



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 GELETTERTDHEID V1**

MAY/JUNE/MEI/JUNIE 2025

MARKING GUIDELINES/NASIENRIGLYNE

MARKS/PUNTE: 150

Symbol/Kode	Explanation/Verduideliking
MA	Method with accuracy/Metode met akkuraatheid
CA	Consistent accuracy/Volgehoue akkuraatheid
A	Accuracy/Akkuraatheid
C	Conversion/Herleiding
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
NPU	No penalty for omitting correct unit/Geen penalisasie vir die uitlos van die korrekte eenheid 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 20 pages.
Hierdie nasienriglyne bestaan uit 20 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 awarded if relevant calculations of **at least $\frac{1}{3}$** of the maximum mark of the sub-question has been awarded.
- 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 Gevolgtrekspunt kan slegs gegee word indien relevante berekening van **ten minste $\frac{1}{3}$** van die maksimumpunt van die subvraag toegeken is.
- Geen penalisering vir ronding (NPR) as die eerste desimaal korrek is nie, behalwe as vrae geld insluit.

QUESTION/VRAAG 1 [29 MARKS/PUNTE]		ANSWER ONLY FULL MARKS	
Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
1.1.1	Smartmobile ✓✓A	2A correct service provider (2)	F L1 E
1.1.2	Total / Totaal $\checkmark RT$ $= R75 + R75 + R75 \checkmark MA$ $= R225 \checkmark A$ <p style="text-align: center;">OR / OF</p> Total / Totaal $\checkmark RT$ $= R75 \times 3 \checkmark MA$ $= R225 \checkmark A$	1RT correct value (R75) 1MA adding values 1A simplification OR / OF 1RT correct value (R75) 1MA multiply by 3 1A simplification (3)	F L1 E

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
1.1.3	$1\ 000 \text{ MB} = 1 \text{ GB}$ <i>Cost per MB / Koste per MB</i> $= \frac{\text{R}100,00}{1000} \checkmark \text{MA}$ $= \text{R}0,10 / 10\text{c} \checkmark \text{A}$	1MA dividing by 1 000 1A simplification (2)	F L1 M
* 1.1.4	Probability / <i>Waarskynlikheid</i> $= \frac{2}{3}$ $= 0,6666666667 \checkmark \text{A}$ $= 0,67 \checkmark \text{R}$	1A correct decimal 1R correct rounding (2)	P L1 E
1.2.1	Beryl $\checkmark \checkmark \text{RT}$	2RT correct option (2)	F L1 E
* 1.2.2	Salary bracket / <i>Salaris hakkie</i> $= 15\ 822 - 27\ 324 \checkmark \checkmark \text{RT}$	2RT correct bracket (2)	F L1 E
* 1.2.3	Total contribution / <i>Totale bydrae</i> $\checkmark \text{RT}$ $= \text{R}1\ 669 + \text{R}1\ 656 + 2(\text{R}952) \checkmark \text{MA}$ $= \text{R}5\ 229 \checkmark \text{A}$	1RT all 3 correct values 1MA adding values 1A simplification (3)	F L1 E
1.2.4	Difference / <i>Verskil</i> $\checkmark \text{RT} \quad \checkmark \text{RT}$ $= \text{R}3\ 180 - \text{R}1\ 821$ $= \text{R}1\ 359 \checkmark \text{A}$	1RT R3 180 1RT R1 821 1A simplification (3)	F L1 M

Q/V	Solution/<i>Oplossing</i>	Explanation/<i>Verduideliking</i>	T&L
* 1.3.1	Inflation is the increase in the price of goods and services over a given period of time / <i>Inflasie is die verhoging in die prys van goedere en dienste oor 'n gegewe tydperk.</i> ✓✓A OR / OF Decrease in the purchasing power of a currency over a given period of time / <i>Afname in die koopkrag van geld oor 'n periode van tyd.</i> ✓✓A	2A correct definition (2)	F L1 E
1.3.2	Continuous data / <i>Kontinue data</i> ✓✓A	2A correct classification (2)	D L1 E
1.3.3	2,5 ✓✓RT	2RT correct value Accept: 2,5% (2)	D L1 E
1.3.4	✓RT 4,6 3,6 3,2 2,6 1,8 1,7 – 3,0 ✓A	1RT correct values 1A correct order (2)	D L1 M
1.3.5	✓RT 2025 and / <i>en</i> 2026 ✓RT	1RT 2025 1RT 2026 (2)	D L1 E
		 29 	

QUESTION/VRAAG 2 [35 MARKS/PUNTE]			
Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
2.1.1	Cols-Medical Supplies ✓✓A	2A correct name Accept: Cols (2)	F L1 E
2.1.2 (a)	True / Waar ✓✓A	2A correct choice (2)	F L2 E
2.1.2 (b)	✓A False – Provident fund contribution code 4003 <i>Onwaar – Voorsorgfondsbydrae-kode 4003 ✓A</i> OR / OF ✓A False – There is a deduction of R36 005,00 <i>Onwaar – Daar is 'n aftrekking van R36 005,00 ✓A</i>	1A false 1A correct reason (2)	F L1 E
2.1.3 (a)	Total / Totaal = R254 805,24 + R4 250,88 + R5 702,69 ✓MA = R264 758,81 ✓A	1MA adding 3 values 1A simplification AO (2)	F L1 E
2.1.3 (b)	Employee's debt / Werknemer se skuld = R895 108 – (R564 467 + R38 093 + R87 369 + R154 839 + R36 005) ✓MA = R895 108 – R880 773 ✓MA = R14 335 ✓CA	1MA adding all the values 1MA subtracting from total 1CA simplification AO (3)	F L2 M
* 2.1.4	Total UIF / Totale WVF = R4 250,88 ✓RT Ms Khan's contribution = $\frac{R4 250,88}{2}$ ✓MA = R2 125,44 ✓A Monthly contribution = $\frac{R2 125,44}{12}$ ✓MA = R177,12 ✓CA OR / OF	1RT reading the correct value 1MA dividing by 2 1A simplification 1MA dividing by 12 1CA simplification OR / OF	F L3 D

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
	<p>Total UIF / <i>Totale WVF</i></p> $= R4\ 250,88 \checkmark RT$ <p>Monthly contributions = $\frac{R4\ 250,88}{12} \checkmark MA$</p> $= R354,24 \checkmark A$ <p>Ms Khan's contribution = $\frac{R354,24}{2} \checkmark MA$</p> $= R177,12 \checkmark CA$	<p>1RT reading the correct value</p> <p>1MA dividing by 12</p> <p>1A simplification</p> <p>1MA dividing by 2</p> <p>1CA simplification</p>	(5)
2.1.5	<p>Taxable income / <i>Belasbare inkomste</i></p> $\checkmark SF$ $= R895\ 108 - (R36\ 005 \times 2) - (20\% \times R154\ 839) \checkmark MA$ $\checkmark A$ $= R895\ 108 - R72\ 010 - R30\ 967,80 \checkmark CA$ $= R792\ 130,20 \checkmark CA$ <p>OR / OF</p> <p>Non-taxable travel allowance / <i>Nie-belasbare reistroelae</i></p> $= (20\% \times R154\ 839) \checkmark MA$ $= R30\ 967,80 \checkmark CA$ <p>Taxable income / <i>Belasbare inkomste</i></p> $= R895\ 108 - (R36\ 005 \times 2) - R30\ 967,80 \checkmark SF$ $\checkmark A$ $= R895\ 108 - R72\ 010 - R30\ 967,80$ $= R792\ 130,20 \checkmark CA$ <p>OR / OF</p>	<p>1SF substitution</p> <p>1MA calculating 20%</p> <p>1A total provident fund</p> <p>1CA travel allowance</p> <p>1CA taxable income</p> <p>OR / OF</p> <p>1MA calculating 20%</p> <p>1CA travel allowance</p> <p>1SF substitution</p> <p>1A total provident fund</p> <p>1CA taxable income</p> <p>OR / OF</p>	F L3 M

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
	<p>Non-taxable travel allowance / <i>Nie-belasbare reistroelae</i> $= R154\ 839 - R123\ 871 \checkmark MA$ $= R30\ 968 \checkmark CA$</p> <p>Taxable income / <i>Belasbare inkomste</i> $= R895\ 108 - (R36\ 005 \times 2) - R30\ 968 \checkmark SF$ $\quad \quad \quad \checkmark A$ $= R895\ 108 - R72\ 010 - R30\ 968$ $= R792\ 130 \checkmark CA$</p>	<p>1MA subtracting values 1CA travel allowance (using the table values)</p> <p>1SF substitution</p> <p>1A total provident fund</p> <p>1CA taxable income (5)</p>	
* 2.2	<p>Income tax before rebate / <i>Inkomstebelasting voor kortings</i> $\quad \quad \quad \checkmark A$ $= R170\ 734 + 39\% (R792\ 130,20 - R641\ 400) \checkmark SF$ $= R170\ 734 + 39\% (R150\ 730,20)$ $= R170\ 734 + R58\ 784,78$ $= R229\ 518,778 \checkmark CA$</p> <p>Income tax after rebate / <i>Inkomstebelasting na kortings</i> $= R229\ 518,778 - R16\ 425 \checkmark RT$ $= R213\ 093,78 \checkmark CA$</p> <p>Her statement is VALID / <i>Haar stelling is GELDIG.</i> $\checkmark O$</p>	<p>CA from Question 2.1.5</p> <p>1A correct bracket 1SF correct substitution</p> <p>1CA tax before rebate CA only if subtraction in bracket</p> <p>1RT rebate 1CA simplification</p> <p>1O conclusion (6)</p>	F L4 D

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L																																																																																
2.3.1	The amount charged per kℓ of water used / <i>Die bedrag gehef per kℓ water gebruik.</i> ✓✓A	2A explanation (2)	F L1 E																																																																																
* 2.3.2	<p>Amount excl VAT / <i>Bedrag BTW uitgesluit</i></p> <table style="margin-left: 80px;"> <tr><td>0 – 6 kℓ</td><td>6</td><td>×</td><td>R0,00</td><td>=</td><td>R0,00</td><td>✓A</td></tr> <tr><td>>6 kℓ to 25 kℓ</td><td>19</td><td>×</td><td>R27,80</td><td>=</td><td>R528,20</td><td>✓A</td></tr> <tr><td>>25 kℓ to 30 kℓ</td><td>5</td><td>×</td><td>R37,90</td><td>=</td><td>R189,50</td><td>✓A</td></tr> <tr><td>>30 kℓ to 45 kℓ</td><td>2</td><td>×</td><td>R83,60</td><td>=</td><td>R167,20</td><td>✓A</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td>R884,90</td><td></td></tr> </table> <p>Amount incl VAT / <i>Bedrag BTW ingesluit</i></p> $= R884,90 + R884,90 \times \frac{15}{100}$ <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 100px;">OR $R884,90 \times 1,15$</div> $= R884,90 + R132,74 \checkmark \text{MCA}$ $= R1\,017,64 \checkmark \text{CA}$ <p style="text-align: center;">OR / OF</p> <p>Amount incl VAT / <i>Bedrag BTW ingesluit</i></p> <table style="margin-left: 80px;"> <tr><td></td><td></td><td></td><td style="text-align: right;">✓MA</td></tr> <tr><td>0 – 6 kℓ</td><td>6</td><td>×</td><td>R0,00</td><td>=</td><td>R0,00</td><td>✓A</td></tr> <tr><td>>6 kℓ to 25 kℓ</td><td>19</td><td>×</td><td>R31,97</td><td>=</td><td>R607,43</td><td>✓A</td></tr> <tr><td>>25 kℓ to 30 kℓ</td><td>5</td><td>×</td><td>R43,585</td><td>=</td><td>R217,93</td><td>✓A</td></tr> <tr><td>>30 kℓ to 45 kℓ</td><td>2</td><td>×</td><td>R96,14</td><td>=</td><td>R192,28</td><td>✓A</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td>R1\,017,64</td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td>✓CA</td></tr> </table>	0 – 6 kℓ	6	×	R0,00	=	R0,00	✓A	>6 kℓ to 25 kℓ	19	×	R27,80	=	R528,20	✓A	>25 kℓ to 30 kℓ	5	×	R37,90	=	R189,50	✓A	>30 kℓ to 45 kℓ	2	×	R83,60	=	R167,20	✓A						R884,90					✓MA	0 – 6 kℓ	6	×	R0,00	=	R0,00	✓A	>6 kℓ to 25 kℓ	19	×	R31,97	=	R607,43	✓A	>25 kℓ to 30 kℓ	5	×	R43,585	=	R217,93	✓A	>30 kℓ to 45 kℓ	2	×	R96,14	=	R192,28	✓A						R1\,017,64								✓CA	1A row 1 1A row 2 1A row 3 1A row 4 1MCA calculating VAT 1CA total incl VAT OF / OR 1MA VAT incl tariff 1A row 1 1A row 2 1A row 3 1A row 4 1CA amount incl VAT (6)
0 – 6 kℓ	6	×	R0,00	=	R0,00	✓A																																																																													
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QUESTION/VRAAG 3 [34 MARKS/PUNTE]			
Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
3.1.1	Kwa-Zulu Natal / KZN ✓✓RT	2RT correct province (2)	D L1 E
* 3.1.2	✓RT 231 : 11 ✓MA 21 : 1 ✓CA	1RT correct values 1MA correct order 1CA simplification AO (3)	D L2 M
3.1.3	<p>Total of all the values / <i>Totaal van al die waardes</i></p> $ \begin{aligned} &= \text{Mean} / \text{Gemiddeld} \times 9 \\ &= 2333,3 \times 9 \quad \checkmark \text{MA} \\ &= 21\ 000 \quad \checkmark \text{A} \end{aligned} $ <p>Value of A / <i>Waarde van A</i></p> $ \begin{aligned} &= 21\ 000 - (4\ 441 + 945 + 2\ 064 + 5\ 068 + 3\ 470 + 525 + \\ &\quad 1\ 421 + 1\ 452) \quad \checkmark \text{SF} \\ &= 21\ 000 - 19\ 386 \quad \checkmark \text{A} \\ &= 1\ 614 \quad \checkmark \text{CA} \end{aligned} $ <p style="text-align: center;">OR / OF</p> <p>Mean = $\frac{4\ 441 + 945 + 2\ 064 + 5\ 068 + 3\ 470 + A + 525 + 1\ 421 + 1\ 452}{9}$ ✓MA $2\ 333,3 = \frac{4\ 441 + 945 + 2\ 064 + 5\ 068 + 3\ 470 + A + 525 + 1\ 421 + 1\ 452}{9}$ ✓MA $2\ 333,3 \times 9 = 19\ 386 + A$ $A = 21\ 000 - 19\ 386 \quad \checkmark \text{A}$ $A = 1\ 614 \quad \checkmark \text{CA}$</p> <p style="text-align: center;">OR / OF</p>	<p>1MA reverse mean calculation 1A finding total value</p> <p>1SF concept of mean 1A 19 386 1CA simplification</p> <p style="text-align: center;">OR / OF</p> <p>1MA concept of mean</p> <p>1SF correct substitution</p> <p>1MA multiplying by 9 1A 19 386 1CA simplification</p> <p style="text-align: center;">OR / OF</p>	D L3 M

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L																				
	$\begin{array}{ll} \checkmark \text{MA} & \checkmark \text{SF} \\ \mathbf{A = 2\ 333,333\ 333 \times 9 - (4\ 441 + 945 + 2\ 064 + 5\ 068 +} \\ & \quad \checkmark \text{MA} \quad \quad \quad 3\ 470 + 525 + 1\ 421 + 1\ 452)} \\ \\ \mathbf{A = 21\ 000 - 19\ 386} & \checkmark \text{A} \\ \\ \mathbf{A = 1\ 614} & \checkmark \text{CA} \end{array}$	<p>1MA multiplying by 9 1SF correct substitution 1MA changing the subject of the formula 1A 19 386 1CA simplification</p> <p>(5)</p>																					
3.1.4	<p>1; 2; 2; 5; 6; 12; 227; 440; 590 $\checkmark \text{MA}$</p> <p>Median / <i>Mediaan</i> $= 6 \checkmark \text{A}$ $\checkmark \text{A}$ Gauteng = 6</p> <p>His statement is CORRECT / <i>Sy bewering is KORREK.</i> $\checkmark \text{O}$</p> <p style="text-align: center;">OR / OF</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 0 10px;">1</td> <td style="padding: 0 10px;">2</td> <td style="padding: 0 10px;">2</td> <td style="padding: 0 10px;">5</td> <td style="padding: 0 10px; text-align: center;">6</td> <td style="padding: 0 10px;">12</td> <td style="padding: 0 10px;">227</td> <td style="padding: 0 10px;">440</td> <td style="padding: 0 10px;">590</td> <td style="padding: 0 10px;">$\checkmark \text{MA}$</td> </tr> <tr> <td style="padding: 0 10px;">MP</td> <td style="padding: 0 10px;">NW</td> <td style="padding: 0 10px;">WC</td> <td style="padding: 0 10px;">FS</td> <td style="padding: 0 10px; text-align: center;">GP</td> <td style="padding: 0 10px;">NC</td> <td style="padding: 0 10px;">LP</td> <td style="padding: 0 10px;">KZN</td> <td style="padding: 0 10px;">EC</td> <td style="padding: 0 10px;">$\checkmark \text{A}$</td> </tr> </table> <p>His statement is CORRECT / <i>Sy bewering is KORREK.</i> $\checkmark \text{O}$</p>	1	2	2	5	6	12	227	440	590	$\checkmark \text{MA}$	MP	NW	WC	FS	GP	NC	LP	KZN	EC	$\checkmark \text{A}$	<p>1MA arranging values 1A identifying the median 1A correct province 1O conclusion</p> <p style="text-align: center;">OR / OF</p> <p>1MA arranging values 1A identifying the median 1A correct province 1O conclusion</p> <p>(4)</p>	D L4 M
1	2	2	5	6	12	227	440	590	$\checkmark \text{MA}$														
MP	NW	WC	FS	GP	NC	LP	KZN	EC	$\checkmark \text{A}$														
3.2.1	<p>Kwa-Zulu Natal / <i>Kwa-Zulu Natal</i> $\checkmark \text{RT}$</p> $= 100\% - (22,33\% + 16,15\% + 9,14\% + 7,30\% + 6,43\% + 13\%) \quad \checkmark \text{MA}$ $= 100\% - 74,35\%$ $= 25,65\% \checkmark \text{A}$	<p>1RT correct values 1MA adding and subtracting 1A simplification AO</p> <p>(3)</p>	P L2 M																				

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
3.2.2	<p>North West / <i>Noordwes</i></p> $= 13\% - 4,18\% - 2,41\%$ $= 6,41\% \checkmark A$ <p>Number of schools / <i>Aantal skole</i></p> $= 22\ 597 \times \frac{6,41}{100} \checkmark MCA$ $= 1\ 448,4677 \checkmark CA$ $= 1\ 448 \checkmark R$	<p>1A correct percentage</p> <p>1MCA percentage calculation</p> <p>1CA simplification</p> <p>1R correct rounding Accept: 1 449</p>	D L3 M (4)
3.3.1	<p>Total TWh / <i>Totale TWh</i></p> $\checkmark RT$ $= 397,88 + 55,43 + 50,34 + 6,59 \checkmark MA$ $= 510,24 \checkmark CA$	<p>1RT correct values</p> <p>1MA adding values</p> <p>1CA simplification</p>	D L1 E (3)
3.3.2	<p>South Africa / <i>Suid-Afrika</i></p> $\checkmark SF$ $\% \text{ difference} = \frac{8,36 - 2,5}{2,5} \times 100\%$ $= 234,4\% \checkmark CA$ <p>Brazil / <i>Brasilië</i></p> $\checkmark SF$ $\% \text{ difference} = \frac{362,82 - 373,44}{373,44} \times 100\%$ $= - 2,84383033419\% \checkmark CA$ <p>Difference / <i>Verskil</i></p> $= 234,4\% - (- 2,84383033419\%) \checkmark MCA$ $= 234,4\% + 2,84383033419\%$ $= 237,24384804\%$ <p>His statement is VALID / <i>Sy stelling is GELDIG.</i> $\checkmark O$</p>	<p>1SF correct values</p> <p>1A correct denominator</p> <p>1CA simplification</p> <p>1SF correct values</p> <p>1CA simplification</p> <p>1MCA subtracting values</p> <p>1O conclusion</p>	D L4 D (7)

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
(3.3.3)	<p>Different scale used / <i>Verskillende skaal gebruik.</i> ✓✓O</p> <p>OR / OF</p> <p>The intervals used for South Africa are much smaller / <i>Die intervalle wat vir Suid-Afrika gebruik was, is baie kleiner.</i> ✓✓O</p> <p>OR / OF</p> <p>If one only looks at the graphs without looking at the scale of the vertical axes, you can easily make that mistake. South Africa only generated slightly more than 6 TWh, while Brazil generated above the 50 TWh line. <i>Indien 'n persoon net na die grafiek kyk sonder om die skaal in ag te neem, kan jy maklik 'n fout maak.</i> ✓✓O <i>Suid-Afrika het net meer as 6 TWh gegenereer terwyl Brasilië meer as die 50 TWh merk gegenereer het.</i></p>	2O conclusion	D L4 M
			(2) [33]

QUESTION/VRAAG 4 [25 MARKS/PUNTE]			
Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
* 4.1.1	R356 100 000 000 / R356,1 billion / <i>miljard</i> ✓RT Three hundred and fifty six billion one hundred million rand. <i>Drie honderd ses en vyftig miljard een honderd miljoen rand.</i> ✓A	1RT correct amount 1A correct wording NPU (2)	F L1 E
4.1.2	✓MA $B = 480,6 + 271,9 + 387,3 + 265,3 + 255,4 + 244,0 + 74,7 + 2,6 + 382,2 + 5,0$ ✓MA $= 2\ 369$ ✓A	1MA adding first 8 values 1MA adding 382,2 and 5,0 1A simplification AO (3)	F L2 E
* 4.1.3	Total amount / <i>Totale bedrag</i> ✓RT $= (385 + 274,9)$ billion ✓MA $= 659,9$ billion ✓A $= 659\ 900$ million / <i>miljoen</i> ✓CA OR / OF Total amount / <i>Totale bedrag</i> ✓RT ✓A $= 385\ 000$ million + $259\ 900$ million ✓MA $= 659\ 900$ million / <i>miljoen</i> ✓CA	1RT reading correct values 1MA adding correct values 1A simplification 1CA value in millions OR / OF 1RT reading correct values 1A values in millions 1MA adding correct values 1CA simplification (4)	F L2 M

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L																				
4.1. 4	<p style="text-align: center;">GOVERNMENT EXPENSES</p> <table border="1"> <thead> <tr> <th>Category</th> <th>2023</th> <th>2024</th> <th>2025</th> </tr> </thead> <tbody> <tr> <td>Learning and culture</td> <td>499.3</td> <td>480</td> <td>465</td> </tr> <tr> <td>Social development</td> <td>385</td> <td>370</td> <td>360</td> </tr> <tr> <td>Economic development</td> <td>274.9</td> <td>255</td> <td>240</td> </tr> <tr> <td>Peace and security</td> <td>254.5</td> <td>245</td> <td>238</td> </tr> </tbody> </table> <p>Amount in billions</p> <p>Legend: —●— 2023 ...●... 2024 -●- 2025</p> <p>1A 1 first point plotted correctly 1A 1 end point plotted correctly 1A 2 middle points plotted correctly 1CA joining at least 3 points (at least one point must be correct) NOTE: Allow ± 1 mm variance on either side of the points</p>	Category	2023	2024	2025	Learning and culture	499.3	480	465	Social development	385	370	360	Economic development	274.9	255	240	Peace and security	254.5	245	238	(4)	D L2 M
Category	2023	2024	2025																				
Learning and culture	499.3	480	465																				
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Q/V	Solution/<i>Oplossing</i>	Explanation/<i>Verduideliking</i>	T&L
4.2.1	$30 - 39 \quad \checkmark \checkmark \text{RT}$	2RT identifying mode (2)	D L2 E
4.2.2	<p>Total number / <i>Totale aantal</i> $= 12\ 409\ 891 + 15\ 313\ 929$ $= 27\ 723\ 820 \quad \checkmark \text{A}$</p> <p>Probability / <i>Waarkynlikheid</i> $\checkmark \text{RT}$ $= \frac{12\ 409\ 891}{27\ 723\ 820} \times 100\% \quad \checkmark \text{MCA}$ $= 44,76\% \quad \checkmark \text{CA}$</p>	<p>1A correct total</p> <p>1RT correct numerator $(12\ 409\ 891)$</p> <p>1MCA concept of probability</p> <p>1CA simplification (4)</p>	P L2 M
4.2.3	<p>Range = Highest number of voters – Lowest number of voters <i>Omvang = Hoogste getal kiesers – Laagste getal kiesers</i> $\checkmark \text{A}$</p> <p>$5\ 885\ 202 = 6\ 542\ 033 - \mathbf{L} \quad \checkmark \text{SF}$</p> <p>$6\ 542\ 033 - 5\ 885\ 202 = \mathbf{L} \quad \checkmark \text{MA}$</p> <p>$\mathbf{L} = 656\ 831 \quad \checkmark \text{CA}$</p> <p style="text-align: center;">OR / OF</p> <p>Total number of voters / <i>Aantal kiesers</i> $= 12\ 409\ 891 + 15\ 313\ 929$ $= 27\ 723\ 820 \quad \checkmark \text{A}$</p> <p>$\mathbf{L} = 27\ 723\ 820 - (3\ 439\ 325 + 1\ 456\ 935 + 6\ 542\ 033 + 5\ 738\ 272 + 2\ 779\ 668 + 2\ 025\ 074 + 1\ 768\ 580 + 3\ 317\ 102) \quad \checkmark \text{SF}$</p> <p>$= 27\ 723\ 820 - 27\ 066\ 989 \quad \checkmark \text{MA}$</p> <p>$= 656\ 831 \quad \checkmark \text{CA}$</p>	<p>1A correct concept</p> <p>1SF correct substitution</p> <p>1MA changing the subject of the formula</p> <p>1CA simplification AO</p> <p style="text-align: center;">OR / OF</p> <p>1A total voters</p> <p>1SF correct substitution</p> <p>1MA adding and subtracting</p> <p>1CA simplification AO (4)</p>	D L2 M

Q/V	Solution/<i>Oplossing</i>	Explanation/<i>Verduideliking</i>	T&L
* 4.2.4	<p>From 20 – 39 years the number of registered female voters increases / <i>Vanaf 20 tot 39 jaar vermeerder die aantal geregistreerde vroulike stemmers.</i> ✓O</p> <p>From 40 years and above the number of registered female voters decreases / <i>Vanaf 40 jaar en ouer verminder die aantal gerigistreerde vroulike stemmers.</i> ✓O</p>	<p>1O age and voters increase</p> <p>1O age increase voters decrease (2)</p>	D L4 M
			[25]

QUESTION/VRAAG 5 [28 MARKS/PUNTE]			
Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
*	I ✓✓A	2A correct player (2)	D L2 M
*	Player / Speler G: \sqrt{RT} $= 30 : 21$ $= 1 : 0,7 \quad \checkmark CA$ Player / Speler C: \sqrt{RT} $= 50 : 28$ $= 1 : 0,56 \quad \checkmark CA$ His statement is VALID / Sy bewering is GELDIG ✓O	1RT both correct values 1CA simplification 1RT both correct values 1CA like simplification 1O verification (5)	D L4 M
5.1.3	Annual salary / Jaarliks salaris $\text{€}18\ 000 = 18\ 000 \times 656 \text{ XOF} \quad \checkmark C$ $= 11\ 808\ 000 \text{ XOF} \quad \checkmark A$ Monthly salary / Maandeliks salaris $= \frac{11\ 808\ 000}{12} \text{ XOF} \quad \checkmark MA$ $= 984\ 000 \text{ XOF} \quad \checkmark CA$ OR / OF Monthly salary in euro / Maandelikse salaris in euro $= \frac{18\ 000}{12} \text{ euros} \quad \checkmark MA$ $= \text{€}1\ 500 \quad \checkmark$ Monthly salary in XOF / Maandelikse salaris in XOF $\text{€}1 = 656 \text{ XOF}$ $\therefore \text{€}1\ 500 = 1\ 500 \times 656 \text{ XOF} \quad \checkmark C$ $= 984\ 000 \text{ XOF} \quad \checkmark CA$	1C converting to XOF 1A simplification 1MA dividing by 12 1CA simplification OR / OF 1MA dividing by 12 1A simplification 1C converting to XOF 1CA simplification (4)	F L2 M

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
5.1.4	<p>Amount end of year 1 / <i>Bedrag einde jaar 1</i></p> $= \text{€}2\,500 \times \frac{112,6}{100} \quad \checkmark \text{MA}$ $= \text{€}2\,815 \quad \checkmark \text{CA}$ <p>Amount end of year 2 / <i>Bedrag einde jaar 2</i></p> $= \text{€}2\,815 \times \frac{112,6}{100}$ $= \text{€}3\,169,69 \quad \checkmark \text{CA}$ <p>Interest for half of year 3 / <i>Rente vir helfte van jaar 3</i></p> $= \text{€}3\,169,69 \times \frac{12,6}{100} \times \frac{6}{12} \quad \checkmark \text{MA}$ $= \text{€}199,69$ <p>Total amount / <i>Totale bedrag</i></p> $= \text{€}3\,169,69 + \text{€}199,69$ $= \text{€}3\,369,38 \quad \checkmark \text{CA}$ <p style="text-align: center;">OR / OF</p> <p>Amount end of year 2 / <i>Bedrag einde jaar 2</i></p> $\checkmark \text{MA}$ $= \text{€}2\,500 \times \frac{112,6}{100} \times \frac{112,6}{100} \quad \checkmark \text{MA}$ $= \text{€}3\,169,69 \quad \checkmark \text{CA}$ <p>Interest for half of year 3 / <i>Rente vir helfte van jaar 3</i></p> $= \text{€}3\,169,69 \times \frac{12,6}{100} \times \frac{6}{12} \quad \checkmark \text{MA}$ $= \text{€}199,69$ <p>Total amount / <i>Totale bedrag</i></p> $= \text{€}3\,169,69 + \text{€}199,69$ $= \text{€}3\,369,38 \quad \checkmark \text{CA}$ <p style="text-align: center;">OR / OF</p>	<p>1MA calculating interest</p> <p>1CA simplification</p> <p>1CA amount for year 2</p> <p>1MA calculating months</p> <p>1CA simplification</p> <p>1MA interest year 1</p> <p>1MA interest year 2</p> <p>1CA amount for year 2</p> <p>1MA calculating months</p> <p>1CA simplification</p>	<p>F</p> <p>L3</p> <p>M</p>

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L
	<p style="text-align: center;">OR / OF</p> <p>Interest for year 1 / <i>Rente vir jaar 1</i> $= €2\ 500 \times \frac{12,6}{100}$ ✓MA</p> <p>Amount at end of year 1 / <i>Bedrag aan einde van jaar 1</i> $= €2\ 500 + €315$ $= €2\ 815$ ✓CA</p> <p>Amount at end of year 2 / <i>Bedrag aan einde van jaar 1</i> $= €2\ 815 + €2\ 815 \times \frac{12,6}{100}$ $= €2\ 815 + €354,69$ $= €3\ 169,69$ ✓CA</p> <p>Interest for half of year 3 / <i>Rente vir helfte van jaar 3</i> $= €3\ 169,69 \times \frac{12,6}{100} \times \frac{6}{12}$ ✓MA $= €199,69$</p> <p>Total amount / <i>Totale bedrag</i> $= €3\ 169,69 + €199,69$ $= €3\ 369,38$ ✓CA</p>	<p style="text-align: center;">OR / OF</p> <p>1MA calculating interest 1CA simplification 1CA amount for year 2 1MA calculating months 1CA simplification (5)</p>	
5.2.1	8 ✓✓RT	2RT correct value (2)	D L2 E
* 5.2.2	<p>Prize money / <i>Prysgeld</i></p> <p>Previous + 40% = 2024 $2024 = 140\%$ ✓A</p> $= \$32\ 000\ 000 \times \frac{100}{140}$ ✓MA <div style="border: 1px solid black; padding: 2px; display: inline-block;"> OR / OF $\div 1,4$ </div> <p>= \$22 857 142,86 ✓CA $= \\$22\ 857\ 143$ ✓R</p>	<p>1A calculating 140% 1MA percentage calculation 1CA simplification 1R rounding (4)</p>	F L3 E

Q/V	Solution/ <i>Oplossing</i>	Explanation/ <i>Verduideliking</i>	T&L																											
5.2.3	<p>Total price money / <i>Totale prysgeld</i></p> <table border="1" data-bbox="187 354 965 698"> <thead> <tr> <th data-bbox="187 354 441 395">Place</th><th data-bbox="441 354 536 395">\$ (prize money)</th><th data-bbox="536 354 965 395">TOTAL</th></tr> </thead> <tbody> <tr> <td data-bbox="187 395 441 435">1st</td><td data-bbox="441 395 536 435">$= 7\ 000\ 000$</td><td data-bbox="536 395 965 435">\checkmark $7\ 000\ 000$</td></tr> <tr> <td data-bbox="187 435 441 475">2nd</td><td data-bbox="441 435 536 475">$= 4\ 000\ 000$</td><td data-bbox="536 435 965 475">\checkmark $4\ 000\ 000$</td></tr> <tr> <td data-bbox="187 475 441 516">3rd & 4th</td><td data-bbox="441 475 536 516">$= 2 \times 2\ 500\ 000$</td><td data-bbox="536 475 965 516">\checkmark MA $5\ 000\ 000$</td></tr> <tr> <td data-bbox="187 516 441 556">¼ finalists</td><td data-bbox="441 516 536 556">$= 4 \times 1\ 300\ 000$</td><td data-bbox="536 516 965 556">\checkmark MA $5\ 200\ 000$</td></tr> <tr> <td data-bbox="187 556 441 597">Round 16s</td><td data-bbox="441 556 536 597">$= 8 \times 800\ 000$</td><td data-bbox="536 556 965 597">\checkmark MA $6\ 400\ 000$</td></tr> <tr> <td data-bbox="187 597 441 637">Two 3^{rds} in groups</td><td data-bbox="441 597 536 637">$= 2 \times 700\ 000$</td><td data-bbox="536 597 965 637">\checkmark MA $1\ 400\ 000$</td></tr> <tr> <td data-bbox="187 637 441 677">6 low in groups</td><td data-bbox="441 637 536 677">$= 6 \times 500\ 000$</td><td data-bbox="536 637 965 677">\checkmark MA $3\ 000\ 000$</td></tr> <tr> <td data-bbox="187 677 441 698"></td><td data-bbox="441 677 536 698">GRAND TOTAL</td><td data-bbox="536 677 965 698">\$32 000 000</td></tr> </tbody> </table> <p style="text-align: center;">OR / OF</p> <p>Total price money / <i>Totale prysgeld</i></p> <p>= Winner + Runner-up + 2 (Semi-finalist) + 4 (¼ finalists) + 8 (16-round) + 2 (best 3rds in groups) + 6 (stage low ranked)</p> <p style="text-align: center;">\checkmark A \checkmark MA</p> <p>= \$7 000 000 + \$4 000 000 + 2 (\$2 500 000) +</p> <p style="text-align: center;">\checkmark MA \checkmark MA \checkmark MA</p> <p>4 (\$1 300 000) + 8 (\$800 000) + 2 (\$700 000) +</p> <p style="text-align: center;">\checkmark MA</p> <p>6 (\$500 000)</p> <p>= \$7 000 000 + \$4 000 000 + \$5 000 000 + \$5 200 000 +</p> <p style="text-align: center;">\$6 400 000 + \$1 400 000 + \$3 000 000</p> <p>= \$32 000 000</p>	Place	\$ (prize money)	TOTAL	1 st	$= 7\ 000\ 000$	\checkmark $7\ 000\ 000$	2 nd	$= 4\ 000\ 000$	\checkmark $4\ 000\ 000$	3 rd & 4 th	$= 2 \times 2\ 500\ 000$	\checkmark MA $5\ 000\ 000$	¼ finalists	$= 4 \times 1\ 300\ 000$	\checkmark MA $5\ 200\ 000$	Round 16s	$= 8 \times 800\ 000$	\checkmark MA $6\ 400\ 000$	Two 3 ^{rds} in groups	$= 2 \times 700\ 000$	\checkmark MA $1\ 400\ 000$	6 low in groups	$= 6 \times 500\ 000$	\checkmark MA $3\ 000\ 000$		GRAND TOTAL	\$32 000 000	<p>1A Winner + Runner-up 1MA 2 (Semi-finalist) 1MA 4 (¼ finalists) + 1MA 8 (16-round) 1MA 2 (best 3rds in groups) 1MA 6 (stage low ranked)</p> <p style="text-align: center;">OR / OF</p> <p>1A Winner + Runner-up 1MA 2 (Semi-finalist) 1MA 4 (¼ finalists) + 1MA 8 (16-round) 1MA 2 (best 3rds in groups) 1MA 6 (stage low ranked)</p>	<p>F L4 D</p> <p>(6)</p>
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	GRAND TOTAL	\$32 000 000																												
		[28]																												
		TOTAL/TOTAAL: 150																												