



KWAZULU-NATAL PROVINCE

EDUCATION
REPUBLIC OF SOUTH AFRICA

**PROVINCIAL STANDARDISED
ASSESSMENT**

GRADE 12

MATHEMATICAL LITERACY P1
PREPARATORY EXAMINATION

SEPTEMBER 2026

MARKS: 150

TIME: 3 hours

**This question paper consists of 15 pages and
a 14-page Special ANSWER BOOK.**

INSTRUCTIONS AND INFORMATION

1. This question paper consists of FIVE questions.
2. Answer ALL the questions in the SPECIAL ANSWER BOOK provided.
3. You may use an approved calculator (non-programmable and non-graphical), unless stated otherwise.
4. Show ALL calculations clearly.
5. Round off ALL final answers appropriately according to the given context, unless stated otherwise.
6. Indicate units of measurement, where applicable.
7. Diagrams are NOT necessarily drawn to scale, unless stated otherwise.
8. Write neatly and legibly.



QUESTION 1

1.1 TABLE 1 below gives statements and definitions of terminology used in Mathematical Literacy.

TABLE 1: STATEMENTS AND DEFINITIONS OF CONCEPTS

LETTER	DEFINITION
A	Amounts that may be subtracted from a person's gross income to reduce the taxable income, thereby lowering the amount of income tax payable.
B	Data that is obtained through measurement and can take any value within a given range.
C	The portion of a person's income on which income tax is calculated after all allowable deductions have been subtracted from the gross income.
D	Value(s) that is abnormally large or small compared to the other values in a data set.
E	Data that can be put into groups.
F	The likelihood or chance of an event occurring.
G	What one foreign currency is worth in terms of the rand.
H	A statement about a future event or outcome.

Use TABLE 1 above and match the statements and definitions with the terminology below. Write only the letter (A-H) next to the question numbers (1.1.1 to 1.1.5), e.g., 1.1.6 J.

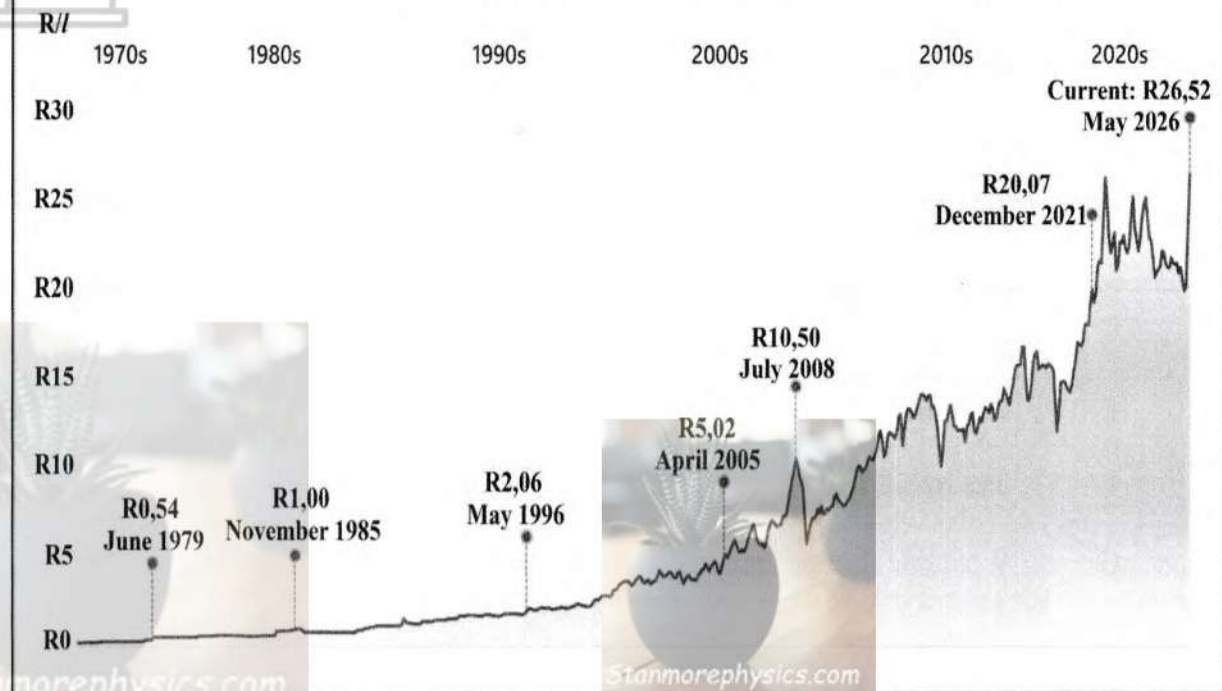
- 1.1.1 Deductions (2)
- 1.1.2 Probability (2)
- 1.1.3 Taxable income (2)
- 1.1.4 Continuous data (2)
- 1.1.5 Outlier (2)

1.2

The graph below shows the price of inland 93-octane petrol in South Africa (SA) over a 50-year period, from 1976 to 2026.

**GRAPH SHOWING THE PRICE OF INLAND 93-OCTANE PETROL
OVER A 50-YEAR PERIOD IN SA**

A 50-year tour of the South African petrol price in rands per litre (R/l)



[Adapted from www.statssa.gov.za]

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

- 1.2.1 Write down the month, year and petrol price for the period when the petrol price was less than R1,00 per litre. downloaded from Stanmorephysics.com (2)
- 1.2.2 Identify the decade in which the petrol price first exceeded R20,00 per litre. (2)
- 1.2.3 Determine the difference between the petrol prices in May 1996 and May 2026. (3)
- 1.2.4 State the unit of the petrol price as shown on the graph. (2)

- 1.3 Scubank provides loans to new and existing scuba divers to finance their underwater exploration activities. The loan amounts and monthly repayments for different repayment periods are provided in TABLE 2 below.

TABLE 2: SCUBANK - LOAN AMOUNT AND MONTHLY REPAYMENT

LOAN AMOUNT	LOAN TERM (MONTHS)			
	12	24	36	48
	ESTIMATED MONTHLY REPAYMENT AMOUNT			
R 8 000	R 785,43	R 441,81	R 328,35	R272,42
R12 000	R1 160,65	R 645,22	R 475,03	R391,13
R15 000	R1 442,02	R 797,75	R 585,01	R480,15
R20 000	R1 911,08	R1 052,03	A	R628,55
R30 000	R2 849,12	R1 560,54	R1 135,06	R925,32

[Adapted from www.scubank.co.za]

Use TABLE 2 and the information above to answer the questions that follow.

- 1.3.1 Write down the maximum loan repayment period, in years, shown in the above table. (2)
- 1.3.2 Round off the estimated monthly repayment for a R20 000 loan over a 12-month term to the nearest thousand rand. (2)
- 1.3.3 A scuba diver takes a loan of R30 000 and repays it over two years. Calculate the total amount to be paid back using the estimated monthly repayment amount. (2)
- 1.3.4 A scuba diver borrowed R20 000. If she repays a total of R27 661,68 over 36 months, calculate the missing value A, the monthly repayment amount. (2)
- 1.3.5 Determine the difference between the estimated monthly repayment amount for a R15 000 loan amount over 12 months and a R12 000 loan amount over 24 months. (3)

[30]

QUESTION 2

- 2.1 Xolani Zulu owns a business that makes and sells traditional Zulu attire for men. It costs him R1 200 to produce one set of five items, which he sells for R3 600. His monthly fixed expenses include a craft shop rental of R6 400 and an assistant's salary of R8 000.

IMAGES OF A SET OF FIVE TRADITIONAL ZULU ATTIRE ITEMS FOR MEN



[Adapted from Xolani's Craft Shop]

NOTE: Total Income = R3 600 × Number of sets sold

Use the information above to answer the questions that follow.

- 2.1.1 Determine Xolani's total monthly fixed costs. (2)
- 2.1.2 Write down a formula to calculate the total monthly cost of producing the traditional Zulu attire. downloaded from Stanmorephysics.com
- Total Cost = ...** (2)
- 2.1.3 Calculate Xolani's monthly profit if he sells 9 sets of traditional Zulu attire.
- You may use the formula:
- Total Income = Total Cost + Profit** (6)
- 2.1.4 Give ONE reason why it is important for Xolani to know the break-even point. (2)

- 2.2 Xolani wants to purchase a small shop in town and convert it into a craft shop. He found a small shop advertised for R260 000. Standard Bank is willing to grant him a loan to finance the purchase. The results obtained from the Standard Bank online loan calculator are shown below.

STANDARD BANK ONLINE LOAN CALCULATOR SHOWING THE DETAILS OF A LOAN FOR R260 000.

How much will you pay each month?

Purchase price
R **260000**

Deposit optional
R **26000**

Variable interest rate
10 %

Loan term in years
20 Years

Your estimated monthly repayment will be
R 2 258
Per month over 240 months

QUALIFY ME **APPLY NOW**

[T&CS FOR INDIVIDUALS >](#)
[T&CS FOR LEGAL ENTITIES >](#)

[Adapted from www.standardbank.co.za]

Use the information above to answer the questions that follow.

- 2.2.1 Express the deposit as a percentage of the purchase price. (2)
- 2.2.2 Determine the loan amount after the deposit has been paid. (2)
- 2.2.3 Calculate the total amount of interest that Xolani will pay over the loan term (4)
- 2.2.4 Xolani claims that the monthly repayment obtained from the Standard Bank online loan calculator is R0,10 less than the monthly repayment obtained from a loan factor table.

Verify, with calculations, whether his claim is VALID.

- **Loan factor:** 9,65
- **Interest rate:** 10% per annum
- **Loan term:** 20 years

You may use the formula:

$$\text{Monthly repayment} = \text{Loan Amount} \times \text{Loan factor} \div 1\,000 \quad (4)$$

- 2.3 At the beginning of January 2023, Xolani invested R40 000 with African Bank for a period of three years, ending on 31 December 2025. The investment earned an interest of 7,12% per annum, compounded half-yearly, for the first two years. At the beginning of the third year, he withdrew the accumulated amount and reinvested it at a simple interest rate of 9,8% per annum for the remaining year, until December 2025. He plans to use the accumulated amount to help finance the purchase of a craft shop.

Use the information above to answer the questions that follow.

- 2.3.1 Explain why reinvesting money can increase the final amount received. (2)
- 2.3.2 The investment was worth R44 425,88 at the end of $1\frac{1}{2}$ years. Calculate, manually, the total value of the investment at the end of the 3-year investment period. (6)

[32]



QUESTION 3

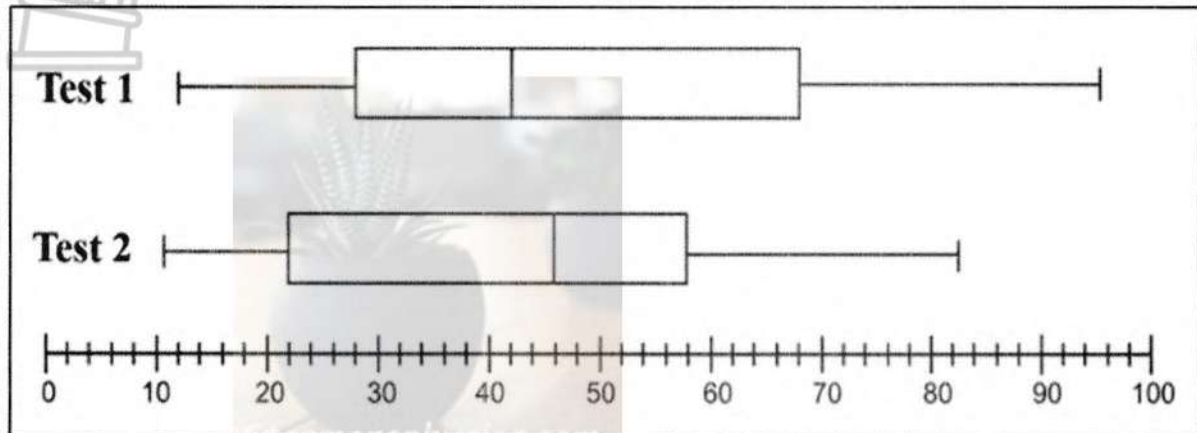
- 3.1 The government introduced the National School Nutrition Programme (NSNP) in 1994. The graph in ANNEXURE A in the ANSWER BOOK shows the number of learners who benefited from the programme in each province in January 2025. The number of learners for KwaZulu-Natal has been omitted.

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

- 3.1.1 Identify the two provinces whose values are used to calculate the range of the data. (2)
- 3.1.2 State another type of graph that could be used to represent the data shown above. (2)
- 3.1.3 Write down type of data is represented by the names of the provinces. (2)
- 3.1.4 Determine the median number of learners benefiting from the nutrition programme and name the corresponding province. (3)
- 3.1.5 The mean number of learners who benefited from the programme is 1 089 024,889. A Mathematical Literacy learner claimed that the missing value, **B**, is 2 437 259 rounded to the nearest whole number. Calculate the missing value **B** and verify, with calculations, whether the learner's claim is VALID. (5)
- 3.1.6 The total number of learners who benefited from the programme across the nine provinces is 9 801 224. Calculate the percentage of total beneficiaries who were from the Eastern Cape. Round off your answer to ONE decimal place. (3)

- 3.2 A total of 350 Mathematical Literacy learners from uMhlathuze Circuit in King Cetshwayo District wrote two tests during the Term 1 Circuit Boot Camp. The diagram below shows the marks as a percentage obtained in the two tests. The pass mark for Test 1 and Test 2 is 30%.

GRAPHS SHOWING THE MARKS AS A PERCENTAGE OBTAINED BY THE MATHEMATICAL LITERACY LEARNERS IN TEST 1 AND TEST 2.



[Adapted from the boot camp tests]

NOTE: A school boot camp is a rigorous, short-term educational program designed to help learners quickly improve their academic performance, behavior, or exam readiness.

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

- 3.2.1 Name the type of graph shown above. (2)
- 3.2.2 Determine the approximate number of learners whose marks fall within the upper quartile for Test 1. (2)
- 3.2.3 Calculate the interquartile range for Test 2. (4)
- 3.2.4 Compare the marks obtained in Test 1 and Test 2, and hence draw a conclusion about the learners' performance. (2)

[27]

QUESTION 4

- 4.1 Njabulo opened a MyPocket account with Nedbank. TABLE 3 below shows the fees charged for cash deposits and cash withdrawals on this account.

TABLE 3: MyPOCKET ACCOUNT TRANSACTION FEES - NEDBANK 2026

Transaction Type	ATM/Card	Branch
Cash deposit	R2,20 per R100 or part thereof	R100 + R2,85 per R100 or part thereof
Cash withdrawal: Nedbank	R2,85 per R100 or part thereof	R100 + R2,85 per R100 or part thereof
Cash withdrawal: Other banks	R12 + R2,85 per R100 or part thereof	—
Coin deposit	—	R11 + R1,40 per R100 or part thereof. Min. R17,00.

downloaded from Stanmorephysics.com

[Adapted from www.nedbank.co.za]

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

- 4.1.1 Explain the meaning of the phrase *part thereof* in the given context. (2)
- 4.1.2 Njabulo withdrew R800 cash from a Nedbank ATM and, three hours later, he withdrew a further R500 cash from an FNB ATM. Calculate the total transaction fees charged for these two cash withdrawals. (6)
- 4.1.3 Njabulo collects coins and deposits them only after they have accumulated to a larger amount. He has coins to the value of R350 and banknotes to the value of R2 820, which he deposits at a Nedbank branch.
- Njabulo claims that he will be charged exactly R200 in deposit fees.
- Verify, with calculations, whether his claim is CORRECT. (7)
- 4.1.4 Give ONE reason why the bank charges higher fees for transactions conducted at a branch than for transactions conducted at one of its own ATMs. (2)

4.2

Daniel is a 64-year-old accounts clerk earning a monthly taxable income of R30 587 including allowances. Daniel does not contribute to any pension fund or medical aid schemes.

TABLE 4 below is used to determine tax-payers' monthly tax deduction.

TABLE 4: MONTHLY DEDUCTION PAYE TAX TABLE - 2026

Monthly Deduction Tax Tables				
Remuneration	Annual Equivalent	Tax		
		Under 65	65 - 75	Over 75
R30 381 – R30 531	R365 472	R4 800	R3 986	R3 715
R30 532 – R30 682	R367 284	R4 839	R4 025	R3 754
R30 683 – R30 833	R369 096	R4 878	R4 064	R3 794
N.B: Monthly rebate for tax payers below the age of 65 is R1 485.				

[Adapted from www.sars.gov.za]

Use TABLE 4 and the information above to answer the questions that follow.

4.2.1 Identify Daniel's monthly income tax deduction. (2)

4.2.2 Daniel claims that the monthly income tax calculated using the annual taxable income tax table is R43,37 higher than the monthly income tax determined using Table 4 above.

Verify, with calculations, whether Daniel's claim is VALID.

Use the RATES OF TAX formula:

Annual Tax Payable = R44 118 + 26% of taxable income above R245 100. (7)

- 4.3 Beinsure.com is a leading business-to-business (B2B) digital intelligence media platform focused on the insurance industry. TABLE 5 below shows the 11 richest people in the World in 2026 and their net worth, expressed in billions (bn) of US Dollars (US\$), according to Beinsure.com.

TABLE 5: ELEVEN RICHEST PEOPLE IN THE WORLD AND THEIR NET WORTH IN UNITED STATES DOLLARS (US\$)

Rank	Name of Person	Net worth (\$ billion)
1.	Elon Musk	970
2.	Larry Page	290
3.	Sergey Brin	270
4.	Jeff Bezos	253
5.	Michael Dell	219
6.	Mark Zuckerberg	200
7.	Larry Ellison	183
8.	Jensen Huang	167
9.	Bernard Arnault	152
10.	Warren Buffett	149
11.	Amancio Ortega	143

[Adapted from www.beinsure.com]

NOTE: The lower boundary value is the smallest value that a data point can have before it is considered an outlier. Any value below the lower boundary value is classified as an outlier.

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

- 4.3.1 Calculate the range of the net worth shown above. (2)
- 4.3.2 Explain why the interquartile range is considered a more reliable measure of spread than the range. (2)
- 4.3.3 Two Mathematical Literacy educators agreed that Elon Musk's net worth is an outlier but had different opinions about Amancio Ortega's net worth.

Verify, with calculations, whether Amancio Ortega's net worth is an outlier.

Use the formula:

$$\text{Lower Boundary Value (in bn \$)} = Q_1 - 1,5 \times (Q_3 - Q_1) \quad (6)$$

[36]

QUESTION 5

- 5.1 The 2026 FIFA World Cup was co-hosted by the United States of America, Canada and Mexico. South Africa was scheduled to play three group-stage matches: two in Mexico (11 June 2026 and 25 June 2026) and one in the United States of America (18 June 2026).

Lungelo, a Bafana Bafana supporter, had taken leave from work to travel with the national team. He had booked a return flight from Johannesburg to Mexico City at a cost of R23 834.

TABLE 6 below shows the exchange rates between the South African Rand (ZAR), the United States Dollar (USD) and the Mexican Peso (MXN).

TABLE 6: SHOWING CURRENCY AND EQUIVALENT VALUE

CURRENCY	EQUIVALENT VALUE
1 ZAR	0,060USD
1 USD	17,47MXN

[Adapted from www.wisecurrencyconverter.com]

TABLE 7 below shows Lungelo's itinerary, including his accommodation costs and arrangements.

TABLE 7: ITINERARY SHOWING ACCOMODATION AND COSTS

DATES	COUNTRY	ACCOMODATION	COST
Check-in: 9 June 2026 Check-out: 16 June 2026	Mexico (Mexico City)	Hotel	341,33 MXN per night
Check-in: 17 June 2026 Check-out: 23 June 2026	United States of America (Atlanta)	Staying with a friend	No Cost
Check-in: 24 June 2026 Check-out: 26 June 2026	Mexico (Mexico City)	Hotel	341,33 MXN per night

[Adapted from www.fifaworldcup26.suites.fifa.com]

Use TABLE 6, TABLE 7 and the information above to answer the questions that follow.

- 5.1.1 Calculate the total cost of accommodation in Mexico, in Mexican Pesos (MXN). (3)
- 5.1.2 The cost of a return flight ticket from Mexico City, Mexico, to Atlanta, USA, was 21 068,82 MXN. Use the exchange rates given above in Table 6 to calculate the equivalent amount in South African Rand. (4)
- 5.1.3 Calculate the total cost, in South African Rand, of Lungelo's airfares and accommodation for his trip to the 2026 FIFA World Cup. (6)

- 5.2 Lungelo's friend took him out for a pizza bite to Max's Coal Oven Pizzeria in Atlanta. TABLE 8 below shows the pizza variations and smoothie flavours.

TABLE 8: PIZZA AND SMOOTHIE FLAVOURS – MAX'S COAL OVEN PIZZERIA

PIZZA VARIATIONS	SMOOTHIE FLAVOURS
Rocky Mountain Pizza (R)	Strawberry Banana (SB)
Galla's Pizza (G)	Mixed Berry (MB)
Vintage Pizzeria (V)	Mango Pineapple (MP)
	Peach and Oat (PO)

[Adapted from www.maxsatl.com]

Use TABLE 8 and the information above to answer the questions that follow.

- 5.2.1 Refer to the two-way table below, complete the combinations for (i) and (ii) in the two-way table in the ANSWER BOOK.

		SMOOTHIE FLAVOURS			
		SB	MB	MP	PO
PIZZA	R	(R; SB)	(i)	(R; MP)	(R; PO)
	G	(G; SB)	(G; MB)	(ii)	(G; PO)
	V	(V; SB)	(V; MB)	(V; MP)	(V; PO)

(2)

- 5.2.2 One pizza-and-smoothie combination is selected at random from TABLE 8. Determine the probability, as a fraction in its simplest form, that the combination consists of Vintage Pizzeria and any smoothie flavour except for Peach and Oat. (3)

- 5.3 Lungelo's friend has a 13-year-old daughter, Nomusa, and is concerned about whether her weight is within a healthy range. He downloaded the BMI percentile curve shown in ANNEXURE B in the ANSWER BOOK to monitor her growth and weight.

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

- 5.3.1 Write down Nomusa's BMI as shown on the 75th percentile curve. (2)

- 5.3.2 Use Nomusa's BMI in 5.3.1 to calculate her height, in metres rounded off to TWO decimal places, if she weighs 48 kg.

You may use the formula:

$$\text{BMI} = \frac{\text{weight in kilograms}}{(\text{height in metres})^2}$$

(5)

[25]

TOTAL MARKS: 150



KWAZULU-NATAL PROVINCE

EDUCATION

REPUBLIC OF SOUTH AFRICA

ANSWER BOOK/ANTWOORDBOEK

**MATHEMATICAL LITERACY /
WISKUNDIGE GELETTERDHEID**

PAPER 1 / PAPIER 1

GRADE 12 / GRAAD 12

SEPTEMBER 2026

PROVINCIAL STANDARDISED ASSESSMENT

SURNAME	
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FIRST NAMES	
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GRADE	
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BOOK NUMBER		OF		BOOKS
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SUBJECT NAME	MATHEMATICAL LITERACY	PAPER NUMBER	1
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MARKER				MODERATOR'S INITIALS IN RELEVANT BLOCK									
Question	Marks	Marker's Initials		Marks	DH	Marks	CM	Marks	DM	Marks	PM	Marks	EM
1													
2													
3													
4													
5													
TOTAL													

READ INSTRUCTIONS ON THE NEXT PAGE.

This answer book consists of 14 pages.

FOLLOW THESE INSTRUCTIONS CAREFULLY.

1. Clearly write your surname and names in the space provided.
2. Answer ALL questions in the spaces provided in this ANSWER BOOK ONLY. If you require additional space for your answers:
 - 2.1 Use the additional space provided at the end of the ANSWER BOOK.
 - 2.2 When answering a question in the additional space, indicate clearly the question number in the column on the left-hand side.
3. No pages may be torn from this ANSWER BOOK.
4. Read the instructions printed carefully which is given in the examination paper.
5. Candidates may not retain the 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. Draw a neat line through any work 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		(2)
1.2.1		(2)
1.2.2		(2)
1.2.3		(3)
1.2.4		(2)
1.3.1		(2)
1.3.2		(2)
1.3.3		(2)
1.3.4		(2)

1.3.5		(3) [30]

QUESTION 2

	Solution	Marks
2.1.1		(2)
2.1.2		(2)
2.1.3		(6)
2.1.4		(2)
2.2.1		(2)

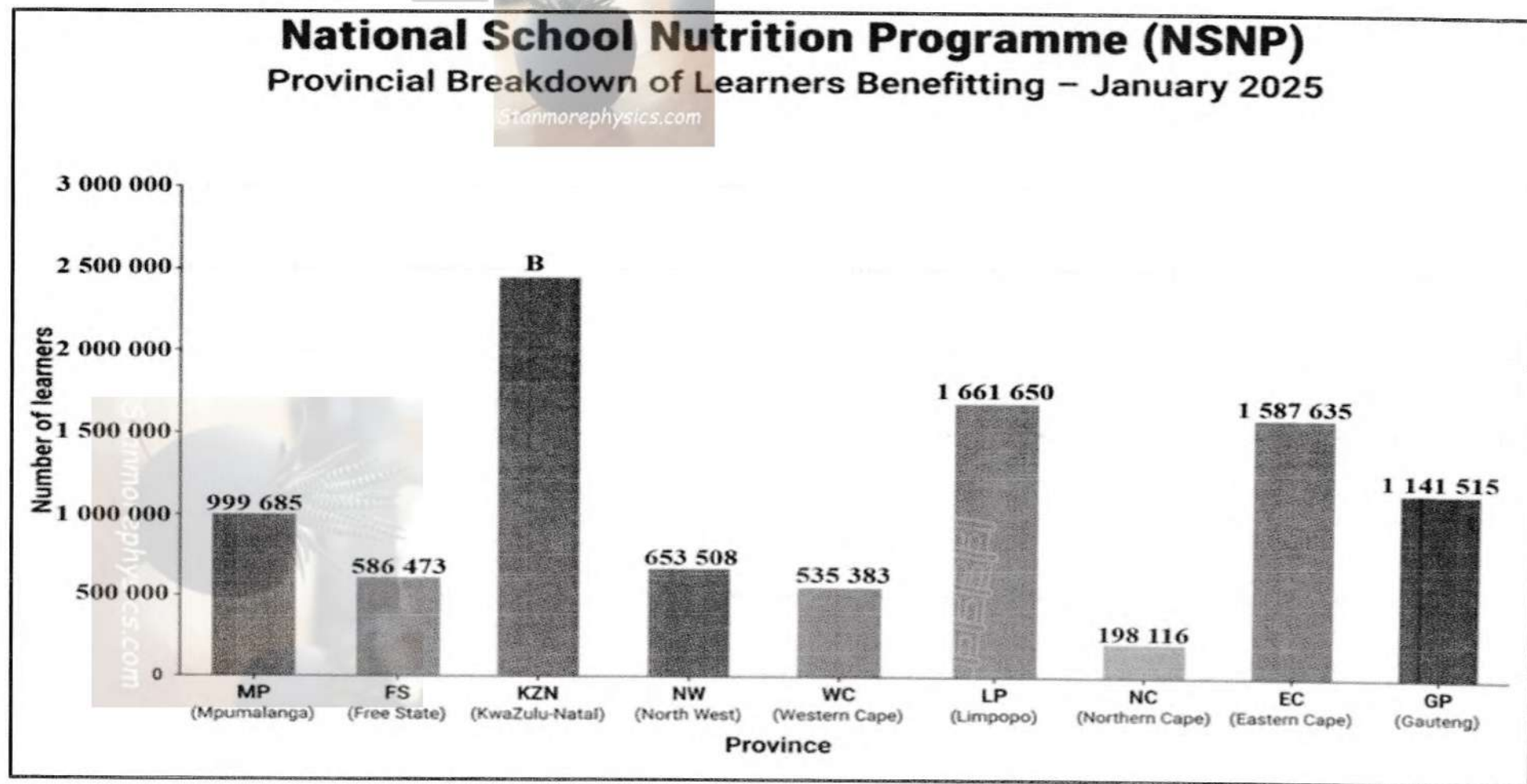


	Solution	Marks
2.2.2		(2)
2.2.3		(4)
2.2.4		(4)
2.3.1		(2)
2.3.2		(6)
		[32]

QUESTION 3

ANNEXURE A

QUESTION 3.1

[Adapted from www.researchgate.net]

	Solution	Marks
3.1.1		(2)
3.1.2		(2)
3.1.3		(2)
3.1.4		(3)
3.1.5		(5)
3.1.6		(3)

3.2.1		(2)
3.2.2		(2)
3.2.3		(4)
3.2.4		(2)
		[27]

QUESTION 4

	Solution	Marks
4.1.1		(2)
4.1.2		(6)
4.1.3		(7)

	Solution	Marks
4.1.4		(2)
4.2.1		(2)
4.2.2		(7)
4.3.1		(2)
4.3.2		(2)

4.3.3		(6)
		[36]

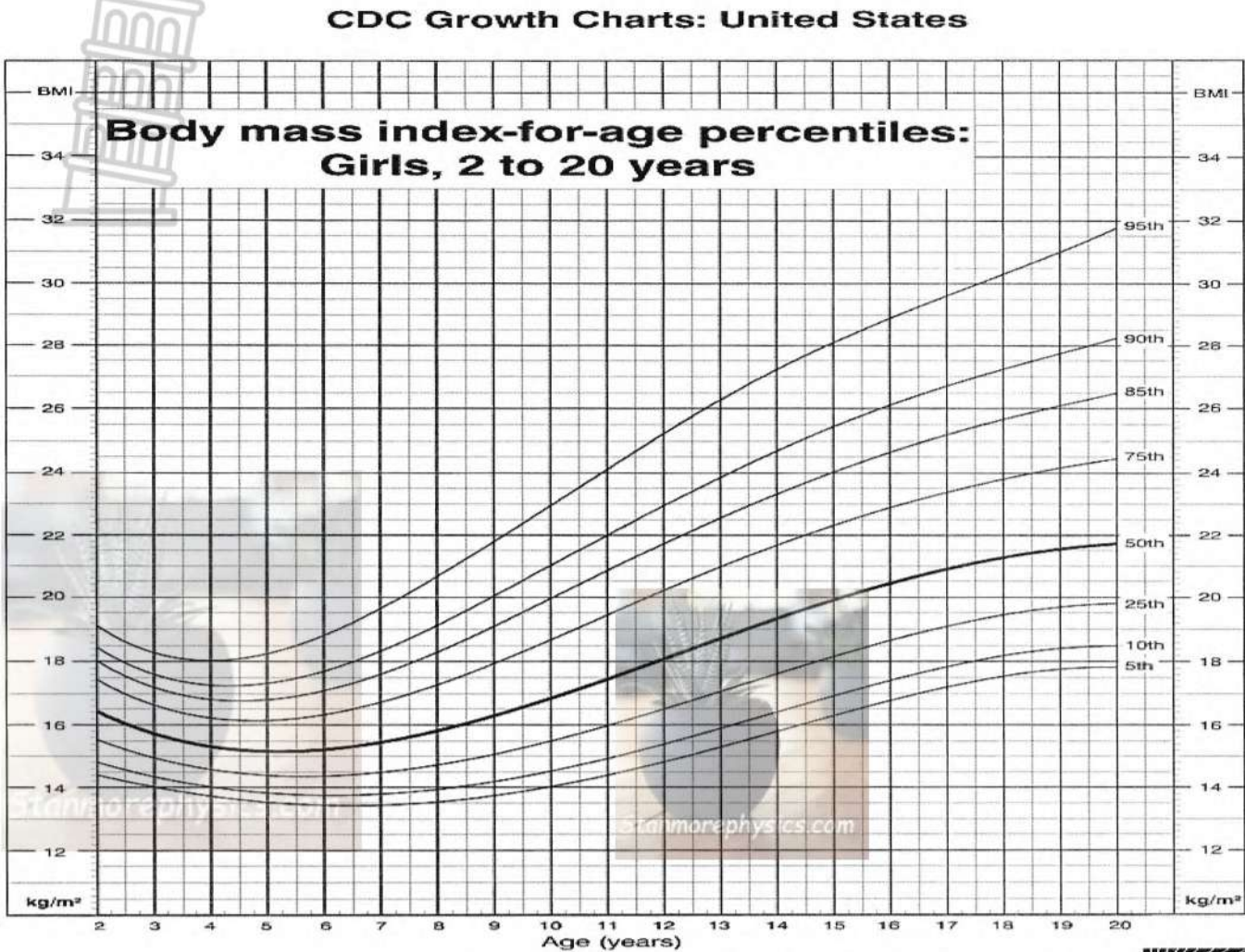
QUESTION 5

	Solution	Marks
5.1.1		(3)
5.1.2		(4)

5.1.3		(6)																												
5.2.1	<table><tr><th colspan="2"></th><th colspan="4">SMOOTHIE FLAVOURS</th></tr><tr><th colspan="2"></th><th>SB</th><th>MB</th><th>MP</th><th>PO</th></tr><tr><td rowspan="3">PIZZA</td><td>R</td><td>(R; SB)</td><td>(i) _____</td><td>(R; MP)</td><td>(R; PO)</td></tr><tr><td>G</td><td>(G; SB)</td><td>(G; MB)</td><td>(ii) _____</td><td>(G; PO)</td></tr><tr><td>V</td><td>(V; SB)</td><td>(V; MB)</td><td>(V; MP)</td><td>(V; PO)</td></tr></table>			SMOOTHIE FLAVOURS						SB	MB	MP	PO	PIZZA	R	(R; SB)	(i) _____	(R; MP)	(R; PO)	G	(G; SB)	(G; MB)	(ii) _____	(G; PO)	V	(V; SB)	(V; MB)	(V; MP)	(V; PO)	(2)
		SMOOTHIE FLAVOURS																												
		SB	MB	MP	PO																									
PIZZA	R	(R; SB)	(i) _____	(R; MP)	(R; PO)																									
	G	(G; SB)	(G; MB)	(ii) _____	(G; PO)																									
	V	(V; SB)	(V; MB)	(V; MP)	(V; PO)																									
5.2.2		(3)																												

ANNEXURE B

QUESTION 5.3



[Adapted from www.nationalcenterforhealthstatistics.com]

	Solution	Marks
5.3.1		(2)
5.3.2		(5)
		[25]



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GRADE 12

MATHEMATICAL LITERACY P1

PREPARATORY EXAMINATION

MARKING GUIDELINE

SEPTEMBER 2026

MARKS: 150

Stanmorephysics.com

SYMBOL	EXPLANATION
MA	Method with accuracy
CA	Consistent accuracy
A	Accuracy
C	Conversion
S	Simplification
RT	Reading from a table/graph/document/diagram
SF	Correct substitution in a formula
O	Opinion/Explanation/Reason/Justification
P	Penalty, e.g., for no units, incorrect rounding off, etc.
R	Rounding off
NPR	No penalty for rounding
NPU	No penalty for omitting correct unit
AO	Answer only
MCA	Method with consistent accuracy
RCA	Rounding consistent with accuracy

This marking guideline consists of 19 pages, including the analysis grid of cognitive levels.

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. NOTE: consistent accuracy (CA) does not apply in cases of a breakdown.
- If the candidate presents any extra solution when reading from a graph, table, layout plan and map, then penalise for every extra item presented.
- As a general marking principal, if a candidate has incurred one mistake and there is evidence of sound mathematics thereafter, then that candidate should lose one mark only.
- Rounding is an independent mark.
- A conclusion mark can only be given if relevant calculations precede it. At least a $\frac{1}{3}$ of the mark before the conclusion.
- No penalty for rounding (NPR) if the first decimal is correct, except for questions involving money.

QUESTION 1 [30 MARKS] ANSWER ONLY FULL MARKS			
Ques	Solution/s	Explanation/s	T&L
1.1.1	A ✓✓ RT	2RT correct option (2)	F L1 E
1.1.2	F ✓✓ RT	2RT correct option (2)	P L1 E
1.1.3	C ✓✓ RT	2RT correct option (2)	F L1 E
1.1.4	B ✓✓ RT	2RT correct option (2)	DH L1 E
1.1.5	D ✓✓ RT	2RT correct option (2)	DH L1 E
1.2.1	June 1979 ✓ RT R0,54 ✓ RT	1RT correct month and year 1RT correct amount (2)	DH L1 E
1.2.2	2020s ✓✓ RT	2RT correct period (2)	DH L1 E
1.2.3	✓ RT Difference = R26,52 – R2,06 ✓ MA = R24,46 ✓ A	1RT both correct values 1MA subtracting R2,06 1A simplification (3)	F L1 E
1.2.4	Rands/litre ✓✓ RT R/ℓ ✓✓ RT OR	2RT correct unit Accept Rands (2)	F L1 E
1.3.1	Loan period (year) = $\frac{48}{12}$ ✓ MA = 4 years ✓ A	1MA dividing by 12 1A simplification (2)	F L1 E
1.3.2	R 1 911,08 ✓ RT = R2 000 ✓ R	1RT correct amount 1R correct rounding (2)	F L1 E
1.3.3	Total Amount paid = $24 \times R1\ 560,54$ ✓ MA = R37 452,96 ✓ A	1MA multiplying by 24 months 1A simplification (2)	F L1 E
1.3.4	A = $R27\ 661,68 \div 36$ ✓ MA = R768,38 ✓ A	1MA dividing by 36 1A simplification (2)	F L1 E
1.3.5	✓ RT Difference = R1 442,02 – R645,22 ✓ MA = R796,80 ✓ A	1RT both correct values 1MA subtracting 1A simplification (3)	F L1 E
downloaded from Stanmorephysics.com		[30]	



1 Total Mo

2 Total Co

Ques	Solution/s	Explanation/s	T&L
2.2.1	$\text{Interest Percentage} = \frac{R26\ 000}{R260\ 000} \times 100\% \checkmark \text{MA}$ $= 10\% \checkmark \text{A}$ downloaded from Stanmorephysics.com	1MA dividing correct values and multiplying by 100 1A simplification (2)	
2.2.2	$\text{Loan Amount} = R260\ 000 - R26\ 000 \checkmark \text{MA}$ $= R234\ 000 \checkmark \text{A}$	1MA subtracting both correct values 1A simplification (2)	F L2 E
2.2.3	$\text{Real cost of the loan} = 240 \times R2\ 258 \checkmark \text{MA}$ $= R541\ 920 \checkmark \text{A}$ $\text{Total Interest} = R541\ 920 - R234\ 000 \checkmark \text{MCA}$ $= R307\ 920 \checkmark \text{CA}$	CA from Q2.2.2 1MA multiplying correct values 1A simplification 1MCA subtracting correct values 1CA simplification (4)	F L3 M
2.2.4	$\text{Monthly repayment} = R234\ 000 \times 9,65 \div 1\ 000 \checkmark \text{SF}$ $= R2\ 258,10 \checkmark \text{CA}$ $\checkmark \text{MCA}$ $\text{Difference} = R2\ 258,10 - R2\ 258$ $= R0,10$ Xolani's statement is VALID. $\checkmark \text{O}$	CA from Q2.2.2 1SF substitution 1CA simplification 1MCA correct difference 1O conclusion (4)	F L4 M

Ques	Solution/s	Explanation/s	T&L
2.3.1	In Xolani's case, the accumulated amount from the first two years is reinvested for another year, allowing him to earn additional interest on the larger interest amount. ✓✓O OR Reinvesting the money allows the accumulated amount to earn additional higher interest, which increases the final amount received. ✓✓O	2O opinion (2)	F L4 M
2.3.2	Half-yearly interest rate = $\frac{7,12\%}{2}$ = 3,56% ✓A Last half Year 2: Amount = 103,56% × R44 425,88 ✓MA = R46 007,44 ✓CA Third year: Interest = 9,8% × R46 007,44 ✓MCA = R4 508,73 Total Amount = R46 007,44 + R4 508,73 ✓MCA = R50 516,17 ✓CA OR Half-yearly interest rate = $\frac{7,12}{2}$ = 3,56% ✓A Last half Year 2: ✓MCA Amount = (3,56% × R44 425,88) + R44 425,88 ✓MA = R46 007,44 ✓CA Third year: Total Amount = (9,8% × R46 007,44) + R46 007,44 ✓MCA = R50 516,17 ✓CA OR	1A correct interest rate 1MA multiplying by 103,56% 1CA simplification 1MCA multiplying by R46 007,44 by 9,8% 1MCA adding 1CA simplification OR 1A correct interest rate 1MCA adding 1MA multiplying by 3,56% and adding R44 425,88 1CA simplification 1MCA multiplying by R46 007,44 by 9,8% and adding R46 007,44 1CA simplification OR	F L3 M

	Amount end of year 2 $= R44\,425,88 \times \frac{103,56}{100} \quad \checkmark A \quad \checkmark MA$ $= R46\,007,44 \quad \checkmark CA$ Amount end of year 3 $= R46\,007,44 \times \frac{109,8}{100} \quad \checkmark MCA$ $= R50\,516,17 \quad \checkmark CA$	1A for correct interest rate 1MA multiplying by 103,56% 1CA correct amount 1A correct interest rate 1MCA multiplying by R46 007,44 by 109,8% 1CA simplification	
	OR Amount end of year 3 $= R44\,425,88 \times \frac{103,56}{100} \times \frac{109,8}{100} \quad \checkmark MA \quad \checkmark A \quad \checkmark A \quad \checkmark MCA$ $= R50\,516,17 \quad \checkmark CA$	OR 1A correct interest rate 1A correct interest rate 1MA multiplying R44 425,88 by 103,56% 1MA dividing by 100 1MCA multiplying by 109,8% 1CA simplification (6)	[32]

QUESTION 3 [27 MARKS]			
Ques	Solution/s	Explanation/s	T&L
3.1.1	KwaZulu Natal ✓RT Northern Cape ✓RT OR KZN ✓RT NC ✓RT	1RT for KZN 1RT for NC (2)	DH L1 E
3.1.2	Pie Chart ✓✓A OR Pie Graph ✓✓A OR Circle Graph ✓✓A OR Circle diagram ✓✓A	2A correct graph (2)	DH L1 E
3.1.3	Categorical Data ✓✓A downloaded from Stanmorephysics.com	2A correct type of data (2)	DH L1 E
3.1.4	198 116 535 383 586 473 653 508 999 685 1 141 515 1 587 635 1 661 650 B ✓MA Median = 999 685 ✓A Mpumalanga ✓A	1MA arranging in correct ascending or descending order 1A correct median 1A correct province (3)	DH L2 M
3.1.5	✓MA $1\,089\,024,889 = (999\,685 + 586\,473 + \mathbf{B} + 653\,508 + 535\,383 + 1\,661\,650 + 198\,116 + 1\,587\,635 + 1\,141\,515) \div 9$ ✓MA $\mathbf{B} = (1\,089\,024,889 \times 9) - 7\,363\,965$ ✓MCA $= 2\,437\,259,001$ ✓CA $\approx 2\,437\,259$ The learner's claim is VALID. ✓O OR ✓MA ✓MA $\mathbf{B} = (1\,089\,024,889 \times 9) - (999\,685 + 586\,473 + 653\,508 + 535\,383 + 1\,661\,650 + 198\,116 + 1\,587\,635 + 1\,141\,515)$ ✓MCA $= 2\,437\,259,001$ ✓CA $\approx 2\,437\,259$ The learner's claim is VALID. ✓O	1MA adding correct values 1MA concept of mean 1MCA multiplying by 9 and subtracting 1CA simplification 1O conclusion OR 1MA multiply by 9 1MA adding correct values 1MCA subtracting total 1CA simplification 1O conclusion (5)	DH L4 M

3.1.6	Percentage of total beneficiaries (EC) ✓RT $= \frac{1\,587\,635}{9\,801\,224} \times 100\% \quad \checkmark \text{MA}$ $= 16,1983\%$ $\approx 16,2\% \quad \checkmark \text{R}$	1RT reading 1 587 635 1MA dividing by 9 801 224 and for % concept 1R rounding (3)	DH L2 M
3.2.1	Box-and-whisker plot ✓✓A OR Box-and-whisker chart ✓✓A OR Box-and-whisker graph ✓✓A	2A correct type of graph (2)	DH L1 E
3.2.2	Number of learners (upper quartile) = $25\% \times 350$ ✓MA $= 87,5$ $\approx 87 \quad \checkmark \text{R}$	1MA percentage calc. 1R correct rounding ACCEPT: 88 (2)	DH L2 M
3.2.3	$Q_1 = 22$ ✓RT $Q_3 = 58$ ✓RT $\text{IQR} = 58 - 22$ ✓MA $= 36 \quad \checkmark \text{CA}$	1RT Q_1 value 22 1RT Q_3 value 58 1MA concept of IQR 1CA simplification (4)	DH L3 E
3.2.4	Test 1 median = 42, and Test 2 = 46. ✓MA The learners performed better in Test 2 overall. ✓O OR Test 1 interquartile range is $68 - 28 = 40$, and Test 2 is $58 - 22 = 36$. ✓MA The learner's marks in Test 2 were more consistent. ✓O OR Test 1 range is $95 - 12 = 83$, and Test 2 it is $82 - 10 = 72$. ✓MA The learner's marks in test 2 shows less variation. ✓O OR The median mark for Test 2 is higher than the median mark for Test 1, indicating that learners performed better in Test 2. ✓✓O OR	1MA comparing medians of Test 1 & Test 2 1O conclusion OR 1MA comparing IQRs of Test 1 & Test 2 1O conclusion OR 1MA comparing the Ranges of Test 1 & Test 2 1O conclusion OR 2O conclusion	DH L4 M

	The interquartile range for Test 2 is smaller than that for Test 1, indicating that the middle 50% of the marks in Test 2 were more closely grouped. ✓✓O OR The range for Test 2 is smaller than the range for Test 1, indicating that the marks in Test 2 were less spread out. ✓✓O		
		(2)	
		[27]	



QUESTION 4 [36]			
Ques	Solution/s	Explanation/s	T&L
4.1.1	A transaction amount less than R100 is charged the full fee of R100 in Njabulo's account. ✓✓O OR A transaction of a fraction of a R100 that is charged as a full R100 for fee calculation purposes in Njabulo's account. ✓✓O	2O explanation (2)	F L1 E
4.1.2	Nedbank ATM: $\text{Fee} = (\text{R}800 \div \text{R}100) \times \text{R}2,85$ ✓MA $= \text{R}22,80$ ✓A Another bank's ATM: $\text{Fee} = \text{R}12 + (\text{R}500 \div \text{R}100 \times \text{R}2,85)$ ✓MA $= \text{R}26,25$ ✓A Total fee = $\text{R}22,80 + \text{R}26,25$ ✓MCA $= \text{R}49,05$ ✓CA	1MA dividing by R100 and multiply by R2,85 1A simplification 1MA dividing by R100, multiply by R2,85 and adding R12 1A simplification 1MCA adding 1CA simplification (6)	F L2 M
4.1.3	Number of coin deposits = $\text{R}350 \div \text{R}100$ $= 3,5$ ≈ 4 ✓R Coin deposit: fee = $\text{R}11,00 + (\text{R}1,40 \times 4)$ $= \text{R}16,60$ ✓A Number of banknotes deposits = $\text{R}2\ 820 \div \text{R}100$ $= 28,2$ ≈ 29 ✓R Branch deposit: fee = $\text{R}100 + (\text{R}2,85 \times 29)$ ✓MCA $= \text{R}182,65$ ✓RT Total fee = $\text{R}17,00 + \text{R}182,65$ $= \text{R}199,65$ ✓CA The claim is INCORRECT/NOT CORRECT ✓O	1R correct rounding 1A correct fee 1R correct rounding 1MCA multiply R2,85 by 29 and add R100 1RT for R17,00 min fee 1CA correct total fee 1O conclusion (7)	F L4 M

The bank
branch. ✓

Branches
electricity

Annual taxable income $= 12 \times R30\,587$ $= R367\,044 \checkmark A$ Annual tax $= 12 \times R4\,839$ $= R58\,068 \checkmark A$ Annual tax (rates of tax table) $\checkmark SF$ $\checkmark MCA$ $= R44\,118 + 26\% (R367\,044 - R245\,100) - R17\,820$ $= R58\,003,44$ Difference $= R58\,068 - R58\,003,44$ $= R64,56$ Monthly tax $= R64,56 \div 12 \checkmark MCA$ $= R5,38 \checkmark CA$ Daniel's statement is INVALID/NOT VALID $\checkmark O$ OR Annual taxable income $= 12 \times R30\,587$ $= R367\,044 \checkmark A$ Annual tax $\checkmark SF$ $= R44\,118 + 26\% (R367\,044 - R245\,100)$ $= R44\,118 + R31\,705,44$ $= R75\,823,44$ Monthly tax $= R75\,823,44 \div 12 \checkmark MCA$ $= R6\,318,62 - R1\,485 \checkmark MCA$ $= R4\,833,62 \checkmark CA$ Difference $= R4\,839 - R4\,833,62$ $= R5,38 \checkmark CA$ Daniel's statement is INVALID/NOT VALID $\checkmark O$	1A annual taxable income 1A Annual tax 1SF correct substitution 1MCA subtract correct rebate value 1MCA dividing by 12 1CA simplification 1O conclusion OR 1A annual taxable income 1SF correct substitution 1MCA dividing by 12 1MCA subtract correct rebate value 1CA correct monthly tax 1CA simplification 1O conclusion	(7)
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4.3.1	Range = \$970 bn – \$143 bn ✓RT = \$827 bn ✓A OR Range = \$ 970 000 000 000 – \$ 143 000 000 000 ✓RT = \$ 827 000 000 000 ✓A	1RT both correct values 1A simplification OR 1RT both correct values 1A simplification (2)	DH L2 E
4.3.2	The interquartile range (IQR) is considered more reliable because it is not affected by extreme values or outliers. ✓✓O OR It measures the spread of the middle 50% of the data, whereas the range is based only on the minimum and maximum values and can therefore be greatly affected by extreme values. ✓✓O	2O explanation (2)	DH L4 E
4.3.3	Q1 = \$152 billion ✓RT Q3 = \$270 billion ✓RT Lower boundary Value = \$152 bn – 1,5 × (\$270 bn – \$152 bn) ✓SF = \$ -25 bn ✓CA \$143 bn > \$ -25 bn ✓MCA Amancio Ortega's net worth is not an outlier ✓O OR Q₃ = \$ 270 000 000 000 ✓RT Q₁ = \$ 152 000 000 000 ✓RT Lower boundary Value = \$152 000 000 000 – 1,5 × (\$ 270 000 000 000 - \$ 152 000 000 000) ✓SF = \$ -25 000 000 000 ✓CA \$143 000 000 000 > \$ -25 000 000 000 ✓MCA Amancio Ortega's net worth is NOT an outlier. ✓O	1RT Q₁ value \$152 bn 1RT Q₃ value \$ 270 bn 1SF correct substitution 1CA simplification 1MCA comparing values 1O conclusion OR 1RT Q₃ value \$270 000 000 000 1RT Q₁ value \$152 000 000 000 1SF correct substitution 1CA simplification 1MCA comparing values 1O conclusion (6)	DH L4 M
			[36]

QUESTION 5 [25 MARKS]			
Ques	Solution/s	Explanation/s	T&L
5.1.1	Number of nights in Mexico = $7 + 2$ $= 9 \checkmark A$ Total Cost = $9 \times 341,33 \text{ MXN} \checkmark MCA$ $= 3\,071,97 \text{ MXN} \checkmark CA$	1A number of nights 1MCA multiplying by 9 1CA simplification (3)	F L2 M
5.1.2	$\text{Amount } \$ = \frac{21\,068,82}{17,47} = \$1\,206 \checkmark A$ $\text{Amount R} = \frac{1\,206}{0,060} = R20\,100 \checkmark CA$ OR $1 \text{ ZAR} = 0,060 \times 17,47 \text{ MXN} \checkmark C$ $= 1,0482 \checkmark A$ $\text{ZAR} = \frac{21\,068,82}{1,0482} \checkmark MCA$ $= R20\,100 \checkmark CA$ OR $\text{ZAR} = 21\,068,82 \times \frac{1}{17,47} \times \frac{1}{0,060} \checkmark MCA$ $= R20\,100 \checkmark CA$ OR $1 \text{ USD} = 1 \text{ ZAR} \div 0,060 \checkmark C$ $1 \text{ MXN} = (1 \text{ ZAR} \div 0,060) \div 17,47 \checkmark MA$ $\text{ZAR} = 21\,068,82 \times (1 \text{ ZAR} \div 0,060) \div 17,47 \checkmark MCA$ $= R20\,100 \checkmark CA$	$1C \text{ convert } 21\,068,82 \text{ to } \$$ 1A simplification $1C \text{ convert } 1\,206 \text{ to R}$ 1CA simplification OR $1C \text{ convert to ZAR factor}$ 1A simplification $1MCA \text{ divide by ZAR factor}$ 1CA simplification OR $1MA \text{ multiply by } \frac{1}{17,47}$ $1MA \text{ multiply by } \frac{1}{0,060}$ 1MCA factor method 1CA simplification OR $1C \text{ convert to } \$$ $1MA \text{ divide by } 17,47$ $1MCA \text{ factor method}$ 1CA simplification (4)	F L2 D

Ques	Solution/s	Explanation/s	T&L																										
5.1.3	Return flight Mexico to Atlanta = R20 100 Return flight SA = R23 834 ✓A Accommodation = 3 071,97 MXN $\times \frac{1}{17,47} \times \frac{1}{0,060}$ ✓C = R2 930,71 ✓CA Total Cost = R20 100 + R23 834 + R2 930,71 ✓MCA = R46 864,71 ✓CA OR Return flight Mexico to Atlanta = R20 100 Return flight SA = R23 834 ✓A Accommodation = 3 071,97 MXN $\div 17,47 \div 0,060$ ✓C = R2 930,71 ✓CA Total Cost = R20 100 + R23 834 + R2 930,71 ✓MCA = R46 864,71 ✓CA OR Cost = 3 071,97 MXN + 21 068,82 MXN ✓MA = 24 120,79 $\times (1\text{ZAR} \div 0,060 \div 17,47)$ ✓C = R23 030,71 ✓A Total Cost = R23 834 + R23 120,71 ✓MCA = R46 864,71 ✓CA	CA from Q5.1.1&Q5.1.2 1A for R23 834 2 C convert to R 1CA simplification 1MCA adding correct values 1CA simplification OR 1A for R23 834 2 C convert to R 1CA simplification 1MCA adding correct values 1CA simplification OR 1MA adding correct values 1CA simplification 1C for conversion to rand 1A for R 23 834 1MCA adding correct values 1CA simplification (6)	F L3 M																										
5.2.1	<table><tr><th colspan="2" rowspan="2"></th><th colspan="4">SMOOTHIE FLAVOURS</th></tr><tr><th>SB</th><th>MB</th><th>MP</th><th>PO</th></tr><tr><td rowspan="3">PIZZA</td><td>R</td><td></td><td>(R;MB) ✓A</td><td></td><td></td></tr><tr><td>G</td><td></td><td></td><td>(G;MP) ✓A</td><td></td></tr><tr><td>V</td><td></td><td></td><td></td><td></td></tr></table>			SMOOTHIE FLAVOURS				SB	MB	MP	PO	PIZZA	R		(R;MB) ✓A			G			(G;MP) ✓A		V					1A for (R ; MB) 1A for (G ; MP) (2)	P L2 M
				SMOOTHIE FLAVOURS																									
		SB	MB	MP	PO																								
PIZZA	R		(R;MB) ✓A																										
	G			(G;MP) ✓A																									
	V																												
5.2.2	P (V and not PO) = $\frac{3 \checkmark A}{12 \checkmark A}$ = $\frac{1}{4}$ ✓CA	1A for numerator 3 1A for denominator 12 1CA correct fraction (3)	P L2 M																										

5.3.1	21 kg/m^2 ✓✓RT	2RT reading correct BMI (2)	
5.3.2	$21 \text{ kg/m}^2 = \frac{48}{\text{Height}^2}$ ✓SF $\text{Height}^2 = \frac{48}{21}$ ✓MA $\text{Height} = \sqrt{\frac{48}{21}}$ ✓MCA $= 1,51185\dots\text{m}$ ✓CA $\approx 1,51\text{m}$ ✓R	CA from Q5.3.1 1SF correct substitution 1MA changing subject 1MCA square root 1CA simplification 1R rounding (5)	DH L2 M
		[25]	
TOTAL MARKS: 150			

**ANALYSIS GRID OF COGNITIVE LEVELS MATHS LIT P1 PREPARATORY
EXAMINATION 2026 GRADE 12**

Que s	Sub Ques	FINANCE	DH	P	L1	L2	L3	L4	Tot subq	Total Que
1	1.1.1	2			2				2	30
	1.1.2			2	2				2	
	1.1.3	2			2				2	
	1.1.4		2		2				2	
	1.1.5		2		2				2	
	1.2.1		2		2				2	
	1.2.2		2		2				2	
	1.2.3	3			3				3	
	1.2.4	2			2				2	
	1.3.1	2			2				2	
	1.3.2	2			2				2	
	1.3.3	2			2				2	
	1.3.4	2			2				2	
	1.3.5	3			3				3	
2	2.1.1	2			2				2	32
	2.1.2	2			2				2	
	2.1.3	6			6				6	
	2.1.4	2						2	2	
	2.2.1	2			2				2	
	2.2.2	2			2				2	
	2.2.3	4					4		4	
	2.2.4	4						4	4	
	2.3.1	2						2	2	
	2.3.2	6					6		6	
3	3.1.1		2		2				2	27
	3.1.2		2		2				2	
	3.1.3		2		2				2	
	3.1.4		3			3			3	
	3.1.5		5					5	5	
	3.1.6		3			3			3	
	3.2.1		2		2				2	
	3.2.2		2			2			2	
	3.2.3		4				4		4	
	3.2.4		2					2	2	

4	4.1.1	2			2			2	
	4.1.2	6				6		6	
	4.1.3	7					7	7	
	4.1.4	2					2	2	
	4.2.1	2			2			2	
	4.2.2	7						7	
	4.3.1		2		2			2	
	4.3.2		2				2	2	
	4.3.3		6				6	6	
									36
5	5.1.1	3			3			3	
	5.1.2	4			4			4	
	5.1.3	6				6		6	
	5.2.1			2	2			2	
	5.2.2			3	3			3	
	5.3.1		2					2	
	5.3.2		5		5			5	
									25
	ACTUAL	91	52	7	44	41	26	39	150
	EXPECTED	90	53	7	45	45	30	30	