

**MARKING GUIDELINES /
NASIENRIGLYNE**

EXAMINATION / EKSAMEN	NATIONAL SENIOR CERTIFICATE / NASIONALE SENIOR SERTIFIKAAT
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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

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 berekeninge dit voorgaan.



1.2.2	Royovac: Tenergy \$0,5: \$0,02 ✓RT 25: 1 ✓A	1 RT correct Ratio 1 A correct simplification (2)	L1 F
1.2.3	✓MA ✓A Duracell: \$1,02 × 6 = \$6,12	1 MA \$1,02 × 6 1 A \$6,12 (2)	L1 F
			[30]



QUESTION 2 [46]			
No.	Answer / Antwoord	Explanation / Verduideliking	Level & Topic
2.1.1	Even chance / <i>Ewe kans</i> ✓✓RT	2 RT even chance (2)	L1 P
2.1.2	R247 300 Volkswagen Polo Vivo R313 000 Toyota Hilux R349 390 Ford Ranger ✓✓RT R360 400 Toyota Corolla Cross R497 800 Toyota HiAce	2 RT correct order (2) (-1) if Names are used instead	L2 F
2.1.3	Volkswagen Polo Vivo ✓✓RT	2 RT correct vehicle name (2)	L1 F
2.1.4	✓RT ✓RT ✓MCA 1495 units × R349 390 = R522 338 050	1 RT 1495 units 1 RT R349 390 1 MCA R522 338 050 (3)	L2 F
2.1.5	Volkswagen × 2 ✓M 5 331 × 2 = 10 662 ✓CA Compared to / <i>Vergelyk met</i> Toyota 11 250 Yes, it is true / <i>Ja, dit is waar</i> ✓✓J OR Toyota ÷ 2 ✓M 11 250 ÷ 2 = 5 625 ✓CA Compared to / <i>Vergelyk met</i> Volkswagen 5 331 Yes, it is true / <i>Ja, dit is waar</i> ✓✓J OR Toyota × 50% ✓M 11 250 × 50 ÷ 100 = 5 625 ✓CA Compared to / <i>Vergelyk met</i> Volkswagen 5 331 Yes, it is true / <i>Ja, dit is waar</i> ✓✓J	1 M multiply 2 1 CA 10 662 1 J statement is TRUE OR 1 M divide 2 1 CA 5 625 1 J statement is TRUE OR 1 M multiply 50% 1 CA 5 625 1 J statement is TRUE (3)	L4 F



2.1.6	$\% \text{ Change} = \frac{R41\,783 - R35\,944}{R35\,944} \times 100$ $\% \text{ Change} = \frac{R5839}{R35\,944} \times 100$ $\% \text{ Change} = 16,244714$ <p>$\% \text{ Change} = 16,2\%$ ✓A Yes, it is true / Ja, dit is waar ✓✓J</p>	<p>1 SF R41 783 1 SF R35 944</p> <p>1 A 16,2% 1 J Yes it is true (4)</p>	L4 F
2.1.7	<p>528 963 + (528 963 × 13,9 ÷ 100) ✓MA = 528 963 + 73 525,857 ✓MA = 602 488,857 ✓A ≈ 602 488 ✓RO</p> <p>OR</p> <p>528 963 × 113,9 ✓MA ÷ 100 ✓MA = 602 488,857 ✓A ≈ 602 488 ✓RO</p>	<p>1 MA multiply 13,9% 1 MA adding 13,9% 1 A correct answer 1 RO rounding down</p> <p>OR</p> <p>1 MA multiply 113,9 1 MA divide 100 1 A correct answer 1 RO rounding down (4)</p>	L3 F
2.2.1	<p>R313 000 × 100 ✓MA ÷ 115 ✓MA = R272 173,91 ✓A</p>	<p>1 MA multiply 100 1 MA divide 115 1 A R272 173,91 (3)</p>	L3 F
2.2.2	<p>60 months ÷ 12 months ✓MA = 5 years ✓A</p>	<p>1 MA divide 12 1 A 5 years (2)</p>	L1 F
2.2.3	<p>A = R313 000 + R1 201,50 ✓MA A = R314 207,50 ✓A</p>	<p>1 MA adding initiation fee 1 A R314 207,16 (2)</p>	L2 F
2.2.4	<p>Interest / Rente: = R314 207,50 ✓CA × 0,1375 ✓RT × 5 ✓RT = R216 017,6563 ✓CA</p> <p>Final Amount / Finale bedrag: = R314 207,50 + R216 017,6563 ✓MCA = R530 225,16 ✓CA</p>	<p>1 CA principal value (2.2.3) 1 RT 13,75% 1 RT 5 years 1 CA interest amount 1 MCA adding 1 CA final amount (6)</p>	L3 F



2.2.5	<p>B = R530 225,16 ÷ 60 months / <i>maande</i> ✓M B = R8 837,086 ✓CA B ≈ R8 837,09 ✓RO</p>	<p>(2.2.4) 1 M divide 60 months 1 CA R8 837,086 1 RO R8 837,09 (3)</p>	<p>L2 F</p>
2.2.6	<p>C = R8 837,09 + R69,00 ✓MA C = R8 906,09 ✓A</p>	<p>(2.2.5) 1 MA adding R69,00 1 A R8 906,09 (2)</p>	<p>L2 F</p>
2.2.7	<p>R313 000 × 20 ÷ 100 ✓MA = R62 600 ✓A</p>	<p>1 MA 20% of R313 000 1 A R62 600 (2)</p>	<p>L2 F</p>
2.2.8	<p>Total Cost / Totale Koste: R8 906,09 × 60 ✓M + R62 600 ✓M R534 365,40 + R62 600 R596 965,40 ✓CA R596 965,40 – R313 000 ✓MCA R283 965,40 ✓CA His statement is wrong it is R283 965,40 more. / <i>Sy stelling is verkeerd, dit is R283</i> <i>965,40 meer</i> ✓J</p>	<p>1 M multiply 60 months 1 M adding balloon payment 1CA R596 965,40 1 MCA subtracting R313 000 1 CA R283 965,40 1 J Wrong (6)</p>	<p>L4 F</p>
			[46]



QUESTION 3 / VRAAG 3 [43]			
No.	Answer / Antwoord	Explanation / Verduideliking	Level & Topic
3.1.1	March / Maart ✓✓RT	2 RT March (2)	L1 D
3.1.2	Discrete / Diskrete ✓✓RT	2 RT Discrete (2)	L1 D
3.1.3	✓RT ✓RT Range / Omvang = 6750 – 4778 = 1846	1 RT 6750 1 RT 4778 (2)	L2 D
3.1.4	P = 6 ✓RT ÷ 12 ✓RT × 100 = 50% ✓A	1 RT 6 months 1 RT 12 months 1 A 50% (3)	L3 P
3.1.5	High inflation / Hoë inflasie High interest / Hoë rente ✓✓RT High fuel prices / Hoë petrol pryse Load shedding / Beurtkrag	2 RT One per reason. Any reason from passage (2)	L4 D
3.1.6	Mean / Gemiddeld = (5 393 + ... + 5 331) ÷ 12 Mean / Gemiddeld = 69 801 ✓MA ÷ 12 ✓RT Mean / Gemiddeld = 5 816,75 ✓A Mean / Gemiddeld ≈ 5 816 units ✓RO	1 MA sum of data 1 RT divide 12 1 A 5 816,75 1 RO 5 816 (4)	L3 D
3.1.7	Minimum = 3 053 ✓RT Maximum / Maksimum = 4 734 ✓RT Q2 = 4 138 ✓✓A Q1 = 3 293,50 ✓A Q3 = 4 343 ✓A	1 RT 3 053 1 RT 4 734 2 A Q2 4 138 1 A Q1 3 293,5 1 A Q3 4 343 (6)	L3 D
3.1.8	IQR = Q3 – Q1 ✓F IQR = 5500 ✓RT – 4700 ✓RT IQR = 800 ✓CA	1 F Q3 – Q1 1 RT 5500 1 RT 4700 1 CA 1049,50 (4)	L2 D
3.2.1	363 092 units / eenhede ✓✓RT	2 RT 363 092 units (2)	L2 D
3.2.2	363 092 ✓RT × 32 ÷ 100 ✓MCA = 116 189,44 ✓CA ≈ 116 189 units / eenhede ✓RO	1 RT 363 092 1 M multiply 32% 1 A 116 189,44 1 RO 116 189 (4)	L2 D



3.2.3	Pie chart / <i>sirkelgrafiek</i> ✓✓RT	2 RT Pie Chart (2)	L1 D
3.2.4	5 brands / <i>handelsmerke</i> ✓✓RT	2 RT 5 brands (2)	L1 D
3.2.5	Numerical / <i>Numeries</i> ✓✓RT	2 RT Numerical (2)	L1 D
3.2.6	$363\,092 \times 16 \div 100$ ✓MA $= 58094,72 \approx 58094$ ✓A	1 MA 16% of 363092 1 A 58094 (2)	L2 D
3.2.7	Suzuki ✓✓RT	2 RT Suzuki (2)	L2 D
3.2.8	Toyota = 100 – 5 – 8 – 10 – 16 – 26 Toyota = 100 – 65 ✓MA Toyota = 35% ✓A	1 MA subtract from 100 1 A 35% (2)	L2 D
			[43]



QUESTION 4 / VRAAG 4 [31]			
No.	Answer / Antwoord	Explanation / Verduideliking	Level & Topic
4.1.1	Income that can be taxed / <i>Inkomste wat belas kan word.</i> ✓✓E	2 E correct explanation (2)	L4 F
4.1.2	Taxable income per year / <i>Belasbare inkomste per jaar.</i> R24 610 × 12 = R 295 320 ✓A Tax Threshold / <i>Belastingdrempel</i> (65) = R95 750 ✓RT He earns more than the threshold amount; he must pay income tax / <i>Hy verdien meer as die drempel waarde, hy moet belasting betaal</i> ✓E	1 A R295 320 1 RT R95 750 1 E correct explanation (3)	L4 F
4.1.3	R17 235 ✓✓RT	2 RT R17 235 (2)	L2 F
4.1.4	(R728 ✓RT × 12) + (R246 × 12) ✓M = R8 736 + R2 952 = R11 688 ✓CA	1 RT R728 1 M multiply 12 1 CA R11 688 (3)	L2 F
4.1.5	✓RT ✓SF R42 678 + 26% (R295 320 – R237 100) R42 678 + 26% × R58 220 ✓MCA R42 678 + R15 137,20 ✓MCA R57 815,20 ✓CA – R17 235 (<i>Rebate / Afslag</i>) ✓M – R11 688 ✓M ÷ 12 ✓M = R2 407,68 ✓CA ✓J He is wrong it is less than R2500 per month. / <i>Hy is verkeerd, dit is minder as R2500 per maand.</i>	1 RT correct tax bracket 1 SF R295 320 1 MCA Difference 1 MCA % calculation 1 CA tax payable before rebate and med aid credits 1 M – R17 235 1 M – R11 688 1 M ÷ 12 1 CA tax payable per month 1 J Wrong (10)	L4 F
4.2.1	5 vehicles / <i>voertuie</i> ✓✓RT	2 RT 5 vehicles (2)	L2 F



4.2.2	$4 \times R 0 = R 0$ $3 \times R 2000 = R6\ 000$ ✓MA $2 \times R 2500 = R5\ 000$ ✓MA TOTAL = R11 000 ✓A	1 MA $3 \times R 2000$ 1 MA $2 \times R 2500$ 1 A R11 000 (3)	L2 F
4.3.1	Total cost / Totale koste: $R3,93 + R2,18 + R0,04 + R0,10 + R0,01$ ✓MA = R6,26 per litre / liter ✓A	1 MA adding values 1 A R6,26 per litre (2)	L2 F
4.3.2	(4.3.1) $R22,97/L - R6,26/L$ ✓MA = R16,71/L $R16,71 \times 15 \div 115$ ✓MA = R2,18/L $R16,71 - R2,18$ ✓MA = R14,53/L ✓A	1 MA subtracting tax 1 MA multiply 15/115 1 MA subtracting VAT 1 A R14,53/L (4)	L3 F
[31]			