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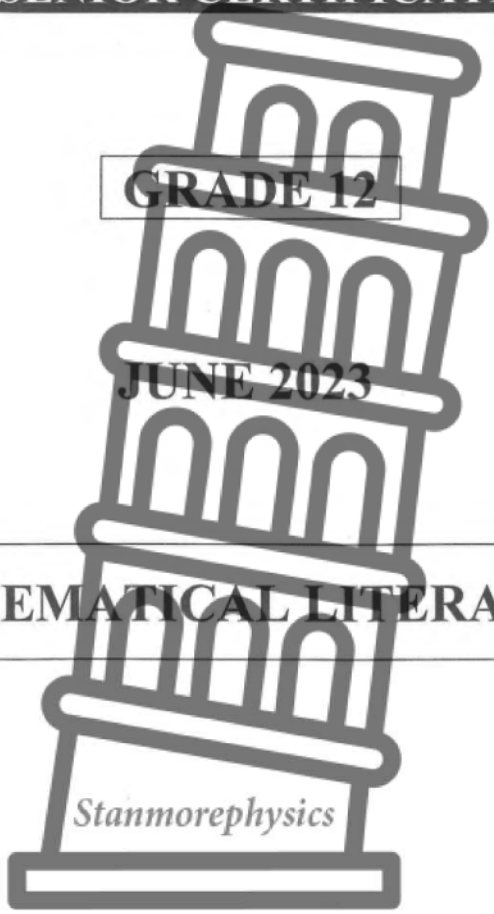
GRADE 12

JUNE 2023

MATHEMATICAL LITERACY P1

MARKS: 100

TIME: 2 hours



JMLITE1

This question paper consists of 10 pages, including an addendum and answer sheet.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of FOUR questions. Answer ALL the questions.

2. 2.1 Use the ANNEXURE in the ADDENDUM to answer the following questions:

   ANNEXURE A for QUESTION 4.1.

   2.2 Answer QUESTION 3.2.2 on the attached 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 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.

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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 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 down the probability (as a percentage) of randomly selecting 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 down 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.

SALE

R38,99



Use the above information to answer the questions that follow.

1.3.1 Write down the 'VAT' acronym in full. (2)

1.3.2 Write down 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)

[20]

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QUESTION 2

2.1 Lection approached two car rental companies to look for a specific 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 and answer the questions that follow.

TABLE 1: TARIFF FROM CAR RENTAL COMPANIES

COMPANY	Security deposit	Excess charges	Hiring cost for January	
			5th to 7th	13th to 16th
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 × (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 charges and the applicable allowed amount or non-contracting amount.

2.1.1 Write down the amount he will pay for excess charges. (2)

2.1.2 If Lection 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 Lection 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 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)

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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 to answer the questions that follow.

2.2.1 Write down the acronym SARS in full. (2)

2.2.2 Write down 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, showing ALL calculations whether her statement is CORRECT. (8)

[31]

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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 to answer the questions that follow.

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 following formula:

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

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3.2 Two samples were used in a research. One from people using smartphones, and the other from people using tablets. Study the results in the table below and answer the questions that follow.

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 by drawing the missing columns. (4)

[21]

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 and answer the questions that follow.

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 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 and answer the questions that follow: 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 down 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)
[28]

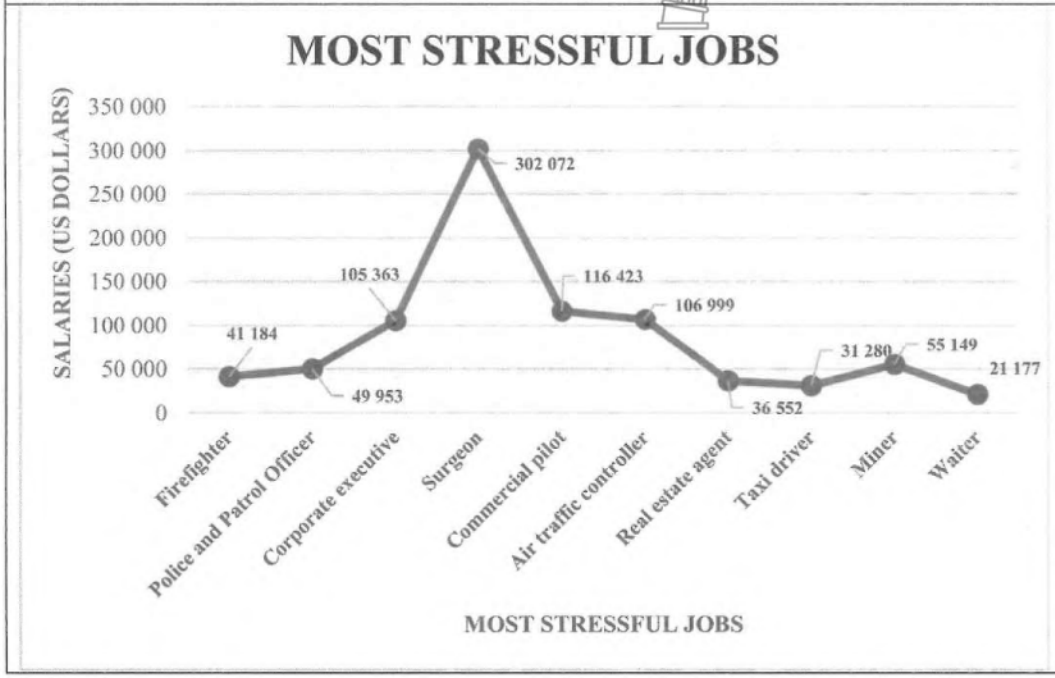
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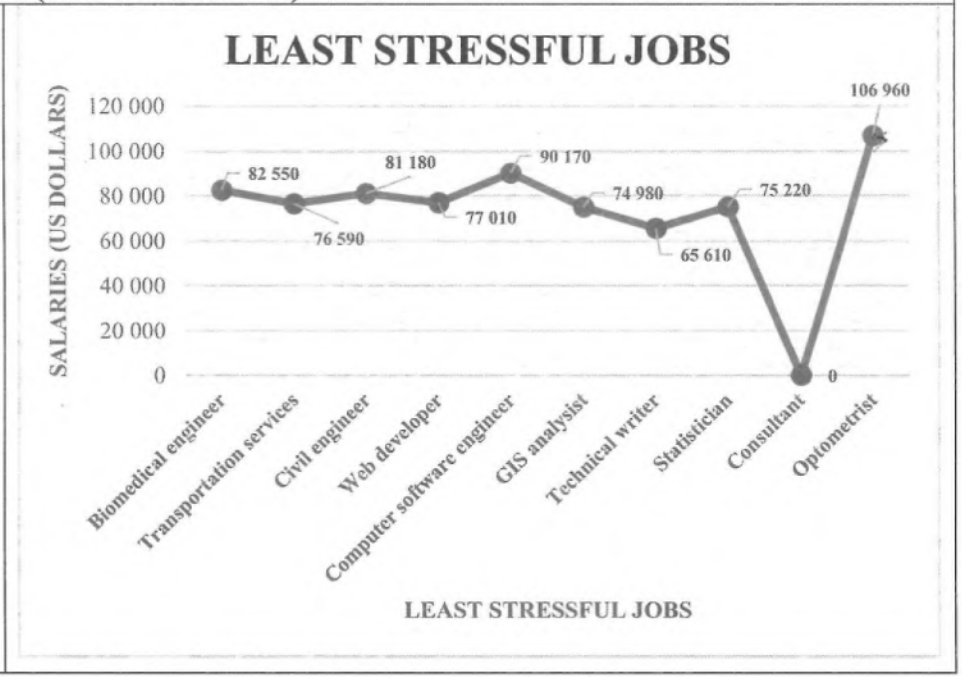
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QUESTION 4.1

ANNEXURE A

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



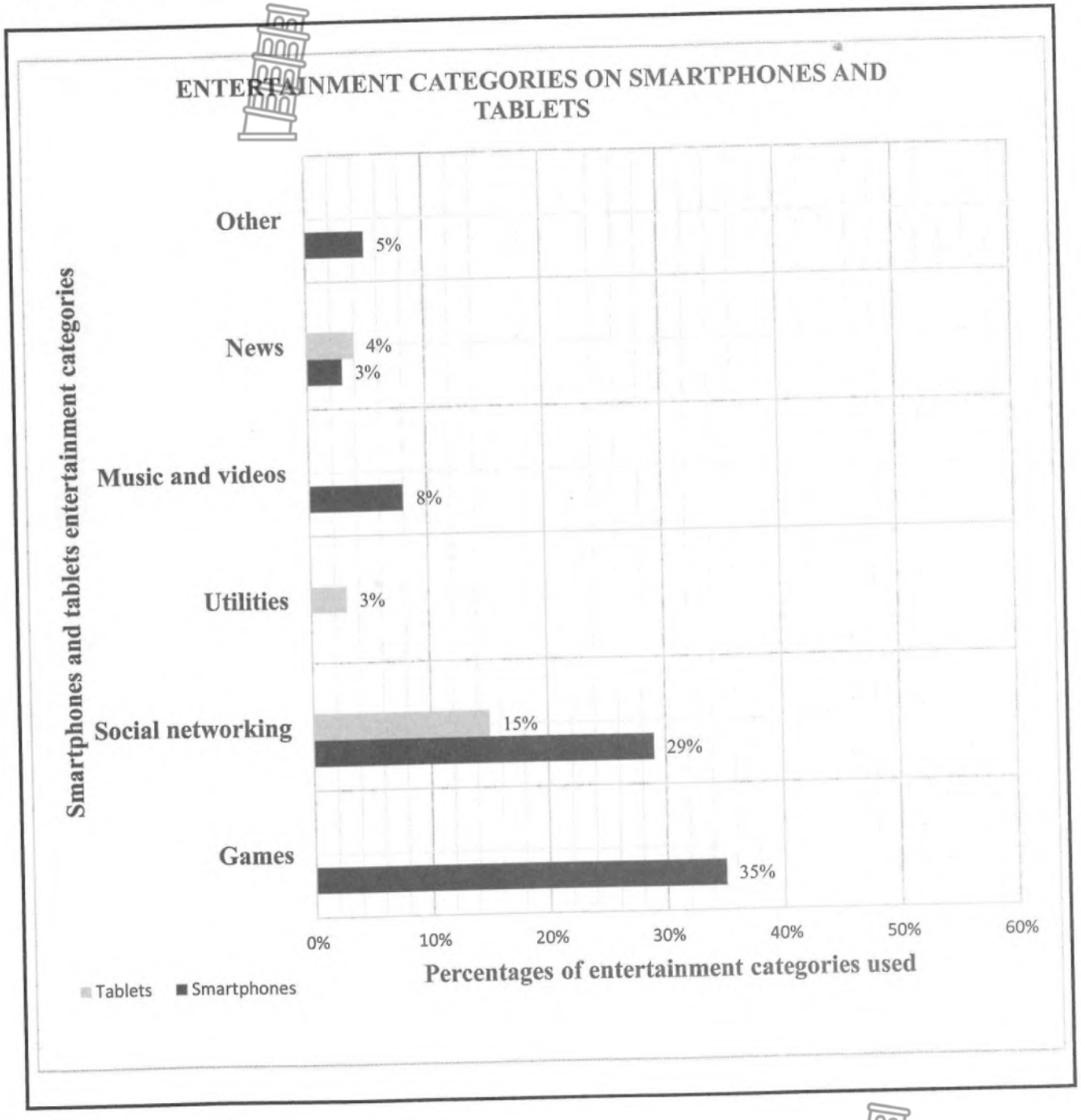


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ANSWER SHEET 1

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

QUESTION 3.2.2



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