad \checkmark \text{MCA}$ $= 20 \quad \checkmark \text{CA}$ <p>Number of guests in 2-bed rooms <i>Aantal gaste in 'n 2-bed-kamers</i></p> $= R28\ 800 \div (2 \times 900) \quad \checkmark \text{MCA}$ $= 16 \quad \checkmark \text{CA}$ <p>Ratio/<i>Verhouding</i> = $16 : 20 \quad \checkmark \text{MCA}$ $= 4 : 5 \quad \checkmark \text{CA}$</p> <p style="text-align: center;">OR / OF</p> <p>Number of guests in 2-bed rooms <i>Aantal gaste in 'n 2-bed-kamers</i></p> $= R28\ 800 \div (2 \times 900) \quad \checkmark \text{MA}$ $= 16 \quad \checkmark \text{CA}$ <p>Number of guest in 4-bed rooms <i>Aantal gaste in 'n 4-bed-kamers</i></p> $\quad \checkmark \text{MCA}$ $= 36 - 16 = 20 \quad \checkmark \text{CA}$ <p>Ratio/<i>Verhouding</i> = $16 : 20 \quad \checkmark \text{MCA}$ $= 4 : 5 \quad \checkmark \text{CA}$</p> <p style="text-align: center;">OR / OF</p> $\begin{aligned} &\quad \checkmark \text{MA} \quad \checkmark \text{MA} \\ &= \frac{R28\ 800}{900} : \frac{R34\ 000}{850} \quad \checkmark \text{MA} \end{aligned}$ <p>Ratio/<i>Verhouding</i> = $\frac{\checkmark \text{A}}{32 : 40} \quad \checkmark \text{MCA}$ $= 4 : 5 \quad \checkmark \text{CA}$</p>	<p>CA from Question 2.1.3</p> <p>1MCA dividing and multiplying 1CA simplification</p> <p>1MCA dividing and multiplying 1CA number of guest in 2-bed accommodation</p> <p>1MCA ratio in correct order 1CA simplification</p> <p>OR / OF</p> <p>1MA dividing and multiplying 1CA simplification</p> <p>1MCA subtracting 1CA number of guest in 2-bed accommodation</p> <p>1MCA ratio in correct order 1CA simplification</p> <p>OR / OF</p> <p>1MA left ratio 1MA right ratio 1MA concept of ratio 1A correct value 1MCA ratio in correct order 1CA simplification</p>	F L3
			(6)

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
2.1.5	<p>Cost of one guest in 2-bed room/ <i>Koste van een gas in 'n 2-bed-kamer</i> $= 2 \times R900$ $= R1\ 800 \checkmark A$</p> <p>Refund for cancelling before check-in time/ <i>Terugbetaling vir kanselasie voor inteken tyd</i> $= \frac{75}{100} \times R1\ 800 \checkmark MCA$ $= R1\ 350 \checkmark CA$</p> <p>Refund for cancelling after check-in time/ <i>Terugbetaling vir kanselasie na inteken tyd</i> $\frac{25}{100} \times R1\ 800$ $= R450 \checkmark CA$</p> <p>Refund for meals/<i>Terugbetaling vir etes</i> $= 4 \times R80 + 4 \times R90$ $= R680 \checkmark A$</p> <p>Total Refund/ <i>Totale Terugbetaling</i> $= R450 + R1\ 350 + R680$ $= R2\ 480 \checkmark CA$</p> <p>Statement is CORRECT/<i>Stelling is KORREK</i> $\checkmark O$</p> <p style="text-align: center;">OR / OF</p>	<p>1A total accommodation</p> <p>1MCA calculating 75%</p> <p>1CA simplification</p> <p>1CA second accommodation refund</p> <p>1A meal refund</p> <p>1CA total refund</p> <p>1O conclusion</p> <p style="text-align: center;">OR / OF</p>	F L4

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
2.1.5	<p>First Person / <i>Eerste persoon</i> Total cost of room / <i>Totale koste van kamer</i> $= 2 \times R900$ $= R1\,800 \checkmark A$</p> <p>Refund for accommodation / <i>Terugbetaling van akkomodasie</i> $= R1\,800 \times 25\%$ $= R450 \checkmark MCA$</p> <p>Total refund / <i>Totale terugbetaling</i> $= R450 + 2 (R80,00 + R90)$ $= R790 \checkmark CA$</p> <p>Second Person / <i>Tweede Persoon</i> Total cost of room / <i>Totale koste van kamer</i> $= 2 \times R900$ $= R1\,800$</p> <p>Refund for accommodation / <i>Terugbetaling vir akkomodasie</i> $= R1\,800 \times 75\%$ $= R1\,350$</p> <p>Total refund / <i>Totale terugbetaling</i> $= R1\,350 + 2 (R80,00 + R90) \checkmark A$ $= R1\,690 \checkmark CA$</p> <p>Total refund for both people / <i>Totale terugbetaling vir beide persone</i> $= R1\,690 + R790 = R2\,480 \checkmark CA$</p> <p>Statement is CORRECT / <i>Stelling is KORREK.</i> $\checkmark O$</p>	<p>1A total accommodation</p> <p>1MCA calculating 25%</p> <p>1CA simplification</p> <p>1A total meals 1CA total refund</p> <p>1CA total refund for 2 people</p> <p>1O conclusion</p>	(7)
* 2.2.1	<p>Cost to fix the vehicle / <i>Koste om voertuig reg te maak</i> $= R50\,000 + R22\,000 + R3\,682,50 + R450 \checkmark MA$ $= R76\,132,50 \checkmark CA$</p>	<p>1MA adding all values 1CA correct answer AO</p>	F L1 (2)

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
2.2.2	<p>Selling price / <i>verkoopprys</i> $= \frac{65}{100} \times R145\ 900 \checkmark MA$ $= R94\ 835 \checkmark A$</p> <p>$= R94\ 835 - R76\ 132,50 \checkmark MCA$ $= R18\ 702,50 \checkmark CA$</p> <p>Not VALID / <i>Nie GELDIG nie</i> $\checkmark O$</p>	<p>CA from Question 2.2.1</p> <p>1MA percentage calculation 1A correct answer</p> <p>1MCA subtracting values 1CA simplification</p> <p>1O conclusion</p>	F L4 (5)
2.2.3	<p>Interest / <i>rente</i> $= R15\ 000 \times 6,25\%$ $= R937,50 \checkmark A$</p> <p>Amount after one year / <i>bedrag na een jaar</i> $= R15\ 000 + R937,50 \checkmark MA$ $= R15\ 937,50 \checkmark CA$</p> <p>Interest for second year/ <i>rente vir tweede jaar</i> $= R15\ 937,50 \times 6,95\%$ $= R1\ 107,66 \checkmark CA$</p> <p>Amount after two years /<i>bedrag na twee jaar</i> $= R15\ 937,50 + R1\ 107,66$ $= R17\ 045,16$</p> <p>Interest after two years /<i>rente na twee jaar</i> $= R17\ 045,16 - R15\ 000 \checkmark MCA$ $= R2\ 045,16 \checkmark CA$</p> <p>OR / OF</p> <p>Interest / <i>rente</i> $= R15\ 000 \times 6,25\% = R937,50 \checkmark A$</p> <p>Amount after one year / <i>bedrag na een jaar</i> $= R15\ 000 + R937,50 \checkmark MA$ $= R15\ 937,50 \checkmark CA$</p> <p>Interest for second year / <i>rente vir tweede jaar</i> $= R15\ 937,50 \times 6,95\%$ $= R1\ 107,66 \checkmark CA$</p> <p>Interest after two years / <i>rente na twee jaar</i> $= R937,50 + R1\ 107,66 \checkmark MCA$ $= R2\ 045,16 \checkmark CA$</p> <p>OR / OF</p>	<p>1A interest</p> <p>1MA adding interest 1CA Simplification</p> <p>1CA simplification</p> <p>1MCA subtracting values 1CA simplification</p> <p>OR / OF</p> <p>1A interest</p> <p>1MA adding interest 1CA Simplification</p> <p>1CA simplification</p> <p>1MCA adding values 1CA simplification</p> <p>OR / OF</p>	F L3

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
2.2.3	<p>Amount after two years / <i>bedrag na twee jaar</i> \checkmarkMA \checkmarkMA $= R15\ 000 \times 1,0625 \times 1,0695$ \checkmarkMA $= R17\ 045,16$ \checkmarkCA</p> <p>Interest after two years / <i>rente na twee jaar</i> $= R17\ 045,16 - R15\ 000$ \checkmarkMCA $= R2\ 045,16$ \checkmarkCA</p>	1MA adding percentage year 1 1MA adding percentage year 2 1MA multiplying year 1 & 2 1CA simplification 1MCA subtracting values 1CA simplification	(6)
			[33]

QUESTION/VRAAG 3 [25 MARKS/PUNTE]			
Q/V	Solution/<i>Oplossing</i>	Explanation/<i>Verduideliking</i>	T&L
3.1.1	537 ✓✓RT	2RT correct value (2)	D L1
* 3.1.2	Difference/ <i>Verskil</i> = $2\ 163 - 2\ 828$ = -665 ✓CA	1RT correct values chosen 1CA simplification (2)	D L1
3.1.3	% employees with disabilities / <i>werkers met gestremdhede</i> \sqrt{RT} $= \frac{34}{2\ 163} \times 100\%$ ✓MCA $= 1,572\%$ ✓CA	CA from Question 3.1.2 1RT correct values chosen 1MCA calculate % 1CA simplification Accept: 1,6% and 1,57% (3)	D L2
3.1.4	% employees at head-office/ <i>% werkers by hoofkantoor</i> $= 1,5\% \times 2\ 163$ $= 32,445$ ✓A Number of employees in motor dealerships <i>Aantal werkers in motorhandelaar</i> $= 2\ 163 - 32,445$ ✓MCA $= 2\ 130,555$ ✓CA Average per dealership/ <i>gemiddelde per motorhandelaar</i> $= 2\ 130,555 \div 41$ ✓MCA $= 51,9647\dots$ ✓CA OR / OF % employees at head-office/ <i>% werkers by hoofkantoor</i> $= 100\% - 1,5\%$ $= 98,5\%$ ✓A	CA from Question 3.1.2 1A employees at head office 1MCA subtracting 1CA employees at branches 1MCA average concept 1CA simplification OR / OF 1A employees at head office	D L3

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
3.1.4	<p>Number of employees in motor dealerships <i>Aantal werkers in motorhanelaar</i></p> $= 98,5\% \times 2\ 163 \checkmark \text{MCA}$ $= 2\ 130,555 \checkmark \text{CA}$ <p>Average per dealership/<i>gemiddelde per motorhandelaar</i></p> $= 2\ 130,555 \div 41 \checkmark \text{MCA}$ $= 51,9647 \checkmark \text{CA}$	<p>1MCA multiplying 1CA employees at branches</p> <p>1MCA average concept 1CA simplification NPR</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> Accept: $51,96 / 51,97 / 52 / 51$ </div>	(5)
3.1.5	<p>% coloured females / % bruin vroue</p> $\checkmark \text{RT}$ $= \frac{54}{2\ 163} \times 100\% \checkmark \text{MA}$ $= 2,497\% \checkmark \text{R}$	<p>CA from Question 3.1.2</p> <p>1RT correct values</p> <p>1MA probability concept</p> <p>1R rounded answer</p>	P L2
3.2.1 (a)	Lower Quartile / <i>Onderste kwartiel</i> = 21 ✓✓RT	2RT finding correct value	D L2
3.2.1 (b)	75 th percentile / <i>75ste persentiel</i> = 28,2 ✓✓RT	2RT finding correct value	D L2
3.2.1 (c)	Median / <i>Mediaan</i> = 31,5 ✓✓RT	2RT finding correct value	D L2

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
3.2.2	<p>50% of all the provinces had an unemployment rate of higher than 31,75% / ✓✓O <i>50% van al die provinsies het 'n werkloosheidkoers van hoër as 31,75%</i></p> <p style="text-align: center;">OR / OF</p> <p>The median of the data is the highest in 2021. ✓✓O <i>Die mediaan van die data is die hoogste in 2021.</i></p> <p style="text-align: center;">OR / OF</p> <p>The maximum value is the highest in 2021. <i>Die maksimum waarde is die hoogste in 2021.</i> ✓✓O</p> <p style="text-align: center;">OR / OF</p> <p>The box and whisker indicates a higher unemployment rate / <i>Die mond-en-snordiagram dui 'n hoër werkloosheidskoers aan.</i> ✓✓O</p> <p style="text-align: center;">OR / OF</p> <p>Q3 is higher in 2021 than in 2020 and 2019. <i>K3 is hoër in 2021 as in 2020 en 2019.</i> ✓✓O</p> <p>(Any two reasons / <i>Enige 2 redes</i>)</p>	<p>2O first explanation 2O second explanation</p>	D L4
			(4)
			[25]

QUESTION/VRAAG 4 [29 MARKS/PUNTE]		
Q/V	Solution/Oplossing	Explanation/Verduideliking
4.1.1	<p>Banks are discouraging clients to go to the branch to reduce the number of people visiting the bank / <i>Banke ontmoedig kiente om binne die bank transakies te doen om die aantal mense binne die bank te verminder.</i> ✓✓A</p> <p style="text-align: center;">OR / OF</p> <p>Banks have to pay employees working in the bank / <i>Banke moet werkers betaal om in die bank te werk.</i> ✓✓A</p> <p style="text-align: center;">OR / OF</p> <p>To reduce the wage bill / <i>Om die loonrekening te verminder.</i> ✓✓A</p>	<p>2A explanation</p> <p>(2)</p>
4.1.2	<p>Difference in cost / <i>Verskil in koste</i></p> <p>= R5,00 – R1,50 ✓RT</p> <p>= R3,50 ✓A</p>	<p>1RT correct values 1A simplification</p> <p>(2)</p>
4.1.3	<p>Nedbank: Pay-as-you-use / <i>Betaal-soos-jy-gebruik</i></p> <p>Transaction cost / <i>Transaksiekoste</i></p> <p>✓A ✓A ✓SF ✓A = $2 \times R5,00 + 2 \times R9,00 + R11 + 5 \times R2,30 + R15$</p> <p>= R65,50 ✓CA</p> <p>Difference / <i>Verskil</i></p> <p>= R65,50 – R45,00</p> <p>= R20,50 ✓CA</p> <p>His statement is VALID / <i>Sy bewering is GELDIG.</i> ✓O</p>	<p>1A debit order fees 1A cash withdrawal own ATM 1SF correct formula 1A cash send cost 1CA simplification</p> <p>1CA subtracting</p> <p>1O valid</p> <p>(7)</p>

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
* 4.2.1	<p>Annual tax payable before primary rebate/ <i>Jaarlikse belasting betaalbaar voor primêre korting</i> $= R87\ 329 \times 18\% \checkmark MA$ $= R15\ 719,22 \checkmark CA$</p> <p>Annual tax payable after primary rebate/ <i>Jaarlikse belasting betaalbaar na primêre korting</i> $= R15\ 719,22 - R15\ 714 \checkmark MCA$ $= R5,22 \checkmark CA$</p>	1MA correct tax bracket 1CA simplification 1MCA subtracting primary rebate 1CA simplification (4)	F L3
4.2.2	<p>The discount SARS gives to tax payers / <i>Die korting wat SARS vir belasting betalers gee.</i></p> <p style="text-align: center;">OR / OF</p> <p>Rebate is a tax relief given to tax payers / <i>Korting is die belasting verligting wat aan belasting betalers gegee word.</i></p>	<p style="text-align: center;">✓✓O</p> <p>2O tax discount (2)</p>	F L1
4.2.3	<p>$\checkmark RT \quad \checkmark RT$ $R15\ 714 + R8\ 613 \checkmark MA$ $= R24\ 327 \checkmark MCA$</p> <p>$R24\ 327 \div 18\% \checkmark MCA$ $= R135\ 150$</p> <p style="text-align: center;">OR / OF</p> <p>$= R135\ 150 \times 18\% \checkmark MA$ $= R24\ 327 \checkmark MCA$ $\quad \checkmark RT \quad \checkmark RT$ $= R24\ 327 - (R15\ 714 + R8\ 613) \checkmark MA$ $= R0$</p>	<p>1RT correct value 1RT correct value 1MA adding correct values 1MCA simplification 1MCA dividing by 18% OR / OF 1MA calculating 18% 1MCA simplification 1RT correct value 1RT correct value 1MA subtracting correct values (5)</p>	F L3

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
* 4.3.1	Compound / dual / multiple / stacked bar graph <i>Saamgestelde/dubbel / veelvoudige /gestapelde staafgrafiek</i> OR / OF Line Graph / <i>Lyngrafiek</i> ✓✓A	✓✓A 2A graph (2)	D L1
4.3.2	$D = 100\% - (40\% + 5\% + 30\% + 5\% + 5\%) \quad \checkmark MA$ $= 15\% \quad \checkmark CA$	1MA subtracting from 100% 1CA simplification (2)	D L1
4.3.3	$P_{(\text{not savings})} = 100\% - 15\% \checkmark RT$ $= 85\% \checkmark CA$ $= 0,85 \checkmark C$ OR / OF $P_{(\text{not savings})} = 30\% + 15\% + 10\% + 10\% + 20\% \checkmark RT$ $= 85\% \checkmark CA$ $= 0,85 \checkmark C$	1RT correct percentages 1CA simplification 1C converting to decimal OR / OF 1RT correct percentages 1CA simplification 1C converting to decimal (3)	P L2
			[29]

QUESTION/VRAAG 5 [32 MARKS/PUNTE]			
Q/V	Solution/<i>Oplossing</i>	Explanation/<i>Verduideliking</i>	T&L
5.1.1	Cottonseed / <i>Katoensaad</i> ✓✓RT	2RT reading from graph (2)	D L2
5.1.2	Coffee contribution / <i>koffie bydrae</i> $\begin{aligned} &\checkmark \text{RT} \\ &= \frac{8,92}{100} \times \$110\,322 \text{ million} / \text{miljoen} \checkmark \text{MA} \\ &= \$9\,840,7224 \text{ million} / \text{miljoen} / \$9\,840\,722\,400 \checkmark \text{CA} \end{aligned}$	1RT reading from graph 1MA multiplying with total amount 1CA simplification (3)	F L2
5.1.3	0 OR 0% OR Impossible / <i>Onmoontlik</i> ✓✓A	2A correct probability (2)	P L2
* 5.1.4	<p>✓RT $25,98\% = 32\,201 \text{ billion} / \text{miljard}$</p> <p>Total amount / <i>totale bedrag</i> $\begin{aligned} &= \frac{100}{25,98} \times \\$32\,201 \text{ billion} / \text{miljard} \checkmark \text{MA} \\ &= \\$123\,945 \text{ billion} / \text{miljard} \checkmark \text{CA} \end{aligned}$</p> <p>Amount for corn $\begin{aligned} &\checkmark \text{RT} \\ &= \frac{11,91}{100} \times \\$123\,945 \text{ billion} / \text{miljard} \\ &= \\$14\,761,890\,300 \text{ billion} / \text{miljard} \checkmark \text{CA} \end{aligned}$</p> <p>OR / OF</p> <p>✓RT $25,98\% = \\$32\,201 \text{ billion} / \text{miljard} \checkmark \text{MA}$</p> <p>✓RT $11,91\% = ?$</p> <p>$25,98\% \times ? = \\$383\,513,91 \text{ billion} / \text{miljard} \checkmark \text{MA}$</p> <p>$? = \\$14\,761,89 \text{ billion} / \text{miljard}$</p> <p>Amount for corn $= \\$14\,761,89 \text{ billion} / \text{miljard} \checkmark \text{CA}$</p> <p>OR / OF</p>	<p>1RT correct percentage</p> <p>1MA working with correct %</p> <p>1CA simplification</p> <p>1RT correct %</p> <p>1CA simplification</p> <p>OR / OF</p> <p>1RT correct percentage</p> <p>1MA concept of ratio</p> <p>1RT correct percentage</p> <p>1MA calculating total amount</p> <p>1CA simplification</p> <p>OR / OF</p>	F L2

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
5.1.4	<p>✓RT $25,98\% = 32\ 201 \text{ billion} / \text{miljard}$</p> <p>Total amount / totale bedrag</p> <p>✓RT ✓MCA $11,91\% = \frac{11,91}{25,98} \times \\$32\ 201 \text{ billion} / \text{miljard}$ ✓MA $= \\$14\ 761,890\ 300 \text{ billion} / \text{miljard}$ ✓CA</p>	<p>1RT correct percentage</p> <p>1RT correct percentage 1MCA correct ratio 1MA calculating total amount 1CA simplification</p> <p>(5)</p>	
5.1.5	<p>% contribution of bananas / % bydrae van piesangs</p> <p>$11,15 = \frac{25,98 + 16,60 + 11,91 + 9,33 + 6,22 + B + 3,95}{7}$ ✓MA $11,15 = \frac{73,99 + B}{7}$</p> <p>$78,05 = 73,99 + B$ ✓S $B = 78,05 - 73,99$ ✓MCA</p> <p>$B = 4,06$ ✓CA</p> <p>OR / OF</p> <p>✓MA $25,98 + 16,60 + 11,91 + 9,33 + 6,22 + B + 3,95 = 11,15 \times 7$ ✓MA $73,99 + B = 78,05$ ✓S</p> <p>$B = 78,05 - 73,99$ ✓MCA</p> <p>$B = 4,06$ ✓CA</p>	<p>1MA concept of mean 1MA adding values – 73,99</p> <p>1S simplification 1MCA changing the subject 1CA simplification</p> <p>OR / OF</p> <p>1MA concept of mean 1MA adding values – 73,99 1S simplification</p> <p>1MCA changing the subject 1CA simplification</p> <p>(5)</p>	D L3
5.1.6	118 405 000 000 US\$/VS\$. ✓✓A	2A correct number	D L1
5.2.1	Japan ✓✓RT	2RT correct country	F L2
* 5.2.2	ZAR OR/OF South African Rand / Suid Afrikaanse Rand OR/OF Rand ✓✓RT	2RT correct currency	F L2

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
5.2.3	$\begin{aligned} \text{€ } 1 &= \text{BRL } 5,2379 \checkmark \text{RT} \\ &= 5,2379 \times \text{R3,2026} \checkmark \text{MCA} \\ &= \text{R16,77489 / R16,7749 / R16,77 / R16,775} \checkmark \text{CA} \end{aligned}$	1RT correct rate 1MCA multiplying correct values 1CA simplification NPR (min 2 decimal places) AO (3)	F L2
5.2.4	$\begin{aligned} \text{Difference / Verskil (in US$/VS$)} &\quad \checkmark \text{A} \\ &= 29,72 \text{ billion/miljard} - 21,62 \text{ billion/miljard} \\ &= 8,1 \text{ billion / miljard} \checkmark \text{CA} \\ \\ \text{Difference / Verskil (in BRL)} &\\ &= 8,1 \text{ billion/miljard} \times 4,9642 \checkmark \text{MCA} \\ &= 40,21002 \text{ billion / miljard} \checkmark \text{CA} \\ \\ \text{Difference / Verskil (in €)} &\\ &= 40,21002 \div 5,2379 \\ &= 7,676744497 \text{ billion / miljard} \\ &= 7 676,744497 \text{ million / miljoen} \checkmark \text{CA} \\ \\ \text{His statement is VALID / Sy bewering is GELDIG.} &\checkmark \text{O} \end{aligned}$	1A difference in US\$ 1CA simplification 1MCA multiplying by correct exchange rate 1CA simplification 1CA answer in millions 1O conclusion NPR (6)	F L4
		[32]	
		TOTAL/TOTAAL: 150	