



# basic education

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

## **NATIONAL SENIOR CERTIFICATE NASIONALE SENIOR SERTIFIKAAT**

**GRADE/GRAAD 12**

**MATHEMATICAL LITERACY P2/  
WISKUNDIGE GELETTERDHEID V2**

**NOVEMBER 2019**

**MARKING GUIDELINES/NASIENRIGLYNE**

**MARKS/PUNTE: 150**

<b>Symbol/Kode</b>	<b>Explanation/Verduideliking</b>
<b>M</b>	Method/ <i>Metode</i>
<b>MA</b>	Method with accuracy/ <i>Metode met akkuraatheid</i>
<b>CA</b>	Consistent accuracy/ <i>Volgehoue akkuraatheid</i>
<b>A</b>	Accuracy/ <i>Akkuraatheid</i>
<b>C</b>	Conversion/ <i>Herleiding</i>
<b>S</b>	Simplification/ <i>Vereenvoudiging</i>
<b>RT</b>	Reading from a table/a graph/document/diagram/ <i>Lees vanaf tabel/grafiek/diagram</i>
<b>SF</b>	Correct substitution in a formula/ <i>Korrekte vervanging in formule</i>
<b>O</b>	Opinion/Explanation/ <i>Opinie/Verduideliking</i>
<b>P</b>	Penalty, e.g. for no units, incorrect rounding off, etc./ <i>Penalisasie, bv. vir geen eenhede/verkeerde afronding, ens.</i>
<b>R</b>	Rounding off/ <i>Afronding</i>
<b>NPR</b>	No penalty for rounding/ <i>Geen penalisasie vir afronding nie</i>
<b>AO</b>	Answer only/ <i>Slegs antwoord</i>
<b>MCA</b>	Method with consistent accuracy/ <i>Metode met volgehoue akkuraatheid</i>

**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 guideline; 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 each 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.

LET WEL:

- As 'n kandidaat 'n vraag TWEE KEER beantwoord, merk slegs die EERSTE poging.
- As 'n kandidaat 'n antwoord van 'n vraag doodtrek (kanselleer) en nie oordoen nie, merk die doodgetrekte (gekanselleerde) poging.
- Volgehoue akkuraatheid (CA) word in ALLE aspekte van die nasienriglyne toegepas, dit hou 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.
- 'n Algemene merkbeginsel is dat indien 'n kandidaat een fout maak en daarna voortgaan met korrekte wiskunde, dat die kandidaat slegs een punt verloor.

QUESTION/VRAAG 1 [39 MARKS/PUNTE]			
Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
1.1.1	$\checkmark A$ $\checkmark A$ Bothaville and/en Viljoenskroon.	1A Bothaville 1A Viljoenskroon (2)	MP L2
1.1.2	$\checkmark\checkmark A$ $\checkmark\checkmark A$ South West and South. Suidwes en Suid	2A SW 2A S (any order) (4)	MP L2
1.1.3	Bloemfontein Welkom NAMPO $= 152 \text{ km} + 75 \text{ km} = 227 \text{ km}$ $\checkmark A$ Bloemfontein Bultfontein NAMPO $= 100 \text{ km} + 120 \text{ km} = 220 \text{ km}$ $\checkmark A$ $\therefore$ via Bultfontein. $\checkmark O$  <p style="text-align: center;"><b>OR/OF</b></p> Bloemfontein – Welkom – NAMPO $220 \text{ km} - 75 \text{ km} = 145 \text{ km}$ $\checkmark A$ Bloemfontein – Bultfontein – NAMPO $220 \text{ km} - 120 \text{ km} = 100 \text{ km}$ $\checkmark A$ $\therefore$ via Bultfontein $\checkmark O$	1A correct value  1A correct value 1O conclusion  <p style="text-align: center;"><b>OR/OF</b></p> 1A correct value  1A correct value 1O conclusion	MP L4

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
	<p style="text-align: center;"><b>OR/OF</b></p> <p>Bultfontein to/tot NAMPO = 120 km ✓A                      Bloemfontein to/tot Bultfontein = 100 km ✓A                      120 km + 100 km = 220 km ✓A</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Bloemfontein to/tot NAMPO = 220 km ✓A                      220 km – 100km to/tot Bultfontein = 120 km ✓A                      120 km is the distance to NAMPO ✓A                      120 km is die afstand tot by NAMPO</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Bloemfontein to/tot NAMPO = 220 km ✓A                      Bultfontein to/tot NAMPO = 120 km ✓A                      Bloemfontein to/tot Bultfontein = 220 km – 120 km                      = 100 km ✓A</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Nampo Park to/tot Bothaville = 15 km                      Bothaville to/tot Bultfontein = 105 km ✓A                      ∴ Nampo Park to/tot Bloemfontein                      = 15 km + 105 km + 100 km ✓A                      = 220 km ✓A</p>	<p style="text-align: center;"><b>OR/OF</b></p> <p>1A correct value                      1A correct value                      1A conclusion</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1A correct value                      1A correct value                      1A conclusion</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1A correct value                      1A correct value                      1A conclusion</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1A correct value                      1A correct value                      1A conclusion</p> <p style="text-align: right;">(3)</p>	
1.1.4	<p>Distance/Afstand = speed/spoed × time/tyd</p> <p>150 km = 88 km/h × time/tyd ✓SF</p> <p>Time/Tyd = <math>\frac{150}{88}</math> h ✓S                      = 1,7045...                      = 1h 42 min ✓C</p> <p>Arrival time/Aankomstyd = 18:45 + 1h42 min ✓M                      = 20:27 ✓CA</p> <p>NOT CORRECT ✓O                      NIE KORREK nie</p>	<p>1SF correct values into formula                      1S changing subject of formula</p> <p>1C conversion</p> <p>1M adding</p> <p>1CA arrival time                      1O verification</p>	M L4

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
	<p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: center;">✓M    ✓A    ✓C</p> <p>From 18:45 to 20:00 is 1 hour 15 min = 1,25 hour  <i>Van 18:45 tot 20:00 is 1 uur 15 min = 1,25 uur</i></p> <p>Distance/ = speed × time  <i>Afstand = 88 km/h × 1,25h ✓SF</i>                  = 110 km ✓S</p> <p style="text-align: center;">✓O</p> <p>His timing is <b>not correct</b>, he is not yet in Sasolburg  <i>Sy tydsberekening is <b>nie reg nie</b>, hy is nog nie in Sasolburg nie.</i></p> <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: center;">✓M    ✓A    ✓C</p> <p>From 18:45 to 20:00 is 1 hour 15 min = 1,25 hour  <i>Van 18:45 tot 20:00 is 1 uur 15 min = 1,25 uur</i></p> <p>Distance = speed × time  <i>Afstand = spoed × tyd</i>                  150 km = speed × 1,25h ✓SF</p> <p>Speed/spoed = <math>\frac{150}{1,25}</math> km/h ✓S                  = 120 km/h</p> <p style="text-align: center;">✓O</p> <p>He is <b>wrong</b>, he will have to drive faster to get to Sasolburg on time.  <i>Hy is verkeerd, hy sal vinniger moet ry om betyds in Sasolburg te kom</i></p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Distance/Afstand = speed/spoed × time/tyd                  150 km = 88 km/h × time/tyd ✓SF</p> <p>Time/Tyd = <math>\frac{150}{88}</math> h ✓S                  = 1,7045...                  = 1h 42 min ✓C</p> <p style="text-align: center;">✓MA    ✓A</p> <p>From 18:45 to 20:00 is 1 hour 15 min = 1,25 hour  <i>Van 18:45 tot 20:00 is 1 uur 15 min = 1,25 uur</i>                  INCORRECT/NIE KORREK NIE ✓O</p>	<p style="text-align: center;"><b>OR/OF</b></p> <p>1M subtracting time                  1A elapsed time                  1C conversion</p> <p>1SF into correct formula                  1S simplification</p> <p>1O verification</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1M subtracting time                  1A elapsed time                  1C conversion</p> <p>1SF into correct formula                  1S changing subject of formula</p> <p>1O verification</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1SF into correct formula                  1S changing the subject of the formula                  1C conversion</p> <p>1MA subtracting                  1A elapsed time                  1O verification</p>	(6)

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
1.2.1	<p>Volume of a rectangular prism = length × width × height <i>Volume van n reghoekige prisma</i> = lengte × breedte × hoogte</p> <p>= <math>300 \text{ cm} \times 68,5 \text{ cm} \times 40 \text{ cm}</math> ✓SF</p> <p>= <math>822\,000 \text{ cm}^3</math> ✓A or/of 822 ℓ</p> <p>Capacity/<i>Kapasiteit</i> = <math>485 \text{ ℓ} = 485\,000 \text{ cm}^3</math> ✓C</p> <p>Volume of the concrete (in <math>\text{cm}^3</math>) <i>Volume van die beton (in <math>\text{cm}^3</math>)</i> = <math>822\,000 - 485\,000</math> ✓MA = <math>337\,000</math> ✓CA</p>	<p>1C m to cm 1C mm to cm 1SF substitution</p> <p>1A volume</p> <p>1C conversion</p> <p>1MA subtracting capacity 1CA concrete volume</p> <p>(7)</p>	M L3
1.2.2	<p>Number of cows/<i>aantal koeie</i> = <math>\frac{485}{56}</math> ✓MA = 8,66 ✓A CORRECT /<i>KORREK</i> ✓O</p> <p><b>OR/OF</b></p> <p>Volume = <math>56 \text{ ℓ} \times 8</math> ✓MA = <math>448 \text{ ℓ}</math> ✓A CORRECT /<i>KORREK</i> ✓O</p> <p><b>OR/OF</b></p> <p>Volume per cows/<i>per koei</i> = <math>\frac{485 \text{ ℓ}}{8}</math> ✓MA = <math>60,625 \text{ ℓ}</math> ✓A CORRECT /<i>KORREK</i> ✓O</p> <p><b>OR/OF</b></p> <p><math>56 \times 8 \times 1000 \text{ cm}^3</math> ✓MA = <math>448\,000 \text{ cm}^3</math> ✓A CORRECT /<i>KORREK</i> ✓O</p>	<p>1MA dividing by 56 1A simplification 1O conclusion</p> <p><b>OR/OF</b></p> <p>1MA multiplying by 8 1A simplification 1O verification</p> <p><b>OR/OF</b></p> <p>1MA division by 8 1A simplification 1O verification</p> <p><b>OR/OF</b></p> <p>1MA multiplying by 8; 1 000 1A simplification 1O verification</p> <p>(3)</p>	M L4
1.2.3	<p>Volume = <math>\frac{485}{2} = 242,5 \text{ ℓ}</math> ✓MA</p> <p>Time/<i>Tyd</i> = <math>\frac{242,5 \text{ ℓ}}{14,5 \text{ ℓ/min}}</math> ✓MA = 16,724... ≈ 17 min ✓R</p>	<p>1MA dividing by 2</p> <p>1MA dividing by rate</p> <p>1R time</p>	M L2

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
	<p style="text-align: center;"><b>OR/OF</b></p> <p>Time to fill / <i>Tyd om vol te maak</i></p> $= 485 \ell \div 14,5 \ell/\text{min} \quad \checkmark\text{MA}$ $= 33,44827586 \text{ min}$ <p>Time for half empty/ <i>Tyd vir half leeg</i></p> $= 33,44827586 \text{ min} \div 2 \quad \checkmark\text{MA}$ $= 16,72413793$ $\approx 17 \quad \checkmark\text{R}$	<p style="text-align: center;"><b>OR/OF</b></p> <p>1 MA dividing by rate</p> <p>1MA dividing by 2</p> <p>1R time</p> <p style="text-align: right;">(3)</p>	
1.3.1	9,2 m $\checkmark\checkmark\text{A}$	2A estimated distance [accept answers in the range 9,0 m to 9,5m]	MP L2
1.3.2	<p>Measured distance/<i>Gemete afstand</i> = 174 mm <math>\checkmark\text{A}</math>                      Distance from stand 10 to 17 = <math>4,5 \times 7 + 5 = 36,5 \text{ m}</math> <math>\checkmark\text{A}</math>  <i>Afstand vanaf stalletjie 10 tot 17</i> = <math>4,5 \times 7 + 5 = 36,5 \text{ m}</math>                      Scale/<i>Skaal</i></p> <p>174 mm : 36,5 m <math>\checkmark\text{M}</math>                      = 174 mm : 36 500 mm  <math>\approx 1 : 209,8 \quad \checkmark\text{CA}</math></p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Measured distance/<i>Gemete afstand</i> = 174 mm <math>\checkmark\text{A}</math>                      Distance from stand 10 to 17 = <math>4,5 \times 7 + 5 = 36,5 \text{ m}</math> <math>\checkmark\text{A}</math>  <i>Afstand vanaf stalletjie 10 tot 17</i> = <math>4,5 \times 7 + 5 = 36,5 \text{ m}</math>                      Scale/<i>Skaal</i></p> <p>17,4 cm = 36,5 m                      1 cm = 2,0977011...m <math>\checkmark\text{M}</math>  <math>\therefore 1 \text{ cm} = 2,1 \text{ m} \quad \checkmark\text{CA}</math></p>	<p>1A measurement (as per province) 1A distance</p> <p>1M concept of scale</p> <p>1CA simplified scale</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1A measurement (as per province) 1A distance</p> <p>1M concept of scale 1CA simplified scale [accept measured answers in the range <math>\pm 2 \text{ mm}</math> from province measurement]</p> <p style="text-align: right;">(4)</p>	MP L3
1.3.3	<p><math>4 \text{ m} \times 4 \text{ m} = 16 \text{ m}^2</math> is R22 942.  <math>\therefore 1 \text{ m}^2 = \frac{22\,942}{16} = \text{R}1\,433,88</math></p> <p>Area stand 26/<i>Opp van stalletjie 26</i>  <math>= 4 \text{ m} \times 4,5 \text{ m} = 18 \text{ m}^2</math></p> <p>Cost/<i>Koste</i> = <math>\text{R}1\,433,88 \times 18 \text{ m}^2 \quad \checkmark\text{M}</math>  <math>= \text{R}25\,809,84 \quad \checkmark\text{CA}</math>  <math>\therefore \text{NOT VALID /NIE GELDIG nie} \quad \checkmark\text{O}</math></p>	<p>1MA unit price</p> <p>1RT dimensions of stand 26</p> <p>1M multiply by 18</p> <p>1CA simplification</p> <p>1O conclusion</p>	F L4

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
	<p style="text-align: center;"><b>OR/OF</b></p> <p>Area stand 26/Opp van stalletjie 26  <math>= 4 \text{ m} \times 4,5 \text{ m} = 18 \text{ m}^2 \quad \checkmark \text{RT}</math></p> <p>Cost/Koste = <math>\frac{22\,942}{16} \times 18 \quad \checkmark \text{M}</math>  <math>\quad \quad \quad \quad \quad \quad \quad \quad \checkmark \text{MA}</math></p> <p><math>= \text{R}25\,809,75 \quad \checkmark \text{CA}</math>  <math>\therefore \text{NOT VALID /NIE GELDIG nie} \quad \checkmark \text{O}</math></p> <p style="text-align: center;"><b>OR/OF</b></p> <p><math>4 \text{ m} \times 4 \text{ m} = 16 \text{ m}^2</math> is R22 942                      Stand/stalletjie 26 = <math>4 \text{ m} \times 4,5 \text{ m} \quad \checkmark \text{RT}</math></p> <p>Cost of stand 26 /Koste vir stalletjie 26  <math>= \text{R}22\,942 \div 4 \times 4,5 \quad \checkmark \text{M}</math>  <math>\quad \quad \quad \quad \quad \quad \quad \quad \checkmark \text{MA}</math></p> <p><math>= \text{R}25\,809,75 \quad \checkmark \text{CA}</math>  <math>\therefore \text{NOT VALID /NIE GELDIG nie} \quad \checkmark \text{O}</math></p> <p style="text-align: center;"><b>OR/OF</b></p> <p><math>4 \text{ m} \times 4 \text{ m} = 16 \text{ m}^2</math> is R22 942  <math>\therefore 1 \text{ m}^2 = \frac{22\,942}{16}</math>  <math>\quad \quad \quad \quad \quad \quad \quad \quad \checkmark \text{MA}</math></p> <p><math>4 \text{ m} \times 4,5 \text{ m} = 18 \text{ m}^2 \quad \checkmark \text{RT}</math> is R25 000  <math>\therefore 1 \text{ m}^2 = \frac{25\,000}{18}</math>  <math>\quad \quad \quad \quad \quad \quad \quad \quad \checkmark \text{CA}</math></p> <p><math>\therefore \text{R}1\,433,88 \neq \text{R}1\,388,89</math>  <math>\therefore \text{NOT VALID /NIE GELDIG nie}</math></p>	<p style="text-align: center;"><b>OR/OF</b></p> <p>1RT dimensions of stand 26</p> <p>1MA divide by 16                      1M multiply by 18</p> <p>1CA simplification                      1O conclusion</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1RT dimensions of stand 26</p> <p>1MA divide by 4                      1M multiply by 4,5</p> <p>1CA simplification                      1O conclusion</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1MA unit price                      1RT dimensions of stand 26</p> <p>1M divide by 18</p> <p>1CA simplification                      1O conclusion                      NPR</p> <p style="text-align: right;">(5)</p>	<p style="text-align: right;"><b>[39]</b></p>

<b>QUESTION/VRAAG 2 [38 MARKS/PUNTE]</b>			
<b>Q/V</b>	<b>Solution/Oplissing</b>	<b>Explanation/Verduideliking</b>	<b>T/L</b>
2.1.1	<p>Mean/Gemiddelde = <math>\frac{R287\,240\,000\,000}{148\,266}</math> ✓C                      ✓MA                      = R1 937 328,855 per year/per jaar</p> <p>Monthly mean = R1 937 328,855 ÷ 12 ✓MA                      Maandelikse gemid. = R161 444,07 ✓CA</p> <p>INCORRECT / NIE KORREK nie ✓O</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Mean/Gemid. = <math>\frac{287\,240\,000\,000}{148\,266}</math> ✓C                      ✓MA                      = R1 937 328,855 per year/per jaar</p> <p>Then: R161 000 × 12 = R1 932 000 per year/per jaar ✓MA ✓CA                      INCORRECT / NIE KORREK nie ✓O</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Total monthly income of millionaires                      Totale maandelikse inkomste                      = 161 000 × 148 266 ✓MA                      = R23 870 826 000</p> <p>Total annual income/ Totale jaarlikse inkomste                      = R23 870 826 000 × 12 ✓MA                      = R286 449 912 000 ✓CA ✓C</p> <p>Total taxable annual income is R287,24 billion                      Totale belasbare inkomste is R287,24 miljard                      INCORRECT / NIE KORREK nie ✓O</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Income per year per person/ Jaarlikse inkomste per persoon                      = R161 000 × 12 ✓MA</p> <p>Total income per year /Totale jaarlikse inkomste                      = R1 932 000 × 148 266 ✓MA ✓CA                      = R286 449 912 000 = R286,449912 billion /miljard                      ≠ R287,24 billion/miljard ✓C                      INCORRECT / NIE KORREK nie ✓O</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Income per year per person/ Jaarlikse inkomste per persoon                      = R0,161 million × 12 ✓MA                      Total income/Totale inkomste                      = R1,932 mil × 148 266 ✓MA                      = R286 449,912 mil ✓CA                      = R286,449912 billion/miljard ✓C                      ≠ R287,24 billion/miljard                      INCORRECT /NIE KORREK nie ✓O</p>	<p>1C billion to rand                      1MA dividing by 148 266</p> <p>1MA dividing by 12                      1CA monthly income</p> <p>1O conclusion</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1C billion to rand                      1MA dividing by 148 266</p> <p>1MA multiply by 12                      1CA yearly income                      1O conclusion</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1MA multiply by 148 266</p> <p>1MA multiply by 12                      1CA yearly income                      1C billion to rand</p> <p>1O conclusion</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1MA multiply by 12</p> <p>1MA multiply by 148 266                      1CA yearly income                      1C billion to rand</p> <p>1O conclusion</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1MA multiply by 12</p> <p>1MA multiply by 148 266                      1CA yearly income                      1C billion to rand                      1O conclusion</p>	D L4



Q/V	Solution/Oplissing	Explanation/Verduideliking	T/L
	<p style="text-align: center;"><b>OR/OF</b></p> <p>Income per year per person/ <i>Jaarlikse inkomste per persoon</i>  <math>\checkmark C</math>  <math>= R0,000161 \text{ billion/miljard} \times 12 \checkmark MA</math>                      Total income /<i>totale inkomste</i>  <math>= R0,001932 \text{ billion/ miljard} \times 148\,266 \checkmark MA</math>  <math>= R286,449912 \text{ billion /miljard} \checkmark CA</math>  <math>\neq R287,24 \text{ billion/miljard}</math>                      INCORRECT/ <i>NIE KORREK nie</i> <math>\checkmark O</math></p>	<p style="text-align: center;"><b>OR/OF</b></p> <p>1C billion to rand                      1MA multiply by 12                       1MA multiply by 148 266                      1CA yearly income                       1O conclusion</p>	(5)
2.1.2	$\text{Number/Getal} = 148\,266 \times \frac{100}{105,0065} = \frac{148\,266 \checkmark MA}{1,050065 \checkmark A}$ $= 141\,196,97$ $\approx 141\,196 \text{ or } 141\,197 \checkmark CA$	1MA dividing 1A 105,0065%  1CA simplification	D L3  (3)
2.2.1	<p>Medical scheme tax rebate/<i>Mediese- skema belasting krediet</i></p> $\checkmark RT$ $= R310 \times 2 \times 12 \checkmark MA$ $= R7\,440 \checkmark CA$	1RT correct value 1MA multiplying 1CA simplification AO	F L2  (3)
2.2.2	<p>Tax payable/<i>Belasting betaalbaar</i></p> $\checkmark A \quad \checkmark A \quad \checkmark SF$ $= R532\,041 + 45\% (R2\,045\,364 - R1\,500\,000)$ $= R777\,454,80 \checkmark S$ <p>Tax after rebate/<i>Belasting na korting</i></p> $\checkmark M \quad \checkmark MA$ $= R777\,454,80 - R14\,067 - R7\,713$ $= R755\,674,80$ <p>Tax payable/<i>Belasting betaalbaar</i></p> $= R755\,674,80 - R7\,440 \checkmark MCA$ $= R748\,234,80 \checkmark CA$	<p><b>CA from Q2.2.1</b></p> 1A correct tax bracket 1A for 2 045 364 1SF correct substitution 1S simplification  1M subtracting rebates 1MA both correct values  1MCA subtracting MST rebate 1CA tax	F L3  (8)
2.3.1	<p>Earning/ <i>Verdiens</i>te in Euro = <math>\frac{600\,000}{7,47} \checkmark MA</math></p> $= 80\,321,28514 \checkmark A$ <p>Earning/<i>Verdiens</i>te in rand = <math>80\,321,28514 \times 15,64 \checkmark MCA</math></p> $= R1\,256\,224,90 \checkmark CA$	1MA dividing by euro 1A simplification 1MCA multiplying 1CA value	F L3

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
	<p style="text-align: center;"><b>OR/OF</b></p> <p>Conversion ratio/<i>Herleidingsverhouding</i></p> $= \frac{15,64}{7,47} \overset{\checkmark MA}{=} 2,093708166 \overset{\checkmark A}{}$ <p>Earning/<i>Verdien</i> = Kr600 000 × 2,093708166 <math>\overset{\checkmark M}{}</math>                      = R1 256 224,90 <math>\overset{\checkmark CA}{}</math></p> <p style="text-align: center;"><b>OR/OF</b></p> <p>R15,64 = Kr7,47 <math>\overset{\checkmark M}{}</math>                      R2,0937... = Kr1 <math>\overset{\checkmark A}{}</math>  <math>\therefore</math> Kr600 000 × R2,0937... <math>\overset{\checkmark M}{}</math>                      = R1 256 224,90 <math>\overset{\checkmark CA}{}</math></p>	<p style="text-align: center;"><b>OR/OF</b></p> <p>1MA dividing by euro                      1A simplification</p> <p>1M multiplying</p> <p>1CA simplification</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1M equation the rates                      1A unit ratio                      1M multiplying                      1CA simplification</p> <p style="text-align: right;">(4)</p>	
2.3.2	<p>Total deductions/<i>totale aftrekkings</i>                      = Kr229 760 + Kr48 000 + Kr37 200r                      = Kr314 960 <math>\overset{\checkmark A}{}</math></p> <p>Percentage/<i>Persentasie</i> = <math>\frac{\text{Kr}314960}{\text{Kr}600000} \times 100\% \overset{\checkmark M}{}</math>  <math>\approx 52,49\% \overset{\checkmark CA}{}</math></p> <p>VALID/ <i>GELDIG</i> <math>\overset{\checkmark O}{}</math></p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Total deductions/<i>totale aftrekkings</i>                      = Kr48 000 + Kr37 200 + Kr229 760                      = Kr314 960 <math>\overset{\checkmark A}{}</math></p> <p>Amount/<i>bedrag</i> = Kr600 000 × 52% <math>\overset{\checkmark M}{}</math>                      = Kr312 000 <math>\overset{\checkmark CA}{}</math></p> <p>VALID/ <i>GELDIG</i> <math>\overset{\checkmark O}{}</math></p> <p style="text-align: center;"><b>OR/OF</b></p> <p>220 760 + 48 000 + 37 200 = 314 960                      To Euro = 314 960 ÷ 7,47 = €42 163,32                      To rand = €42 163,32 × R15,64                      = R659 434,32 <math>\overset{\checkmark A}{}</math></p> <p>Percentage/ <i>Persentasie</i> = <math>\frac{\text{R}659434,32}{\text{R}1256224,98} \times 100\% \overset{\checkmark M}{}</math>                      = 52,493%                      = 52% <math>\overset{\checkmark CA}{}</math></p> <p>VALID/ <i>GELDIG</i> <math>\overset{\checkmark O}{}</math></p>	<p>1A total deductions</p> <p>1M percentage calculation</p> <p>1CA simplification</p> <p>1O conclusion</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1A total deductions</p> <p>1M percentage calculation                      1CA simplification</p> <p>1O conclusion</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1A total deductions</p> <p>1M percentage calculation</p> <p>1CA simplification</p> <p>1O conclusion</p> <p style="text-align: right;">(4)</p>	F L4

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
2.4.1	United States of America ✓✓A Verenigde State van Amerika	2A correct country  (2)	D L2
2.4.2	$P = \frac{2}{23}$ ✓A = 0,08695652174 ≈ 0,087 ✓R	1A numerator 1A denominator  1R correct form  (3)	P L2
2.4.3 (a)	Q2 = 40 ✓✓A	2A median  (2)	D L2
2.4.3 (b)	Q1 = 33 ✓A Q3 = 45 ✓A  IQR = 45 – 33 ✓MCA = 12 CORRECT/KORREK ✓O	1A quartile 1 1A quartile 3  1MCA IQR with at least one correct value  1O verification  (4)	D L4
		<b>[38]</b>	

<b>QUESTION/VRAAG 3 [35 MARKS/PUNTE]</b>			
<b>Q/V</b>	<b>Solution/Oplissing</b>	<b>Explanation/Verduideliking</b>	<b>T&amp;L</b>
3.1.1	$\text{Rate per h/Tarief per uur} = \frac{\overset{\checkmark}{\text{MA}} \text{R31 050}}{\overset{\checkmark}{\text{M}} 18} = \text{R1 725/h}$ $\text{Rate /Tarief per min} = \frac{\overset{\checkmark}{\text{M}} \text{R1 725}}{60} = \text{R28,75/min} \quad \checkmark \text{CA}$ <p style="text-align: center;"><b>OR/OF</b></p> $\text{Rate per 18 hours/Tarief per 18 uur}$ $= \frac{\text{R31 050}}{60} = \text{R517,50 /18 h} \quad \checkmark \text{MA}$ $\text{Rate /Tarief per min} = \frac{\text{R517,50}}{18} \quad \checkmark \text{M}$ $= \text{R28,75/min} \quad \checkmark \text{CA}$ <p style="text-align: center;"><b>OR/OF</b></p> $18 \text{ hours /uur} \times 60 = 1\,080 \text{ minutes/ minute} \quad \checkmark \text{MA}$ $\text{Solo rate/ alleenvlug tarief} = \frac{\overset{\checkmark}{\text{M}} \text{31 050}}{1\,080} = \text{R28,75/min} \quad \checkmark \text{CA}$	1MA dividing by 18 1M dividing by 60 1CA rate <p style="text-align: center;"><b>OR/OF</b></p> 1MA dividing by 60 1M dividing by 18 1CA rate <p style="text-align: center;"><b>OR/OF</b></p> 1MA conversion to minutes 1M dividing by 1 080 1CA rate AO (3)	F L2
3.1.2	$\text{Cost/Koste}$ $= 28 \times \overset{\checkmark}{\text{MA}} \text{R2 050} + \overset{\checkmark}{\text{MA}} \text{R31 050} + \frac{15}{3} \times \overset{\checkmark}{\text{MA}} \text{R1 242} + \text{R700} + \text{R6 544} + 7 \times \overset{\checkmark}{\text{MA}} \text{R190}$ $= \overset{\checkmark}{\text{M}} \text{R57 400} + \text{R31 050} + \text{R6 210} + \text{R700} + \overset{\checkmark}{\text{M}} \text{R6 544} + \text{R1 330}$ $= \text{R103 234} \quad \checkmark \text{CA}$	1MA multiplying cost by hours 1MA theory lesson cost 1MA number of exams by cost 1M adding ALL values 1CA simplification (5)	F L3
3.2	$\text{Interest 1}^{\text{st}} \text{ year/Rente 1}^{\text{ste}} \text{ jaar} = \overset{\checkmark}{\text{MA}} \text{R90 000} \times 8,5\%$ $= \overset{\checkmark}{\text{A}} \text{R7 650}$ $\text{Balance year 1/Balans jaar 1} = \text{R90 000} + \text{R7 650}$ $= \overset{\checkmark}{\text{CA}} \text{R97 650}$ $\text{Interest 2}^{\text{nd}} \text{ year/Rente 2}^{\text{de}} \text{ jaar} = \text{R97 650} \times 8,5\%$ $= \overset{\checkmark}{\text{CA}} \text{R8 300,25}$ $\text{Balance at end of 2}^{\text{nd}} \text{ year/Balans teen einde 2}^{\text{de}} \text{ jaar}$ $= \text{R97 650} + \text{R8 300,25}$ $= \overset{\checkmark}{\text{CA}} \text{R105 950,25}$ <p>The amount is ENOUGH/Die bedrag is <i>GENOEG</i> <math>\checkmark \text{O}</math></p>	1MA multiplying by the % 1A 1 <sup>st</sup> year interest 1CA 1 <sup>st</sup> year balance 1CA 2 <sup>nd</sup> year interest 1CA 2 <sup>nd</sup> year balance 1O conclusion CA from 3.1.2	F L4

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
	<p style="text-align: center;"><b>OR/OF</b></p> <p>The amount is increasing by 108,5%  <i>Die bedrag verhoog met 108,5%</i> ✓ ✓ MA</p> <p>Balance at the end of the second year  <i>Balans aan die einde van die 2de jaar</i>                  ✓ MA ✓ MA  <math>= R90\ 000 \times 108,5\% \times 108,5\%</math>  <math>= R105\ 950,25</math> ✓ CA</p> <p>The amount is ENOUGH/<i>Die bedrag is GENOEG</i> ✓ O</p>	<p><b>OR/OF</b></p> <p>2MA percentage increase</p> <p>1MA multiplying for 1<sup>st</sup> year                  1MA multiplying for 2<sup>nd</sup> year                  1CA simplification</p> <p>1O conclusion CA from 3.1.2                  (6)</p>	
3.3.1	<p>Students study more after failing/ more serious about their work. ✓ ✓ O  <i>Studente leer harder nadat hulle gedruip het/ hulle is ernstiger oor hul werk.</i></p> <p><b>OR/OF</b>                  They have seen what the tests look like and prepare better for following tests/ gained experience. ✓ ✓ O  <i>Hulle het gesien hoe die toetse lyk en berei hul beter voor vir opeenvolgende toets/ ondervinding opgedoen.</i></p> <p><b>OR/OF</b>                  They have more time to prepare/ more practice/ attended extra classes. ✓ ✓ O  <i>Hulle het meer tyd om voor te berei/ meer oefening/ woon ekstra lesse by.</i></p>	<p>2O reason</p> <p>(2)</p>	D L4
3.3.2	<p>24 is 20%                  A is 80%                  ✓ MA  <math>\therefore A = 24 \times 4 = 96</math> ✓ A</p> <p>20% of/van B = 24  <math>B = \frac{24}{20\%} = 120</math> ✓ CA  <i>or/of</i> <math>B = 96 + 24 = 120</math></p> <p><math>C = A = 96</math> ✓ CA</p> <p><math>D = 96 - 67 = 29</math> ✓ CA  <i>or/of</i> <math>D = 30\% \times 96 = 28,8 \approx 29</math></p> <p>Total that passed  <i>Totaal wat deurgekom het</i>  <math>= 24 + 29 = 53</math> ✓ CA</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p><b>Or/of</b>  <math>24 \div 20\% = 120</math>  <math>A = 120 - 24 = 96</math></p> </div> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p><b>Or/of</b>  <math>67 \div 70\% = 95,7 \approx 96</math>  <math>D = 96 - 67 = 29</math></p> </div>	<p>1MA multiplying by 4</p> <p>1A value of A</p> <p>1CA value of B</p> <p>1CA value of C [accept 95]</p> <p>1CA value of D [accept 28]</p> <p>1CA total                  [accept 52]</p>	D L3

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
	<p><b>OR/OF</b></p> $A = \frac{80\%}{20\%} \times 24 \quad \checkmark \text{MA}$ $= 96 \quad \checkmark \text{A}$ $B = \frac{100\%}{20\%} \times 24$ $= 120 \quad \checkmark \text{CA}$ $C = \frac{100\%}{70\%} \times 67 = 95,71 \approx 96 \quad \checkmark \text{CA}$ $D = \frac{30\%}{70\%} \times 67 = 28,71 \approx 29 \quad \checkmark \text{CA}$ <p>Total that passed / Totaal wat deurgekom het  <math>= 24 + 29 = 53 \quad \checkmark \text{CA}</math></p>	<p><b>OR/OF</b></p> <p>1MA multiplying by 4</p> <p>1A value of A</p> <p>1CA value of B</p> <p>1CA value of C [accept 95]</p> <p>1CA value of D [accept 28]</p> <p>1CA total                      NPR                      [accept 52]</p> <p>(6)</p>	
3.4	<p>Number of Days/Aantal dae  <math>\checkmark \text{M}</math>  <math>= 26\,000 \div 24 = 1083,333\dots</math></p> <p>Number of hours/aantal ure = <math>0,333\dots \times 24 = 8 \quad \checkmark \text{CA}</math></p> <p>Number of weeks/aantal weke  <math>\checkmark \text{M}</math>  <math>= 1083 \div 7 = 154,7142857\dots</math></p> <p>Number of days/Aantal dae = <math>0,71428\dots \times 7 = 5 \quad \checkmark \text{CA}</math></p> <p>154 weeks/weke 5 days/dae 8 hours/uur</p> <p>VALID/ GELDIG <math>\checkmark \text{O}</math></p> <p><b>OR/OF</b></p> <p>Hours per week /Uur per week = <math>24 \times 7 = 168 \quad \checkmark \text{M}</math></p> <p>Weeks / Weke = <math>\frac{26\,000}{168} = 154,7619047619</math></p> <p>Days/Dae = <math>0,7619047619 \text{ weeks/ weke} \times 7</math>  <math>= 5,333\dots \text{ days/dae} = 5 \quad \checkmark \text{CA}</math></p> <p>Hours/Uur = <math>0,333\dots \text{ days} \times 24 = 8 \quad \checkmark \text{M}</math></p> <p><input type="checkbox"/> 154 weeks 5 days 8 hours <math>\checkmark \text{CA}</math></p> <p>VALID/ GELDIG <math>\checkmark \text{O}</math></p>	<p>1M dividing by 24</p> <p>1CA hours</p> <p>1M dividing by 7</p> <p>1CA simplification</p> <p>1O verification</p> <p><b>OR/OF</b></p> <p>1M multiply by 7</p> <p>1CA days</p> <p>1M multiply by 24</p> <p>1CA hours</p> <p>1O verification</p>	M L4

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
	<p style="text-align: center;"><b>OR/OF</b></p> <p>Days /Dae = <math>154 \times 7 = 1\ 078</math> ✓ M                      Total days/ Totale dae = <math>1\ 078 + 5 = 1\ 083</math> ✓ CA                      Hours/Uur = <math>1\ 083 \times 24 = 25\ 992</math> ✓ M                      Total hours/ Totale ure = <math>25\ 992 + 8 = 26\ 000</math> ✓ CA                      VALID/ GELDIG ✓ O</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1 week = 7 days/dae = <math>7 \times 24</math> h/uur = 168 hours/uur ✓ M                      Hours/Uur = <math>154 \times 168 = 25\ 872</math> ✓ CA                      Hours/Uur = <math>5 \times 24 = 120</math> ✓ M                      Total hours/Totale uur = <math>25\ 872 + 120 + 8 = 26\ 000</math> ✓ CA                      VALID/ GELDIG ✓ O</p>	<p style="text-align: center;"><b>OR/OF</b></p> <p>1M multiply by 7                      1CA simplification                      1M multiply by 24                      1CA simplification                      1O verification</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1M multiply by 7                      1CA simplification                      1M multiply by 24                      1CA simplification                      1O verification</p> <p style="text-align: right;">(5)</p>	
3.5.1	33 ✓✓A	2A value	MP L2
3.5.2	<p>Place seat face down. ✓✓A                      Keer die sitplek om op die grond.                      Attach the bench leg/s to the bench seat.                      Heg die bank se pote aan die banksitplek.</p> <p>Attach the long panel to bench leg/s. ✓✓A                      Voeg die langpaneel in tussen beide pote van die bank</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Lift the bench leg, align dowels with hole on the bench seat and insert them. ✓✓A                      Lig die bank se pote, kry dit gelyk met die gate in die banksitplek en druk dit in.</p> <p>Insert the long panel./ Voeg lang paneel in. ✓✓A</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Insert the dowels of the bench leg into the seat, ✓✓A                      Druk die tappe van die bank se pote in die sitplek.</p> <p>Connect the long panel with the bench leg. ✓✓A                      Verbind die langpaneel met die bank se pote.</p>	<p>2A first instruction</p> <p>2A second instruction</p> <p>[Any correct two]</p> <p style="text-align: right;">(4)</p>	MP L4
3.5.3	<p>It stabilises the bench/dit stabiliseer die bank . ✓✓O                      Keeps the bench sturdy/ steady/ strong/safe to sit on                      Dit hou die bank stewig /bestendig/sterk/veilig                      It prevents the bench from collapsing/dit keer dat die bank inmekaar val.                      It supports the bench legs/ondersteun die bank pote.</p>	2O explanation	MP L4
		[35]	

QUESTION/VRAAG 4 [38 MARKS/PUNTE]			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
4.1.1	<p>Percentage increase/<i>Persentasie verhoging</i></p> $= \frac{14,5 \text{ million} - 10,8 \text{ million}}{10,8 \text{ million}} \times 100\% \quad \checkmark M$ <p><math>\approx 34,26\% \quad \checkmark CA</math></p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Percentage increase/<i>Persentasie verhoging</i></p> $= \frac{14,5 \text{ million}}{10,8 \text{ million}} \times 100\% - 100\% \quad \checkmark M$ <p><math>\approx 34,26\% \quad \checkmark CA</math></p>	<p>1M subtracting values                      1A denominator                      1CA simplification</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1A denominator                      1M subtracting values                      1CA simplification                      NPU (million and %)</p> <p style="text-align: right;">(3)</p>	D L2
4.1.2 (a)	Two/ <i>Twee</i> <b>or/of</b> 2 $\checkmark\checkmark A$	2A correct size  (2)	D L2
4.1.2 (b)	Three/ <i>Drie</i> <b>or/of</b> 3 $\checkmark\checkmark A$	2A correct size  (2)	D L2
4.1.3	<p>2001:                      Number of households/<i>Aantal huishoudings</i>  <math>= 33\% \times 10,8 \text{ million} \quad \checkmark MA</math>  <math>= 3,564 \text{ million/miljoen} \quad \checkmark CA</math></p> <p>2011:                      Number of households/<i>Aantal huishoudings</i>  <math>= 25\% \times 14,5 \text{ million/miljoen} \quad \checkmark MA</math>  <math>= 3,625 \text{ million/miljoen} \quad \checkmark CA</math></p> <p>Increase/<i>Toename</i> = 3,625 mil – 3,564 mil  <math>= 0,061 \text{ million/miljoen}</math></p> <p><math>\therefore</math> INCORRECT, <math>\checkmark O</math>                      OR the number of households <b>increased</b>.  <math>\therefore</math> <i>NIE KORREK nie,</i>  <i>OF die aantal huishoudings het toeneem.</i></p>	<p>1MA percentage calculation                      1CA simplification</p> <p>1MA percentage calculation                      1CA simplification</p> <p>1O conclusion</p> <p style="text-align: right;">(5)</p>	D L4
4.1.4	<p style="text-align: center;"><math>\checkmark\checkmark O</math></p> <p>Rounding factor or effect of rounding. Rounded-off the decimals.  <i>Afrondingseffek. Die desimale plekke is afgerond.</i></p>	2O reason  (2)	D L4



Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
4.1.5	$P_{(\text{less than four})} / P_{(\text{minder as vier})}$ $\checkmark$ RT $= 27\% + 19\% + 15\%$ $\checkmark$ MA $= 61\%$ $\checkmark$ CA	1RT correct values 1MA adding correct values 1CA simplification (3)	P L2
4.2.1	$\checkmark$ RT R20 to/tot R79 $\checkmark$ RT	2RT correct class (2)	D L2
4.2.2	$\checkmark$ MA $5,4 \text{ mil} + 3,2 \text{ mil} = 8,6 \text{ mil}$ $\checkmark$ CA	1 MA adding correct values 1CA number of households AO (2)	F L2
4.2.3	Total income/Totale inkomste = R817 500 $\checkmark$ A Wong's household annual per capita Wong huishouding jaarliks per capita $= \frac{R817\,500}{3,5}$ $\checkmark$ SF $= R233\,571,43$ $\checkmark$ CA Wong's household daily per capita/daagliks per capita $= \frac{R233\,571,4285}{365}$ $\checkmark$ MCA $= R639,92$ $\checkmark$ CA <p style="text-align: center;"><b>OR/OF</b></p> Total annual income/Totale jaarlikse inkomste $= R276\,000 + R541\,500 = R817\,500$ $\checkmark$ A Wong's household daily income/daagliks per inkomste $= \frac{R817\,500}{365}$ $\checkmark$ MCA or $\frac{R276\,000}{365} + \frac{R541\,500}{365}$ $\approx R2\,239,73$ $\checkmark$ CA $= R756,16 + R1\,483,56 = R2\,239,72$ Family size/Familie grootte = $1 + 1 + 1 + 0,5 = 3,5$ $\checkmark$ A Wong's household daily per capita Wong huishouding daaglikse per capita $= \frac{R2\,239,73}{3,5}$ $\checkmark$ SF $= R639,92$ $\checkmark$ CA	1A total income 1A family size 1SF substitution 1CA annual per capita 1MCA dividing annual per capita by 365 1CA daily per capita <p style="text-align: center;"><b>OR/OF</b></p> 1A total household income 1MCA dividing by 365 1CA daily income 1A family size 1SF correct substitution 1CA daily per capita	F L3

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
	<p style="text-align: center;"><b>OR/OF</b></p> <p>Total income/<i>Totale inkomste</i> = R817 500 ✓ A                      Family size/<i>Familie grootte</i> = 1 + 1 + 1 + 0,5 = 3,5 ✓ A</p> <p>Wong's household daily per capita/<i>daaglik per capita</i>                      = <math>\frac{R817\,500}{365 \times 3,5}</math> ✓ MCA ✓ A ✓ SF                      = R639,92 ✓ CA</p>	<p style="text-align: center;"><b>OR/OF</b></p> <p>1A total household income                      1A family size</p> <p>1A denominator                      1MCA dividing by 365                      1SF Substitution</p> <p>1CA daily per capita                      (6)</p>	
4.2.4	<p>Total per day/<i>Totaal per dag</i>                      = 4% × R280 = R11,20 ✓ A</p> <p>Total per year/<i>totaal per jaar</i>                      ✓ A                      = R11,20 × 365 = R4 088 ✓ CA</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Rate per year/<i>Tarief per jaar</i> = R280 × 365 = R102 200 ✓ MCA                      Amount spent on cellphones/<i>Bedrag aan selfone gespandeer</i>                      = R102 200 × 4% ✓ A                      = R4 088 ✓ CA</p>	<p>1A daily value</p> <p>1A multiply by 365                      1CA simplification</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1MCA multiply by year                      consistent with Q4.2.3</p> <p>1A calculation 4%                      1CA simplification                      AO                      (3)</p>	F L3
4.3.1	Neo. ✓✓ A	2O correct name (2)	D L4
4.3.2	<p>Elec/<i>Elek.</i> = R125 × 12,2 mil = R1 525 mil ✓ MA                      Water = R98 × 10,6 mil = R1 038,8 mil ✓ MA</p> <p>Monthly total in million / <i>Maandelikse total in miljoen</i>                      = R1 525 + R1 038,8 = R2 563,8 ✓ M</p> <p>Total spent on electricity and tap water <b>in millions:</b>  <i>Totaal aan water en elektrisiteit gespandeer in miljoene:</i>                      = R2 563,8 × 12 = R30 765,6 ✓ CA</p>	<p>1MA electricity amount</p> <p>1MA water amount</p> <p>1M adding amounts</p> <p>1CA simplification</p>	F L3

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
	<p style="text-align: center;"><b>OR/OF</b></p> <p>Elec/Elek = R125 × 12,2 mil = R1 525 mil                      Total for the year /Totaal vir die jaar                      = R1 525 million/miljoen × 12                      = R18 300 million/miljoen ✓ MA</p> <p>Water = R98 × 10,6 mil = R1 038,8 mil                      Total for the year / Totaal vir die jaar                      = R1 038,8 million/miljoen × 12                      = R12 465,6 million/miljoen ✓ MA</p> <p>Total spent on electricity and tap water in millions:                      Totaal aan water en elektrisiteit gespandeer in miljoene:                      ✓ M                      = R18 300 + R12 465,6 = R30 765,6 ✓ CA</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Annual cost for electricity / Jaarlikse elektrisiteit koste                      = R125 × 12 = R1 500                      Total electricity / Totaal elektrisiteit                      = R1 500 × 12,2 million = R18 300 million/miljoen ✓ MA</p> <p>Annual cost for tap water/ Jaarlikse water koste                      = R98 × 12 = R1 176                      Total /Totaal :water = R1 176 × 10,6 million/miljoen                      = R12 465,6 million/miljoen ✓ MA</p> <p>Total spent on electricity and tap water                      Totaal aan water en elektrisiteit gespandeer:                      = R18 300 million + R12 465,6 million ✓ M                      = R30 765,6 million/miljoen = R30 765 600 000 ✓ CA</p>	<p style="text-align: center;"><b>OR/OF</b></p> <p>1MA electricity amount</p> <p>1MA water amount</p> <p>1M adding amounts                      1CA simplification</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>1MA electricity amount</p> <p>1MA water amount</p> <p>1M adding amounts                      1CA simplification</p> <p style="text-align: right;">(4)</p>	
4.3.3	<p style="text-align: right;">✓✓ O</p> <p>The scale on the axis (vertical / y axis) of the two graphs differs.                      Die skaal op die as(vertikale / y-as) verskil.</p> <p>The intervals on Graph A is 10% while Graph B is 40%                      Die intervalle op Grafiek A is 10% terwyl Grafiek B 40% is</p>	<p>2O reason</p> <p style="text-align: right;">(2)</p>	D L4
<b>[38]</b>			
<b>TOTAL/TOTAAL: 150</b>			