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# NATIONAL SENIOR CERTIFICATE

**GRADE 12** 

### **SEPTEMBER 2025**

## **MATHEMATICAL LITERACY P1**

**MARKS: 150** 

TIME: 3 hours

This question paper consists of 14 pages, including 2 answer sheets and an addendum with 4 annexures.

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#### INSTRUCTIONS AND INFORMATION

- 1. This question paper consists of FIVE questions. Answer ALL the questions.
- 2. 2.1 Use the ANNEXURES in the ADDENDUM to answer the following questions:

ANNEXURE A for QUESTION 1.1

ANNEXURE B for QUESTION 2.1

ANNEXURE C for QUESTION 4.3

ANNEXURE D for QUESTION 5.3

- 2.2 Answer QUESTION 1.4.2 and 5.2.2 on the attached ANSWER SHEETS.
- 2.3 Write your NAME and SURNAME in the spaces provided on the ANSWER SHEET and hand in the ANSWER SHEETS with your ANSWER BOOK.
- 3. Number the answers correctly according to the numbering system used in this question paper.
- 4. Start EACH question on a NEW page.
- 5. Leave ONE line between two subquestions.
- 6. You may use an approved calculator (non-programmable and non-graphical), unless stated otherwise.
- 7. Show ALL calculations clearly.
- 8. Round off ALL final answers to TWO decimal places, unless stated otherwise.
- 9. Indicate units of measurement, where applicable.
- 10. Diagrams are NOT necessarily drawn to scale, unless stated otherwise.
- 11. Answers only will NOT necessarily be awarded full marks.
- 12. Write neatly and legibly.

1.1 ANNEXURE A shows an extract from Amanda's monthly statement from the Government Employee Medical Scheme (GEMS). Amanda has four dependents, one of them visited the pharmacy for medication.

Use ANNEXURE A to answer the following questions.

- 1.1.1 Identify the month that is covered by this statement. (2)
- 1.1.2 Write down the name of the pharmacist visited. (2)
- 1.1.3 Calculate the total amount claimed from the medical scheme. (2)
- 1.2 The boys school entered a quiz competition and won a minibus. The school governing body (SGB) searched for maintenance costs for the minibus. TABLE 1 below shows the maintenance costs.

TABLE 1: MAINTENANCE ITEMS AND THEIR COST

ITEMS	COSTS
Car license	R330,00
Insurance	R325,50 (per month)
Wheel Alignment	R225,00
Tyres (4 needed)	R899,00 per tyre
Tune-up	R535,25
Grease and oil change	R398,00

Use TABLE 1 to answer the questions that follow.

- 1.2.1 Calculate the annual total cost for insurance. (2)
- 1.2.2 Write down the cost of replacing one tyre, in cents. (2)
- 1.2.3 Write down, as a ratio, the cost of wheel alignment to the cost of grease and oil change. Leave your answer as 1:... (3)



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1.3 Mrs Lara created her monthly budget and summarised her income and expenses in TABLE 2 below.

TABLE 2: MRS LARA'S MONTHLY BUDGET

Income		
Monthly Salary		R15 000
Expenses		
Rent	R6 000	
Groceries	R3 500	
Transport	R2 000	
Entertainment	R2 000	
Cell phone contract	R300	
Savings	R2 000	
TOTAL		
Deficit/Surplus		R800

Use TABLE 2 above to answer the following questions.

- 1.3.1 Give ONE example of a fixed expense from Mrs Lara's budget. (2)
- 1.3.2 Calculate Mrs Lara's total expenses. (2)
- 1.3.3 Choose the CORRECT word from those in bracket to make the following statement TRUE.

R800 is a (deficit/surplus). (2)

1.4 A Grade 9 learner conducted a survey on the most spoken Home Langauge used by her peers. The results of the survey is presented in TABLE 3 below.

TABLE 3: RESULTS ON MOST SPOKEN HOME LANGUAGE

LANGUAGE	TALLY	FREQUENCY	PERCENTAGES
			(%)
English		45	50,6
Afrikaans		7	7,9
isiXhosa		23	25,8
isiZulu		14	15,7

Use TABLE 3 to answer the questions that follow.

- 1.4.1 Determine the third most common spoken language at the school. (2)
- 1.4.2 Use ANSWER SHEET 1 to complete the tally column. (3)
- 1.4.3 Write down the probability of randomly selecting an isiXhosa Home Language speaking learner at the school. (2)



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1.5 Choose a description from COLUMN B that matches a term in COLUMN A. Write only the letter (A–G) next to the question numbers (1.5.1 to 1.5.4) in the ANSWER BOOK, for example 1.5.5 H.

COLUMN A		COLUMN B
1.5.1. Debit	A	raw information that has been collected without any organisation or analysis
1.5.2. Break-even point	В	two or more events where the outcome of one event does not affect the outcome of the other event
1.5.3. Independent event	С	the income equal to the expenses
1.5.4. Data	D	when someone or an organisation takes money out of your account
	Е	an estimate of income and expenditure
	F	two or more events in which the outcome of one event affects the outcome of the other event
	G	information that has been processed and analysed

(8)

[34]

ANNEXURE B shows part of the monthly deduction tables which show employers how much tax to be deducted from an employee's monthly salary, depending on how much an employee is earning. The table is issued by SARS to employers. Annie is a 76-year-old employee working at a local company.

TABLE 4: TAX RATES FOR 2024/2025 TAX YEAR (1 MAR. 2024 TO 28 FEB. 2025)

TAX BRACKET	TAXABLE INCOME (R)	RATES OF TAX (R)
1	0–237 100	18% of taxable income
2	237 101–370 500	42 678 + 26% of taxable income above 237 100
3	237 5001–512 800	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 9001–1 817 000	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

TABLE 5: TAX REBATES AND TAX THRESHOLD FOR THE 2024/2025 TAX YEAR

REBATES	VALUE	TAX THRESHOLD
Below age 65	R17 235	R95 750
Age below 65 to below 75	R9 444	R148 217
Age 75 and over	R3 145	R165 689

Use ANNEXURE B, TABLE 4 and TABLE 5 above to answer the questions that follow.

- 2.1.1 Use ANNEXURE B to write down the maximum monthly earnings, for an employee over 75, before he/she is liable for any tax contribution. (2)
- 2.1.2 Write down the annual earnings for Annie. (2)
- 2.1.3 Use the information on tax rebates in TABLE 5, to calculate the annual tax payable by Annie and explain your answer. (6)

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2.2		i contributes R4 118,40 per year towards the Unemployment Insurance Fund (UIF). late Phindi's monthly salary.	(4)
2.3	A sho offers	p owner bought 20 laptops at R5 000 each. She sells 10 laptops at R6 000 each and a 10% discount on the remaining 10 laptops.	
	2.3.1	Calculate the total profit made by the shop owner.	
		You may use the formula:	
		Profit = Income - Expenses	(8)
	2.3.2	Calculate the percentage profit of the 20 laptops to the total profit received.	(3)

2.4 A tourist exchanges R10 000 into Euros at an exchange rate of 1 EURO = R19,92. She then spends €500 on souvenirs. Calculate the amount of change she has left, to the nearest rand.(6)[31]

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#### **QUESTION 3**

3.1 TABLE 6 below shows museums with the highest attendance in Europe from 2021 to 2023. All the values are given in thousands.

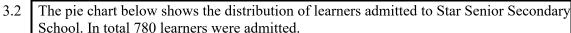
TABLE 6: MUSEUM ATTENDANCE (IN THOUSANDS)

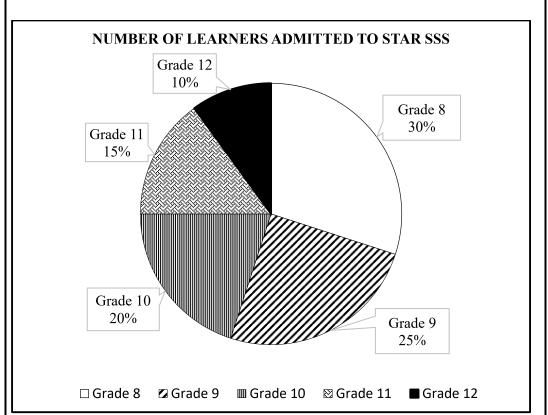
CHARACTERISTICS	2021	2022	2023
Louvre, Paris			
(France)	9,600	7,726	8,860
Vatican Museum			
(Vatican City)	6,883	5,081	6,765
British Museum London			
(United Kingdom)	6,208	4,097	5,821
Natural History Museum, London			
(United Kingdom)	5,424	4,655	5,689
Tate Modern, London			
(United Kingdom)	6,098	3,883	4,742
Musee D'Orsay, Paris			
(France)	3,652	3,270	3,871
Museo Nacional Del Prado,			
Madrid (Spain)	3,203	2,457	3,338
State Hermitage, St. Petersburg			
(Russia)	4,957	2,813	3,274

[Source: Statisca.com]

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- 3.1.1 Write down the year with the least total number of attendances. (2)
- 3.1.2 Write down the number of museums found in France. (2)
- 3.1.3 Calculate the difference between the number of 2021 attendance at the Vatican Museum (Vatican City) and the number at Natural History Museum, London (United Kingdom). (3)
- 3.1.4 Determine, as a percentage, the probability of randomly selecting a tourist visiting United Kingdom museums in 2023. (5)
- 3.1.5 Determine whether the data in TABLE 6 is continuous or discreet. (2)





- 3.2.1 Determine the percentage of learners who are in the last two years of their Further Education Training (FET) phase. (3)
- 3.2.2 Calculate the number of learners in Grade 10. (3)
- 3.2.3 The senior management team (SMT) member of Star Senior Secondary School reported that there are more learners in Grade 8 than in Grade 9.

  Calculate the difference between the numbers of Grade 8 and Grade 9 learners. (6)

  [26]



4.1 The six inter-connected stages of the statistic process are given below:

Organise data; Representing data graphically; Developing questions; Analyse data; Summarise data; Collecting data

- 4.1.1 Arrange the stages in the correct order from stage 1 to stage 6. (3)
- 4.1.2 Name THREE types of graphs that can be used to represent data information, excluding a pie chart. (3)
- 4.2 TABLE 7 shows the new tariffs (on a sliding scale) for the Cola Bus service, effective from 1 July 2023 to 30 June 2024. Some information has been omitted.

TABLE 7: NEW FARES FOR COLA BUS SERVICE

DISTANCE	2022/23 TARRIF PER km EXCLUDING VAT	2023/24 TARRIF PER km EXCLUDING VAT
0–5 km	R9,50	R10,00
5,1–10 km	R12,00	R12,50
10,1–15 km	R14,50	R15,00
15,1–25 km	R16,00	R17,00
25,1–35 km	R18,00	R19,00
35,1–45 km	R20,00	R20,00
More than 45 km	R25,00	R26,00

Use TABLE 7 to answer the following questions.

- 4.2.1 Calculate the percentage increase, in the tariffs for the distance of 10,1 km to 15 km, from 2023 to 2024. (4)
- 4.2.2 Nancy lives in Boksburg and needs to travel to Johannesburg for interviews. The distance from Boksburg to Johannesburg is 24,1 km. After comparing prices, she found out that taking a metre taxi would cost R600,00 for a one-way trip. However, she discovered that using the Cola Bus service is a more affordable option. Use TABLE 7, and the 2023/24 tarrifs to verify if Nancy's statement is correct.
- 4.3 Complete the following paragraph by filling in the missing values. Write only the answer next to the question numbers (4.3.1 to 4.3.2) in your ANSWER BOOK.

Use the growth chart in ANNEXURE C to answer the following questions.

The chart shows that at age 2 years, 95% of boys are less than (4.3.1 ...) inches. At (4.3.2 ...) years 95% of boys are less than 75 inches (about 189 cm). (4)



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4.4 Body-mass index for age percentiles for boys ages 2 to 20 years is shown on ANNEXURE C.

Use ANNEXURE C to answer questions that follow.

Calculate the Body-mass index (round off your answers to ONE decimal place) of an 18-year-old boy whose weight is at the 75<sup>th</sup> percentile and whose height is at the 25<sup>th</sup> percentile.

You may use the formula: 
$$BMI = \frac{\text{mass in kg}}{(\text{height in metres})^2}$$
 (5) [26]

5.1 The Grade 11 learners at X Kit High School want to start a school tuckshop and need to purchase a refrigerator. They found one priced at R12 000 and decided to buy it at a hire-purchase option. They will pay a 25% deposit upfront and repay the remaining amount over 36 months, in equal instalments, at an annual interest rate of 15%. Calculate their monthly instalment.

(8)

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5.2 The South African Netball team participated in the 2025 Netball Nations Cup and played 4 games. The results of the games are showed in TABLE 8.

**TABLE 8: SOUTH AFRICAN NETBALL TEAM RESULTS 2025** 

GAMES	POINTS SCORED
1	75
2	58
3	61
4	55

- 5.2.1 Use ANSWER SHEET 2 to draw a bar graph to represent the data of the points scored. (4)
- 5.2.2 The netball coach stated that the difference between the mean and the median is 2,75. Verify with calculations whether the coach statement is correct or not. (8)
- 5.3 Wayne made a purchase at CKS Pharmacy and received a till slip. A copy of the cash register receipt is shown in ANNEXURE D.

Use ANNEXURE D to answer the following questions.

- 5.3.1 Write down the method used to pay for the items. (2)
- 5.3.2 Calculate the percentage discount that Wayne received on two comfort luxury products. (5)
- 5.3.3 Determine the total amount paid by this customer if he uses the cashback amount. (4)
- 5.4 As of December 2024, South Africa's inflation rate stood at 3,0%. Meanwhile, workers received an annual salary increment of 5,5%. Calculate the actual increase rate. (2)

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**TOTAL: 150** 



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<b>ANSW</b>	ER	SHE	ET	1

NAME OF LEARNER: ..... GRADE: .....

### **QUESTION 1.4.2**

LANGUAGE	TALLY	FREQUENCY
English		45
Afrikaans		7
isiXhosa		23
isiZulu		14



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**ANSWER SHEET 2** 

NAME OF LEARNER: .....

**QUESTION 5.2.2** 

