



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

VHEMBE WEST DISTRICT

GRADE 10

MATHEMATICAL LITERACY
ASSIGNMENT
JUNE 2022

MARKS: 50

This Assignment consists of 4 pages including the cover page.

INSTRUCTIONS

1. Show **ALL** your calculations for each question.
2. Give **ALL** your answers in the **CORRECT UNITS**.

QUESTION 1

1. Ms. Mustard a single mother with three kids earns an income of R24 200,00 per month after deductions. Her monthly budget is as follows:

Monthly Income		Monthly Expenditure	
Nett Salary	R24 200,00	Bond repayment	R5 200,00
		Municipal Rates (Rates, water & Refuse)	R820,00
		Electricity	R1680,00
		Food and other groceries	R4 800,00
		Car instalment	R3 150,00
		Cell phone (Contract)	R815,00
		Petrol	R1 900,00
		School fees	R960,00
		Clothing	R750,00
		Entertainment (5% of total nett income)	A
TOTAL	R24 200,00	TOTAL	B

- 1.1 Calculate the value of A. (2)
- 1.2 Calculate the value of B. (2)
- 1.3 Name TWO fixed expenses. (2)
- 1.4 Ms. Mustard wants to save R2000 rand per month to build an extra room in her backyard. Can she afford it? Show all your calculations. (3)
- 1.5 Ms. Mustard uses an average of 100 liter per month. The petrol price increases with R2.50 per liter. Calculate the new monthly cost for petrol. (4)

[13]**QUESTION 2**

The table below shows the electricity tariffs for a town.

July to June Block Rate Tariffs	Price per kWh (VAT exclusive)
Block A (1-600 kWh)	R0.83,87
Block B (> 600 to ≤ 700 kWh)	R1.42,46
Block C (>700 kWh)	R4.00,00

- 2.1 Round the price per kWh for block B off to the nearest cent. (2)
- 2.2 Calculate the price per kWh for Block C if VAT of 15% is included. (3)
- 2.3 A family used 665 kWh of electricity for the month. Determine the cost (VAT exclusive) to the nearest R100.00 (4)

[09]

QUESTION 3

3.1 Convert each of the following to the unit given in brackets

- 3.1.1 1500 000 mm (km) (2)
- 3.1.2 3215 ton (kg) (2)
- 3.1.3 60 hours (days) (2)
- 3.1.4 132 eggs (dozen) (2)

3.2 Celia was on a short business trip in England. The duration of her flight back to South Africa was 11,5 hours.

The distance by plane from Heathrow in London to Oliver Tambo in Gauteng is 13 967 km.

3.2



- 3.2.1 The plane left Heathrow 21:20 South African time. Determine the time the plane touch down in South Africa. (2)
- 3.2.2 The temperature on Heathrow airport in England was -2°C when the plane left. The temperature on Oliver Tambo Airport when the plane landed had increased with 35°C . Determine the temperature reading on Oliver Tambo Airport. (2)
- 3.2.3 Calculate the average speed of the plane from Heathrow to Oliver Tambo. Give your answer correct to 2 decimal places and with the correct unit. (3)
- Distance = Speed x Time
- 3.2.4 Write the distance from Heathrow to Oliver Thambo in words. (2)

[17]

QUESTION 4

4. Table 3 below shows the ages (in years) of patients treated for malaria at two different clinics during a certain month were recorded as follows:

Table 3: The ages of patients treated for malaria

Clinic A (Set 1)	5	7	18	24	24	32	46	52	56	
Clinic B (Set 2)	37	28	17	63	43	52	39	40	26	35

- 4.1. Determine the modal age of the Set 1. (2)
- 4.2. Arrange the ages of Set 2 in ascending order. (2)
- 4.3. Determine the median of Set 2. (2)
- 4.4. Determine the range of the ages when combining both sets 1 and 2. (2)
- 4.5. Calculate the mean age of Set 2. (3)

[11]

TOTAL: 50