



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

VHEMBE WEST DISTRICT

GRADE 10

MATHEMATICAL LITERACY

ASSIGNMENT 1

2023

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TOTAL: 50 MARKS

DURATION: 1.5 HOURS

The paper consists of 6 pages, including the cover page.

Assignment 1

INSTRUCTIONS AND INFORMATION

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



Assignment 1

QUESTION 1

- 1.1 Mashudu went to Mrs D supermarket with three hundred and twenty rand (R320.00) to buy items as shown on the till slip below:

MRS D SUPERMARKET**Vat Registration number: 867786310****11 Yimbu street, Limpopo****8 May 2023 @14:20****Tel: 015 776 3489****Cashier: Mavis**

2.5 L sprite	R30,00
White bread	R14,00*
5Kg Maize meal	R78,00*
2 Dozen eggs	R76,00*
Oil (750ml)	R75,00
100g Cheese	R15,00
500ml Milk	R12,00*
Total amount	R300
VAT(15%)	R15.70
Total Due	R315.70
Cash payment	R320
Change	R4.30

Notes:* No VAT charged on the item/s

Use the information above to answer questions that follow.

- 1.1.1 Give the name of the shop from which Mashudu bought the items. (2)
- 1.1.2 Determine the date of the purchase. (2)
- 1.1.3 Give a reason for asterisk (*) on the till slip. (2)
- 1.1.4 Determine the price of one egg. (3)
- 1.1.5 Give a reason for the importance of a till slip for any purchase. (2)
- 1.1.6 What kind of payment was used? (2)

Assignment 1

1.2 Below are the cost structures of using a particular cell phone package

Contract: Cost = R150 + R1.50 x (total number of minutes – first 100 minutes)

Prepaid: Cost = R2.50 x total number of minutes

1.2.1 Determine the cost if you made 200 minutes worth of calls using the:

(a) Contract option. (2)

(b) Prepaid option. (2)

1.2.2 Determine which option would be better if you only made 70 minutes worth of calls. (4)
 Show how you come to your conclusion.

1.3 A monthly electricity bill indicates that it charges a fixed service fee of R150 per month, plus (4)
 R1.50 per Kwh of electricity used.

Complete the following table by finding values for 1.3.1 and 1.3.2

Electricity used Kwh	0	50	1.3.2	750
Cost in Rand	1.3.1	225	300	1275

[25]

Assignment 1

QUESTION 2

Tshilidzi secondary in the Thulamela district sells peanut butter cookies to learners at the school tuckshop. Table below shows the ingredients and conversions for baking peanut butter cookies. The recipe will make 3 dozen cookies.

INGREDIENTS	CONVERSION TABLE
½ cup butter (1 stick, 2 ounces)	1 ounce = 28.35 grams
½ cup (100 g) white granulated sugar	1 tsp = 5 ml
½ cup (170 g) packed brown sugar	1 cup = 250 ml
½ cup (180 g) peanut butter	
1½ cups 160 g all-purpose flour	
¾ teaspoon of baking soda	
½ teaspoon of baking powder	
¼ teaspoon salt	
The peanut butter cookies must be baked at 200 degrees Celsius.	

[Source: www.Dephneyrecipes.com]

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Use information in the table above to answer the questions that follow.

- 2.1 Convert 2 ounces to grams (g). (2)
- 2.2 Convert ¾ teaspoon baking soda to millilitre. (2)
- 2.3 Convert 1.5 cups all- purpose flour to teaspoon. (4)
- 2.4 Determine the number of peanut butter cookies in 3 dozen cookies. (2)
- 2.5 Express, in simplest form, the ratio of brown sugar to peanut butter. (2)
- 2.6 The cookies were placed in the oven at 12:30 and taken out of the oven after 40 minutes. (3)
Determine the time at which the cookies were taken out of the oven.
- 2.7 At what temperature did they bake their peanut butter cookies? (2)

[17]

Assignment 1

QUESTION 3

A house plan is drawn using the scale 1:50

- 3.1 Explain what the scale represent. (2)
- 3.2 Complete the following table using the scale given above. You must determine answers for 3.2.1 and 3.2.2. (6)

Feature	Measurement on the plan (cm)	Actual measurement (m)
Height of doors	4cm	3.2.1.
Height of big windows	3.2.2.	0,8m

[08]

TOTAL MARKS: 50





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GRADE 10

MATHEMATICAL LITERACY
MEMORANDUM - ASSIGNMENT 1

2023

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TOTAL: 50 MARKS

Symbol	Explanation	Symbol	Explanation
M	Method	P	Penalty, e.g. for no units, incorrect rounding off, etc
MA	Method with Accuracy	S	Simplification
CA	Consistent Accuracy	SF	Correct substitution in a formula
A	Accuracy	Re	Reason
C	Conversion	Ro	Rounding
O	Opinion	RT/RG/ RD	Reading from a table/graph/diagram/map
J	Justification/Reason/Deduction		

The Memo consists of 4 pages, including the cover page.

Assignment 1

QUESTION 1 [25 Marks]			
No.	Solution	Explanation	Marks
1.1.1	Mrs D Supermarket ✓✓	2RD	(2)
1.1.2	18 March 2023 ✓✓	2RD	(2)
1.1.3	It indicates no VAT charged on the items ✓✓	2O	(2)
1.1.4	$\frac{76}{24}$ ✓ $= 3.16666$ ✓ $\approx R3.17$ ✓	1MA Divide by 24 1S 1Ro	(3)
1.1.5	Proof of payment/purchase ✓✓	2Re	(2)
1.1.6	Cash payment ✓✓	2RD	(2)
1.2.1	(a) <i>Contract cost</i> = $R150 + R1.50 \times$ (<i>Total number of min – first 100 min</i>) $= R150 + R1.50 \times (200 - 100)$ ✓ $= R150 + (R1.50 \times 100)$ $= R150 + R150$ $= R300$ ✓ (b) <i>Prepaid cost</i> = $R2.50 \times$ <i>total number of minutes</i> $= R2.50 \times 200$ ✓ $= R500$ ✓	1SF 1S 1SF 1S	(2)
1.2.2	$Contract\ cost = R150 + (1.50 \times 0)$ $= R150$ ✓ $Prepaid\ cost = R2.50 \times 75$ $= R187.50$ ✓ The contract option is the cheapest option ✓✓	1A 1A 2O	(4)

Assignment 1

1.3.1	R150 ✓✓	2M	(2)
1.3.2	R100 ✓✓	2M	(2)

QUESTION 2 [17 Marks]

No.	Solution	Explanation	Marks
2.1	$1 \text{ ounce} = 28.35 \text{ g}$ $2 \text{ ounces} = 2 \times 28.35 \text{ g} \quad \checkmark$ $= 56.7 \text{ g} \quad \checkmark$	1M 1S	(2)
2.2	$1 \text{ tsp} = 5 \text{ ml}$ $\frac{3}{4} \text{ tsp} = \frac{3}{4} \times 5 \quad \checkmark$ $= 375 \text{ ml} \quad \checkmark$ OR $1 \text{ tsp} = 5 \text{ ml}$ $\frac{3}{4} \text{ tsp} = x$ $x = \frac{3}{4} \times 5 \quad \checkmark$ $x = 375 \text{ ml} \quad \checkmark$	1M 1S	(2)
2.3	$1 \text{ cup} = 250 \text{ ml}$ $1.5 \text{ cups} = 1.5 \times 250 \text{ ml} \quad \checkmark$ $= 375 \text{ ml} \quad \checkmark$ But $1 \text{ tsp} = 5 \text{ ml}$ $\frac{375 \text{ ml}}{5 \text{ ml}} \quad \checkmark$ $= 75 \text{ tsp} \quad \checkmark$	1M 1S 1M 1A	(4)

Assignment 1

2.4	$1 \text{ dozen} = 12 \text{ cookies}$ $3 \text{ dozen} = 3 \times 12 \quad \checkmark$ $= 36 \quad \checkmark$	1M multiply by 12 1A	(2)
2.5	$170g : 180g \quad \checkmark$ $17g : 18g \quad \checkmark$	1M divide by 10 1S	(2)
2.6	$12 : 30 + 0 : 40 \quad \checkmark$ $= 13 : 10 \quad \checkmark\checkmark$	1M 2C	(3)
2.7	$200^\circ\text{C} \quad \checkmark\checkmark$	2RD	(2)

QUESTION 3 [8 marks]

No.	Solution	Explanation	Marks
3.1	1 unit on the plan represents 50 units in reality $\checkmark\checkmark$	2Re	(2)
3.2	$A = 4 \text{ cm} \times 50 = 200 \text{ cm} \quad \checkmark$ $200 \text{ cm} \div 100 \quad \checkmark$ $= 2 \text{ m} \quad \checkmark$	1MA 1C 1S	(3)
	$B = 0.8 \div 50 \quad \checkmark$ $= 0.016 \text{ m} \times 100 \quad \checkmark$ $= 1.6 \text{ cm} \quad \checkmark$	1MA 1C 1S	(3)
TOTAL : 50 MARKS			