



# education

Department:  
Education  
North West Provincial Government  
**REPUBLIC OF SOUTH AFRICA**

## NATIONAL SENIOR CERTIFICATE

**GRADE 12**

**MATHEMATICAL LITERACY P1**

**SEPTEMBER 2024**

Stanmorephysics.com

**MARKS: 150**

**TIME: 3 hours**



**This question paper consists of 11 pages and an addendum with 5 annexures.**

**INSTRUCTIONS AND INFORMATION**

1. This question paper consists of FIVE questions. Answer ALL the questions.
2. Use the ANNEXURES in the ADDENDUM to answer the following questions:  
ANNEXURE A for QUESTION 1.2  
ANNEXURE B for QUESTION 2.1  
ANNEXURE C for QUESTION 3  
ANNEXURE D for QUESTION 4.1  
ANNEXURE E for QUESTION 5.2
3. Number the answers correctly according to the numbering system used in this question paper.
4. Start EACH question on a NEW page.
5. You may use an approved calculator (non-programmable and non-graphical), unless stated otherwise.
6. Show ALL calculations clearly.
7. Round off ALL final answers appropriately according to the given context, unless stated otherwise.
8. Indicate units of measurement, where applicable.
9. Diagrams are NOT necessarily drawn to scale, unless stated otherwise.
10. Write neatly and legibly.



**QUESTION 1**

1.1 Camino de Santiago (pilgrimage) is an ancient pilgrimage trail originating in the medieval times. Made up of a vast network of roads and paths, pilgrims travel (walk) to arrive at the cathedral of Santiago de Compostela. The Camino was and still is Europe’s oldest, busiest, and most well-known route.

Gordon and Jane did the Camino pilgrimage from St Jean Pied de Port in France to Santiago de Compostela in Spain. They walked a total distance of 800 km. They walked for 34 days consecutively. Every evening they slept at different villages. Gordon used his Garmin watch to keep track of their every day’s progress.

Below is an extract of the last 6 days (from Tricastela to Compostela de Santiago) of their route’s information.

**TABLE 1: PROGRESS OF GORDON AND JANE’S LAST 6 DAYS**

DAY	Steps	Activity time	Distance in km	Calories
Day 29	31 153	5:53:39	25,21	2 194
Day 30	28 732	5:19:34	22,80	2 228
Day 31	32 697	5:56:53	25,46	2 293
Day 32	36 629	6:53:46	29,47	3 280
Day 33	25 414	4:44:12	20,28	2 084
Day 34	27 932	4:49:37	20,90	2 765
<b>Total</b>	<b>A</b>	<b>33:37:41</b>	<b>144,12</b>	<b>14 844</b>

[Adapted from Camino de Santiago 2023/2024 Facebook]

Use TABLE 1 above to answer the questions that follow.

- 1.1.1 Calculate the total number of steps (A) they had for the last six days. (2)
- 1.1.2 Determine the difference in calories between day 32 and day 29. (2)
- 1.1.3 Write down the second longest activity time they spent walking. (2)
- 1.1.4 Arrange the distance in kilometers from day 29 to day 34 in descending order. (2)
- 1.1.5 Write the calories of day 33 and day 32 as a ratio in its simplest form. (3)
- 1.1.6 Calculate the kilometers of day 32 as a percentage of the total number of kilometers they walked in the last 6 days. (3)

- 1.2 Agnetia is planning to move to Johannesburg. She studies the electricity tables to decide which paying option to use. ANNEXURE A presents the table on the Residential Prepaid option as well as a Residential Conventional option.

Use ANNEXURE A and the information above to answer the questions that follow.

- 1.2.1 Write down the assumed monthly kilowatt usage for both Prepaid and Conventional. (2)
- 1.2.2 Name the TWO extra charges included in the Residential Conventional that is not in the Prepaid method. (2)
- 1.2.3 Convert the tariff for 500 kilowatts of the Residential Prepaid system to rand. (2)
- 1.2.4 Determine the difference between the average selling price (c/kWh) for Residential Prepaid and Residential Conventional VAT included. (3)
- 1.2.5 Show how the value of block 2 (VAT Excl.) for R313,79 on the Residential Prepaid system was calculated. (3)

**[26]**





**QUESTION 2**

2.1 Amancio Gonzalez, a motivational speaker provides schools with motivational books for learners that improved the most during the year. The list of Amancio's Top 9 Motivational books are displayed in ANNEXURE B.

The books marked with a hashtag (#) was on sale.

All prices include 15% VAT.

Stanmorephysics.com

The authors gave a further 7,25% sales discount if more than 200 books per author were bought.

Use ANNEXURE B and the information above to answer the questions that follow.

2.1.1 Write down the name of the book that was written by Robin Sharma. (2)

2.1.2 Determine the percentage discount if, *The 7 Habits for Highly Effective People* were sold for R249 each. (4)

2.1.3 Calma bought 5 copies of the cheapest books displayed as well as 7 copies of the second most expensive books. Calculate the total cost for the twelve books VAT excluded. (6)

2.1.4 School A requested 225 copies of *Tuesdays with Morrie* to use as a prescribed book. The school has a budget of R41 150 to purchase the books.

The English teacher stated that they will NOT have enough in the budget to purchase the 225 books.

Verify showing ALL calculations, whether the statement of the teacher is CORRECT. (6)

2.1.5 Determine the probability that a book cost less than R280. Write your answer as a decimal number rounded to two decimal places. (3)



- 2.2 Three pen pals from different countries decided to do the Camino from Portugal to Santiago de Compostela. Dario is from Japan; Catalina originally from Spain (but lives in the UK) and Jan is from South Africa.

Dario decided to take ¥ 246 900, Catalina took £1 400 and Jan took R32 750 to use as spending money.

**TABLE 3: CURRENCIES ON 6 SEPTEMBER 2023**

1€	R20,5669	€ - Euro
1€	£0,85304601	£ - British Pound
R1	¥7,6764314	¥ - Japanese Yen
1€	¥157,86242	R - ZAR

[Adapted from <https://xcurrencyconverter>]

Use TABLE 3 above to answer the questions that follow.

- 2.2.1 Name TWO factors that influences the exchange rate of a country. (2)
- 2.2.2 Convert 1 Japanese Yen (¥) to Euro (€). (2)
- 2.2.3 Dario will be using  $\frac{3}{7}$  of his spending money for accommodation. Determine the amount he will have left for food and spending money in Yen. (4)
- 2.2.4 Calculate how many euros each of the friends will receive for the amount they decided to take with as spending money and write down the name of the person who will have the most euros. (7)

**[36]**



### QUESTION 3

---

3 A survey was made on the number of Pilgrims that completed the Camino de Santiago in the years 2019 to 2022. The survey is displayed on ANNEXURE C.

Use the ANNEXURE C and the information above to answer the questions that follow.

3.1 Write the total number of all the Pilgrims from 2019 to 2022 in words. (2)

3.2 Explain the term *survey*. (2)

3.3 Write down the number of Pilgrims that completed the Camino de Santiago in September 2019. (2)

3.4 Calculate the value of **A**, Pilgrims who walked the Camino in August 2020. (3)

3.5 The range of the monthly total number of Pilgrims that took part in the Camino de Santiago from 2019 to 2022 was 206 716.



Use the concept of range to determine the lowest total value of the Pilgrims from 2019 to 2022 (value **B**). (3)

3.6 Calculate the mean number of Pilgrims that completed the Camino de Santiago in the year 2021. (3)

3.7 Alexander one of the Pilgrims stated that there was 10% more Pilgrims that completed the Camino de Santiago in 2022 than in 2019 out of the total number of Pilgrims that completed from 2019 to 2022.

Verify, showing ALL calculations, whether the statement is CORRECT. (8)

3.8 Determine the probability that more than 50 000 Pilgrims completed the Camino de Santiago per month in the year 2022.

Write your answer as a percentage rounded to the nearest whole number. (3)

**[26]**



**QUESTION 4**

- 4.1 Mr Alejandro teaches Spanish to three groups of students. At the end of the year, he displays the results in box and whisker diagrams to compare the results. He analyses the results and then finds alternative methods to increase the results. Study the display of his results for 2023 on ANNEXURE D.

Use ANNEXURE D to answer the questions that follow.

- 4.1.1 State what percentage the box represents in the box and whisker diagram. (2)
- 4.1.2 Write down the outlier as well as the class in which it occurred. (3)
- 4.1.3 Which values are used to draw the box and whisker diagram? (2)
- 4.1.4 Alejandro states that Class B's IQR is 7,5% more than the IQR of Class A and C combined. Verify, showing ALL calculations, whether his statement is CORRECT. (8)
- 4.1.5 Use the measures of central tendency or spread to determine which class performed the best. State the measure of central tendency or spread and give a reason for your answer. (4)





4.2 Morne has a business on the side where he makes charcuterie boards out of special wood. He purchases sheets of the special wood and cut them to size and finishes the wood off with a special oil. He sells these charcuterie boards at different markets across the country for R450 each.



**TABLE 5: INCOME AND EXPENSES OF MORNE'S CHARCUTERIE BOARDS BUSINESS**

Number of charcuterie boards	0	5	15	25	50	85
Income (Rand)	0	2 250	A	11 250	22 500	38 250
Expenses (Rand)	2500	3 375	5 125	B	11 250	17 375

\*Charcuterie board: A cutting board made of wood (also known as a chopping board).

Use TABLE 5 and information above to answer the questions that follow.

- 4.2.1 Determine the cost of ONE charcuterie board. (3)
- 4.2.2 Calculate the values for **A** and **B**. (4)
- 4.2.3 Write a formula to determine the expense (Rand) for the charcuterie boards. (2)
- 4.2.4 Determine how many charcuterie boards needs to be sold before Morne shows a profit. Show ALL calculations. (5)
- 4.2.5 Name TWO possible factors that influence fixed cost in this context. (2)

[35]

**QUESTION 5**

**5.1 SOLAR PANEL TAX INCENTIVE FOR INDIVIDUALS**

The Government proposes a program which can supplement electricity supply. Individuals will be able to claim a rebate value of 25% of the cost of a new and unused solar photovoltaic(PV) panel, up to a maximum of R15 000 per individual. The rebate applies to qualifying solar PV panels that are bought into use for the first time in the period from 1 March 2023 to 29 February 2024.

**Voltech SOLAR**  
Special offer

**Solar installation**  
**5KVA Solar Kit**

- 1 x Luxpower 5Kw Hybrid Inverter
- 1 x Dyness wall mount 4.8Kwh Lithium-ion Battery
- 6 x 455watt Solar Panels with Aluminum Structure Kit
- Complete DB Split on AC Side (Mechanical Barrier)
- Protection for complete installation
- PV Combiner Box
- Battery Disconnecter 125Amp
- Cables, Trunking and Consumables for complete installation

**R85 000**  
Price include all material, installation and COC Certificate

[Adapted from: 2023 budget faqs- solar panel tax incentive]

Study the information and advertisement above and answer the questions that follow.

- 5.1.1 Write down the number of panels as well as the power of the panels shown in this special offer. (2)
- 5.1.2 During what period will a person qualify for this special rebate option? (2)
- 5.1.3 Tom plans to purchase the special offer. Determine the rebate amount that Tom can qualify for if a single panel costs R4 000. (4)
- 5.1.4 Tom does not have the cash amount of R85 000 and applied for a loan at Bank A. He can get the loan at 12,5% interest over a two-year period compounded yearly. Calculate Toms monthly repayment amount. (6)

5.2 Dante Salvador is 71 years of age. He is registered with SARS and pays his annual tax promptly. He is married and lives with his wife.

He still contributes towards a medical aid, which covers him and his wife.

ANNEXURE E represents the tax tables for the year 2023/2024.

Use ANNEXURE E and the information above to answer the questions that follow.

5.2.1 Determine Dante's annual medical tax credit amount. (3)

5.2.2 Calculate the tax rebate amount that will be deducted from Dante's annual tax. (3)

5.2.3 TABLE 6 on ANNEXURE E show the tax table and rebates for the year 2023/2024.

Dante receives a taxable income of R35 750 per month.

Calculate the monthly amount that Dante will contribute towards tax. (7)  
[27]

**TOTAL: 150**





2024 PREPARATORY EXAMINATION

PAPER 1 ADDENDUM

QUESTION 1		
1.1.1	CA if 1 value is omitted.	
1.1.2	Difference = $2\,194 - 3\,280$ = 1 086 (full marks) <b>If</b> Difference = $2\,194 - 3\,280$ = -1 086 (award 1 mark out of 2)	
1.1.3	Day 31 (award 1 mark out of 2) 32 697 or 25,46 or 2 293 (award 1 mark out of 2)	
1.1.4	<b>If</b> 1 value omitted (award 1 mark out of 2) <b>If</b> Ascending order (award 1 mark out of 2)	
1.1.5	No penalty for order <b>If</b> $2\,084 : 3\,280$ 1: 1,57 OR 0,64: 1 (full marks) <b>If</b> $2\,084 : 3\,280$ $\therefore \frac{521}{820}$ (full marks)	
1.1.6	CA answer if incorrect RT but correct method.	
1.2.1	No penalty for omitting unit	
1.2.3	$238,36 \div 100$ = R2,3836 (award 1 mark for CA answer)	
1.2.4	$R285,34 - R204,11 \checkmark$ =R81,23✓ $\therefore R81,23 \times 1,15$ = R93,41 (full marks) <b>If VAT excl values used</b> $R285,34 - R204,11$ =R81,23 (award RT and CA answer)	



QUESTION		
2.1.1	<p><b>Accept</b> Own your morning ✓✓ <b>OR</b> Elevate your life ✓✓</p>	
2.1.2	$\% \text{ difference} = \frac{249-360}{360} \times 100\%$ $= -30,83\% \text{ (full marks)}$	NPR
2.1.3	<p><b>Alternative</b>  <math>5 \times 139 = 695</math>  <math>695 \div 1,15 = 604,35</math>  <math>7 \times 357 = 2\,499</math>  <math>2\,499 \div 1,15 = 2\,173,04</math>                  Total = <math>604,35 + 2\,173,04</math>  <math>= 2\,777,39</math> (full marks)</p> <p><b>If</b>                  Total of 5 copies cheapest = <math>R139 + R149 + R189 + R225 + R279</math>  <math>= R981</math>                  Total of 7 copies = <math>7 \times R357</math>  <math>= R2\,499</math>                  Total = <math>R981 + R2\,499</math>  <math>= R3\,480</math>                  Total excluding VAT = <math>R3\,480 \div 1,15</math>  <math>= R3\,026,09</math> (full marks)</p> <p><b>If</b>                  Total of 5 copies cheapest = <math>R139 + R149 + R189 + R225 + R279</math>  <math>= R981</math>                  Total of 7 copies = <math>7 \times R360</math>  <math>= R2\,520</math>                  Total = <math>R981 + R2\,520</math>  <math>= R3\,501</math>                  Total excluding VAT = <math>R3\,501 \div 1,15</math>  <math>= R3\,044,35</math> (Award 5 marks out of 6)</p> <p><b>If multiplied 5 and 7 with incorrect values, (Award 4 marks out of 6)</b></p>	
2.1.4	<p><b>If</b>  <math>255 \times 189</math>  <math>= 42\,525</math>  <math>R42\,525 - R41\,150</math>  <math>= 1\,375</math> (award 4 out of 6)</p>	
2.1.5	<p><b>If numerator is wrong, CA answer.</b></p>	
2.2.1	<p><b>Alternatives</b>                  Lack of employment, Gross Domestic Product (GDP), Natural disaster, Crime  <b>Note:</b> the responses should relate to the context and/or the key issues highlighted.</p>	
2.2.4	<p><b>If for Dario</b>  <math>\text{¥}246\,900 \times 0,00633462986</math> (from 2.2.2.)  <math>= \text{¥}1\,564,020112</math> (2 marks)</p>	

3.2	Survey is the method of collecting data <b>NOTE:</b> The key word is collection of data	
3.4	<b>AO</b>	
3.5	<b>AO</b> <b>Accept</b> The use of row for January for full marks	
3.6	<b>Accept</b> any rounding i.e. down or up If wrong column used, concept and calculations should be correct. <b>(award 2 marks out of 3)</b>	
3.7	<b>Alternative</b> $\% \text{ difference} = \frac{\check{RT} \check{M} \check{RT}}{1\ 018\ 494 \check{RT}} \times 100\% \check{MA}$ $= \frac{90\ 644 \check{S}}{1\ 018\ 494} \times 100\%$ $= 8,8998\% \check{A}$ <b>∴ Not correct</b> $\check{O}$	3RT correct values 1M subtraction 1M multiplication by 100% 1S simplification 1A answer 1O opinion
3.8	<b>Accept</b> 100% for Afrikaans paper.	
<b>QUESTION 4</b>		
4.1.3	<b>Accept</b> The correct percentages for class A or class B or class C used, ( <b>full marks</b> )  <b>OR</b> Five number summary ( <b>full marks</b> )	
4.1.5	<b>Alternatives</b> <b>IF IQR used,</b> Class A $\checkmark$ is the best, the IQR $\checkmark\checkmark$ is less. $\checkmark$  <b>If range used;</b> Class A range = $91,5 - 60,5 = 31\checkmark$ Class B range = $97,5 - 22 = 75,5\checkmark$ Class C range = $84 - 34 = 50\checkmark$ <b>∴ Class C <math>\checkmark</math> is the best, the range is less.</b>	
4.2.2	<b>AO</b>	
4.2.4	Number of boards = $4\ 500 \div 450 = 10$ Number of boards = $(4\ 250 - 2500) \div 175 = 10$ <b>∴ 9 charcuterie boards (Full marks) Accept 10</b> <b>OR</b> Income = $450 \times 10 = 4\ 500$ Expense = $2500 + 175 \times 10 = 4\ 250$ <b>∴ 9 charcuterie boards (Full marks) Accept 10</b> <b>OR</b>	

<p>Number of boards = <math>\frac{4\ 075 - 2500}{175}</math>  <math>= 9</math>  <math>\therefore</math> 9 charcuterie boards <b>(Full marks) Accept 10</b>  <b>OR</b>          Number of boards = <math>\frac{4\ 075 - 2500}{175}</math>  <math>= 9</math>  <math>\therefore</math> 9 charcuterie boards <b>(Full marks) Accept 10</b></p>	
--	--

<b>QUESTION 5</b>		
5.1.3	<p><b>Alternative</b>            Rebate for 1 Solar Panel = <math>R4\ 000 \times 25\% \checkmark</math>  <math>= R1\ 000 \checkmark</math>            Rebate for 6 Solar panels = <math>6 \times R1\ 000 \checkmark</math>  <math>= R6\ 000 \checkmark</math>  <b>CA number of panels from 5.1.1</b></p>	
5.1.4	<p><b>Alternative</b>            Total monthly repayment  <math>= R85\ 000 \checkmark \times 1,125 \checkmark \times 1,125 \checkmark \div 24 \checkmark</math>  <math>= R4\ 482,42 \checkmark</math></p>	<p>1RT loan amount            1M multiplication by 1,125            1M multiplication by 1,125            2M dividing by 24            1A answer</p>
5.2.1	<b>AO</b>	
5.2.2	<b>AO</b>	





# education

Department:  
Education  
North West Provincial Government  
**REPUBLIC OF SOUTH AFRICA**

**NATIONAL SENIOR CERTIFICATE/  
NASIONALE SENIOR SERTIFIKAAT**

**GRADE/GRAAD 12**

**MATHEMATICAL LITERACY P1/  
WISKUNDIGE GELETERDHEID VI**

**SEPTEMBER 2024**

**MARKING GUIDELINES/NASIENRIGLYNE**

Stanmorephysics.com

**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/graph/document/diagram/ <i>Lees vanaf tabel/grafiek/dokument/diagram</i>
<b>SF</b>	Correct substitution in a formula/ <i>Korrekte vervanging in 'n 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>
<b>RCA</b>	Rounding consistent with accuracy/ <i>Afronding met volgehoue akkuraatheid</i>

**These marking guidelines consist of 13 pages.**

**Hierdie nasienriglyne bestaan uit 13 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.
- If the candidate presents any extra solution when reading from a graph, table, layout plan and map, then penalise for every extra item presented.

**LET WEL:**

- *As 'n kandidaat 'n vraag TWEE KEER beantwoord, sien slegs die EERSTE poging na.*
- *As 'n kandidaat 'n antwoord van 'n vraag doodtrek (kanselleer) en nie oordoen nie, sien die doodgetrekte (gekanselleerde) poging na.*
- *Volgehoue akkuraatheid (CA) word in ALLE aspekte van die nasienriglyne toegepas, dit hou op by die tweede berekeningsfout.*
- *Wanneer 'n kandidaat aflesings vanaf 'n grafiek, tabel, uitlegplan en kaart geneem en ekstra antwoorde gee, penaliseer vir elke ekstra item.*

QUESTION/VRAAG 1 [26 MARKS/PUNTE] ANSWER ONLY FULL MARKS			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
1.1.1	$31\ 153 + 28\ 732 + 32\ 697 + 36\ 629 + 25\ 414 + 27\ 932$ $= 182\ 557$ ✓A <p style="text-align: right;">✓MA</p>	1MA adding correct values 1A total number of steps (2)	D L1 M
1.1.2	$3\ 280 - 2\ 194$ ✓MA $= 1\ 086$ calories/kalorieë ✓A	1MA subtracting correct values 1A correct answer (2)	D L1 E
1.1.3	5:56:53 ✓✓A	2A correct time (2)	D L1 E
1.1.4	$29,47 ; 25,46 ; 25,21 ; 22,80 ; 20,90 ; 20,28$ ✓RT ✓MA	1RT correct values 1A descending order (2)	D L1 E
1.1.5	$2\ 084 : 3\ 280$ ✓RT ✓MA $521 : 820$ ✓CA	1RT correct values 1MA written as a ratio in correct order 1CA correct simplified answer <b>Accept AO as fraction</b> (3)	D L1 E
1.1.6	$\frac{29,47}{144,12} \times 100$ ✓RT ✓MA $= 20,45\%$ ✓A	1RT correct value divided by total kilometers 1MA calculating percentage 1A correct answer <b>NPR</b> (3)	D L1 M

1.2.1	700 kWh ✓✓RT	2RT correct kWh (2)	F L1 E
1.2.2	Service charge/ <i>Diensfooi</i> ✓RT Capacity charge/ <i>kapasiteit heffing</i> ✓RT	1RT service charge 1RT capacity charge (2)	F L1 E
1.2.3	$209,19 \div 100$ ✓MA $= 2,0919$ ✓A	1MA dividing with 100 1A correct answer <b>NPR</b> (2)	F L1 E
1.2.4	$328,14 - 234,73$ ✓RT $= 93,41$ ✓MA ✓A	1RT correct values 1MA subtracting correct values 1A correct answer (3)	F L1 M
1.2.5	$500 - 350 = 150$ ✓MA $150 \times 209,19 = 31\,378,5$ ✓MA $31\,378,5 \div 100 = 313,79$ ✓A	1MA subtracting correct kWh 1MA multiplying with correct rate 1A divided by 100 (3)	F L1 D
		<b>[26]</b>	



QUESTION/VRAAG 2 [36 MARKS/PUNTE]			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
2.1.1	The 5 AM club ✓✓RT	2RT correct book <b>Accept:</b> Own your morning elevate your life (2)	F L1 E
2.1.2	Percentage discount/Persentasie afslag ✓MA $\frac{249}{360} \times 100$ = 69,17 % ✓A 100% – 69,17% ✓MCA = 30,83% ✓CA  <b>OR/OF</b> ✓MA $\frac{360 - 249}{360} \times 100$ ✓A $= \frac{111}{360} \times 100$ ✓MCA = 30,83% ✓CA	1MA dividing 249 with 360 1A correct answer 1MCA subtract percentage from 100% 1CA correct percentage  1MA subtract 249 from 360 1A dividing 111 with 360 1MCA percentage calculation 1CA correct percentage (4)	F L2 D
2.1.3	Total cost/Totale koste ✓MA ✓MA $(5 \times 139) + (7 \times 357)$ = 695 + 2 499 ✓MCA = 3 194 ✓CA  $3\ 194 \div 1,15$ ✓MCA = R2 777,39 ✓CA  <b>OR/OF</b> Total cost/Totale koste $(5 \times 139) = 695$ ✓MA $(7 \times 357) = 2\ 499$ ✓MA = 695 + 2 499 ✓MCA = 3 194 ✓CA $= 3\ 194 \times \frac{100}{115}$ ✓MCA = R2 777,39 ✓CA	1MA multiplying R139 by 5 1MA multiplying R357 by 7 1MCA adding the answers 1CA answer 1MCA dividing answer with 1,15 1CA correct answer  1MA multiplying R139 by 5 1MA multiplying R357 by 7 1MCA adding the answers 1CA answer 1MCA multiplying the answer with $\frac{100}{115}$ 1CA correct answer (6)	F L3 M



Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
2.1.4	<p>Book purchase/<i>Boek aankope</i>  <math>225 \times 189 \checkmark_{MA}</math>  <math>= R42\ 525 \checkmark_A</math>  <math>R42\ 525 \times 7,25\% \checkmark_{MCA}</math>  <math>= R3\ 083,0625 \checkmark_{CA}</math>  <math>R42\ 525 - R3\ 083,0625</math>  <math>= R39\ 441,94 \checkmark_{CA}</math></p> <p>Teacher statement is <b>NOT CORRECT</b>/<i>Onderwyser se bewering is NIE KORREK NIE.</i> <math>\checkmark_O</math></p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Book purchase/<i>Boek aankope</i>  <math>225 \times 189 \checkmark_{MA}</math>  <math>= R42\ 525 \checkmark_A</math>  <math>100\% - 7,25\% = 92,75\% \checkmark_{CA}</math>  <math>R42\ 525 \times 92,75\% \checkmark_{MCA}</math>  <math>= R39\ 441,94 \checkmark_{CA}</math></p> <p>Teacher statement is <b>NOT CORRECT</b>/<i>Onderwyser se bewering is NIE KORREK NIE.</i> <math>\checkmark_O</math></p>	<p>1MA multiplying correct values                      1A correct answer</p> <p>1MCA percentage calculation                      1CA correct amount                      1CA correct cost</p> <p>1O opinion</p> <p>1MA multiplying correct values                      1A correct answer</p> <p>1CA correct percentage</p> <p>1MCA percentage calculation                      1CA correct cost                      1O opinion</p> <p style="text-align: right;">(6)</p>	<p>F L4 D</p>
2.1.5	<p>Probability/<i>Waarskynlikheid</i>  <math>= \frac{5}{9} \checkmark_A</math>  <math>= 0,56 \checkmark_A</math></p>	<p>1A correct numerator                      1A correct denominator                      1A correct rounded answer</p> <p style="text-align: right;">(3)</p>	<p>F L2 E</p>
2.2.1	<p><math>\checkmark_A</math>                      Interest rates, Inflation rate, Economic stability, Government policies, Trade balance, Economic conditions, Supply and demand, Country's political stability/<i>Rentekoers, Inflasiekoers, Ekonomiese stabiliteit, Regeringsbeleid, Handelsbalans, Ekonomiese toestande, Voorsiening en bevel, Land se politiese.</i></p>	<p>2A any two of the listed factors</p> <p style="text-align: right;">(2)</p>	<p>F L1 M</p>
2.2.2	<p><math>\frac{1}{157,86242} \checkmark_{MA}</math>  <math>= 0,00633462986</math>  <math>\approx 0,00633 \checkmark_A</math></p>	<p>1MA one divided by the correct exchange rate                      1A correct answer</p> <p style="text-align: right;">(2)</p>	<p>F L1 D</p>

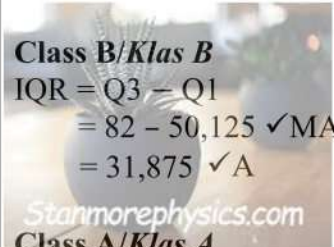


Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
2.2.3	<p>Amount for accommodation/<i>Bedrag vir verblyf</i>  <math>\text{¥ } 246\,900 \times \frac{3}{7} \checkmark \text{MA}</math>  <math>= \text{¥ } 105\,814,2857 \checkmark \text{A}</math></p> <p>Amount for food and spending/<i>Bedrag vir kos en spandeer</i>  <math>\text{¥ } 246\,900 - \text{¥ } 105\,814,2857 \checkmark \text{MCA}</math>  <math>= \text{¥ } 141\,085,71 \checkmark \text{CA}</math></p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Amount for food and spending/<i>Bedrag vir kos en spandeer</i>  <math>\checkmark \text{MA}</math>  <math>1 - \frac{3}{7} = \frac{4}{7} \checkmark \text{A}</math></p> <p><math>\text{¥ } 246\,900 \times \frac{4}{7} \checkmark \text{MCA}</math>  <math>= \text{¥ } 141\,085,71 \checkmark \text{CA}</math></p>	<p>1MA multiply correct amount with fraction                      1A correct simplification                      1MCA subtract answer from 246 900                      1CA correct answer  <b>NPR and unit</b></p> <p>1MA subtract <math>\frac{3}{7}</math> from 1                      1A correct simplification</p> <p>1MCA multiply correct value with fraction                      1CA correct answer  <b>NPR and unit</b></p> <p style="text-align: right;">(4)</p>	F L2 M
2.2.4	<p>Dario  <math>\text{¥ } 246\,900 \div 157,86242 \checkmark \text{MA}</math>  <math>= \text{€ } 1564,020113 \checkmark \text{A}</math></p> <p>Catalina  <math>\text{£ } 1\,400 \div 0,85304601 \checkmark \text{MA}</math>  <math>= \text{€ } 1\,641,177596 \checkmark \text{A}</math></p> <p>Jan  <math>\text{R } 32\,750 \div 20,5669 \checkmark \text{MA}</math>  <math>= \text{€ } 1\,592,36443 \checkmark \text{A}</math></p> <p style="text-align: center;"><math>\checkmark \text{O}</math></p> <p>Catalina has the most Euro's/<i>Catalina het die meeste Euro's</i> .</p>	<p>1MA dividing by exchange rate                      1A correct answer</p> <p>1MA dividing by exchange rate                      1A correct answer</p> <p>1MA dividing by exchange rate                      1A correct answer                      1O correct opinion  <b>NPR</b></p> <p style="text-align: right;">(7)</p>	F L3 E
		<b>[36]</b>	

QUESTION/VRAAG 3 [26 MARKS/PUNTE]			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
3.1	<p style="text-align: right;">✓✓A</p> One million eighteen thousand four hundred and ninety-four/ <i>Een miljoen agtien duisend vier honderd vier en negentig.</i>	2A written correctly in words (2)	D L1 E
3.2	<p>Survey/Opname ✓✓A</p> <p>A startegical investigation to collect data/'n Strategiese ondersoek om data te versamel.</p> <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: right;">✓✓A</p> <p>The process of collecting, analysing, and interpreting data from individuals/<i>Die proses van versameling, analisering en interpretering van data vanaf individue.</i></p>	2A Explanation (2)	D L1 M
3.3	45 649 ✓✓ A	2A correct number of people (2)	D L1 E
3.4	<p style="text-align: right;">✓MA</p> $A = 53\,905 - (1\,999 + 3\,076 + 1\,710 + 12 + 9\,752 + 10\,441 + 6\,418 + 586 + 99)$ $= 53\,905 - 34\,093 \quad \checkmark S$ $= 19\,812 \quad \checkmark CA$ <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: right;">✓MA</p> $A = 212\,043 - (85\,842 + 43\,575 + 62\,814)$ $= 212\,043 - 192\,231 \quad \checkmark S$ $= 19\,812 \quad \checkmark CA$	1MA subtracting all 2020 values from 53 905 1S simplifying 1CA correct total  1MA subtracting all August values from 212 043 1S simplifying 1CA correct total (3)	D L2 E
3.5	Range = Highest value – Lowest value $206\,716 = 212\,043 - B \quad \checkmark MA$ $B = 212\,043 - 206\,716 \quad \checkmark MA$ $B = 5\,327 \quad \checkmark A$	1MA substitution into formula 1MA simplifying 1A correct lowest value (3)	D L2 M
3.6	$\text{Mean} = \frac{60 + 14 + 194 + 1024 + \dots + 9\,094 + 1193}{12} \quad \checkmark MA$ $= \frac{178\,869}{12} \quad \checkmark MA$ $= 14\,905,75$ $\therefore = 14\,906 \text{ pilgrims/pelgrims} \quad \checkmark CA$	1MA concept of mean  1MA adding correct values  1CA correct rounded answer (3)	D L2 E

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
3.7	<p>Percentage Pilgrims in 2022/<i>Persentasie Pelgrims in 2022</i></p> <p>✓RT  <math>\frac{438\,182}{1\,018\,494} \times 100</math> ✓MA                      = 43,0225% ✓A</p> <p>Percentage Pilgrims in 2019/<i>Persentasie Pelgrims in 2019</i></p> <p><math>\frac{347\,538}{1\,018\,494} \times 100</math> ✓MA                      = 34,1227% ✓A</p> <p>43,0225% – 34,1227% ✓MCA                      = 8,8998% ✓CA</p> <p style="text-align: right;">✓O</p> <p>The statement is not correct/<i>Die bewering is nie waar nie</i></p>	<p>1RT correct value 438 182                      1MA divided by the total and percentage calculation                      1A correct percentage</p> <p>1MA dividing correct values and percentage calculation</p> <p>1A correct percentage</p> <p>1MCA subtracting percentages                      1CA correct answer</p> <p>1O correct conclusion  <b>NPR</b></p> <p style="text-align: right;">(8)</p>	<p>D                      L4                      D</p>
3.8	<p>Probability/<i>Waarskynlikheid</i></p> <p>✓RT  <math>= \frac{5}{12} \times 100</math> ✓MA                      = 41,667%                      ≈ 42% ✓CA</p>	<p>1RT correct numerator and correct denominator                      1MA percentage calculation                      1CA simplification rounded to a whole number</p> <p style="text-align: right;">(3)</p>	<p>D                      L2                      E</p>
		<b>[26]</b>	



QUESTION/VRAAG 4 [35 MARKS/PUNTE]			
Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
4.1.1	$\checkmark\checkmark A$ 50% of the data/50% van die data.	2A correct explanation (2)	D L1 M
4.1.2	22 $\checkmark\checkmark RT$ Class B $\checkmark RT$	1RT correct class 2RT correct value (3)	D L2 E
4.1.3	$\checkmark\checkmark A$ Minimum value, Q1, Q2, Q3 and maximum value/ minimum waarde, K1, K2, K3 en maksimum waarde	2A correct answer (2)	D L1 E
4.1.4	 <p><b>Class B/Klas B</b>                      IQR = Q3 – Q1                      = 82 – 50,125 <math>\checkmark MA</math>                      = 31,875 <math>\checkmark A</math></p> <p><b>Class A/Klas A</b>                      IQR = Q3 – Q1                      = 84 – 72,5                      = 11,5 <math>\checkmark A</math></p> <p><b>Class C/Klas C</b>                      IQR = Q3 – Q1                      = 79 – 64                      = 15 <math>\checkmark A</math></p> <p>Class B – (Class A + Class C)                      = 31,875 – (11,5 + 15) <math>\checkmark MCA</math>                      = 31,875 – 26,5 <math>\checkmark S</math>                      = 5,375% <math>\checkmark CA</math></p> <p style="text-align: right;"><math>\checkmark O</math></p> <p><math>\therefore</math> His statement is not correct/Sy bewering is nie waar nie.</p>	1MA concept of IQR with correct values 1A correct IQR class B  1A correct IQR class A  1A correct IQR class C  1MCA subtracting class A and C from class B 1S simplification 1CA correct answer 1O correct conclusion (8)	D L4 D



Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
4.1.5	$\checkmark A$ <b>Class A</b> performed the best/ <i>Klas A het die beste uitslae.</i> $\checkmark\checkmark A$ The median, more than 50% of the students scored more than 78% as compared to other classes/ <i>Die median, meer as 50% van die student het meer as 78% in vergelyking met ander klasse.</i> $\checkmark A$	1A correct class 2A correct central tendency 1O correct opinion (4)	D L4 M
4.2.1	$R3\ 375 - 2\ 500 \checkmark MA$ $= R875$ $R875 \div 5 \checkmark MCA$ $R175 \checkmark CA$	1MA subtract R2 500 from R3 375 1MCA answer divided by 5 1CA correct answer (3)	F L2 M
4.2.2	Income/ <i>Inkomste</i> $A = R450 \times 15 \checkmark MA$ $= R6\ 750 \checkmark A$ Expenses/ <i>uitgawes</i> $B = R2500 + (R175 \times 25) \checkmark MCA$ $= R2\ 500 + R4\ 375$ $= R6\ 875 \checkmark CA$	1MA multiplying selling price by no. of boards 1A calculating income <b>CA from 4.2.1</b> 1MCA correct calculation using cost 1CA correct answer (4)	F L2 D
4.2.3	$\checkmark A$ $\checkmark A$ Expenses = $R2\ 500 + (\text{number of charcuterie boards} \times R175)$ <i>Uitgawes = R2 500 + (aantal snyborde <math>\times</math> R175)</i>	<b>CA from 4.2.1</b> 1A fixed cost 1A number of charcuterie boards multiplied by R175 (2)	F L2 M



Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
4.2.4	<p>Income selling 9 charcuterie boards/ <i>Inkomste met verkope van 9 snyborde</i> <math>R450 \times 9</math> <math>= R4\ 050</math> ✓MA</p> <p>Expenditure selling 9 charcuterieboards/ <i>Uitgawes vir 9 snyborde</i> <math>R2500 + (R175 \times 9)</math> <math>= R4\ 075</math> ✓MA</p> <p>Income selling 10 charcuterie boards/ <i>Inkomste met verkope van 10 snyborde</i> <math>R450 \times 10</math> <math>= R4\ 500</math> ✓MA</p> <p>Expenditure selling 10 charcuterie boards/ <i>Uitgawes vir 10 snyborde</i> <math>R2500 + (R175 \times 10)</math> <math>= R4\ 250</math> ✓MA</p> <p style="text-align: center;">✓O</p> <p>If he sells 10 charcuterie boards, he will show a profit/ <i>Indien hy 10 borde verkoop sal hy 'n wins begin toon</i></p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Cost = Income (at break-even) ✓MA <math>450 \times \text{no. of boards} = 2\ 500 + 175 \times \text{no. of boards}</math> ✓MA <math>(450 - 175) \times \text{no. of boards} = 2\ 500</math> <math>275 \times \text{no. of boards} = 2\ 500</math> No. of boards = <math>2\ 500 \div 275</math> ✓MA <math>= 9</math> ✓MA ∴ 10 boards must be sold to show a profit. ✓O</p>	<p>1MA calculating income of 9 boards</p> <p>1MA calculating expenses of 9 boards</p> <p>1MA calculating income of 10 boards</p> <p>1MA calculating expenses of 10 boards</p> <p>1O Opinion</p> <p>1MA calculating no. of boards at break-even 1MA subtracting the no. of boards 1MA dividing by 275 1A correct answer 1O Explanation</p>	<p>F L3 D</p> <p>(5)</p>
4.2.5	<p style="text-align: center;">✓A                      ✓A</p> <p>Fuel expense, cell phone expenses, machinery, deliveries/ <i>Brandstof onkoste, selfoon onkoste, mashinerie, afleweringe.</i></p>	<p>1O Any relevant influence 1O Any relevant influence</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p>Accept any valid or reasonable answer</p> </div>	<p>F L4 E</p> <p>(2)</p>
		<b>[35]</b>	

QUESTION/VRAAG 5 [ 27 MARKS/PUNTE]			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
5.1.1	6 Panels/ <i>Panele</i> ✓RT 455-watt solar panels/ <i>watt solar panele</i> ✓RT	1RT 6 panels 1RT 455watt-panels (2)	F L1 E
5.1.2	1 March 2023 to 29 February 2024/ <i>1 Maart tot 29 Februarie 2024</i> ✓✓A	2A correct answer (2)	F L1 E
5.1.3	Total amount paid/ <i>Totale bedrag betaal</i> 6 × R4 000 ✓MA = R24 000 ✓A = R24 000 × 25% ✓MCA = R6 000 ✓CA	1MA multiplying with correct value of 6 1A correct answer 1MCA percentage calculation 1CA simplification (4)	F L2 M
5.1.4	Monthly repayment / <i>Maandelikse paaieiment</i> R85 000 × 12,5% = R10 625 ✓A = R10 625 + R85 000 = R95 625 ✓A  R95 625 × 12,5% = R11 953,125 ✓CA = R11 953,125 + R95 625 = R107 578,125 ✓CA R107 578,125 ÷ 24 ✓MCA R4 482,42 ✓CA  <b>OR/OF</b>  Monthly repayment / <i>Maandelikse paaieiment</i> R85 000 × 112,5% ✓MA = R95 625 ✓A  R95 625 × 112,5% ✓MCA R107 578,125 ✓CA  R107 578,125 ÷ 24 ✓MCA R4 482,42 ✓CA	1A correct answer of multiply by 12,5%  1A correct answer  1CA answer to multiply by 12,5% 1CA correct answer 1MCA divide answer by 24 months 1CA correct answer  1MA multiply by 112,5% 1A correct answer  1MCA multiply previous answer by 112,5% 1CA correct answer  1MCA divide answer by 24 months 1CA correct answer (6)	F L3 M



Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
5.2.1	Annual medical credit/ <i>Jaarlikse Mediese krediet</i> $= (364 \times 2)$ $= R728 \checkmark A$  $R728 \times 12 \checkmark MA$ $R8\ 736 \checkmark A$	1A answer of R364 multiplied by 2  1MA multiply answer by 12 months 1A correct answer  (3)	F L2 E
5.2.2	Tax rebate / <i>belastingkorting</i>  $\checkmark RT$ $R17\ 235 + R9\ 444 \checkmark MA$ $= R26\ 679 \checkmark A$	1RT correct values 1MA adding the values 1A correct answer  (3)	D L2 E
5.2.3	Annual taxable income/ <i>Jaarlikse belasbare inkomste</i> $R35\ 750 \times 12$ $= R429\ 000 \checkmark MA$  $\checkmark SF$ $R77\ 362 + 31\%(R429\ 000 - R370\ 500) \checkmark A$ $= R77\ 362 + 31\%(R58\ 500)$ $= R77\ 362 + R18\ 135$ $= R95\ 497 \checkmark CA$  $\checkmark MCA$ $= R95\ 497 - R8\ 736 = R26\ 679$  Monthly tax payable/ <i>Maandelikse belasting betaalbaar</i> $= R60\ 082 \div 12 \checkmark MCA$ $= R5\ 006,83 \text{ per month/per maand} \checkmark CA$	<b>CA from Q5.2.1 &amp; 5.2.2</b>  1MA taxable income multiplied by 12  1A correct tax bracket 1SF correct substitution  1CA correct simplification  1MCA subtraction of medical credit and tax rebates  1MCA divide answer by 12 1CA correct answer  (7)	D L3 D
			[27]
		<b>TOTAL: 150</b>	