



education

Department of
Education
FREE STATE PROVINCE

ASSIGNMENT 1



GRADE 10

MATHEMATICAL LITERACY



MAY 2025

MARKS: 50

TIME: 1 HOUR

This question paper consists of pages 7.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of THREE 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 given context, unless stated otherwise.
7. Indicate units of measurement, where applicable.
8. Diagrams are NOT necessarily drawn to scale, unless stated otherwise.
9. Write neatly and legibly.



QUESTION 1

1.1 TABLE 1 below shows a list of terms and their DEFINITIONS relating to concepts used in Mathematical Literacy.

TABLE 1: EXPLANATIONS AND DEFINITIONS OF CONCEPTS

TERMS	DEFINITIONS
1.1.1 Tariff	A. Is the receipt which serve as a proof of payment for goods purchased.
1.1.2 Relative Position	B. The three-dimensional space occupied by a gas, liquid or solid substance.
1.1.3 Volume	C. The cost per measuring unit for a specific service.
	D. Description of position or direction in relation to surround landmarks.

Choose a DEFINITION that matches a TERM . Write only the letter (A - D) next to the question number (1.1.1 - 1.1.3) on your answer book. **EXAMPLE :1.1.4 G.**

(2×3) (6)

[6]

QUESTION 2

2.1 Below a till slip that Mr Busani received after purchasing some items, is shown.

Checkers Hyper		
PAVILION, Tel: 031 2754400		
Jack Martins Drive, Westville, 3610		
TAX Invoice: VAT No: 4420106777		
Checkout bag CH		R1,00
Fresh chicken thighs p/k		R32,61
Nespray 250g		R42,99*
Parboiled rice		R27,99*
Phendula teabags		R8,99
Playboy 150ml		R32,99
Extra saving: Playboy		-R9,00
Pilchards chilli 215g		R17,99*
Snowballs each		R7,49
Thokoman 500g		R28,99
Weetbix 450g		R29,99
TOTAL		R222,03
e-wallet		R220,00
E-wallet cost		R2,03
Rate	VAT	TOTAL
15 %	R17,36	R133,06
*0.00%	R0,00	A
Cashier	Date	Time
Nozipho	24-06-2022	10:29
Ndimande		

[Adapted from <https://lnkd.in/dqcp6q2v>]

Use the information above to answer the following questions.

- 2.1.1 Write down the name of the cashier and the telephone number of the store. (2)
- 2.1.2 Determine the total number of items bought. (2)
- 2.1.3 Determine the probability (as a percentage) of randomly selecting a zero-rated item out of all the items bought. (3)
- 2.1.4 Identify the item where Mr Busani saved money. (2)
- 2.1.5 Calculate the missing value A (the total of all zero-rated items). (2)
- 2.1.6 Mr Busani claims that the total price of all items, is more than R115,70 if VAT is excluded.
Verify showing all calculations, if the statement is correct. (4)

2.2

Mr Busani relocated to Johannesburg and bought a house that has a prepaid water meter. Below is the table showing the monthly tariff structure for the City of Johannesburg.

TABLE 1: DOMESTIC WATER TARIFF-PREPAID 2023/24

Tariff Structure		Tariff R/kℓ
Block 1	0 - 6 kℓ	R 0,00
Block 2	> 6 - 10 kℓ	R 20,95
Block 3	> 10 - 15 kℓ	R 25,83
Block 4	> 15 - 20 kℓ	R 46,76
Block 5	> 20 - 30 kℓ	R 50,33
Block 6	>30 kℓ	R 62,90

[Source: the@cityofjoburgza water tariffs for 2023/24]

Use the information above to answer the questions that follow.

2.2.1 Determine the maximum number of kℓ in Block 3. (2)

2.2.2 Mr Busani states that he will pay R290,05 for using 18,3 kℓ of water in March.

Verify, showing all calculations whether his statement is correct. (8)

[25]

QUESTION 3

3.1 Millicent will be hosting her friends for a party. She will make samosas for the party. Below is a samosa recipe to serve 12 people.



INGREDIENTS

- $1\frac{3}{4}$ cup all-purpose flour
- $\frac{1}{2}$ tsp salt
- $\frac{1}{4}$ cup butter cold, cubed
- $\frac{1}{3}$ cup warm water
- 2 tablespoon light oil for brushing on the samosas before putting it in the air fryer

Preparation time: 1 hour 10 minutes
Baking time: 15 minutes

Note: 1 cup = 250 ml

Samosa Filling

- 227 g potatoes (mashed)
- $\frac{1}{3}$ cups green peas
- $\frac{3}{4}$ teaspoon garam marsala
- $\frac{1}{4}$ teaspoon salt for taste
- $\frac{1}{2}$ teaspoon ginger grated*
- $\frac{1}{2}$ teaspoon cumin
- 1 tablespoon light olive oil
- $\frac{1}{4}$ cup onion minced
- 1 tablespoon jalapeno chopped*

*optional

[Source: littlehousebigalaska.com]

Use the information above to answer the following questions.

- 3.1.1 Convert $1\frac{3}{4}$ cup of all-purpose flour to ml. (2)
- 3.1.2 Determine the total time needed to prepare and bake 12 samosas. Give your answer in hours. (4)
- 3.1.3 Calculate the potatoes needed to prepare 36 samosas (3)
- 3.1.4 Explain the use of the word “optional” shown at two of the items for the samosa filling. (2)

3.2 The watch shown below is displayed-on Millicent’s wrist.



Use the information above, as well as the information in 3.1 to answer the following questions.

- 3.2.1 Identify the type of watch (clock) shown above. (2)
- 3.2.2 Write the time displayed on the watch in words. (2)
- 3.2.3 Millicent started preparing samosas at the time displayed on the clock. She wants to prepare 36 samosas for guests who will arrive at 17:30. Millicent states that she will be finished with all the samosas in time for the arrival of the guests. Is she correct? Do calculations to verify your answer.

TAKE NOTE: After every batch Millicent start all over again with the preparation and then the baking of the samosas. (4)

[19]

TOTAL 50