



Hoërskool Johan Jurgens
Mathematical Literacy
Grade 12
Term 1
Cycle Test

Examiner: M Botha
Moderator: K Potgieter
Date: 27 – 02 – 2026

Time: 60 minutes
Total: 50 marks

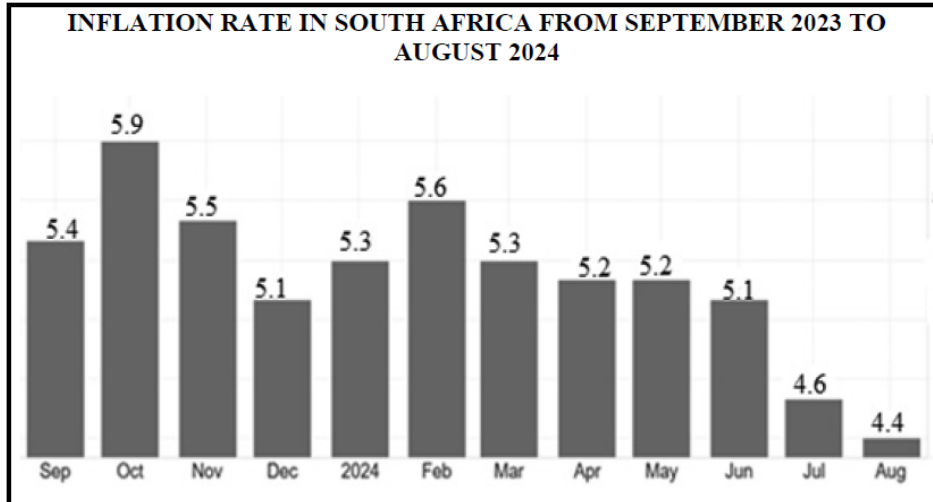
Instructions:

1. Please write your name, surname, grade and date on the folio paper.
2. Read all the questions carefully and think before your answer.
3. Write down all your calculations where applicable.
4. Non-programmable calculator may be used.
5. Round off two decimal places, unless stated otherwise.
6. Indicate units of measurements where applicable.
7. Write with a blue pen and cross it out with a pencil if you made a mistake.
8. Please write neatly and legibly. (If I can't read it, I can't mark it!)
9. Take a deep breath, you got this.
10. Good luck!!!!

This cycle test consists of 6 pages.

Question 1

- 1.1 The inflation rate in South Africa from September 2023 to August 2024, is indicated in the graph below.



[Source: woodworkpdfplans.webfc2.com]

- 1.1.1 Write down the inflation rate in January 2024. (2)
- 1.1.2 Write down the type of graph used to depict the inflation rate of South Africa. (2)
- 1.1.3 Between which two consecutive months did the inflation rate remain the same? (2)
- 1.1.4 Siphamandla claimed that prices would go down by 1% between September 2023 and August 2024. Is Siphamandla's claim valid? Give a reason for your answer. (2)
- 1.1.5 The current price of a house is R5 900 000. Calculate the expected new price of the house if the inflation rate increase with 60%. (2)
- 1.1.6 What is the inflation difference between February 2024 and March 2024? (2)

1.2 Siphamandla bought a lotto ticket and won R1.2 million tax free.

1.2.1 Explain the term “tax free” in the given context. (2)

1.2.2 Siphamandla invested his winnings at 11,5% p.a. compounded per annum for 3 years. Siphamandla claims that he will be able to buy a house for R1,3 million after the 3 years.

Verify that his statement is valid, by showing all the necessary calculations. (5)

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Question 2

- 2.1 Mr. Ndlovu is a 60-year-old man working for a metal company. He receives a pension fund contribution of 7,5% of his salary each month. He also contributes towards a medical aid for himself and his wife as the first dependent.

He received the following remuneration for the 2022/2023 tax year:

- Monthly salary of R33 500
- Annual bonus of R34 500

Use the tax table, tax rebates and medical credits below to answer the questions that follow.

TABLE 2: 2023 TAX YEAR (1 MARCH 2022 – 28 FEBRUARY 2023)

TAXABLE INCOME (R)	RATES OF TAX
1 – 226 000	18% of taxable income
226 001 – 353 100	40 680 + 26% of taxable income above 226 000
353 101 – 488 700	73 726 + 31% of taxable income above 353 100
488 701 – 641 400	115 762 + 36% of taxable income above 488 700
641 401 – 817 600	170 734 + 39% of taxable income above 641 400
817 601 – 1 731 600	239 452 + 41% of taxable income above 817 600
1 731 601 and above	614 192 + 45% of taxable income above 1 731 600

REBATES

Primary rebate	R16 425
Secondary rebate – 65 years and older	R9 000
Tertiary rebate – 75 years and older	R2 997

MEDICAL TAX CREDIT RATES

Taxpayer	R347 per month
Taxpayer + first dependent	R694 per month
Each additional dependent	R234 per month

[Adapted from www.sars.gov.za. Accessed 10 January 2024]

- 2.1.1 Calculate Mr. Ndlovu's annual gross income. (3)
- 2.1.2 Calculate Mr. Ndlovu's taxable income. (3)
- 2.1.3 Calculate the total amount of tax Mr. Ndlovu must pay during the 2022/2023 tax year. (6)
- 2.1.4 Calculate Mr. Ndlovu's monthly deduction towards tax. (3)

2.2 Tshwane Municipality uses the following tariff structure:

Water Usage (kℓ)	Tariff per kℓ
0 – 6 kℓ	R0,00
7 – 10 kℓ	R15,20
11 – 20 kℓ	R21,50
21 – 40 kℓ	R28,75
Above 40 kℓ	R35,60

Fixed service charge: **R185 per month**

2.2.1 If the Khumalo family used 65 **kℓ** of water in March, calculate what Mr. Khumalo will pay at the end of March. (3)

[18]

Question 3

- 3.1 Mrs. Xego has researched requirements to relocate to New Zealand. She requires a skilled migrant visa, that costs NZ\$4 880 and her husband, who would like to start his own business, needs an entrepreneur resident visa, which costs NZ\$6 860.

1R is equalled to NZ\$8,337

- 3.1.1 Calculate the total cost of the visas (to the nearest R100) that Mrs. Xego and her husband must pay, should they decide to relocate. (4)

- 3.1.2 Mrs. Xego reads in the news paper that the exchange rate between the South African rand and New Zealand dollar is 1R = NZ\$0,2689.

If she saves R255 650, how much New Zealand dollar will she have? (2)

- 3.1.3 Mrs. Xego's daughter sends her money to treat herself with something nice. If her daughter sends her NZ\$6 789, how much rand will she have? (1R = NZ\$0,2689) (2)

3.2



Loan information:

- House price: R1 599 000
- Deposit: 8%
- Interest rate: 11%
- Loan period 20 years

- 3.2.1 Calculate the loan amount Mrs. Xego will pay after she pays the 8% deposit. (3)

- 3.2.2 Calculate the monthly repayment by using the following formula:

$$\text{Monthly repayment} = \frac{\text{loan amount}}{1000} \times \text{factor} \quad (2)$$

[13]

Total: 50 Marks