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

MATHEMATICAL LITERACY P2/WISKUNDIGE GELETTERDHEID V2

MAY/JUNE/MEI/JUNIE 2025

MARKING GUIDELINES/NASIENRIGLYNE

MARKS/PUNTE: 150

Symbol/Kode	Explanation/Verduideliking
MA	Method with accuracy/Metode met akkuraatheid
MCA	Method with constant accuracy/Metode met volgehoute akkuraatheid
CA	Consistent accuracy/Volgehoute akkuraatheid
A	Accuracy/Akkuraatheid
C	Conversion/Herleiding
RT	Reading from a table/a graph/document/diagram/Lees vanaf tabel/grafiek/diagram
SF	Correct substitution in a formula/Korrekte vervanging in formule
O	Opinion/Explanation/Reasoning /Opinie/Verduideliking/redenasie
P	Penalty, e.g. for no units, incorrect rounding off, etc./Penalisering bv. vir geen eenhede/verkeerde afronding, ens.
R	Rounding off/Afronding
NPR	No penalty for rounding/Geen penalisering vir afronding nie
NPU	No penalty for omitting the unit, but a wrong unit is penalised. / Geen penalisasie indien die eenheid uitgelos is nie, maar 'n verkeerde eenheid word wel gepenaliseer.
AO	Answer only/Slegs antwoord
RCA	Rounding consistent with accuracy/Afronding met volgehoute akkuraatheid

These marking guidelines consist of 15 pages.

Hierdie nasienriglyne bestaan uit 15 bladsye.



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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.
- NOTE: consistent accuracy (CA) does not apply in cases of a breakdown.
- If the candidate presents any extra solution when reading from a graph, table, layout plan and map, then penalise for every extra item presented.
- As a general marking principle, if a candidate has incurred one mistake and there is evidence of sound mathematics thereafter, then that candidate should lose one mark only.
- Rounding is an independent mark.
- A conclusion mark can only be given if relevant calculations precede it.
- No penalty for rounding (NPR) if the first decimal is correct.

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 op by die tweede berekeningsfout.*
- *Let wel: volgehoue akkuraatheid (CA) geld nie in die geval van 'n afbreuk nie.*
- *Wanneer 'n kandidaat aflesings vanaf 'n grafiek, tabel, uitlegplan en kaart geneem en ekstra antwoorde gee, penaliseer vir elke ekstra item.*
- *'n Algemene nasienbeginsel is dat indien 'n kandidaat een fout maak en daarna voortgaan met korrekte wiskunde, dat die kandidaat slegs een punt verloor*
- *Afronding tel as 'n onafhanklike punt*
- *'n Gevolgtrekkingspunt kan slegs gegee word indien relevante berekeninge dit voorgaan.*
- *Geen penalisering vir ronding (NPR) as die eerste desimaal korrek is nie.*

NOTE: Questions marked with * refers to the notes.

Questions where the numbers are encircled are the ones where there is a tolerance range.



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QUESTION/VRAAG 1 [28 MARKS/PUNTE] Answer Only AO - full marks			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T/L
* 1.1.1	I ✓✓ A	2A correct choice (2)	MP L1 E
* 1.1.2	B ✓✓ A	2A correct choice (2)	M L1 E
* 1.1.3	H ✓✓ A	2A correct choice (2)	M L1 E
* 1.1.4	G ✓✓ A	2A correct choice (2)	MP L1 E
1.2.1	✓✓ A Less than / <i>kleiner as</i>	2A correct choice (2)	P L1 E
1.2.2	down / <i>af</i> ✓✓ A	2A correct choice (2)	M L1 E
1.2.3	Two / <i>twee</i> ✓✓ A	2A correct choice (2)	M L1 E
1.2.4	2D ✓✓ A	2A correct choice (2)	MP L1 E
1.3.1	1,75 °C ✓✓ RT	2RT correct choice NPU (2)	M L1 E
* 1.3.2	Kiribati ✓✓ RT	2RT correct country (2)	M L1 E
* 1.3.3	✓ RT −5,35°C ≈ −5°C ✓ R	1RT correct temperature 1R correct rounding NPU (2)	M L1 E
1.3.4	✓ RT ✓ MA Difference / <i>Verskil</i> = 27,85°C − (− 0,70°C) = 28,55°C ✓ A	1RT correct temperature 1MA subtracting − 0,70°C from 27,85°C 1A simplification Accept −28,55°C (3)	M L1 E
1.3.5	Djibouti/Djiboeti and/en Mauritius ✓A ✓A Mauritania/ <i>Mauritanië</i> and /en Tuvali / <i>Tuvalu</i> ✓ A	2A 1 st correct pair 1A 2 nd correct pair (3)	MP L1 E
			[28]



QUESTION/VRAAG 2 [23 MARKS/PUNTE]			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T/L
2.1.1	✓✓ RT Cleaning supplies/Skoonmaakmiddels	2RT correct product (2)	MP L2 E
2.1.2	✓A Pet care is next to the sweets, just to the left of the checkout points. ✓A /Between sweets and checkout point/ Last section before checkout point <i>Troeteldiersorg is langs die lekkers, net links van die betaalpunte./ Tussen lekkers en betaalpunt /Laaste afdeling voor betaalpunte</i>	1A explanation 1st reference. 1A explanation 2nd reference. (2)	MP L2 E
2.1.3	✓✓ A Dairy and cheese. / Suiwel en kaas	2A correct section (2)	MP L1 E
2.1.4	✓✓ A anticlockwise. / anti-kloksgewys	2A correct option (2)	MP L1 M
2.1.5	✓✓ O Any ONE of the following: - Encourages customers to make purchases. - Pleasant environment – customers like to shop there - To encourage customers to return to shop again - Easy to find items/easy access/convenience - User friendly - Save time <i>Enige EEN van die volgende:</i> <i>Dit moedig kliënte aan om te koop.</i> <i>Aangename omgewing – kliënte hou daarvan om daar te koop.</i> <i>Om kliënte aan te moedig om terug te keer na winkel vir aankope.</i> <i>Maklik om items te vind/maklik toeganklik/gerieflik</i> <i>Verbruikersvriendelik</i> <i>Bespaar tyd</i>	2O reason (2)	MP L4 M



Q/V	Solution/Oplissing	Explanation/Verduideliking	T/L
2.1.6	Fridges ✓✓ O Need power/plugs to run. Safety – the wires do not trip the customers Easy to pack Temperature control To have all the cold products lined up in one row. <i>Yskaste</i> <i>Benodig krag/muurproppe.</i> <i>Veiligheid – sodat kliente nie oor die drade val nie</i> <i>Maklik om te pak</i> <i>Temperatuurregulering(beheer)</i> <i>Om alle koue produkte in een ry te hê.</i>	2O reason (2)	MP L4 M
2.1.7	✓✓ O Tills / Teller / cashiers / it is the place where you need to pay. <i>Kasregisters / kassiere / dit is die plek waar jy betaal.</i>	2O reason (2)	MP L4 M
2.2.1	a = 18 ✓A b = 12 ✓A c = 88 ✓A d = 156 ✓A	1A 18 1A 12 1A 88 1A 156 (4)	P L2 E
2.2.2	$P = \frac{16}{29}$ ✓RT $\approx 0,55$ ✓A $\approx 55,17\%$	1RT numerator 1A denominator NPR (2)	P L2 M
2.2.3	Male/Manlik ✓✓RT ✓RT Black/Swart	2RT 1 st part correct 1RT 2 nd part correct (3)	P L3 M
		[23]	



QUESTION/VRAAG 3 [27 MARKS/PUNTE]			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T/L
* 3.1.1	Length of fencing /Lengte van heining $= 12 \text{ m} + 8,7 \text{ m} + 2,6 \text{ m} + 12 \text{ m} \quad \checkmark \text{ MA}$ $\checkmark \text{ CA}$ $= 35,3 \text{ m} \quad \checkmark \text{ A}$ OR/OF Length of fencing /Lengte van heining $= 12 \text{ m} + 8,7 \text{ m} + 2,6 \text{ m} + 1,4 \text{ m} + 10,6 \text{ m} \quad \checkmark \text{ MA}$ $\checkmark \text{ CA}$ $= 35,3 \text{ m} \quad \checkmark \text{ A}$	1MA adding all the values 1CA simplification 1A unit (3)	M L2 E
* 3.1.2 (a)	Radius $= 120 \text{ cm} \div 2 = 60 \text{ cm} \quad \checkmark \text{ A}$ Volume of the fish pond /Volume van visdam $= 3,142 \times \text{radius}^2 \times \text{depth /diepte}$ $= 3,142 \times \left(\frac{120}{2} \text{ cm}\right)^2 \times 0,5 \text{ m} \quad \checkmark \text{ SF}$ $\checkmark \text{ C}$ $= 3,142 \times (60 \text{ cm})^2 \times 50 \text{ cm}$ $= 565\,560 \text{ cm}^3 \quad \checkmark \text{ CA}$	1A radius 1SF substitution 1C conversion m to cm 1CA simplification (4)	M L2 M
* 3.1.2 (b)	Diameter / Middellyn $= 120 \text{ cm} + (2 \times 20 \text{ cm}) = 160 \text{ cm} \quad \checkmark \text{ A}$ Circumference of the outer edge /Buite omtrek $= 3,142 \times \text{diameter / middellyn}$ $= 3,142 \times 160 \text{ cm} \quad \checkmark \text{ SF}$ $= 502,72 \text{ cm} \quad \checkmark \text{ CA}$ OR/OF $\checkmark \text{ A}$ Radius $= 60 \text{ cm} + 20 \text{ cm} = 80 \text{ cm}$ $C = 3,142 \times 2 \times 80 \text{ cm} \quad \checkmark \text{ SF}$ $= 502,72 \text{ cm} \quad \checkmark \text{ CA}$	1A adding both sides 20 cm 1SF substitution 1CA simplification OR/OF 1A adding one side 20 cm to inner radius 1SF substitution 1CA simplification (3)	M L2 M
3.1.3 (a)	Length $= 8,7 \text{ m} + 2,6 \text{ m} = 11,3 \text{ m} \quad \checkmark \text{ A}$ Area of a rectangle $= \text{length/lengte} \times \text{width/breedte}$ $36,16 \text{ m}^2 = 11,3 \text{ m} \times \text{width / breedte} \quad \checkmark \text{ SF}$ Width /breedte $= \frac{36,16 \text{ m}^2}{11,3 \text{ m}} \quad \checkmark \text{ MCA}$ $= 3,2 \text{ m} \quad \checkmark \text{ CA}$	1A length 1SF substitution 1MCA change the subject 1CA simplification (4)	M L3 M



Q/V	Solution/oplossing	Explanation/Verduideliking	T/L
3.1.3 (b)	Volume = Area $\times$ depth / <i>Oppervlakte $\times$ diepte</i> $= 36,16 \text{ m}^2 \times 150 \text{ mm}$ ✓ SF $= 36,16 \text{ m}^2 \times 0,150 \text{ m}$ ✓ C $= 5,424 \text{ m}^3$ ✓ CA $10 \text{ m}^3 = 118 \text{ wheelbarrows / kruiseiens}$ $5,424 \text{ m}^3 = n$ $n = \frac{5,424 \text{ m}^3}{10 \text{ m}^3} \times 118$ ✓ MCA $\approx 65 \text{ wheelbarrows / kruiseiens}$ ✓ CA INVALID / ONGELDIG ✓ O OR/OF $118 \text{ wheelbarrows / kruiseiens} = 10 \text{ m}^3$ $\therefore 65 \text{ wheelbarrows / kruiseiens} = x$ $\therefore \frac{118 \times x}{118} = \frac{65 \times 10 \text{ m}^3}{118}$ ✓ MA $\therefore x = 5,5084745 \text{ m}^3$ ✓ CA Volume = Area $\times$ depth / <i>Oppervlakte $\times$ diepte</i> $= 36,16 \text{ m}^2 \times 150 \text{ mm}$ ✓ SF $= 36,16 \text{ m}^2 \times 0,150 \text{ m}$ ✓ C $= 5,424 \text{ m}^3$ ✓ CA INVALID/ONGELDIG ✓ O OR/OF $118 \text{ wheelbarrows / kruiseiens} = 10 \text{ m}^3$ $1 \text{ wheelbarrow / kruiseiens} = \frac{10}{118} \text{ m}^3$ ✓ MA $= 0,0847457622 \text{ m}^3$ Volume = $36,16 \text{ m}^2 \times 0,15 \text{ m}$ ✓ C ✓ SF $= 5,424 \text{ m}^3$ ✓ CA $\therefore \text{No of wheelbarrows / Aantal kruiseiens}$ $= \frac{5,424 \text{ m}^3}{0,0847457622 \text{ m}^3}$ $= 64,005$ ≈ 65 ✓ CA INVALID/ONGELDIG ✓ O	1SF substitution 1C converting mm to m 1CA simplification 1MCA using ratio 1CA simplification 1O conclusion [Accept 64] OR/OF 1MA using ratio 1CA simplification 1SF substitution 1C converting mm to m 1CA simplification 1O conclusion OR/OF 1MA using ratio 1SF substitution 1C converting mm to m 1CA simplification 1CA simplification 1O conclusion [Accept 64]	M L4 D

(6)

Q/V	Solution/oplossing	Explanation/Verduideliking	T/L
3.2.1	12 ✓✓ A	2A correct number (2)	M L1 E
* 3.2.2	Total cost (excl) / Totale koste (uitsluitende) ✓ MA ✓MA $= R125,80 + 4 \times R657,40 + R1\,250$ $= R4\,005,40$ ✓ CA VAT/BTW $= R4\,005,40 \times 15\%$ $= R600,81$ ✓ MCA Cost (incl) / Koste (ingesluit) $= R4\,005,40 + R600,81$ $= R4\,606,21$ ✓ CA OR Cost/Koste $= R4\,005,40 \times 1,15$ $= R4\,606,21$	1MA adding three costs 1MA multiplying by 4 1CA simplification 1MCA VAT 1CA simplification (5)	M L2 M
		[27]	



QUESTION/VRAAG 4 [36 MARKS/PUNTE]			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
4.1.1	Ratio / <i>Verhouding</i> $\checkmark$ RT $= 11,6 : 7,6 \checkmark$ MA $= 29 : 19 \checkmark$ A	1RT correct values 1MA correct order 1A simplification AO	M L2 M
		(3)	
* 4.1.2	Monday to Friday / <i>Maandag tot Vrydag</i> $= 17:00 - 07:30$ $= 9 \text{ hours/uur } 30 \text{ min } \checkmark$ A Total for Mon-Fri/ <i>Totaal vir Maan-Vry</i> $= 9 \text{ hours/uur } 30 \text{ min } \times 5 \checkmark$ MCA $= 47,5 \text{ hours/uur } \checkmark$ CA Saturdays / <i>Saterdag</i> $= 13:00 - 08:00$ $= 5 \text{ hours } 0 \text{ min } \checkmark$ A Total time / <i>Totale tyd</i> $= 47,5 \text{ hours/uur } + 5 \text{ hours/uur}$ $= 52,5 \text{ hours/uur } \checkmark$ C	1A hours per day 1 MCA multiplying by 5 1CA time for 5 days 1A time for Saturday 1CA simplification	M L2 M
		(5)	
4.1.3	Volume / <i>Volume</i> $= 11,6 \text{ cm} \times 7,6 \text{ cm} \times 10,5 \text{ cm } \checkmark$ SF $= 925,68 \text{ cm}^3 \checkmark$ A Capacity / <i>Kapasiteit</i> $1 \text{ cm}^3 = 1 \text{ ml}$ $\therefore 925,68 \text{ cm}^3 = 925,68 \text{ ml } \checkmark$ C Water volume $= 925,68 \times 75\% \checkmark$ MCA $= 694,26 \text{ ml } \checkmark$ CA Leftover / <i>Oorblywend</i> $= 1\,000 \text{ ml} - 694,26 \text{ ml } \checkmark$ MCA $= 305,74 \text{ ml } \checkmark$ CA	1SF correct substitution 1A simplification 1C capacity in ml 1MCA calculating 75% of tank 1CA simplification 1MCA subtracting 1CA ml left	M L3 M
		(7)	

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
4.2.1	D ✓A	1A correct letter (1)	MP L1 E
4.2.2	A ✓A	1A correct letter (1)	MP L1 E
4.2.3	F ✓A	1A correct letter (1)	MP L1 E
4.2.4	B ✓A	1A correct letter (1)	MP L1 E
4.2.5	C ✓A	1A correct letter (1)	MP L1 E
4.2.6	E ✓A	1A correct letter (1)	MP L1 E
4.3.1	1 mm = 0,0394 inch/ <i>duim</i> Height / <i>Hoogte</i> $= \frac{\checkmark\text{RT } 4,3 \text{ inches}}{0,0394 \text{ inches/mm}} \checkmark\text{MA}$ $= 109,1370558 \text{ mm } \checkmark\text{CA}$ $= 10,9 \text{ cm } \checkmark\text{C OR } 10,914 \text{ cm OR } 10,91 \text{ cm}$	1RT correct height 4,3 inches 1MA dividing with 0,0394 inch 1CA simplification in mm 1C conversion from mm to cm NPR (4)	M L2 M
4.3.2	Length / <i>Lengte</i> $= 12 \text{ cm} + 5 \text{ cm } \checkmark\text{MA}$ $= 17 \text{ cm } \checkmark\text{A}$ Number lengthwise / <i>Getal lengtegewys</i> $= 199 \text{ cm} \div 17 \text{ cm } \checkmark\text{MCA}$ $= 11,70588235$ $\approx 11 \checkmark\text{CA}$ But / <i>maar</i> $17 \text{ cm} \times 11 = 187 \text{ cm } \checkmark\text{MCA}$ And/ <i>En</i> $199 \text{ cm} - 187 \text{ cm}$ $= 12 \text{ cm } \checkmark\text{CA}$ Number of mini aquariums / <i>Getal mini akwariums</i> $= 11 + 1$ $= 12 \checkmark\text{CA}$	1MA adding length and space 1A simplification 1MCA dividing 1CA simplification 1MCA calculating space left 1CA simplification 1CA simplification	MP L3 D

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
	Tank and space / <i>Tenk en spasie</i> $= 12 \text{ cm} + 5 \text{ cm}$ ✓MA $= 17 \text{ cm}$ ✓A Place 2 tanks at the ends/<i>Plaas 2 tenke aan die einde</i> $\checkmark \text{MA}$ $12 \text{ cm} + 12 \text{ cm} = 24 \text{ cm}$ Two tanks and 1 space/<i>Twee tenke en 1 spasie</i>: $24 \text{ cm} + 5 \text{ cm} = 29 \text{ cm}$ ✓CA Space left/<i>Spasie oor</i> $= 199 \text{ cm} - 29 \text{ cm} = 170 \text{ cm}$ ✓MCA Use of space left/<i>Gebruik van spasie oor</i> $= \frac{170 \text{ cm}}{17 \text{ cm}}$ $= 10 \text{ tanks}$ ✓CA Total no of tanks $= 2 + 10$ $= 12$ ✓CA	1MA adding length and space 1A simplification 1MA adding 1CA simplification 1MCA simplification 1CA simplification 1CA simplification (7)	
* 4.3.3	Length of 2nd row's tank resting on 1st row <i>Lengte van 2de ry se tenk wat rus op 1ste ry</i> $= 12 \text{ cm} - 5 \text{ cm}$ $= 7 \text{ cm}$ ✓A On each side /<i>aan elke kant</i> $= 7 \text{ cm} \div 2$ ✓MA $= 3,5 \text{ cm}$ $d = 12 \text{ cm} - 3,5 \text{ cm}$ $= 8,5 \text{ cm}$ ✓CA Her statement is VALID ✓O OR/OF	1A subtracting values 1MA dividing by 2 1CA simplification 1O conclusion OR/OF	MP L4 M



Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
	OR/OF Length on 2nd row/Lengte op 2de ry $\checkmark A$ $d + 12 \text{ cm} + 5 \text{ cm} + 12 \text{ cm} + d = 46 \text{ cm}$ $\checkmark A$ Therefore/Daarom $2d = 46 \text{ cm} - 29 \text{ cm}$ $2d = 17 \text{ cm}$ $\checkmark MCA$ $d = 8,5 \text{ cm}$ $\checkmark O$ VALID/GELDIG OR/OF Total length of wall/Total lengte van muur $\checkmark A$ $\checkmark A$ $d + (12 \text{ cm} + 5 \text{ cm}) \times 10 + 12 \text{ cm} + d = 199 \text{ cm}$ Therefore/Daarom $2d = 199 \text{ cm} - 182 \text{ cm}$ $2d = 17 \text{ cm}$ $d = 8,5 \text{ cm}$ $\checkmark MCA$ VALID/GELDIG $\checkmark O$ OR/OF $12 \text{ cm} + 5 \text{ cm} + 12 \text{ cm} + 5 \text{ cm} + 12 \text{ cm} = 46 \text{ cm}$ $\checkmark A$ $46 \div 2 = 23$ $\checkmark MA$ $5 \div 2 = 2,5$ $12 + 2,5 = 14,5$ $23 - 14,5 = 8,5$ $\checkmark CA$ VALID/GELDIG $\checkmark O$ OR/OF $2d = 1 \text{ tank} + 1 \text{ space}$ $= 12 \text{ cm} + 5 \text{ cm}$ $\checkmark A$ $= 17 \text{ cm}$ $d = 17 \text{ cm} \div 2$ $\checkmark MA$ $= 8,5 \text{ cm}$ $\checkmark CA$ VALID/GELDIG $\checkmark O$	OR/OF 1A adding values 1A 46 cm 1MCA dividing by 2 1O conclusion OR/OF 1A adding values 1A 199 1MCA dividing by 2 1O conclusion OR/OF 1A adding values 1MA dividing by 2 1CA simplification 1O conclusion OR/OF 1A adding values 1MA dividing by 2 1CA simplification 1O conclusion	(4)
		[36]	



QUESTION/VRAAG 5 [36 MARKS/PUNTE]			
Q/V	Solution/Oplossing	Explanation/Verduideliking	T/L
5.1.1	✓✓RT The Forum / <i>Die Forum</i>	2RT correct shop (2)	MP L1 E
5.1.2	SW ✓✓RT	2RT correct direction (2)	MP L2 E
5.1.3	✓RT 6,201 km × 50 ✓MA = 310,05 km	1RT correct value- 6,201 1MA multiply by 50 laps (2)	M L1 E
5.1.4	Flamingo ✓✓RT	2RT correct road (2)	MP L1 E
5.1.5	Distance between A and B/ <i>Afstand tussen A en B</i> = 69 mm ✓A Actual distance/ <i>Werklike afstand</i> = 69 mm × 13 500 ✓MCA = 931 500 mm = 0,9315 km ✓C Distance = Speed × Time/ <i>Afstand = Spoed × Tyd</i> ✓SF 0,9315 km = 204 km/h × Time/ <i>Tyd</i> Time/ <i>tyd</i> = 0,9315 km ÷ 204 km/h ✓MCA = 0,004566176471 h ✓CA Time in min/ <i>Tyd in min</i> = 0,004566176471 h × 60 = 0,2739705882 min ✓C	1A map distance 1MCA multiply by scale 1C convert to km 1SF substitute correct values 1MCA changing subject of formula 1CA simplification 1C convert to minutes. [Accept measurement from 67 mm to 71 mm. Allow ± 1 mm deviation from province measurement] NPR (7)	MP L3 D
5.1.6	✓A ✓✓O Agree. He will be facing West and that is where the sun sets. <i>Stem saam. Hy sal in 'n westelike rigting kyk en dit is waar die son sak</i>	1A agree 2O correct explanation (3)	MP L4 E



Q/V	Solution/Oplossing	Explanation/Verduideliking	T/L
5.2.1	Start time/ <i>Begintyd</i> $\checkmark RT$ $\checkmark RT$ $23:28:54 - 00:01:35,490$ $23:27:18,51$ $\checkmark A$	1RT correct value 1RT correct value 1A simplification (3)	M L2 M
* 5.2.2	1:29:08,289 Time in seconds/ <i>Tyd in sekondes</i> : $\checkmark C$ $\checkmark C$ $= (1 \times 60 \times 60) s + (29 \times 60) s + 8,289 s$ $= 3\,600 s + 1\,740 s + 8,289 s$ $= 5\,348,289 s$ $\checkmark CA$ Average lap-time/ <i>Gemiddelde rondte tyd</i> $= 5\,348,289 s \div 50$ $\checkmark MCA$ $= 106,96578 \text{ seconds/sekondes}$ $\checkmark CA$ INVALID/ <i>ONGELDIG</i> $\checkmark O$ OR/OF Total time $\div$ number of laps = Ave time/ <i>Totale tyd $\div$ getal rondtes = Gemiddelde tyd</i> Total time = Ave time $\times$ number of laps/ <i>Totale tyd = Gemiddelde tyd $\times$ getal rondtes</i> $= 106 s \times 50$ $\checkmark MCA$ $= 5\,300 \text{ sec}$ $\checkmark CA$ $\checkmark C$ $\checkmark C$ $\checkmark C$ $= 1 \text{ hour } 28 \text{ min } 20 \text{ sec}$ INVALID/ <i>ONGELDIG</i> $\checkmark O$	1C converting hours to seconds 1C minutes to seconds 1CA simplification 1MCA divide by laps 1CA simplification 1O conclusion OR/OF 1MCA multiply by laps 1CA simplification 1C correct 1 hour 1C correct 28 minutes 1C correct 20 seconds 1O conclusion (6)	M L4 D
5.3.1	Inside length/ <i>Binne lengte</i> : $\checkmark MA$ $\checkmark C$ $\checkmark RT$ $630 \text{ mm} - 2(25 \text{ mm} + 45 \text{ mm})$ $= 630 \text{ mm} - 140 \text{ mm}$ $= 490 \text{ mm}$ $\checkmark CA$ Inside width/ <i>binne breedte</i> : $420 \text{ mm} - 2(25 \text{ mm} + 45 \text{ mm})$ $\checkmark MCA$ $= 420 \text{ mm} - 140 \text{ mm}$ $= 280 \text{ mm}$ $\checkmark CA$	1C conversion 1RT correct value - 45 mm 1MA subtracting from length 1CA inside length 1MCA subtracting from width 1CA simplification (6)	M L3 M



Q/V	Solution/Oplissing	Explanation/Verduideliking	T/L
5.3.2	Lengthwise/ <i>lengtegewys</i> : $490 \text{ mm} - 485 \text{ mm} = 5 \text{ mm}$ ✓MA ✓CA VALID/ <i>GELDIG</i> ✓O OR/OF Widthwise/ <i>breedtegewys</i> : $280 \text{ mm} - 270 \text{ mm} = 10 \text{ mm}$ ✓MA ✓CA ✓O VALID/ <i>GELDIG</i>	CA from Q 5.3.1 1 MA subtracting from 490 mm 1 CA simplification 1 O conclusion OR/OF 1 MA subtracting from 280 mm 1 CA simplification 1 O conclusion (3)	M L4 D
		[36]	
		TOTAL/TOTAAL: 150	

