



# basic education

Department:  
Basic Education  
**REPUBLIC OF SOUTH AFRICA**

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

**MATHEMATICAL LITERACY P1/  
WISKUNDIGE GELETTERDHEID V1**

**MAY/JUNE/MEI/JUNIE 2024**

**MARKING GUIDELINES/NASIENRIGLYNE**

**MARKS/PUNTE: 150**

<b>Symbol/Kode</b>	<b>Explanation/Verduideliking</b>
<b>MA</b>	Method with accuracy/Metode met akkuraatheid
<b>CA</b>	Consistent accuracy/Volgehoue akkuraatheid
<b>A</b>	Accuracy/Akkuraatheid
<b>C</b>	Conversion/Herleiding
<b>S</b>	Simplification/Vereenvoudiging
<b>RT</b>	Reading from a table/graph/document/diagram/Lees vanaf tabel/grafiek/dokument/diagram
<b>SF</b>	Correct substitution in a formula/Korrekte vervanging in 'n formule
<b>O</b>	Opinion/Explanation/Opinie/Verduideliking
<b>P</b>	Penalty, e.g. for no units, incorrect rounding off, etc./Penalisasie, bv. vir geen eenhede, verkeerde afronding, ens.
<b>R</b>	Rounding off/Afronding
<b>NPR</b>	No penalty for rounding/Geen penalisasie vir afronding nie
<b>NPU</b>	No penalty for omitting correct unit/Geen penalisasie vir die uitlos van die korrekte eenheid nie.
<b>AO</b>	Answer only/Slegs antwoord
<b>MCA</b>	Method with consistent accuracy/Metode met volgehoue akkuraatheid
<b>RCA</b>	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 or break-down.
- 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 one mark is deducted.
- A conclusion mark can only be given if relevant calculations precedes it (at least 1 mark before conclusion).
- No penalty for rounding (NPR) if the first decimal is correct, except questions involving money.

**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 of 'break-down'.
- 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, word een punt afgetrek.
- 'n Gevolgtrekkingspunt kan slegs gegee word indien relevante berekeninge dit voorgaan (ten minste een punt voor die gevolgtrekking).
- Geen penalisering vir ronding (NPR) as die eerste desimaal korrek is nie, behalwe as vrae geld insluit.

<b>QUESTION/VRAAG 1 [32 MARKS/PUNTE] ANSWER ONLY FULL MARKS</b>			
<b>Q/V</b>	<b>Solution/Oplossing</b>	<b>Explanation/Verduideliking</b>	<b>T&amp;L</b>
1.1.1	Kenya / Kenia ✓✓A	2A correct country (2)	D L1 E
1.1.2	Zambia / Zambië ✓✓A Malawi / Malawi ✓A	2A first correct country 1A second correct country (3)	D L1 E
1.1.3	Malawi / Malawi ✓✓A	2A correct country (2)	D L1 M
* 1.1.4	People for Studying Purposes / Mense vir Studiedoeleindes ✓RT = 83 + 98 + 475 + 83 ✓MA = 739 tourists ✓A	1RT correct values 1MA adding four correct values 1A simplification (3)	D L1 M

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
1.2.1	Price of 1 teabag / <i>Prys van 1 teesakkie</i> $= R50,00 \div 40$ ✓MA $= R1,25$ ✓A  <b>OR / OF</b> $\checkmark A$ $= R1,25 \times 40$ ✓MA $= R50$	1MA R50 divided by 40 1A simplification  <b>OR / OF</b> 1A R1,25 1MA R1,25 multiplied by 40 (2)	F L1 E
* 1.2.2	$\checkmark RT$ $185 : 100$ ✓MA  $37 : 20$ <b>OR / OF</b> $1 : 0,54$ <b>OR / OF</b> $1,85 : 1$ ✓A	1RT correct values 1MA values in correct order 1A simplification (3)	F L1 M
1.2.3	Total of purchase / <i>Totaal van aankope</i> $\checkmark RT$ $= R185,00 + R100,00 + R16,00$ ✓MA $= R301,00$ ✓A	1RT correct values 1MA adding 3 correct values 1A simplification (3)	F L1 E
* 1.3.1	Namibia / <i>Namibië</i> ✓✓A	2A correct country (2)	F L1 E
* 1.3.2	Zambian Kwacha ✓✓A  <b>OR / OF</b>  Zambia / ZMW ✓✓A	2A correct currency  (2)	F L1 E
1.3.3	Malawian Kwacha = $\frac{1}{56,211355}$ ✓MA $\checkmark RT$ $= 0,017790$  <b>OR / OF</b>  Malawian Kwacha = $\frac{1}{0,017790}$ ✓MA $\checkmark RT$ $= 56,211355$	1MA dividing correct values 1RT reading correct value  <b>OR / OF</b> 1MA dividing correct values 1RT calculating correct value <b>NPR</b> (2)	F L1 E

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
1.4.1	One million one hundred and five thousand six hundred and eighty five / <i>Een miljoen een honderd en vyf duisend ses honderd vyf en tagtig.</i> ✓✓A	2A answer in words (2)	D L1 E
1.4.2	$P = 131\,693 + 254\,139$ ✓MA $= 385\,832$ ✓A <p style="text-align: center;"><b>OR / OF</b></p> $P = 64\,943 + 66\,694 + 56 + 136\,510 + 114\,436 + 3\,193$ ✓MA $= 385\,832$ ✓A	1MA adding correct values 1A simplification (2)	D L1 E
* 1.4.3	Increase / <i>Verhoging</i> $= 359\,686 - 131\,693$ ✓MA $= 227\,993$ ✓A	1MA subtracting correct values 1A simplification (2)	D L1 E
1.4.4	✓A    ✓A February / <i>Februarie</i> 2022 <b>OR / OF</b> Feb '22 <b>OR / OF</b> 02/2022	1A correct month 1A correct year (2)	D L1 E
		<b>[32]</b>	

QUESTION/VRAAG 2 [31 MARKS/PUNTE]		NPU FOR QUESTION 2.2	
Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
2.1.1	R2 000,00 ✓✓A	2A correct amount Accept (– R2 000,00) NPU (2)	F L1 E
* 2.1.2	For security reasons / Vir veiligheidsredes ✓✓A	2A reason (2)	F L4 E
2.1.3	Available money / Geld beskikbaar ✓MA ✓RT = R20 000 – (R5 656,22 + R6 020,00) ✓MA = R20 000 – R11 676,22 = R8 323,78  <b>OR / OF</b> ✓MA ✓RT = R20 000 – R5 656,22 – R6 020,00 ✓MA = R8 323,78  <b>OR / OF</b> ✓MA ✓RT = R5 656,22 + R6 020,00 + R8 323,78 = R20 000 ✓MA	1RT 2 correct values 1MA adding correct values 1MA subtracting from R20 000  <b>OR / OF</b> 1RT 2 correct values 1MA subtracting correct values 1MA subtracting from R20 000  <b>OR / OF</b> 1RT 2 correct values 1MA adding correct values 1MA getting to R20 000 (3)	F L2 M
* 2.1.4	Price per litre / Prys per liter ✓RT = $\frac{R1\ 376,15}{54,1365\ \text{litres}}$ ✓MA = R25,42 ✓CA  <b>OR / OF</b> ✓MA = R25,42/ℓ × 54,1365 ℓ ✓RT = R1 376,15 ✓CA	1RT correct rand value 1MA dividing by litres 1CA simplification  <b>OR / OF</b> 1RT correct rand value 1MA multiplying 1CA simplification AO (3)	F L2 M

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
2.1.5	$100\% - 17,5\% = 82,5\%$ ✓MA Original price / <i>Oorspronklike prys</i> $= \frac{100}{82,5} \times R3\ 299,99$ ✓RT ✓MA $= R3\ 999,99$ ✓CA  <b>OR / OF</b> ✓MA $100\% - 17,5\% = 82,5\% = 0,825$ ✓RT $= \frac{R3\ 299,99}{0,825}$ ✓MA ✓MA $= R3\ 999,99$ ✓CA	1MA calculate discounted percentage  1RT correct value 1MA percentage calculation  1CA simplification  <b>OR / OF</b> 1MA calculate discounted percentage 1RT correct value 1MA divide by 0,825  1CA simplification <b>NPR</b> (4)	F L2 D
2.2.1	Bar sales and Functions / <i>Kroegverkope en Funksies</i> ✓✓RT	2RT correct item <div style="border: 1px solid black; padding: 2px; display: inline-block;">Accept: Bar sales</div> (2)	F L1 E
2.2.2	Projected amount / <i>Geprojekteerde bedrag</i> $\frac{47}{23\ 500} = \frac{49}{B}$ ✓MA ✓RT $B = 1\ 151\ 500 \div 47$ ✓MA $= 24\ 500$ ✓CA  <b>OR / OF</b> $\frac{47}{23\ 500} : \frac{49}{B}$ ✓MA ✓RT $B = \frac{23\ 500}{47} \times 49$ ✓MA $= 500 \times 49$ $= R24\ 500$ ✓CA  <b>OR / OF</b>	1MA concept of ratio 1RT 23 500  1MA divide by 47 1CA simplification  <b>OR / OF</b> 1MA concept of ratio 1RT 23 500  1MA divide by 47 1CA simplification  <b>OR / OF</b>	F L2 D

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
2.2.2	<p>Total ratio / <i>Totale verhouding</i> = 47 + 49 = 96 ✓RT</p> <p>Total Income / <i>Totale Inkomste</i> = <math>23500 \times \frac{96}{47}</math> ✓MA = 48 000</p> <p><b>B</b> = 48 000 – 23 500 ✓MA = 24 500 ✓CA</p>	<p>1RT 23 500 1MA concept of ratio</p> <p>1MA subtracting values 1CA simplification (4)</p>	
2.2.3	<p>Difference in income / <i>Verskil in inkomste</i> ✓RT = £(455 869 – 396 453) = £59 416 ✓CA</p> <p>% change / <i>verandering</i> = <math>\frac{59\,416}{396\,453} \times 100\%</math> ✓MA = 14,9868... % = 14,99 <b>OR</b> 15% ✓CA</p> <p><b>OR / OF</b></p> <p>% change / <i>verandering</i></p> <p>= <math>\frac{\text{new price/new prys} - \text{old price/ou prys}}{\text{old price/ou prys}} \times 100\%</math> ✓RT = <math>\frac{455\,869 - 396\,453}{396\,453} \times 100\%</math> ✓MA ✓CA = <math>\frac{59\,416}{396\,453} \times 100</math> = 14,9868 ... % = 14,99% <b>OR/OF</b> 15% ✓CA</p> <p><b>OR / OF</b></p> <p>Current percentage / <i>Huidige persentasie</i> ✓RT = <math>\frac{455\,869}{396\,453} \times 100\%</math> ✓MA = 114,9937067% ✓A</p> <p>Difference in % income / <i>Verskil in % inkomste</i> = 114,9937067% – 100% ✓MCA = 14,99% <b>OR/OF</b> 15% ✓CA</p>	<p>1RT correct values 1CA difference</p> <p>1MA % calculation 1MA correct denominator 1CA simplification</p> <p><b>OR / OF</b></p> <p>1RT correct values 1MA % calculation 1MA correct denominator 1CA correct difference 1CA simplification</p> <p><b>OR / OF</b></p> <p>1RT correct values 1MA % calculation 1A correct percentage</p> <p>1MCA correct difference 1CA simplification (5)</p>	F L3 M

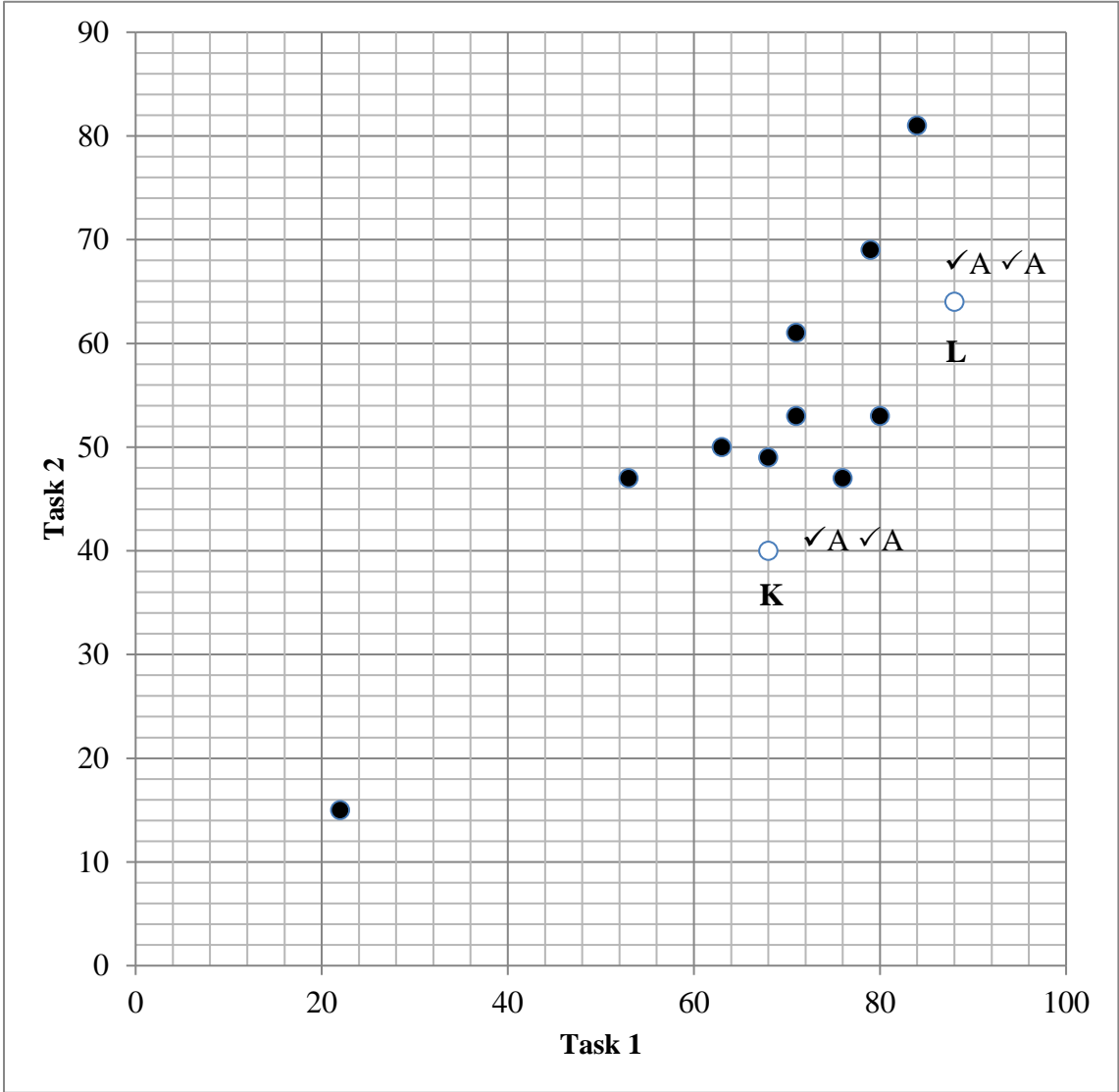
<b>Q/V</b>	<b>Solution/Oplossing</b>	<b>Explanation/Verduideliking</b>	<b>T&amp;L</b>
(2.2.4)	<p>Year 1's inflation / <i>Jaar 1 se inflasie</i>:</p> $= \frac{1,82}{100} \times £257\,460 \quad \checkmark RT$ $= £4\,685,772$ <p>After year 1's inflation / <i>Na jaar 1 se inflasie</i>:</p> $= £257\,460 + £4\,685,772 \quad \checkmark MCA$ $= £262\,145,77 \quad \checkmark CA$ <p>Year 2's inflation / <i>Jaar 2 se inflasie</i>:</p> $= \frac{2}{100} \times £262\,145,77$ $= £5\,242£,9154$ <p>After year 2's inflation / <i>Na jaar 2 se inflasie</i>:</p> $= £262\,145,77 + £5\,242£,9154$ $= £267\,388,69 \quad \checkmark CA$ <p>Difference / <i>Verskil</i></p> $= £284\,000 - £267\,388,69 \quad \checkmark MCA$ $= £16\,611,31$ <p>His statement is VALID / Sy bewering is GELDIG. <math>\checkmark O</math></p> <p style="text-align: center;"><b>OR / OF</b></p>	<p>1RT correct value</p>     <p>1MCA adding correct values</p> <p>1CA simplification</p>     <p>1CA amount year 2</p>   <p>1MCA subtracting values</p>  <p>1O conclusion</p> <p style="text-align: center;"><b>OR / OF</b></p>	F L4 D



Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
2.2.4	<p>After year 1's inflation / <i>Na jaar 1 se inflasie</i>:</p> <p>✓MA                      ✓RT</p> $\frac{101,82}{100} \times £257\,460 \quad = \times 1,0182$ <p>= £262 145,77    ✓CA</p> <p>After year 2's inflation / <i>Na jaar 2 se inflasie</i>:</p> $\frac{102}{100} \times £262\,145,77$ <p>= £267 388,69    ✓CA</p> <p>Difference / <i>Verskil</i></p> <p>= £284 000 – £267 388,69    ✓MCA</p> <p>= £16 611,31</p> <p>His statement is VALID / <i>Sy bewering is GELDIG</i>.    ✓O</p>	<p>1RT correct value</p> <p>1MA percentage increase</p> <p>1CA simplification</p> <p>1CA amount year 2</p> <p>1MCA subtracting values</p> <p>1O conclusion</p> <p>(6)</p>	
		[31]	

QUESTION/VRAAG 3 [30 MARKS/PUNTE]			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
3.1.1	29 ✓✓A	2A correct number (2)	D L1 E
3.1.2	30 ✓✓A	2A mode (2)	D L2 E
3.1.3	<p>✓RT  <math>D = \frac{3}{5} \times 40</math> ✓MA  <math>= 24</math> periods ✓CA</p> <p style="text-align: center;"><b>OR / OF</b></p> <p><math>33 = \frac{3 + D + 26 + 30 + 32 \dots}{29}</math></p> <p><math>33 = \frac{933 + D}{29}</math> ✓RT</p> <p><math>33 \times 29 = 933 + D</math> ✓MA</p> <p><math>D = 957 - 933</math></p> <p><math>D = 24</math> ✓CA</p> <p style="text-align: center;"><b>OR / OF</b></p> <p>✓RT  <math>D = 0,6 \times 40</math> ✓MA  <math>D = 24</math> periods ✓CA</p>	<p>1RT correct fraction  1MA multiplying with 40  1CA simplification</p> <p style="text-align: center;"><b>OR / OF</b></p> <p>1RT correct fraction  1MA changing the subject of the formula  1CA simplification</p> <p style="text-align: center;"><b>OR / OF</b></p> <p>1RT correct fraction  1MA multiplying with 40  1CA simplification  <b>AO</b>  (3)</p>	D L2 M

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
3.1.4	<p>Median / <i>Mediaan</i> = 35 ✓✓A</p> <p>The median has half the staff above and half the staff below. ✓O <i>Die mediaan toon die helfte van die personeel bo en helfte van die personeel onder.</i></p> <p><b>OR / OF</b></p> <p>The outliers affect the calculation of the mean, hence it is not a reliable average. ✓O <i>Die uitskieters affekteer die berekening van die gemiddels, daarom is dit nie 'n betroubare punt nie.</i></p> <p><b>OR / OF</b></p> <p>More than 58,62% of staff has 35 periods or more. ✓O <i>Meer as 58,62% van die personeel het 35 periodes of meer.</i></p>	<p>2A median</p> <p>1O reason</p> <p>(3)</p>	<p>D L4 E</p>
3.1.5	<p>Probability / <i>Waarskynlikheid</i></p> <p><math>= \frac{16}{21}</math> ✓A ✓A</p>	<p>1A numerator 1A denominator</p> <p>(2)</p>	<p>P L2 E</p>
* 3.2.1 (a)	<p>Scatter plot / <i>Spreidingsdiagram</i> ✓✓A</p>	<p>2A correct graph</p> <p>(2)</p>	<p>D L1 E</p>
3.2.1 (b)	<p>Range / <i>Omvang</i> ✓RT ✓RT = 81 – 15 = 66 ✓CA</p>	<p>1RT highest 1RT lowest 1CA simplification AO</p> <p>(3)</p>	<p>D L2 E</p>
* 3.2.1 (c)	<p>Learner / <i>Leerder</i> H ✓✓A</p> <p>The marks for both Task 1 and Task 2 are <u>much</u> lower compared to the other learners / <i>Beide Taak 1 en Taak 2 se punte is heelwat laer in vergelyking met die ander leerders.</i> ✓✓O</p> <p>The learner failed while all the other learners passed / <i>Die leerder het gedruip terwyl al die ander leerders geslaag het.</i></p>	<p>2A correct learner</p> <p>2O correct reason</p> <p>(4)</p>	<p>D L4 D</p>

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
3.2.2	$\text{Mean} = \frac{53 + 69 + 53 + 49 + 50 + 47 + 61 + 15 + 47 + 81}{10} \checkmark \text{MA}$ $= \frac{525}{10} \checkmark \text{CA}$ $= 52,5 \checkmark \text{CA}$ <p>Difference / Verskil</p> $= 66,7 - 52,5$ $= 14,2 \checkmark \text{CA}$ <p>VALID / GELDIG <math>\checkmark \text{O}</math></p>	<p>1MA correct concept of mean</p> <p>1CA correct adding of values</p> <p>1CA mean</p> <p>1CA simplification</p> <p>1O conclusion</p> <p>(5)</p>	D L4 M
* 3.2.3	 <p>2A first point plotted (68;40)</p> <p>2A second point plotted (88;64)</p> <p>(4)</p>		D L2 M
		[30]	

QUESTION/VRAAG 4 [26 MARKS/PUNTE]			
Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
* 4.1.1	<p>Total cost before discount / <i>Totale koste voor afslag</i></p> <p>✓MA ✓MA  <math>= (R149,95 \times 16,7) + (R99,99 \times 13)</math>  <math>= R2\,504,165 + R1\,299,87</math> ✓MCA  <math>= R3\,804,04</math> ✓CA</p> <p>Discount amount / <i>Afslag bedrag</i>  <math>= \frac{15}{100} \times R3\,804,04</math> ✓MCA  <math>= R570,61</math> ✓CA</p> <p>Total amount / <i>Totale koste</i></p> <div style="display: flex; align-items: center;"> <div style="flex: 1;"> <math>= R3\,804,04 - R570,61</math>  <math>= R3\,233,43</math> ✓CA </div> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;"> <math>= \frac{85}{100} \times R3\,804,04</math> </div> </div> <p style="text-align: center;"><b>OR / OF</b></p> <p>Discounted chops / <i>Afslag tjops</i></p> <p>✓MA ✓MCA  <math>= R149,95 \times 16,7 \times \frac{85}{100} = R2\,128,54</math> ✓CA</p> <p>Discounted boerewors / <i>Afslag boerewors</i></p> <p>✓MA ✓MCA  <math>= R99,99 \times 13 \times \frac{85}{100} = R1\,104,89</math> ✓CA</p> <p>Total amount / <i>Totale bedrag</i></p> <p><math>= R2\,128,54 + R1\,104,89</math>  <math>= R3\,233,43</math> ✓CA</p> <p style="text-align: center;"><b>OR / OF</b></p>	<p>1MA multiply correct values  1MA multiply correct values  1MCA adding cost  1CA simplification</p> <p>1MCA calculating 15%  1CA simplification</p> <p>1CA simplification</p> <p style="text-align: center;"><b>OR / OF</b></p> <p>1MA multiply correct values  1MCA calculating 85%  1CA simplification</p> <p>1MA multiply correct values  1MCA calculating 85%  1CA simplification</p> <p>1CA simplification</p> <p style="text-align: center;"><b>OR / OF</b></p>	<p>F L3 M</p>

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
* 4.1.1	<p>Total cost before discount / <i>Totale koste voor afslag</i></p> <p>✓MA ✓MA  <math>= (R149,95 \times 16,7) + (R99,99 \times 13)</math>  <math>= R2\,504,165 + R1\,299,87</math> ✓MCA  <math>= R3\,804,04</math> ✓CA</p> <p>Total amount / <i>Totale koste</i></p> <p>✓MCA  <math>= R3\,804,04 - (15\% \times R3\,804,04)</math>  <math>= R3\,804,04 - R570,606</math> ✓MCA  <math>= R3\,233,43</math> ✓CA</p>	<p>1MA multiply correct values  1MA multiply correct values  1MCA adding cost  1CA simplification</p> <p>1MCA calculating 15%  1MCA subtracting correct values  1CA simplification</p> <p>(7)</p>	
4.1.2	<p>Total cost / <i>Totale koste</i></p> <p>✓MCA  <math>= R3\,233,43 + R850</math> ✓A  <math>= R4\,083,43</math></p> <p>Cost of 1 plate / <i>Koste vir 1 bord</i></p> <p><math>= R4\,083,43 \div 200</math> ✓MCA  <math>= R20,42</math> ✓CA</p> <p style="text-align: center;"><b>OR / OF</b></p> <p>Cost of meat for 1 plate / <i>Koste van vleis vir 1 bord</i></p> <p>✓MCA  <math>= \frac{R3\,233,43}{200}</math> ✓MCA  <math>= R16,16715</math></p> <p>Cost of salad, relish etc for 1 plate / <i>Koste van slaai, sous ens vir een bord</i></p> <p><math>= \frac{R850}{200}</math>  <math>= R4,25</math> ✓A</p> <p>Total cost / <i>Totale koste</i></p> <p><math>= R16,16715 + R4,25</math>  <math>= R20,42</math> ✓CA</p>	<p><b>CA from Question 4.1.1</b>  1MCA adding value from Q 4.1.1  1A adding R850</p> <p>1MCA correct value <math>\div</math> 200  1CA simplification  Accept: R20,40</p> <p style="text-align: center;"><b>OR / OF</b></p> <p>1MCA dividing value from Q 4.1.1  1MCA correct value <math>\div</math> 200</p> <p>1A R4,25</p> <p>1CA simplification  Accept: R20,40</p> <p>(4)</p>	F L2 M

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
4.1.3	<p>Profit per plate / Wins per bord</p> $= R35,00 - R20,42 \checkmark MA$ $= R14,58 \checkmark CA$ <p>Number of plates / Getal borde</p> $= R2\ 850,00 \div R14,58 \checkmark MCA$ $= 195,47 \checkmark CA$ <p>Total number of plates / Totale getal borde</p> $= 200 + 195,47$ $= 395,47 \checkmark CA$ $= 400 \checkmark R$ <p style="text-align: center;"><b>OR / OF</b></p> <p>Profit per plate / Wins per bord</p> $\checkmark MA$ $= \frac{(200 \times R35) - R4083,43}{200}$ $= \frac{R2916,57}{200}$ $= R14,58 \checkmark CA$ <p>Number of plates / Aantal borde</p> $= \frac{R2\ 850}{R14,58} \checkmark MCA$ $= 195,47 \checkmark CA$ <p>Total number of plates / Totale aantal borde</p> $= 200 + 195,47$ $= 395,47 \checkmark CA$ $= 400 \checkmark R$	<p><b>CA from Question 4.1.2</b></p> <p>1MA subtracting values 1CA simplification</p> <p>1MCA dividing by profit 1CA simplification</p> <p>1CA total number of plates 1R correct rounding</p> <p style="text-align: center;"><b>OR / OF</b></p> <p>1MA subtracting values</p> <p>1CA simplification</p> <p>1MCA dividing by profit 1CA simplification</p> <p>1CA total number of plates 1R correct rounding</p> <p style="text-align: right;">(6)</p>	F L3 D
4.2.1	<p>15% <math>\checkmark\checkmark RT</math></p>	<p>2RT correct value</p> <div style="border: 1px solid black; padding: 2px; display: inline-block;">Accept: 14,5 – 15,2</div> <p style="text-align: right;">(2)</p>	P L1 E

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
* 4.2.2	Probability / <i>Waarskynlikheid</i>  $= \frac{4\,052\,572}{43\,378\,959} \checkmark A$  $= 0,0934... \checkmark CA$ $= 0,093 \text{ OR } 9,342\% \checkmark R$	1A numerator 1A denominator  1CA simplification 1R rounding (4)	P L2 M
4.2.3	25 – 34 age group / <i>ouderdomsgroep</i> $\checkmark\checkmark A$  The largest population is in this group / <i>Die grootste bevolking is in die groep.</i> $\checkmark O$	2A correct group  1O reason (3)	D L4 M
		[26]	



QUESTION/VRAAG 5 [31 MARKS/PUNTE]			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
* 5.1.1	2 / TWO / TWEE ✓✓A	2A number of rebates (2)	F L1 E
5.1.2	<p>Tax before rebates / <i>Belasting voor kortings</i>            ✓RT            251 258 + 41% of taxable income above 857 900            ✓SF            = R251 258 + 41% (R981 500 – R857 900)            = R251 258 + 41% (R123 600)            = R251 258 + R50 676            = R301 934 ✓CA</p> <p>Tax after rebates / <i>Belasting na kortings</i>            = R301 934 – R17 235 – R9 444 ✓MCA            = R275 255 ✓CA</p> <p>Monthly Tax / <i>Maandelikse belasting</i>            = <math>\frac{R275\ 255}{12}</math> ✓MCA            = R22 937,92 ✓CA</p>	<p><b>CA from Question 5.1.1</b></p> <p>1RT correct bracket</p> <p>1SF substitute R981 500</p> <p>1CA amount before rebates</p> <p>1MCA subtracting rebates 1CA simplification</p> <p>1MCA dividing by 12 1CA simplification (7)</p>	F L3 M
5.2.1	<p>Interest rate is the <u>percentage</u> of the total value you have to pay extra for taking the loan.  <i>Rentekoers is die <u>persentasie</u> van die totale waarde wat jy ekstra moet betaal vir die uitneem van die lening.</i></p> <p style="text-align: center;"><b>OR / OF</b> ✓✓A</p> <p>Interest rate is a <u>percentage</u> charged on the loan taken to buy a motor vehicle / <i>Rentekoers is 'n <u>persentasie</u> gehef op die lening uitgeneem om die voertuig te koop.</i></p>	2A correct definition (2)	F L1 E
5.2.2	<p>Difference / <i>Verskil</i>            = R6 115,47 – R5 498,19 ✓MA            = R617,28 ✓CA</p>	<p>1MA subtracting correct values 1CA simplification  <b>AO</b>            (2)</p>	F L1 E

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
5.2.3	$X = (R6\ 115,47 \times 6 \times 12) - R300\ 000 \quad \checkmark \text{SF}$ $= R440\ 313,84 - R300\ 000$ $= R140\ 313,84 \quad \checkmark \text{CA}$	1SF substitution in bracket 1A subtracting R300 000  1CA simplification <b>AO</b> (3)	F L2 E
* 5.2.4	Balloon payment / <i>Ballonpaaieiment</i> $= 20\% \times R300\ 000 \quad \checkmark \text{RT}$ $= R60\ 000 \quad \checkmark \text{A}$ $Y = (R5\ 498,19 \times 72) + R60\ 000 \quad \checkmark \text{MA}$ $= R455\ 869,68 \quad \checkmark \text{MCA}$ $= R455\ 869,68 \quad \checkmark \text{CA}$	<b>CA from Question 5.2.3 – R334 000 only</b> 1RT correct values 1A simplification  1MA correct value $\times 72$ 1MCA adding balloon payment 1CA simplification (5)	F L3 M
* 5.2.5	The vehicle serves as <u>security</u> for the loan / <i>Die voertuig dien as <u>sekuriteit</u> vir die lening.</i> $\checkmark \checkmark \text{O}$	2O reason (2)	F L4 E

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
5.3.1	24 ✓✓RT	2RT correct answer NPU (2)	D L2 E
5.3.2	<p>Interquartile Range / <i>Interkwartielomvang</i></p> <p>Electrical / <i>Elektries</i>            ✓RT            = 29% – 24% ✓MA            = 5% ✓CA</p> <p>Plug-in hybrid / <i>Inprophibried</i>            = 24% – 6%            = 18% ✓CA</p> <p>Quarter of Plug-in / <i>Kwart van 'n inprop</i>            = <math>\frac{1}{4} \times 18\% = 4,5\% \neq 5\%</math> ✓CA</p> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> <p><b>OR</b>              Electric <math>\times 4</math>              = <math>5\% \times 4 = 20\% \neq 18\%</math></p> </div> <p><b>OR / OF</b></p> <p>= <math>\frac{5}{18} = \frac{1}{3,6} \neq \frac{1}{4}</math> ✓CA</p> <p><b>OR / OF</b></p> <p>= <math>\frac{5}{18} \times 100 = 27,8\%</math> ✓CA</p> <p>INVALID / <i>NIE GELDIG NIE</i> ✓O</p>	<p><b>CA from Question 5.3.1</b></p> <p>1RT using correct values            (28,8 – 29,2)            1MA concept of IQR            1CA simplification(4,8 – 5,2)</p> <p>1CA simplification</p> <p>1CA simplification</p> <p>1O conclusion            (6)</p>	D L4 D
		[31]	
		<b>TOTAL/TOTAAL: 150</b>	