

# **MATHEMATICAL LITERACY**

## **GRADE 10**

### **Assignment 1**

**2020**

#### **SCHOOL BASED ASSESSMENT TASK**

TOPIC: FINANCE

**MARKS: 50**

**WEIGHTED MARK: 10**

**SUGGESTED TIME: 60 Minutes**

#### INSTRUCTIONS AND INFORMATION

1. This question paper consists of TWO questions. Answer ALL the questions.
2. Number the answers correctly according to the numbering system used in this question paper.
3. Start EACH question on a NEW page.
4. You may use an approved calculator (non-programmable and non-graphical), unless stated otherwise.
5. Show ALL calculations clearly.
6. Round off ALL final answers appropriately according to the context, unless stated otherwise.
7. Indicate units of measurement, where applicable.
8. Write neatly and legibly.

## QUESTION 1

1.1

Mr Peter and his wife has a home. They share the payment of water bill with Tumi, the single mother of 3 children. Tumi agreed to share the bill proportionally according to the members in the house. The tariffs are VAT exclusive. VAT = 15%

### RESIDENTIAL WATER TRAIFFS – Metered Areas

Kilolitres per connection per month	2017/2018 Tariff (R/kl)	% Increase	2018/2019 Tariff (R/kl)
0 to 6	R 7.14	15.9%	R 8.28
Above 6 to 10	R 7.58	15.9%	R 8.79
Above 10 to 15	R 13.17	13.9%	R 15.00
Above 15 to 20	R 19.63	11.2%	R 21.83
Above 20 to 30	R 26.96	11.2%	R 29.98
Above 30 to 40	R 29.22	13.7%	R 33.22
Above 40 to 50	R 37.11	14.3%	R 42.42
+50	R 38.72	16.7%	R 45.19

- 1.1 Define the term TARIFF. (2)
- 1.2 Calculate the VAT inclusive amount for R42,42. (3)
- 1.3 Which category of kilolitres had the third highest increase in percentage? (2)
- 1.4 How much will Peter pay (VAT exclusive) if the two families used 27,4 kl of water in the month of May 2019. (8)
- 1.5 State one possible way a household can save water. (2)
- 1.6 The water bill for June 2019 was R628,46. Calculate the amount Tumi will pay towards the water bill (4)
- 1.7 Peter had a leakage with the underground pipe. He found out that labour to fix the problem was R159,90 per hour or part thereof. The plumber worked 5 hours 20 minutes on the first day and 2 hours 15 minutes the second day. Calculate the amount he paid for labour. (4)

[25]

## QUESTION 2

Thembi is a florist who runs her business from a small rented room from Monday to Saturdays. She keeps a careful record of her expenses.

<b>Week</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Assistants wages	R320,00	R320,00	R320,00	R320,00
Rental	R1 500,00	R1 500,00	R1 500,00	R1 500,00
Electricity and water	R56,80	R66,30	R66,30	R75,80
Flowers	R2 370,00	R2 456,00	<b>A</b>	R4 250,00
Miscellaneous materials	R46,80	R56,60	R61,80	R87,10
Telephone	R165,80	R256,10	R356,20	R521,80
Municipal services	R44,80	<b>B</b>	R66,80	R73,50
<b>Total expenses</b>	<b>C</b>	R4 710,40	R5 486,00	R6828,20

- 2.1 Calculate the missing values **A**, **B** and **C**. (6)
- 2.2 Name one fixed expense that Thembi pays. (2)
- 2.3 Calculate the average expense per working day on telephone calls for the 4 weeks (4)
- 2.4 Calculate the difference between **Week 4** total expense and **Week 2**. (2)
- 2.5 What percentage is the telephone expense of week 4. (correct to 2 decimal places) (3)
- 2.6 The profit in Week 3 was R4 560. Calculate the income in Week 3. (4)
- 2.7 Calculate the profit margin to the nearest percentage for Week 3. Use the formula: (4)
- $$\text{Profit margin} = \frac{\text{income} - \text{expenses}}{\text{expenses}} \times 100\%$$

**[25]**