



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

SEKHUKHUNE EAST EDUCATION DISTRICT – THE DISTRICT ON THE RISE

MATHEMATICAL LITERACY

Stanmorephysics.com **GRADE 10**

MID-TERM TEST
stanmorephysics.com

TERM 2

TOTAL MARKS: 50

DURATION: 1 HOUR

DATE: 13 MAY 2025

INSTRUCTIONS AND INFORMATION

Read the following instructions carefully before answering the questions.

1. This question paper consists of THREE questions. Answer ALL the questions.
2. Number the questions correctly according to the numbering system used in this question paper.
3. An approved calculator (non-programmable and non-graphical) may be used, unless stated otherwise.
4. Show ALL calculations clearly.
5. Maps and diagrams are NOT drawn to scale, unless otherwise stated.
6. Indicate units of measurement, where applicable.
7. Round off ALL final answers appropriately according to the given context, unless stated otherwise.
8. Write neatly and legibly.



Question 1

1.1 A group of Grade 10 learners at Uviwe High School are planning to bake muffins to sell on the market day at their school. Below is a recipe for the muffins

Ingredients used to make 12 muffins:

2 cups all-purpose flour
3 teaspoons baking powder
 $\frac{1}{2}$ teaspoon salt
 $\frac{3}{4}$ cup white sugar
1 egg
1 cup milk
 $\frac{1}{4}$ cup vegetable oil

Preparation time: 10 minutes

Baking time: 25 minutes

Pre heat oven to 400 °F

Conversion table:

1 cup = 250 ml, tablespoon = 15 ml and 1 teaspoon = 5 ml

Use the information above to answer the questions that follows

- 1.1.1 Determine the amount of white sugar (in ml) that will be used. (2)
- 1.1.2 Calculate the number of cups of vegetable oil that they will use to make 2 dozen of muffins. (3)
- 1.1.3 If they start making the muffins at 10h18; determine the time they will they finish baking the first 12 muffins? (3)
- 1.1.4 Convert 400 °F into °C.
- You may use the formula:
- $$^{\circ}\text{C} = (^{\circ}\text{F} - 32^{\circ}) \div 1,8$$
- 1.1.5 Give any TWO reasons why the Grade 10 learners decided to sell muffins at the market day. (4)
- 1.2 If they want to bake 18 muffins, determine the amount of flour (in ml) that will be required. (3)

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Question 2

Rochester is in the north east of New York State. Study the map below and answer the questions that follow.



- 2.1 Write down the name of the city where Roads 84, 91 and 95 meet. (2)
- 2.2 Using the given scale, determine the actual distance in miles between Buffalo and Albany, if the distance on the map between these two is 7,5 cm. (3)
- 2.3 Identify the roads that Bande will use to travel from Scranton to Albany. (2)
- 2.4 Write down the compass direction when travelling from Hartford to Boston. (2)
- 2.5 Identify the road that will help you travel from New York to the far west of the map. (2)
- 2.6 Determine the probability of randomly selecting a road on the map with an even number. (3)

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Question 3

Mrs Afrika is a Grade 10 teacher. She decided to have one big party to celebrate all the learners in her register class' birthdays. Given below is the till slip she received after doing some of the shopping for the party. Study the till slip and answer the questions that follow.

Cashier: Olwethu		
HAMBURGER BUNS (6 each)		
8 @ 10.99	(1.2)	
FRUIT JELLYBEANS		
5 @ 25.00	125.00	
MAYNARDS WINE GUM ROLL		
20 @ 7.99	159.80	
TOMATOES 1KG	17.99 #	
SIMBA CHIPS		
10 @ 15.00	150.00	
CRISP LETTUCE		
4 @ 12.99	51.96 #	
LARGE CARRIER BAG		
3 @ 0.50	1.50	
DAIRY MILK OREO SLAB 120 g		
10 @ 25.99	259.90	
COKE LIGHT 2L		
10 @ 16.49	164.90	
DUE VAT INCL	1 018.97	
-----TENDER-----		
MASTERCARD	1 018.97	
6423222		
TOTAL ITEMS:	71	
-----TAX INVOICE-----		
TAXABLE VAL	VAT VAL	
VAT INCL	1 018.97	123.79
# ZERO-RATED	69.95	
-----VAT REG NO. 4090105588-----		
*16364 3305 103923 7 24.02.2020 18:54		

- 3.1 What is the meaning of the hash tag symbol (#) that is found next to certain prices? (2)
- 3.2 Calculate the total cost of the hamburger buns. (2)

- 3.3 Write the cost of one bag of jellybeans as a ratio to the cost of one bag of chips. Give your answer as a simplified ratio. (3)
- 3.4 Show how the VAT amount of R123, 79 has been calculated. (3)
- 3.5 Mrs Afrika decided to display birthdays of every child that she teaches in a graph. Study the graph given below and answer the questions that follow.

Birthday of Students by Month



- 3.5. Name the type of graph that Mrs Afrika used. (2)
- 1
- 3.5. How many learners does Mrs Afrika teach in total? (2)
- 2
- 3.5. Write down the month(s) in which the second-most birthdays are celebrated (4)
- 3

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TERM 2 MIDTERM TEST

2025



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MARKING GUIDELINE

TOTAL MARKS: 50

Question	Solution	Explanation
Question 1	[14 Marks]	

1.1.1	R499,00 ✓✓	2 correct answer
1.1.2	Total cost price = $90\% \times R499,00$ ✓ = R449,10 ✓ OR Total cost price = R499 – 10% of R499 = R499 – R49,90 ✓ = R449,10 ✓	1 multiply by 90% (subtracting 10%) 1 answer
1.1.3	Original price of item = $R499,00 \div 1,15$ ✓ = R433,91 ✓ = R434,00 ✓	1 dividing by 1,15 1 R433,31 1 round up
1.1.4	Deposit amount = $\frac{15}{100} \times R499$ ✓ = R74,85 ✓ OR Deposit amount = R499 – 85% of R499 ✓ = R499 – R424,15 = R74,85 ✓	1 15% 1 answer OR 1 subtracting 85% 1 answer
1.1.5	Length = $120\text{cm} \div 100$ ✓ = 1,2metres ✓	1 dividing by 100 1 answer
1.2	Discrete data is usually whole values /collected by counting people or objects. ✓	1 definition
1.3	This means that every 1 unit on the plan is equivalent to 100 units in real life. ✓✓	2 explanation
		[14]
Question 2		
2.1.1	R13,27 ✓✓	2 correct answer
2.1.2	Percentage change = $\frac{R13,89 - R13,27}{R13,27} \times 100\%$ = 4,67%	2 substitution 1 answer
2.2.1	Cost = $R0,80 \times 30$ ✓ = R24,00 ✓	1 multiplying by 30 1 answer
2.2.2	Time(hrs.+min) = $2 \times 60 + 30$ ✓ = 150 minutes ✓ Cost = $150 \times 0,90$ ✓ = R135,00 ✓	1 conversion of time 1 time in minutes 1 multiplying by 0.90 1 correct cost
2.2.3	Daily cost in rand = $\frac{R135}{30}$ = R4,50 per day	1 dividing by 30 1 answer
2.3	IGNORE	Question not clear (2)
2.4.1	R200 or two hundred rand ✓✓	2 correct answer
2.4.2	2 people ✓✓	2 correct answer
2.4.3	Costs = $R800 \div 9$ ✓ = R88,89 ✓	1 dividing by 9 1 answer
		[21] [19]
Question 3		
3.1.1	10 : 15 ✓ 2 : 3 ✓	1 correct ratio 1 simplification

3.1.2	Water: $1,5 \times 500\text{ml} = 750\text{ml} \checkmark$ Salt: $1,5 \times 5\text{ml} = 7,5 \text{ml} \checkmark$	1 correct water 1 correct salt
3.1.3	Flour(grams) = $1,5 \times 0,25 \times 1000 \checkmark$ = $375 \text{ grams} \checkmark$	1 multiplying by 1,5 1 answer
3.2	Perimeter fence = $2(6,5\text{m} + 0,8 \text{ m}) + 2(4,5 \text{ m} + 0,8 \text{ m}) \checkmark$ = $2(7,3\text{m}) + 2(5,3 \text{ m}) \checkmark$ = $14,6 \text{ m} + 10,6\text{m} \checkmark$ = $25,2 \text{ m} \checkmark$ OR Perimeter fence = $2(650 + 80) + 2(450 + 80) \checkmark$ = $1\,460 \text{ cm} + 1\,060 \text{ cm} \checkmark$ = $2\,520 \text{ cm} \div 100 \text{ cm} \checkmark$ = $25,2 \text{ m} \checkmark$	1 addition of 0,8m (80cm) 1 addition 1 conversion to metre 1 answer
3.3.1	$90^\circ\text{F} \checkmark \checkmark$	2 correct reading
3.3.2	$^\circ\text{F} = \frac{9}{5} \times 32^\circ + 32^\circ$ = $57,6 + 32^\circ \checkmark$ = $89,6^\circ$ = $90^\circ\text{F} \checkmark$	1 substitution 1 simplification 1 answer
		[15]

