



education

Department:
Education
North West Provincial Government
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

MATHEMATICAL LITERACY P1

SEPTEMBER 2025

MARKS: 150

TIME: 3 hours

This question paper consists of 10 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 4.1
ANNEXURE D and E for QUESTION 5.1
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 Social grants are financial assistance provided by the government to individuals in need, typically to help cover basic living expenses.

The applicant must be a South African citizen, or a permanent resident or refugee to qualify for grants. Individuals earning more than R92 520 per year do not qualify.

In the expanded Budget 2024 review, the national treasury explained that social grant expenditure – excluding SRD (Social Relief of Distress) grant – will increase from R217,1 billion in 2023/2024 to R259,3 billion in 2026/2027.

The new maximum monthly amounts in Rands are as follows.

TABLE 1: INCREASE IN RESPECT OF SOCIAL GRANTS (IN RANDS)

Grant type	Amount from 1 April 2023	Amount from 1 October 2023	Amount from 1 April 2024	Amount from 1 October 2024
Older person's (below 75)	2 080	2 090	2 180	2190
Older person's (above 75)	2 100	2 110	2 180 + 20	2 190 + 20
War Veterans	2 100	2 110	2 180 + 20	2 190 + 20
Disability	2 080	2 090	2 180	2190
Foster Child	1 120	1 130	1 180	0
Care Dependency	2 080	2 090	2 180	0
Child Support (CSG)	500	510	530	530
Top-Up to CSG	250	250	260	270
Grant in Aid	500	510	530	0

The increases will be effective on 1 April 2024 and 1 October 2024 respectively.

[Source: Adapted from sassa-grant-increases-2024]

Use TABLE 1 above to answer the questions that follow.

- 1.1.1 State the person who qualify for social grants in South Africa. (2)
- 1.1.2 Write down the expected amount for 2026/2027 in numbers (digits). (2)
- 1.1.3 Calculate the monthly income threshold to qualify for the grant. (2)
- 1.1.4 Identify the amount a person can claim for a foster child from 1 April 2024. (2)
- 1.1.5 Determine the difference between the amount a War Veteran can claim in October 2024 and April 2023. (3)

- 1.2 The 2024 Olympic Games took place in France where the United States of America (USA) won 126 medals.

The medals won per day are presented on ANNEXURE A.

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

1.2.1 Name the type of graph displayed on ANNEXURE A. (2)

1.2.2 Write down the data collection method that was used to collect the data. (2)

1.2.3 On what day did USA win the least medals? (2)

1.2.4 Determine the total number of medals won by USA on day 8 of the 2024 Olympic Games. (2)

1.2.5 Write as a ratio in its simplest form, the total number of gold medals to the total number of medals won at the Olympics. (3)

- 1.3 TABLE 2 below gives explanations, formulae and definitions of terminologies used in Mathematical Literacy.

TABLE 2: EXPLANATIONS, FORMULAE AND DEFINITIONS

LETTER	DEFINITION
A	Middle value in an ordered data set
B	Value appearing most in a data set
C	The point at which the expenses and income are equal
D	The amount you can earn without paying income tax
E	$IQR = Q_3 - Q_1$
F	Range = Highest value – Lowest value
G	The rate of increase in prices over a given period of time
H	The interest you earn on interest

Use TABLE 2 above and match the definitions with the terminology below. Write only letter (A–H) next to the question numbers (1.3.1 to 1.3.4), e.g. 1.3.5 I.

1.3.1 Inflation (2)

1.3.2 Interquartile range (2)

1.3.3 Break-even point (2)

1.3.4 Median (2)

[30]

QUESTION 2

- 2.1 The Tennis Academy has two tennis clubs, Tennis Pro A (**Juniors**) and Tennis Pro A+ (**Seniors**), where they develop and coach many players. Each tennis club has 4 courts. The academy has to purchase new stock for their tennis clubs. The invoice of the tennis equipment is presented on ANNEXURE B.

Carlos coaches at Tennis Pro A and Lorenzo at Tennis Pro A+.

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

- 2.1.1 Determine **A**, the total number of ball containers the Academy need to purchase if they need 30 balls per court. (3)
- 2.1.2 Calculate the unit price excluding VAT of the Yonex Pro 9 racket bag. (5)
- 2.1.3 Lorenzo the head coach sent in an order for the two tennis clubs.

Show that the total price, VAT included, for all the items will be R67 314,09. (7)



- 2.2 Lorenzo also wants to purchase a Lobster Sports Elite One Tennis Ball Machine with external battery option. This machine is for junior and senior players and is built with enhanced features.

CASH SALE CASH PRICE: R59 515,00 Purchase 3 machines and receive a discount of R22 781,75	PICTURE OF THE LOBSTER SPORTS ELITE ONE TENNIS BALL MACHINE 
ONLINE CREDIT Interest: 12,5% Duration: 2,5 years	

[Source: dickssportinggoods.com]

Use the information above to answer the questions that follow.

- 2.2.1 Write down the number of payment options. (2)
- 2.2.2 Determine the total cost of purchasing 3 machines using the cash sale. (3)
- 2.2.3 Calculate, rounded to a whole number, the percentage discount Lorenzo will receive if he purchases 3 tennis ball machines on the cash sale. (4)
- 2.2.4 Lorenzo stated that he will pay more than R20 000 on interest if he purchases the tennis ball machine on online credit with 12,5% interest compounded annually.
- Verify, showing ALL calculations, whether his statement is valid. (9)
- 2.2.5 Give a reason why it is better to purchase goods on cash. (2)

[35]

QUESTION 3

The 2023 Netball World Cup, took place in Cape Town, South Africa.

Goal averages, of four countries are displayed in TABLE 3 below for the duration of the preliminary stages.

TABLE 3: GOAL PERCENTAGES OF FOUR COUNTRIES SHOOTERS DURING THE PRELIMINARY STAGES

	ENGLAND	AUSTRALIA	SOUTH AFRICA	NEW ZEELAND
Shooter 1	92	97	91	100
	100	97	87	94
	100	100	87	92
Shooter 2	91	90	63	91
	92	91	88	91
	82	90	50	79
Shooter 3	71	92	89	80
	100	89	89	89
	78		79	96
Shooter 4	93	92	100	89
	91	67		100
	89	91		67
Average	89,9	90,5	82,3	89

[Source: Adapted from NWC2023-statistics]

Use TABLE 3 and the information above to answer the questions that follow.

- 3.1 Identify the country with the highest goal percentage average. (2)
- 3.2 Write down the shooter and the country that had the lowest goal percentage. (2)
- 3.3 Write down the modal percentages of goals obtained by New Zealand. (3)
- 3.4 Calculate the median percentage goals obtained by England. (3)
- 3.5 The inter quartile range (IQR) for the goal percentages of Australia is 7%.
 - 3.5.1 Calculate the IQR for the goal percentages of New Zealand. (7)
 - 3.5.2 Use the IQR of the two countries above and determine which country performed better. State a reason for your answer. (3)
- 3.6 Explain why shooter 4 of South Africa only played one match with a 100% goal average. (2)
- 3.7 Determine as a percentage, rounded to TWO decimal places, the probability that any shooter will obtain a 100% goal average out of all the countries. (4)

[26]

QUESTION 4

- 4.1 The top 10 highest-paid tennis players collectively earned an estimated \$245,7 million over the past 12 months.

The full list of the 10 highest-paid tennis players in the world for 2024 appears on ANNEXURE C.

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

- 4.1.1 Write down the name and the height of the tallest tennis player. (2)
- 4.1.2 Determine the range of the ages of the top 10 players listed. (3)
- 4.1.3 Determine the sum of the top 50% on-court earnings of the tennis players in the world 2024. (3)
- 4.1.4 (a) Explain the term *exchange rate*. (2)
- (b) If the Dollar to Euro is 0,8996, convert Carloz Alcaraz and Rafael Nadal's combined off-court earnings to Euro's. (4)
- 4.1.5 Calculate rounded to THREE decimal places, the percentage earnings of the female tennis players out of the total earnings. (5)
- 4.1.6 Determine the mean of the on-court earnings for the male tennis players. (4)

- 4.2 Djokovic received £175 000 from Serbia for winning the gold medal and reportedly opted to donate his winnings to humanitarian causes.
 He divided his winnings in the ratio 2 : 5 : 7 for bonus salaries supporting preschool educators, supporting tennis players that cannot afford to go to tournaments and to build a preschool.

Use the information above to answer the questions that follow.

- 4.2.1 Write down the part of the ratio that will be used to build a preschool. (2)
- 4.2.2 Djokovic stated that the amount of £62 500 will go towards players that can not afford to go to tournaments.

Verify, showing ALL calculations, whether Djokovic's statement is CORRECT.

(4)
[29]

QUESTION 5

- 5.1 John McEnroe one of the world's most famous retired tennis players, is currently a sports commentator and a sports analyst working for the BBC (British Broadcasting Corporation). He earns an annual taxable income of \$256 800. He is married and has 7 children. He is the head of the household and was born on 16 February 1959.

NOTE:

1\$ = R17,1232

ANNEXURE D represents the U.S tax tables for the year 2024/25 and ANNEXURE E the South African tax tables for the year 2024/25.

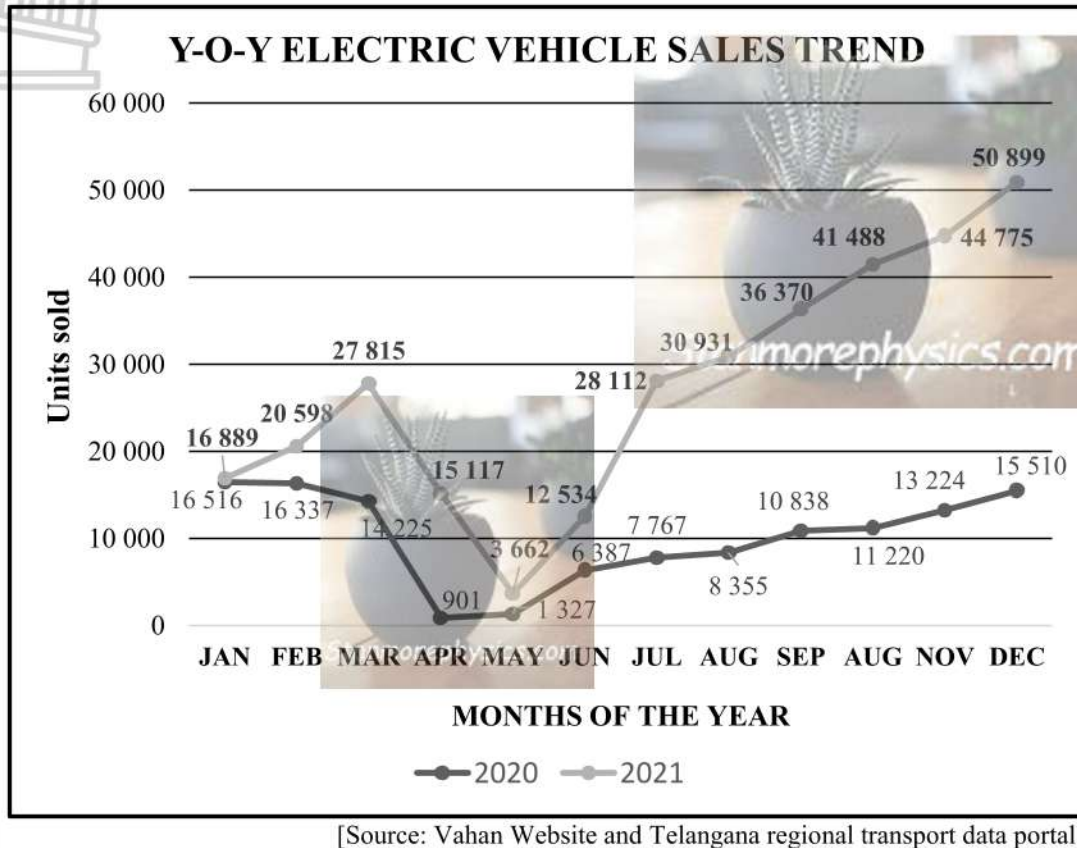
Use ANNEXURE D and E and the information above to answer the questions that follow.

- 5.1.1 Determine the age of John McEnroe. (2)
- 5.1.2 Calculate John McEnroe's annual tax payable in the U.S. (3)
- 5.1.3 If John McEnroe was a South African, calculate in rand, the medical aid credit he would receive per year. (4)
- 5.1.4 Compare the two countries annual tax payable related to John McEnroe.

Verify, showing ALL calculations, in which country will he pay the least tax. (10)

5.2 Electrical vehicles are becoming a new trend all over the European countries.

The graph below represents India's electrical vehicle sales trend for the year 2020 and 2021. In 2021 they sold 329 190 vehicles, representing a 168% percentage increase over 2020 sales of 122 607 units.



Use the information and graph above to answer the questions that follow.

- 5.2.1 Calculate the difference between the second highest sales of 2021 and 2020's vehicle sales. (3)
- 5.2.2 Show how the percentage difference of 168% was calculated. (3)
- 5.2.3 Determine, as a decimal, the probability that there were less than 10 000 electrical vehicles sold in both the years 2020 and 2021. (3)
- 5.2.4 Describe the trend of the electric vehicle sales from March 2021 to July 2021. (2)

[30]

TOTAL: 150



education

Department:
Education
North West Provincial Government
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

MATHEMATICAL LITERACY P1

ADDENDUM

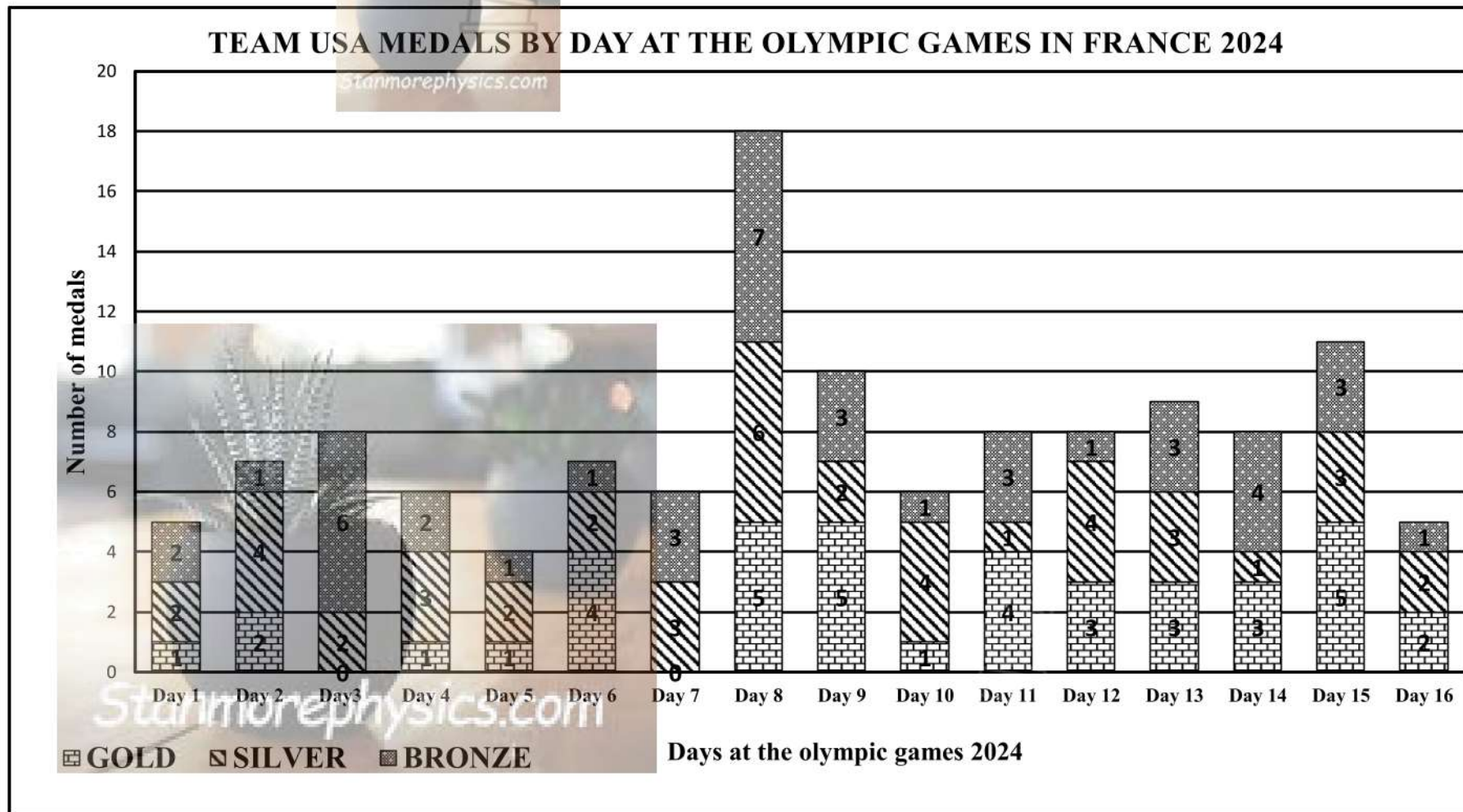
SEPTEMBER 2025

Stanmorephysics.com

This addendum consists of 6 pages with 5 annexures.

ANNEXURE A

QUESTION 1.2



ANNEXURE B

QUESTION 2.1

SPORTS WAREHOUSE TAX INVOICE

To: Tennis Academy PO Box 167 Rustenburg 0300		Invoice number: TC 123568 Invoice Date: 02/02/2023	
DESCRIPTION	UNIT PRICE	QUANTITY	AMOUNT (VAT inclusive)
Rolling tennis ball basket	R1 390,44 (excl VAT)	8	R12 792,08
Adult tennis racket Power pro	R2 099,00 (incl VAT)	16	
Tennis ball TB930 4-pack - yellow	R249,00 (incl VAT)	A	
Yonex Pro 9 racket bag	Stanmorephysics.com	3	R8 097,01
		Tax invoice total	R67 314,09
Banking details: Bank/Acc. Name: ABSA Account number: 4215 *** 1202 Branch name: Rustenburg Mall Branch code: 602 556		Term and conditions: Payment is due within 15 days	
Thank You For your Business			

[Source: Adapted from original tax invoice]

NOTE: Purchase more than 10 adult rackets, get one FREE.

ANNEXURE C

QUESTION 4.1

TABLE 4: 10 HIGHEST-PAID TENNIS PLAYERS IN THE WORLD (2024) AS PER TOTAL EARNINGS

RANK	TENNIS PLAYER	GENDER	AGE	NATIONALITY	TOTAL EARNINGS	ON-COURT EARNINGS	OFF-COURT EARNINGS	HEIGHT IN METER
1	Carlos Alcaraz	M	21	Spain	\$42,3 Million	\$10,3 Million	\$32 Million	1,83
2	Novak Djokovic	M	37	Serbia	\$37,2 Million	\$12,2 Million	\$25 Million	1,88
3	Coco Gauff	F	20	USA	\$27,1 Million	\$7,1 Million	\$20 Million	1,75
4	Iga Swiatek	F	23	Poland	\$26,7 Million	\$11,7 Million	\$15 Million	1,76
5	Jannik Sinner	M	23	Italy	\$26,6 Million	\$11,6 Million	\$15 Million	1,92
6	Rafael Nadal	M	38	Spain	\$23,3 Million	\$0,3 Million	\$23 Million	1,85
7	Daniil Medvedev	M	28	Russia	\$20,3 Million	\$7,3 Million	\$13 Million	1,98
8	Naomi Osaka	F	26	Japan	\$14,6 Million	\$0,6 Million	\$14 Million	1,80
9	Casper Ruud	M	25	Norway	\$13,9 Million	\$3,9 Million	\$10 Million	1,83
10	Aryna Sabalenka	F	26	Belarus	\$13,7 Million	\$6,7 Million	\$7 Million	1,82

[Source: Adapted from <https://www.jagranjosh.com/general-knowledge/highest-paid-tennis-players-in-the-world-1695205855-1>]

ANNEXURE D**QUESTION 5.1****TABLE 5: 2024/2025 FEDERAL TAX BRACKETS**

RATE	SINGLE	MARRIED FILING JOINTLY	MARRIED FILING SEPARATELY	HEAD OF HOUSEHOLD
10%	\$0 – \$11 600	\$0 – \$23 200	\$0 – \$11 600	\$0 – \$16 550
12%	\$11 600 – \$47 150	\$23 200 – \$94 300	\$11 600 – \$47 150	\$16 550 – \$63 100
22%	\$47 150 – \$100 525	\$94 300 – \$201 050	\$47 150 – \$100 525	\$63 100 – \$100 500
24%	\$100 525 – \$191 950	\$201 050 – \$383 900	\$100 525 – \$191 950	\$100 500 – \$191 950
32%	\$191 950 – \$243 725	\$383 900 – \$487 450	\$191 950 – \$243 725	\$191 950 – \$243 700
35%	\$243 725 – \$609 350	\$487 450 – \$731 200	\$243 725 – \$365 600	\$243 700 – \$609 350
37%	\$609 350+	\$731 200+	\$365 600+	\$609 350+

[Source: Adapted from smartasset.com/taxes/current]

ANNEXURE E

QUESTION 5.1

TABLE 6: INCOME TAX OF INDIVIDUALS AND TRUSTS FOR YEAR ENDING 28 February 2024

Tax Bracket	Taxable Income (in Rand)	Rate of Tax (in Rand)
1	0 – 237 100	18% of taxable income
2	237 101 – 370 500	42 678 + 26% of taxable income above 237 100
3	370 501 – 512 800	77 362 + 31% of taxable income above 370 500
4	512 801 – 673 000	121 475 + 36% of taxable income above 512 800
5	673 001 – 857 900	179 147 + 39% of taxable income above 673 000
6	857 901 – 1 817 000	251 258 + 41% of taxable income above 857 900
7	1 817 001 and above	644 489 + 45% of taxable income above 1 817 000

TAX REBATE TYPE	2024/2025
Primary (All individuals)	R17 235
Secondary (Age 65 to below 75)	R9 444
Tertiary (Age 75 and older)	R3 145

TAX THRESHOLDS	2024/2025
Below age 65	R95 750
Age 65 to below 75	R148 217
Age 75 and older	R165 689

MEDICAL AID ~ MONTHLY TAX CREDITS	2024/2025
Main member	R364
First dependant	R364
Each additional member	R246

[Adapted from onlinetax.sagesouthafrica.co.za]

Department:
Education
North West Provincial Government
REPUBLIC OF SOUTH AFRICA



Sequence No. on mark sheet

CENTRE NAME	
-------------	--

CANDIDATE NAME	
----------------	--

DATE		BOOK NR		OF		BOOKS
------	--	---------	--	----	--	-------

SUBJECT CODE					PAPER NUMBER	1
---------------------	--	--	--	--	---------------------	----------

SUBJECT NAME	MATHEMATICAL LITERACY
--------------	-----------------------

[illegible]

Copyright reserved

Please turn over

FOLLOW THESE INSTRUCTIONS CAREFULLY.

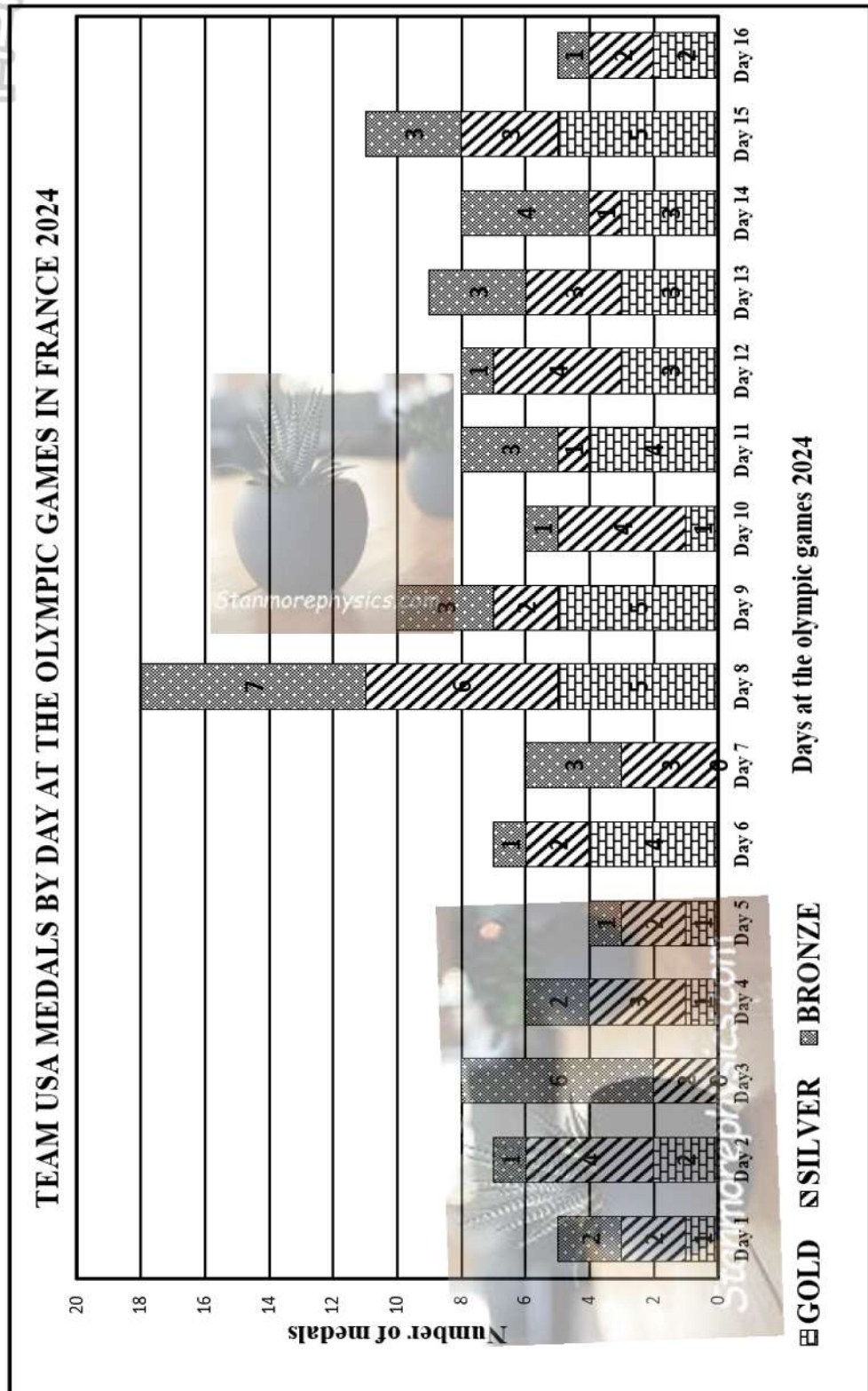
1. Clearly write your name and surname and centre name in the space provided.
2. Answer ALL questions in the spaces provided.
3. No pages may be torn from this answer book.
4. Read the instructions printed on your timetable carefully as well as any other instructions which may be given in each examination paper.
5. Candidates may not retain an answer book or remove it from the examination room.
6. Answers must be written in black/blue ink as distinctly as possible.
7. Do not write in the margins.
8. If you require additional space for your answers:
 - 8.1 Use the additional space provided at the end of the answer book.
 - 8.2 When answering a question in the additional space, indicate clearly the question number in the column on the left-hand side.
9. Draw a neat line through any work/rough that must not be marked.

QUESTION 1

	Solution	Marks
1.1.1		(2)
1.1.2		(2)
1.1.3		(2)
1.1.4		(2)
1.1.5		(3)
1.2.1		(2)
1.2.2		(2)
1.2.3		(2)
1.2.4		(2)
1.2.5		(3)
1.3.1		(2)
1.3.2		(2)
1.3.3		(2)
1.3.4		(2)
		[30]

QUESTION 1.2

ANNEXURE A



[Source: nbcblosangeles.com]

QUESTION 2

ANNEXURE B

QUESTION 2.1

SPORTS WAREHOUSE TAX INVOICE

To: Tennis Academy PO Box 167 Rustenburg 0300		Invoice number: TC 123568 Invoice Date: 02/02/2023	
DESCRIPTION	UNIT PRICE	QUANTITY	AMOUNT (VAT inclusive)
Rolling tennis ball basket	R1 390,44 (excl VAT)	8	R12 792,08
Adult tennis racket Power pro	R2 099,00 (incl VAT)	16	
Tennis ball TB930 4-pack - yellow	R249,00 (incl VAT)	A	
Yonex Pro 9 racket bag		3	R8 097,01
		Tax invoice total	R67 314,09
Banking details: Bank/Acc. Name: ABSA Account number: 4215 *** 1202 Branch name: Rustenburg Mall Branch code: 602 556		Term and conditions: Payment is due within 15 days	
Thank You For your Business			

[Source: Adapted from original tax invoice]

NOTE: Purchase more than 10 adult rackets, get one FREE.

QUESTION 2

	Solution	Marks
2.1.1		(3)
2.1.2		(5)
2.1.3		(7)

	Solution	Marks
2.2.1		(2)
2.2.2		(3)
2.2.3		(4)
2.2.4		(9)
2.2.5		(2)
		[35]

QUESTION 3

	Solution	Marks
3.1		(2)
3.2		(2)
3.3		(3)
3.4		(3)
3.5.1		(7)
3.5.2		(3)
3.6		(2)
3.7		(4)
		[26]

QUESTION 4

ANNEXURE C

QUESTION 4.1

TABLE 4: 10 HIGHEST-PAID TENNIS PLAYERS IN THE WORLD (2024) AS PER TOTAL EARNINGS

RANK	TENNIS PLAYER	GENDER	AGE	NATIONALITY	TOTAL EARNINGS	ON-COURT EARNINGS	OFF-COURT EARNINGS	HEIGHT IN METER
1	Carlos Alcaraz	M	21	Spain	\$42,3 Million	\$10,3 Million	\$32 Million	1,83
2	Novak Djokovic	M	37	Serbia	\$37,2 Million	\$12,2 Million	\$25 Million	1,88
3	Coco Gauff	F	20	USA	\$27,1 Million	\$7,1 Million	\$20 Million	1,75
4	Iga Swiatek	F	23	Poland	\$26,7 Million	\$11,7 Million	\$15 Million	1,76
5	Jannik Sinner	M	23	Italy	\$26,6 Million	\$11,6 Million	\$15 Million	1,92
6	Rafael Nadal	M	38	Spain	\$23,3 Million	\$0,3 Million	\$23 Million	1,85
7	Daniil Medvedev	M	28	Russia	\$20,3 Million	\$7,3 Million	\$13 Million	1,98
8	Naomi Osaka	F	26	Japan	\$14,6 Million	\$0,6 Million	\$14 Million	1,80
9	Casper Ruud	M	25	Norway	\$13,9 Million	\$3,9 Million	\$10 Million	1,83
10	Aryna Sabalenka	F	26	Belarus	\$13,7 Million	\$6,7 Million	\$7 Million	1,82

[Source: Adapted from <https://www.jagranjosh.com/general-knowledge/highest-paid-tennis-players-in-the-world-1695205855-1>]

QUESTION 4

	Solution	Marks
4.1.1		(2)
4.1.2		(3)
4.1.3		(3)
4.1.4 (a)		(2)
4.1.4 (b)		(4)
4.1.5		(5)
4.1.6		(4)

	Solution	Marks
4.2.1		(2)
4.2.2		(4)
		[29]



QUESTION 5

ANNEXURE D

QUESTION 5.1

TABLE 5: 2024/2025 FEDERAL TAX BRACKETS

RATE	SINGLE	MARRIED FILING JOINTLY	MARRIED FILING SEPARATELY	HEAD OF HOUSEHOLD
10%	\$0 – \$11 600	\$0 – \$23 200	\$0 – \$11 600	\$0 – \$16 550
12%	\$11 600 – \$47 150	\$23 200 – \$94 300	\$11 600 – \$47 150	\$16 550 – \$63 100
22%	\$47 150 – \$100 525	\$94 300 – \$201 050	\$47 150 – \$100 525	\$63 100 – \$100 500
24%	\$100 525 – \$191 950	\$201 050 – \$383 900	\$100 525 – \$191 950	\$100 500 – \$191 950
32%	\$191 950 – \$243 725	\$383 900 – \$487 450	\$191 950 – \$243 725	\$191 950 – \$243 700
35%	\$243 725 – \$609 350	\$487 450 – \$731 200	\$243 725 – \$365 600	\$243 700 – \$609 350
37%	\$609 350+	\$731 200+	\$365 600+	\$609 350+

[Source: Adapted from smartasset.com/taxes/current]

ANNEXURE E

QUESTION 5.1

TABLE 6: INCOME TAX OF INDIVIDUALS AND TRUSTS FOR YEAR ENDING 28 February 2024

Tax Bracket	Taxable Income (in Rand)	Rate of Tax (in Rand)
1	0 – 237 100	18% of taxable income
2	237 101 – 370 500	42 678 + 26% of taxable income above 237 100
3	370 501 – 512 800	77 362 + 31% of taxable income above 370 500
4	512 801 – 673 000	121 475 + 36% of taxable income above 512 800
5	673 001 – 857 900	179 147 + 39% of taxable income above 673 000
6	857 901 – 1 817 000	251 258 + 41% of taxable income above 857 900
7	1 817 001 and above	644 489 + 45% of taxable income above 1 817 000

TAX REBATE TYPE	2024/2025
Primary (All individuals)	R17 235
Secondary (Age 65 to below 75)	R9 444
Tertiary (Age 75 and older)	R3 145

TAX THRESHOLDS	2024/2025
Below age 65	R95 750
Age 65 to below 75	R148 217
Age 75 and older	R165 689

MEDICAL AID ~ MONTHLY TAX CREDITS	2024/2025
Main member	R364
First dependant	R364
Each additional member	R246

[Adapted from onlinetax.sagesouthafrica.co.za]

QUESTION 5

	Solution	Marks
5.1.1		(2)
5.1.2		(3)
5.1.3		(4)
5.1.4		(10)

	Solution	Marks
5.2.1		(3)
5.2.2		(3)
5.2.3		(3)
5.2.4		(2)
		[30]

	Additional space	Marks
		

TOTAL: 150



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 V1**

SEPTEMBER 2025

MARKING GUIDELINES/NASIENRIGLYNE

MARKS/PUNTE: 150

Symbol/Kode	Explanation/Verduideliking
M	Method/Metode
MA	Method with accuracy/Metode met akkuraatheid
CA	Consistent accuracy/Volgehoue akkuraatheid
A	Accuracy/Akkuraatheid
C	Conversion/Herleiding
S	Simplification/Vereenvoudiging
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
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 12 pages/
Hierdie nasienriglyne bestaan uit 12 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 the graph, table, layout plan and map, then penalise for any 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 op by die tweede berekeningsfout of 'breakdown'.
- Wanneer 'n kandidaat aflesings vanaf 'n grafiek, tabel, uitlegplan en kaart geneem en ekstra antwoorde gee, penaliseer vir elke ekstra item.
- Afrondings tel as 'n afsonderlike punt.
- Die algemene beginsel van merk as 'n leerder een fout maak, word een punt afgetrek.
- 'n Gevolgtrekkingspunt kan slegs gegee word indien relevante 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 [30 MARKS/PUNTE] ANSWER ONLY FULL MARKS			
Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
1.1.1	A South African Citizen/ 'n Suid-Afrikaanse burger ✓✓A OR/OF Permanent resident or Refugee at the time of application/ Permanente inwoner of vlugteling met die tyd van aansoek ✓✓A	2A answer (2)	F L1 E
1.1.2	R259 300 000 000 ✓✓A	2A answer (2)	F L1 E
1.1.3	✓MA Monthly threshold = $R92\,520 \div 12$ = R7 710 ✓M	1MA correct value divided by 12 1A answer (2)	F L1 E
1.1.4	R1 180 ✓✓A	2A answer (2)	F L1 E

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
1.1.5	 $R2\ 190 + R20$ $= R2\ 210$ ✓MA $= R2\ 210 - R2\ 100$ ✓MA $R110$ ✓A	1MA adding correct values 1MA subtract R2 100 from the correct answer 1A answer (3)	F L1 M
1.2.1	 Stacked bar graph/ <i>Stapelgrafiek</i> ✓✓A	2A compound stacked bar graph (2)	D L1 E
1.2.2	Survey, Observation/ <i>Opname, Observasie</i> ✓✓A	2A Survey (2)	D L1 E
1.2.3	Day 5/ <i>Dag 5</i> ✓✓A	2A Day 5 (2)	D L1 M
1.2.4	 number of medals $= 5 + 6 + 7$ ✓MA $= 18$ medals/ <i>medaljes</i> ✓A	1MA adding correct values 1A 18 medals (2)	D L1 E
1.2.5	 $40 : 126$ ✓MA $20 : 63$ ✓A	1A correct values 1MCA correct order 1CA simplified as a ratio (3)	D L1 M
1.3.1	G ✓✓A Accept: The rate of increase in prices over a given period of time./ Aanvaar: <i>Die styging in die prysvlakke oor 'n gegewe tydperk.</i>	2A correct answer (2)	F L1 E
1.3.2	E ✓✓A Accept: $IQR = Q_3 - Q_1$ / Aanvaar: $IKO = K_3 - K_1$	2A correct answer (2)	D L1 E
1.3.3	C ✓✓A Accept: The point at which the total cost and total revenue are equal./ Aanvaar: <i>Die punt waar die totale uitgawes en die totale inkomste gelyk is.</i>	2A correct answer (2)	F L1 E
1.3.4	A ✓✓A Accept: The middle value of an arranged set of data/ Aanvaar: <i>Die middelwaarde van 'n geordende datastel.</i>	2A correct answer (2)	D L1 E
		[30]	

QUESTION/VRAAG 2 [35 MARKS/PUNTE]			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
2.1.1	$\checkmark$ MA $30 \times 8 = 240$ balls/balle $\checkmark$ MA $240 \div 4 = 60$ containers/houers $\checkmark$ A	1MA multiply 30 with 8 1MA dividing answer by 4 1A correct answer (3)	F L2 E
2.1.2	Amount VAT excluded/Bedrag BTW uitgesluit $\checkmark$ RT $\checkmark$ MA $R8\ 097,01 \div 1,15$ $= R7\ 040,88$ $\checkmark$ A $= R7\ 040,88 \div 3$ $\checkmark$ MCA $= R2\ 346,96$ $\checkmark$ CA OR/OF $\checkmark$ RT $\checkmark$ MA $R8\ 097,01 \times \frac{100}{115}$ $= R7\ 040,88$ $\checkmark$ A $= R7\ 040,88 \div 3$ $\checkmark$ MCA $= R2\ 346,96$ $\checkmark$ CA	1RT correct value 1MA divide with 115%/1,15 1A correct answer 1MCA divide by 3 1CA simplification 1RT correct value 1MA multiplying with $\frac{100}{115}$ 1A correct answer 1MCA divide by 3 1CA simplification (5)	F L3 E
2.1.3	Tennis balls/Tennisballe $\checkmark$ MA $60 \times R249$ $= R14\ 940$ $\checkmark$ A Rolling tennis ball basket/Tennisbalmandjies met wiele $R12\ 792,08$ Rackets/Rakette $(16 - 1 = 15)$ 1 for free/1 verniet $\checkmark$ A $R2\ 099 \times 15$ $R31\ 485$ $\checkmark$ MCA $\checkmark$ MA Racket bags/Raketsakke R8 097,01 Total cost/Totale koste $\checkmark$ MCA R14 940 + R12 792,08 + R31 485 + R8 097,01 R67 314,09 $\checkmark$ CA	CA from number of balls from 2.1.1 1MCA multiplying correct value with 60 1CA correct answer 1A correct value 15 1MCA multiplying by R2 099 1CA correct answer 1MCA adding all costs 1CA correct cost (7)	F L3 M

Q/V	Solution/Opslossing	Explanation/Verduideliking	T&L
2.2.1	$\checkmark\checkmark$ RT Two options	2RT correct answer (2)	F L1 E
2.2.2	$\checkmark$ RT $R59\,515 \times 3 \checkmark A$ $= R178\,545 \checkmark A$	1RT correct value 1MA multiply by 3 1A correct answer (3)	F L2 E
2.2.3	$\frac{R22\,781,75}{R178\,545} \times 100\% \checkmark MCA$ $\checkmark MA$ $= 12,8\% \checkmark CA$ $= 13\% \checkmark R$	CA from 2.2.2 1MCA correct fraction 1MA multiplying by 100% 1CA simplification 1R rounded answer (4)	F L2 M
2.2.4	Interest paid/rente betaal Year 1/Jaar 1 $R59\,515 \times 112,5\% \checkmark MA$ $= R66\,954,375 \checkmark MA$ Year 2/Jaar 2 $R66\,954,375 \times 112,5\%$ $= R75\,323,67188 \checkmark MA$ $12,5\% \times \frac{6}{12} = 6,25\% \checkmark MA$ $R75\,323,67188 \times 6,25\%$ $= R4\,707,729492 \checkmark CA$ $R75\,323,67188 + R4\,707,729492$ $= R80\,031,40137 \checkmark MCA$ $= R80\,031,40137 - 59\,515 \checkmark MCA$ $= R20\,516,40 \checkmark CA$ $\checkmark O$ Lorenzo's statement is CORRECT. <i>Lorenzo's bewering is KORREK.</i>	 1MA calculating percentage 1MA first year final amount 1MA second year final amount 1MA calculating percentage 1CA 6 months interest amount 1MCA correct final amount 1MA subtract 59 515 from final amount 1CA correct answer 1O conclusion	F L4 D

	OR/OF Year 1/Jaar 1 $R59\,515 \times 12,5\%$ ✓MA $= R7\,439,38$ (A) $= R7\,439,38 + R59\,515$ ✓CA $= R66\,954,375$ ✓A Year 2/Jaar 2 $R66\,954,375 \times 12,5\%$ $= R8\,369,30$ (B) $= R8\,369,30 + R66\,954,375$ $= R75\,323,67188$ ✓MA $12,5\% \times \frac{6}{12} = 6,25\%$ ✓MA $R75\,323,67188 \times 6,25\%$ $= R4\,707,729492$ (C) ✓CA $R75\,323,67188 + R4\,707,729492$ $= R80\,031,40137$ $= A + B + C$ ✓MCA $= R7\,439,38 + R8\,369,30 + R4\,707,729492$ $= R20\,516,40$ ✓CA ✓O Lorenzo's statement is CORRECT. <i>Lorenzo's bewering is KORREK.</i> OR/OF Interest paid/<i>rente betaal</i> ✓✓MC ✓MCA ✓✓MCA $R59\,515 \times 112,5\% \times 112,5\% \times 106,25\% - 59\,515$ ✓MCA ✓MCA $= R80\,031,40137 - 59\,515$ $= R20\,516,40$ ✓MCA ✓O Lorenzo's statement is CORRECT. <i>Lorenzo's bewering is KORREK.</i>	1MA multiply with 12,5% 1MCA adding correct values 1A year 1 correct amount 1MA second year final amount 1MA calculating percentage 1CA 6 months interest amount 1MCA adding correct values 1CA correct answer 1O conclusion	(9)
2.2.5	To avoid paying interest/ <i>Om die betaal van rente te vermy.</i>	2A opinion	F L4 M
			[35]

QUESTION/VRAAG 3 [26 MARKS/PUNTE]			
Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
3.1	Australia/Australië ✓✓A	2A correct country (2)	D L1 E
3.2	Shooter 2/Doel 2 ✓A South Africa/Suid-Afrika ✓A	1A correct shooter 1A correct country (2)	D L1 E
3.3	100 ✓A 91 ✓A 89 ✓A	1A 100 1A 91 1A 89 (3)	D L2 M
3.4	71, 78, 82, 89, 91, 91, 92, 93, 100, 100, 100 ✓MA Median/Mediaan = $(91+92) \div 2$ ✓MA = 91,5 ✓CA	1MA arranging data in ascending order 1MA concept of median 1CA correct median (3)	D L2 M
3.5.1	New Zealand/ Nieu-Seeland 67, 79, 80, 89, 89, 91, 91, 92, 94, 96, 100, 100 ✓MA $Q1 = \frac{80+89}{2}$ ✓MA $Q1 = 84,5$ ✓A $Q2 = 91$ $Q3 = \frac{94+96}{2}$ $Q3 = 95$ ✓A ✓MA $IQR = Q3 - Q1$ ✓MA = $95 - 84,5$ ✓A = 10,5% ✓CA	1MA arrange correct data in ascending order 1MA correct quartile 1 1A answer 1A quartile 3 1A correct formula 1CA subtracting values 1CA simplification (7)	D L3 M
3.5.2	✓CA Australia, smaller IQR indicates more consistency ✓✓O Australië, die kleiner IKO toon meer konsekwentheid aan	1CA correct country 2O conclusion (3)	D L4 D
3.6	✓✓A Player was injured/ill/disqualified/tired/replaced/substituted Speler was beseer/siek/gediskwalifiseer/moeg/vervang	2A any one reason (2)	D L4 E
3.7	✓MA $\frac{7}{45} \times 100$ ✓MA ✓MA = 15,56% ✓R	1MA correct numerator 1MA correct denominator 1MA % calculation 1R rounding (4)	P L3 M
		[26]	

QUESTION/VRAAG 4 [29 MARKS/PUNTE]			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
4.1.1	Daniil Medvedev ✓RT 1,98 m ✓RT	1RT Daniil Medvedev 1RT 1,98 m (2)	D L1 E
4.1.2	Range = Highest – Lowest/ <i>Omvang = Hoogste - Laagste</i> = 38 – 20 ✓MA = 18 ✓A	1MA concept of mean 1MA subtracting correct values 1A answer (3)	D L2 E
4.1.3	✓A ✓MA \$10,3 million + \$12,2 million + \$11,7 million + \$11,6 million + \$7,3 million = \$53,1 million ✓CA	1A correct 5 values 1MA adding the values 1CA correct answer (3)	F/D L2 E
4.1.4 (a)	✓✓A The value of one currency for the purpose of conversion to another/ <i>Die koers waarteen een geldeenheid vir 'n ander omgeruil sal word.</i>	2A correct definition (2)	F L1 E
4.1.4 (b)	✓MA \$32 million + \$23 million = \$55 million \$55 million × 0,8996 ✓MCA = €49 478 000/€49,478 million ✓CA	1MA adding correct values 1A answer 1MCA multiply with 0,8996 1CA answer in euros (4)	F L2 M
4.1.5	Percentage female earnings/ <i>Persentasie vroulike inkomste</i> \$27,1 million + \$26,7 million + \$14,6 million + \$13,7 million = \$82,1 million ✓A $\frac{\$82,1 \text{ million}}{\$245,7 \text{ million}} \times 100\% \text{ ✓MCA}$ $= 33,41473341\% \text{ ✓CA}$ $= 33,415\% \text{ ✓CA}$ OR/OF \$27 100 000 + \$26 700 000 + \$14 600 000 + \$13 700 000 = \$82 100 000 ✓A $\frac{\\$82\,100\,000}{\\$245\,700\,000} \times 100\% \text{ ✓MCA}$ $= 33,41473341\% \text{ ✓CA}$ $= 33,415\% \text{ ✓CA}$	1A correct total values 1MCA divided by 245,7 1MCA percentage calculation 1CA answer 1CA correct rounded answer 1A correct total values 1MCA divided by 245,7 1MCA percentage calculation 1CA answer 1CA correct rounded answer	F/D L4 D

		(5)	
Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
4.1.6	 $\text{Mean/Gemiddeld} = \frac{\checkmark \text{ RT } (10,3+12,2+11,6+0,3+7,3+3,9+6,7)\text{MM}}{6}$ $= \frac{45,6 \text{ MM}}{6} \checkmark \text{ MA}$  $= 7,6 \text{ million (MM) OR/OF } 7\,600\,000$	$\checkmark \text{ MA}$ 1RT correct values 1MA concept of mean 1MA divided by 6 1A answer in millions (4)	D L2 M
4.2.1	$2 + 5 + 7 = 14$ $\frac{7}{14} = \frac{1}{2} \checkmark \text{ A}$ $\checkmark \text{ A}$  OR/OF $\checkmark \checkmark \text{ A}$ Half of the amount/Helfte van die bedrag	1A adding ratio (14) 1A answer 2A correct answer (2)	F L1 E
4.2.2	$\checkmark \text{ A}$ $\frac{5}{14} \times \text{£ } 175\,000 \checkmark \text{ MA}$ $= \text{£}62\,500 \checkmark \text{ CA}$ $\checkmark \text{ O}$ His statement is CORRECT/Sy bewering is KORREK.	CA denominator from 4.2.1 1A correct ratio 1MA multiplying with £175 000 1CA correct answer 1O conclusion (4)	F L4 M
		[29]	

QUESTION/VRAAG 5 [30 MARKS/PUNTE]			
Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
5.1.1	$\checkmark$ MA $2025 - 1959$ $= 66 \text{ years/jare}$ $\checkmark$ A	1MA subtracting two correct years 1A correct answer AO (2)	F L1 E
5.1.2	$\checkmark$ RT $\checkmark$ MCA $\$256\,800 \times 35\%$ $= \$89\,880$ $\checkmark$ CA (If no dollar unit penalise with one mark/indien geen dollar eenheid penaliseer met een punt)	1RT correct rate 1MCA multiplied by 35% 1CA correct answer (3)	F L2 E
5.1.3	Total medical credit/Totale mediese korting $\checkmark$ MA $\checkmark$ MA $= (R364 \times 2) + (R246 \times 7)$ $= R728 + R1\,722$ $= R2\,450 \times 12$ $\checkmark$ MCA $= R29\,400$ $\checkmark$ CA	1MA multiplying R364 by 2 1MA multiplying R246 by 7 1MCA calculating annual amount 1CA correct answer (4)	F L2 M
5.1.4	Tax payable in South Africa / <i>Belasting betaalbaar in Suid-Afrika</i> $\checkmark$ MA $\$256\,800 \times 17,1232$ $= R4\,397\,237,76$ $\checkmark$ A $\checkmark$ RT $\checkmark$ S $R644\,489 + 45\% (4\,397\,237,76 - 1\,817\,000)$ $= R644\,489 + 45\% (2\,580\,237,76)$ $= R644\,489 + 1\,161\,106,992$ $\checkmark$ CA $= R1\,805\,595,992 - 29\,400$ $= R1\,776\,195,992 - (17\,235 + 9\,444)$ $\checkmark$ MCA $= R1\,749\,516,99$ $\checkmark$ CA Tax payable in U.S / <i>Belasting betaalbaar in VSA</i> $\checkmark$ MCA $\$89\,880 \times 17,1232$ $R1\,539\,033,22$ $\checkmark$ CA $\checkmark$ O John McEnroe will pay less tax in the U.S./John McEnroe sal minder belasting betaal in die VSA	CA from 5.1.2 and 5.1.3 1MA multiply by 17,1232 1A correct answer 1RT correct tax bracket 1S substitution of correct value 1CA simplification 1MCA subtracting medical credit and rebate 1CA correct answer 1MCA multiply by 17,1232 1A correct answer 1O conclusion (10)	F L3 M

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
	OR/OF Tax payable in South Africa / <i>Belasting betaalbaar in Suid-Afrika</i> ✓MA $\\$256\,800 \times 17,1232$ $= R4\,397\,237,76$ ✓A ✓RT ✓S $R644\,489 + 45\% (4\,397\,237,76 - 1\,817\,000)$ $= R644\,489 + 45\% (2\,580\,237,76)$ $= R644\,489 + 1\,161\,106,992$ ✓CA $= R1\,805\,595,992 - 29\,400$ $= R1\,776\,195,992 - (17\,235 + 9\,444)$ } ✓MCA $= R1\,749\,516,99$ ✓CA $R1\,749\,516,99 \div 17,1232$ ✓MCA $= \\$102\,172,32$ ✓CA Tax payable in U.S / <i>Belasting betaalbaar in VSA</i> \$ 89 880 ✓O John McEnroe will pay less tax in the U. S/ <i>John McEnroe sal minder belasting betaal in die VSA</i>	CA from 5.1.2 and 5.1.3 1MA multiply by 17,1232 1A correct answer 1RT correct tax bracket 1S substitution of correct value 1CA simplification 1MCA subtracting medical credit and rebate 1CA correct answer 1MCA divide by 17,1232 1A correct answer 1O conclusion (10)	
5.2.1	✓RT $44\,775 - 16\,337$ ✓RT $= 28\,438$ ✓A	1RT correct value 1RT correct value 1CA simplification (3)	D L2 E
5.2.2	% Difference = $\frac{2021 \text{ sales} - 2020 \text{ sales}}{2020 \text{ sales}} \times 100\%$ ✓MA ✓SF $= \frac{329\,190 - 122\,607}{122\,607} \times 100\%$ $= \frac{206\,583}{122\,607} \times 100\%$ ✓S $= 168,492\% \approx 168\%$	1MA correct formula 1SF substitution 1S simplification (3)	D L2 D

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
5.2.3	$\frac{6}{24}$ ✓RT $= 0,25$ ✓CA	1RT correct numerator 1RT correct denominator 1CA correct decimal (3)	P L3 M
5.2.4	✓A From March 2021 there was a strong decline in the sales for 2 ✓A months but in June and July increased rapidly/ <i>Van Maart 2021 was daar 'n sterk vermindering in verkope,</i> <i>maar van Junie en Julie was daar 'n skielike styging in verkope.</i>	1O strong decline 1O rapid incline (2)	D L4 E
		[30]	
		TOTAL/TOTAAL: 150	