



Province of the
EASTERN CAPE
EDUCATION



**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

JUNE 2023

**MATHEMATICAL LITERACY P1
(DEAF)**

MARKS: 100

TIME: 2 hours

This question has 10 pages, an addendum and answer sheet.

INSTRUCTIONS AND INFORMATION

1. This question paper has **FOUR** questions. Answer **ALL** the questions.
2. 2.1 Use the **ANNEXURE** in the **ADDENDUM** for:

ANNEXURE A for QUESTION 4.1.

2.2 Answer QUESTION 3.2.2 on the **included ANSWER SHEET**.

2.3 Write your **NAME** and **GRADE** in the spaces provided on the **ANSWER SHEET** for QUESTION 3.2.2. Hand in the **ANSWER SHEET** with your **ANSWER BOOK**.
3. Number the answers the same as the numbers on the **question paper**.
4. Start **EACH** question on a **NEW** page.
5. You may use a **calculator**.
Some questions will tell you **NOT** to use a **calculator**.
6. Show **ALL** calculations.
7. Round off **ALL** final answers to fit with the **content** of the question.
8. Write **units** where needed.
9. **Diagrams** are **NOT** drawn to **scale**.
Some questions will tell you to **use the scale**.
10. Write neatly.

QUESTION 1

- 1.1 Two hundred Grade 10 and 11 learners planned to go on a tour to Durban. Six and a half percent (6,5%) less learners eventually (finally) went to Durban.



- 1.1.1 Write 6,5% as a simplified common fraction. (2)
- 1.1.2 Determine the number of learners who went on a tour. (3)
- 1.1.3 Express the number of learners who went on the tour, and the number of learners who planned to go on a tour, as a simplified ratio. (2)
- 1.1.4 Write the probability (as a percentage) of randomly selecting (choosing) learners who did not go on a tour. (2)

- 1.2 David was born in February 1998 and Sam in March 1993. Their father shared R409 750 in the ratio of their ages, before he died in 2023.

- 1.2.1 Write David and Sam's ages in April 2023. (2)
- 1.2.2 Calculate the amount Sam and David will each receive. (3)

- 1.3 Amanda bought fifteen packets of 2,5 kg White Star Super maize meal, as a part of a gift for needy families. One 2,5 kg packet cost R38,99.



Use the information. Answer the questions.

- 1.3.1 Write the 'VAT' acronym in full. (2)
- 1.3.2 Write the amount of VAT she paid on the above items. (2)
- 1.3.3 Calculate the total amount she paid for the above items. (2)

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QUESTION 2

2.1 **Lecton approached two car rental companies to look for a specific_(exact) car to rent for 3 days. He visited his brother, Touch, in Jeffreys Bay.**

Study the information below from the two car rental companies for the same car. Answer the questions.

TABLE 1: TARIFF FROM CAR RENTAL COMPANIES

COMPANY	Security deposit	Excess charges	Hiring cost for January	
			5 th to 7 th	13 th to 16 th
A	R18 650	R17 000	R2 340,90	R1 955,33
B	R18 650	R17 000	R3 220,65	R2 661,91

NOTE: Company **A** = $2\,340,90 + 3,00 \times (n - 600)$ kilometres

Company **B** = $3\,220,65 +$ unlimited mileage

Unlimited mileage – when a customer is not charged on kilometres travelled.

Excess charges means the **difference** between the **billed_(payable) charges** and the applicable allowed amount or non-contracting amount.

- 2.1.1 **Write the amount he will pay for excess charges.** (2)
- 2.1.2 **If Lecton used company A and damaged the car after being involved in an accident, calculate the amount he will claim back from the security deposit.** (3)
- 2.1.3 **Give a reason why most car rental companies only rent out cars to people who have enough credit on their credit cards.** (2)
- 2.1.4 **Lecton travelled 950 kilometres for the three days he hired the car. He stated that it would have been cheaper if he used company B, instead of company A. Verify_(prove) his statement.** (5)
- 2.1.5 **Give a possible reason why there was a difference in the rental costs at different times in January.** (2)

2.2

Employees **contribute tax monthly** through SARS. Chloe, a 51-year-old educator, earns R34 447,22 monthly and **contributes** 7,5% of her **gross salary** towards a pension fund. She also has **medical aid** for herself, husband and two children. The **tax table** below is used to **calculate** the **amount each person will contribute** according to his/her salary.

TABLE 2: TAX RATES FOR 2023/2024

TAXABLE INCOME	RATES OF TAX
1 – 237 100	18% of taxable income
237 101 – 370 500	42 678 + 26% of taxable income above 237 100
370 501 – 512 800	77 362 + 31% of taxable income above 370 500
512 801 – 673 000	121 475 + 36% of taxable income above 512 800
673 001 – 857 900	179 147 + 39% of taxable income above 673 000
857 901 – 1 817 000	251 258 + 41% of taxable income above 857 900
1 817 001 and above	644 489 + 45% of taxable income above 1 817 000

TABLE 3: TAX REBATES AND MEDICAL AID CREDITS FOR 2023/2024

TAX REBATE	
Primary	R16 425
Secondary (65 and older)	R9 000
Tertiary (75 and older)	R2 997
MEDICAL TAX CREDITS PER MONTH FOR MEDICAL FUND MEMBERS	
Taxpayer	R347
First dependent	R347
For each additional dependent	R234

[Source: www.sars.gov.za]

Use **TABLE 2** and **TABLE 3** above.

Answer the questions.

- 2.2.1 Write the acronym SARS in full. (2)
- 2.2.2 Write the number of tax brackets in the personal income tax table above. (2)
- 2.2.3 Show by means of calculations how the minimum amount (77 362) charged from one of the tax brackets is calculated. (3)
- 2.2.4 Give the meaning of the term *tax rebate* according to the context. (2)
- 2.2.5 Chloe said that her monthly tax contribution is R3 550,25. Verify_(prove), showing ALL calculations whether her statement is CORRECT. (8)

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QUESTION 3

- 3.1 The table below shows the estimates on the number of full-time employees per quarter from June 2018 to September 2022.

TABLE 4: FULL-TIME EMPLOYEES PER QUARTER FROM JUNE 2018 TO SEPTEMBER 2022

YEAR	QUARTER	NUMBER OF EMPLOYEES (in '000')	CHANGE IN NUMBER OF EMPLOYEES (in '000')	% CHANGE IN NUMBER OF EMPLOYEES
		FULL-TIME	QUARTERLY RESULTS	
2018	June	1 134	-	-
	Sept	1 141	7	0,6
	Dec	1 152	11	1,0
2020	March	1 109	5	0,5
	June	1 036	(73)	(6,6)
	Sept	1 039	A	B
	Dec	1 037	(2)	(0,2)
2022	March	1 093	(7)	(0,6)
	June	1 098	5	0,5
	Sept	1 097	(1)	(0,1)

[Adapted from www.statssa.gov.za]

Use the **table** above.

Answer the questions.

- 3.1.1 Identify the **month** and the **year** that had the **lowest number** of **full-time employees**. (2)
- 3.1.2 Give the **number** of **full-time employees** for the **third quarter** of **2022** to the **nearest million**. (2)
- 3.1.3 Calculate the **percentage change** (correct to ONE decimal place) in the **number of employees** from June 2020 to September 2020.

You may use the **formula**:

$$\text{Percentage change} = \frac{\text{new value} - \text{old value}}{\text{old value}} \times 100\% \quad (4)$$

- 3.1.4 Write down the **modal value** from **March 2020** to **September 2022** of the **number of full-time employees**. (2)
- 3.1.5 Give **ONE reason** why the **number of full-time employees decline** in any **industry**. (2)
- 3.1.6 Give the **reason** why the **other values** are **written in brackets**. (2)

- 3.2 **Two samples** were used in **research**. One from **people** using **smartphones**, and the other from **people** using **tablets**. **Study the results** in the **table**. **Answer the questions**.

ENTERTAINMENT CATEGORIES	SMARTPHONES	TABLETS
Games	35%	C
Social networking	29%	15%
Utilities	20%	3%
Music and videos	8%	13%
News	3%	4%
Other	5%	8%
TOTAL	100%	100%

[Adapted from learnenglish.britishcouncil.org]

- 3.2.1 Calculate the **value** of **C**. (3)

- 3.2.2 On **ANSWER SHEET 1** an **incomplete graph** for the **smartphones** and **tablets** are drawn. **Complete the graph**. **Draw the missing columns**. (4)

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QUESTION 4

- 4.1 There are **two types** of jobs, **least stressful** and **most stressful**, with their salaries, displayed on the graph plotted in ANNEXURE A.

Use the **information** on ANNEXURE A. Answer the **questions**.

- 4.1.1 **Identify** another **type** of **graph** that can be **used** to **display** the **stressful jobs'** salaries. (2)
- 4.1.2 **Identify** from the **graph TWO jobs** that deal with **health issues**. (2)
- 4.1.3 **Determine** the **probability** (as a percentage) of **randomly selecting** an employee **earning a salary of more than \$70 000**. (4)
- 4.1.4 **Convert**_(change) the **highest salary** on the **least stressful jobs graph**, to **nearest million rands** given that \$1 = R18,42. (4)
- 4.2 Ivan **received** his home insurance calculations. **Study** the **statement** below. Answer the **questions**: SASRIA – South African Special Risk Insurance Association.

POLICY NUMBER: 4516172367	
PREMIUM SUMMARY	ANNUAL PREMIUM CALCULATIONS
SECTION	2023
Homeowner's/Building	R4 456,38
SASRIA	R73,48
Subtotal (excl. VAT)	R4 529,86
Administration fee (incl. VAT)	---
Total premium (incl. VAT)	R5 309,21

SASRIA is a **state-owned entity** that **provides coverage** for **damage caused** by **special risks** such as **politically motivated strikes** and **public disorders**.

- 4.2.1 **Write** the **total premium amount** including VAT in cents. **Give** your **final answer** in words. (4)
- 4.2.2 **Express** the **administration fee** as a **percentage** of the **total premium including VAT**. (5)
- 4.2.3 **Determine** the **monthly premium** (to the **nearest rand**) Ivan will **pay**. (3)
- 4.2.4 **Determine** the **total VAT amount paid** on this **policy**. (4)

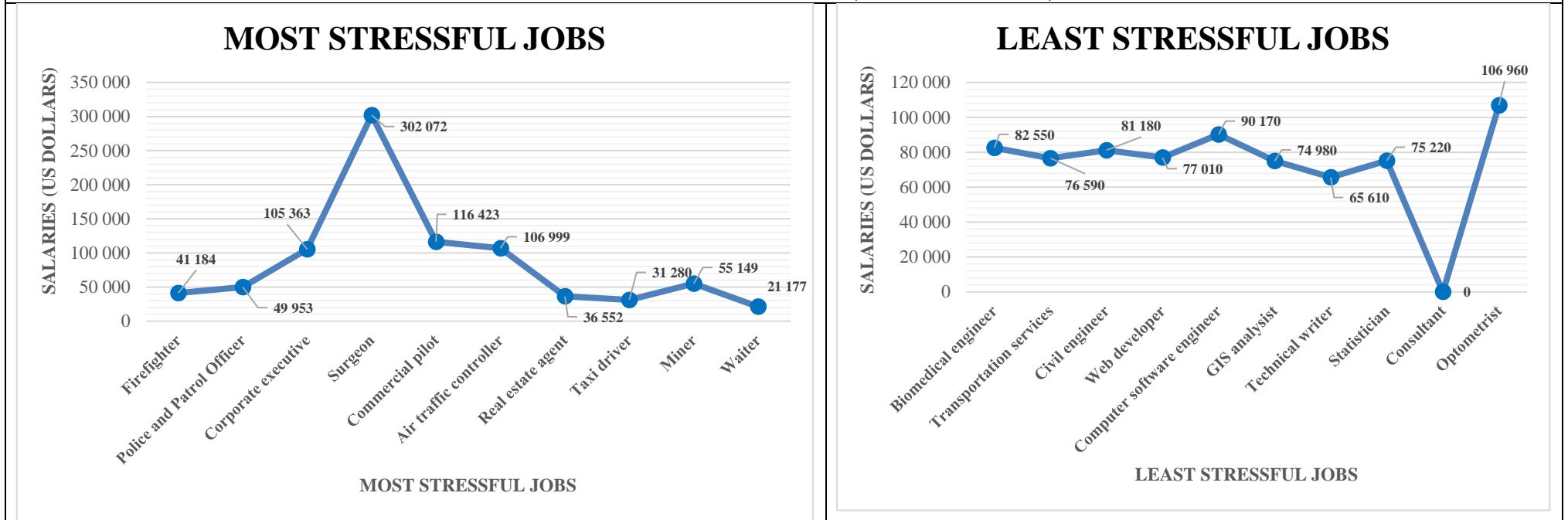
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TOTAL: 100

QUESTION 4.1

ANNEXURE A

TABLE: MOST AND LEAST STRESSFUL JOBS WITH THEIR SALARIES (IN US DOLLARS)



ANSWER SHEET 1

NAME OF LEARNER:

GRADE:

QUESTION 3.2.2

