



MPHETHI MAHLATSI SECONDARY

GRADE 11
MATHEMATICAL LITERACY PAPER 1
JUNE 2024

TIME:1,5 HOURS

MARKS: 75

NUMBER OF PAGES:

EXAMINER: B SITEMELA, N BOPAPE

MODERATOR: A MASVAURE

INSTRUCTIONS AND INFORMATION

QUESTION 1

1.1

1. This paper consists of FOUR 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 OR draw a line at the end of EACH question.
4. You may use an approved calculator (non-programmable and non-graphical), unless stated otherwise.
5. Show ALL the calculations clearly.
6. Round ALL the final answers accordingly, unless stated otherwise OR where the REAL-LIFE context requires rounding UP or DOWN.
7. Indicate units of measurement, where applicable.
8. Write neatly and legibly.
9. Formulae which may be required to answer the question, will be supplied below the question number. You should choose the applicable formula where required.

Mr Wayne works and receives his payslip every month. Study the payslip below and answer the questions that follow:

ZAMA ZAMA PACKAGING			
		Payslip Number:14	
Employee details			
ID:9803050936086	Mr Wayne	Pay date: 31 May 2022	
Bank Account: 984****4281		Department: General Affairs	
Tax no. 12537514		Occupation: Cleaning service staff	
EARNINGS	AMOUNTS	DEDUCTIONS	AMOUNTS
Basic Salary	R5 200	Provisional tax (SITE)	R22
Meal Allowance	R1 000	Retirement insurance	R250
Transport Allowance	R1 000	UIF(1% of gross salary)	A
		Company load	R680
Total Gross salary	R7 200	Total deductions	B
	Net salary = C		
<i>* UIF is levied at most for 1% of gross income</i>			
<i>* Maximum UIF threshold equates to R177,12</i>			

1.1.1 What is Mr Wayne's date of birth? (2)

1.1.2 What does the acronym UIF stands for? (2)

1.1.3 Determine in year(s) and month(s) for Mr Waynes service period on this company. (2)

1.1.4 Calculate the value of **A**, which is Mr Wayne's monthly UIF contribution. (2)

1.1.5 Hence, calculate the missing value **B** and **C** in the payslip. (4)

1.1.6 Mr Wayne state that his UIF claim benefit will be less than R140 per annum.

Verify Mr Wayne statement showing all calculations, whether his statement is correct.

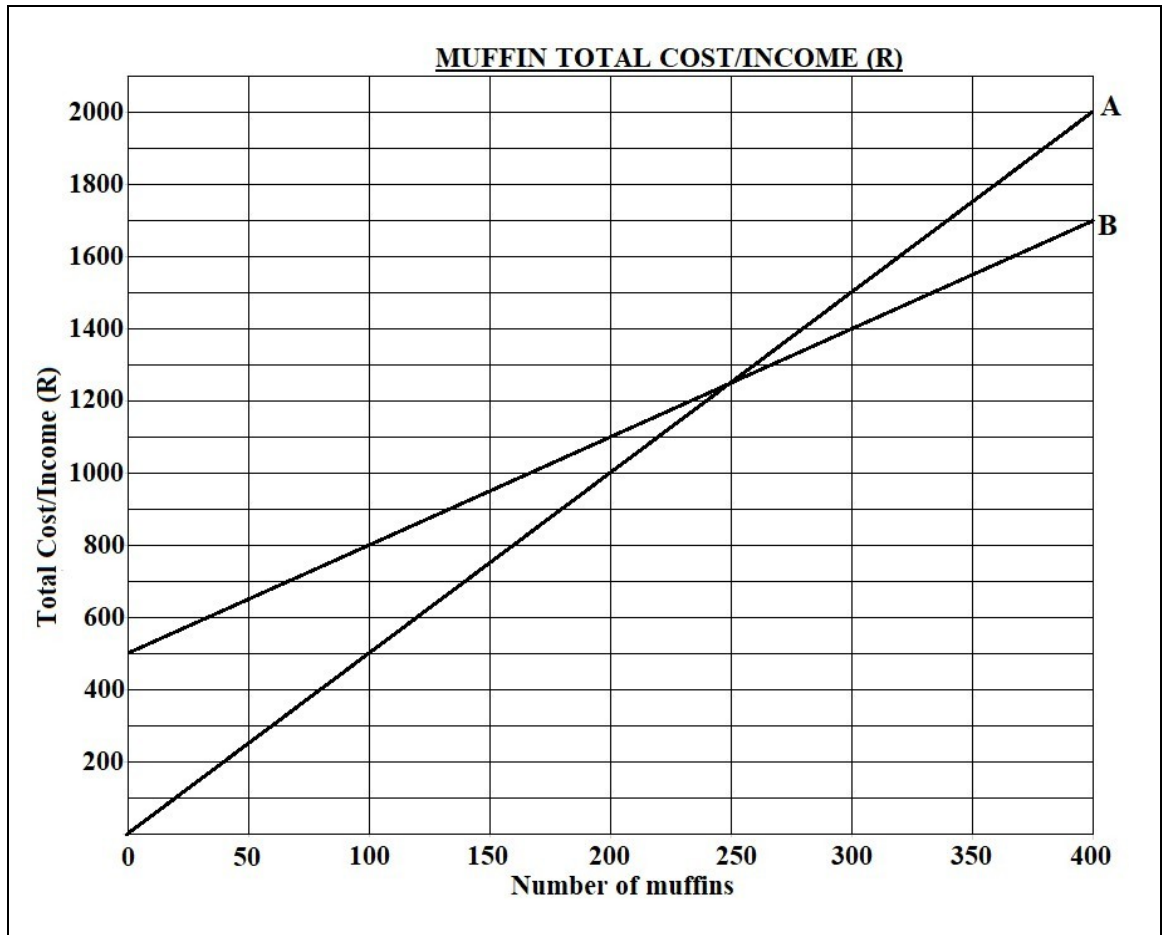
You may use the following formula:

$$\text{UIF benefit} = \frac{\text{Annual gross} \times 60\%}{365 \text{ days}} \quad (4)$$

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QUESTION 2

2.1 Green Fields High School Matric Dance Committee bakes and sells muffins to raise funds for the matric dance. Given below is the graph for total cost and total income for the muffins.



Use the graph above to answer the questions that follow.

- 2.1.1 Explain the meaning of the word “*total cost*” in the context above.
- 2.1.2 State what each of the line graphs **A** and **B** represent.
- 2.1.3 Write down the fixed cost.
- 2.1.4 Determine the cost for baking 300 muffins.
- 2.1.5 Calculate the selling price for each muffin.
- 2.1.6 Write down the number of muffins to be sold to break-even.

- 2.2 During a particular month, Domestic worker 1's employer, Debbie, used 25 kℓ of water.

TABLE 4 shows the residential water tariffs, including VAT.

TABLE 1: RESIDENTIAL WATER TARIFFS INCLUDING VAT

Block	Tariff in kilolitres (kℓ)	Tariff in Rands per kilolitre (kℓ)
Block 1	0–6 kℓ	R10,34
Block 2	7–15 kℓ	R24,54
Block 3	16–30 kℓ	R27,63
Block 4	31–60 kℓ	R33,10
Block 5	61 or more kℓ	R38,91

[Source: Mangaung.co.za]

Use **TABLE 1** and the information above to answer the questions that follow.

- 2.2.1 Determine the maximum number of kℓ that can be charged in Block 2. (2)

- 2.2.2 Calculate the amount that Debbie will pay for the water used. (5)

[19]

QUESTION 3

3.1

In two nights, while in the Kruger National Park, Ronald Thompson and his family went on a game drive

It was reported that on a night drive, the sighting of animals can be summarized in the following frequency table.

ANIMALS	TALLIES	FREQUENCY
Elephant	(a)	12
Buffalo	IIII II	(b)
Giraffe	IIII	4
Leopard	I	1
Lion	IIII III	(c)
Rhino	II	2
TOTAL		(d)

[Adapted from own source]

Use the information above to answer the questions that follow.

- 3.1.1 Write down the missing items (a), (b), (c) and (d) (8)

3.1.2 Determine (as a percentage) the probability that the family saw a rhino during the game drive. Round off to two decimal places.

(3)

3.1.3 Write the ratio of giraffe to elephant that the family saw in the game drive, in a simplified form.

(3)

3.1.4 The family paid R1 450 excl VAT, for accommodation per night.

Calculate the total amount including VAT that the family paid for accommodation for two nights.

(6)

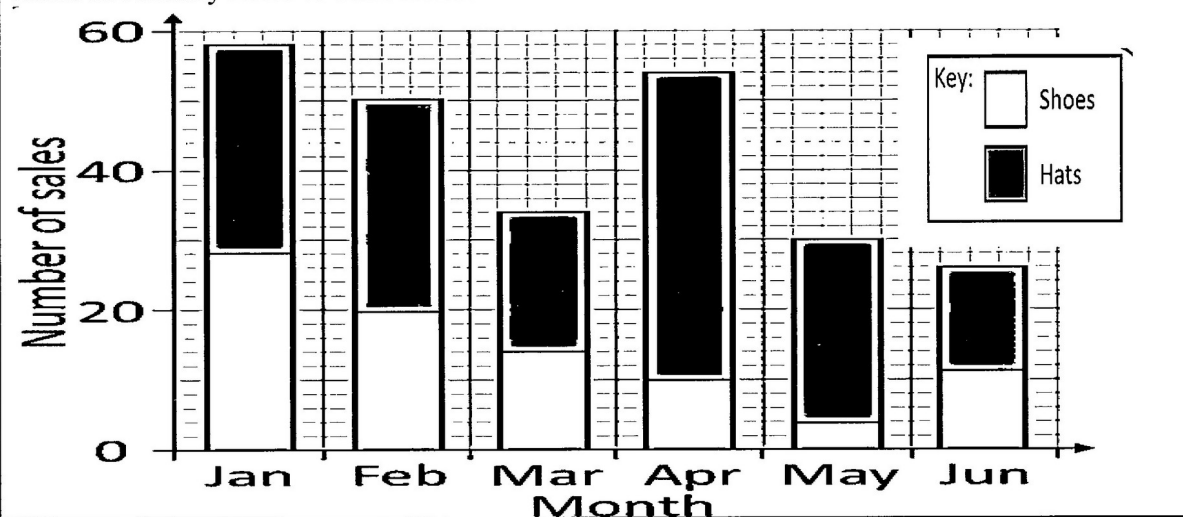
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QUESTION 4

4.1

Deoprize clothing store sells shoes and hats. The graph shows the total sales for both items in January 2020 to June 2020.



Study the graph above and answer the questions that follow.

4.1.1 Identify the type of the graph and give ONE element that is missing on the graph. (2)

4.1.2 Determine the highest number of hats sold per month. (2)

4.1.3 Calculate the total number of shoes sold in the given period. (2)

4.2

Deoprize clothing collected the data prices from Google shopping list from different outlets. TABLE 2 below shows the listed prices. Study TABLE 2 below to answer the questions that follow.

Table 2: Prices of Shoes and hats in Rands (ALL prices Excludes 15% VAT)

Hats(R)	49,90	89,90	109,90	129,90	149,90	169,90	189,90	209,90	229,90	249,90	269,90
Shoes(R)	92	52	99	39	120	150	180	210	240	270	300