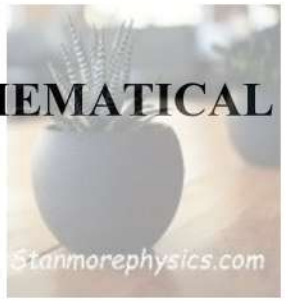
Province of the
EASTERN CAPE
EDUCATION

Iphondo leMpuma Kapa: Isebe leMfundo
Provinsie van die Oos Kaap: Department van Onderwys
Porafensie Ya Kapa Botjhabela: Lefapha la Thuto

O.R TAMBO COASTAL DISTRICT

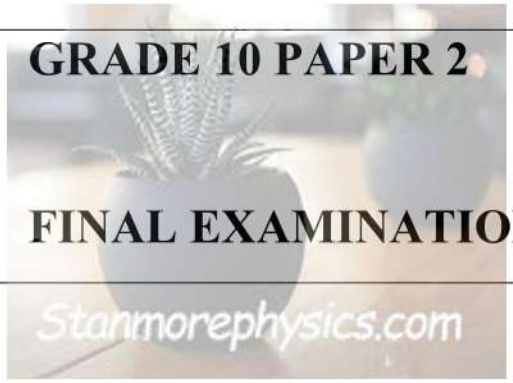
NATIONAL SENIOR CERTIFICATE

MATHEMATICAL LITERACY



GRADE 10 PAPER 2

FINAL EXAMINATION



MARKS: 75
DATE: 30/10/2025
DURATION: $1\frac{1}{2}$ hours

This question paper consists of 8 pages including cover page

Instructions:

1. This question paper consists of four questions
2. Read the given questions carefully before answering.
3. Show ALL calculations clearly
4. Indicate units of measurement, where applicable
5. Number the answers according to the numbering system used in this question paper
6. Round off all final answers according to the context of the question, unless stated otherwise
7. Write neatly and legibly.

QUESTION 1

1.1 Luntu's mother is turning 80 years old. She plans to bake some vanilla muffins using the recipe below. It takes 15 minutes for preparation and 20 minutes for baking 12 vanilla muffins

VANILLA MUFFINS Ingredients for a batch (makes 2 dozen muffins)

600g all-purpose flour
2 cups of sugar.
2tbsp. baking powder
$\frac{3}{4}$ tsp. salt
0,5 litre milk
2 large eggs
1 tbsp. vanilla extract
8 tbsp. butter(melted)

KEY: tablespoon = tbsp. teaspoon = tsp. one litre = 1000ml

1 tbsp = 15 ml, 1tsp = 5 ml, 1 cup = 250 ml.

Use the information above to answer the following questions:

1.1.1 How many muffins can be made from the recipe? (2)

1.1.2 How many batches can be made with a 2 litre of milk? (2)

1.1.3 Write the ratio of baking powder to melted butter in its simplest form. (2)

1.1.4 Which two international systems of measurement can be used in Recipes. (2)

1.1.5 Write the total time in hours (2)

1.1.6 Convert the number of cups of sugar to milliliters (2)

1.2 Using the clocks below, answer the questions that follow

FIGURE 1	FIGURE 2
	 NOTE: 12:59 a.m.

1.2.1 Identify the type of clock represented by figure 1 and figure 2. (2)

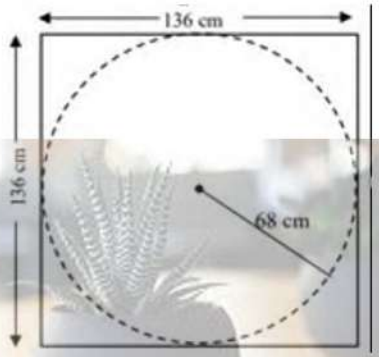
1.2.2 Write the time indicated by the clock in figure 1 in words. (2)

1.2.3 What does **a.m**. in figure 2 mean? (2)

1.2.4 Write the time in figure 1 in a 24 hour-format (2)

QUESTION 2

Mrs. Livo had a coffee table that was damaged by one of her children. _____ decided to replace it by a circular glass tabletop which was cut from a piece of glass with dimensions of 136 cm by 136 cm.

DIAGRAM OF THE SQUARE GLASS	PICTURE OF CIRCULAR COFFEE TABLE
	

NOTE:
A flexible alluminium strip is attached to the circular edge of the tabletop to form an edging. The aluminium edging is sold in strips of 2 m @ R150 per strip.

Use the information above to answer the questions that follow.

2.1(a) Calculate, in mm, the diameter of the tabletop. (3)

(b) What is the difference between diameter and radius (3)

2.2 Calculate, rounded to the nearest hundred cm, the perimeter of the square piece of glass.

You may use the following formula:

Perimeter = 4 × length of side (3)

2.3 Calculate, rounded to the nearest whole number, the area of the glass tabletop in cm^2.

You may use the following formula:

Area = $\pi \times r^2$, where $\pi = 3{,}142$ (3)

2.4 Mrs Livo stated that the total cost of the alluminium strip will be less than R500.

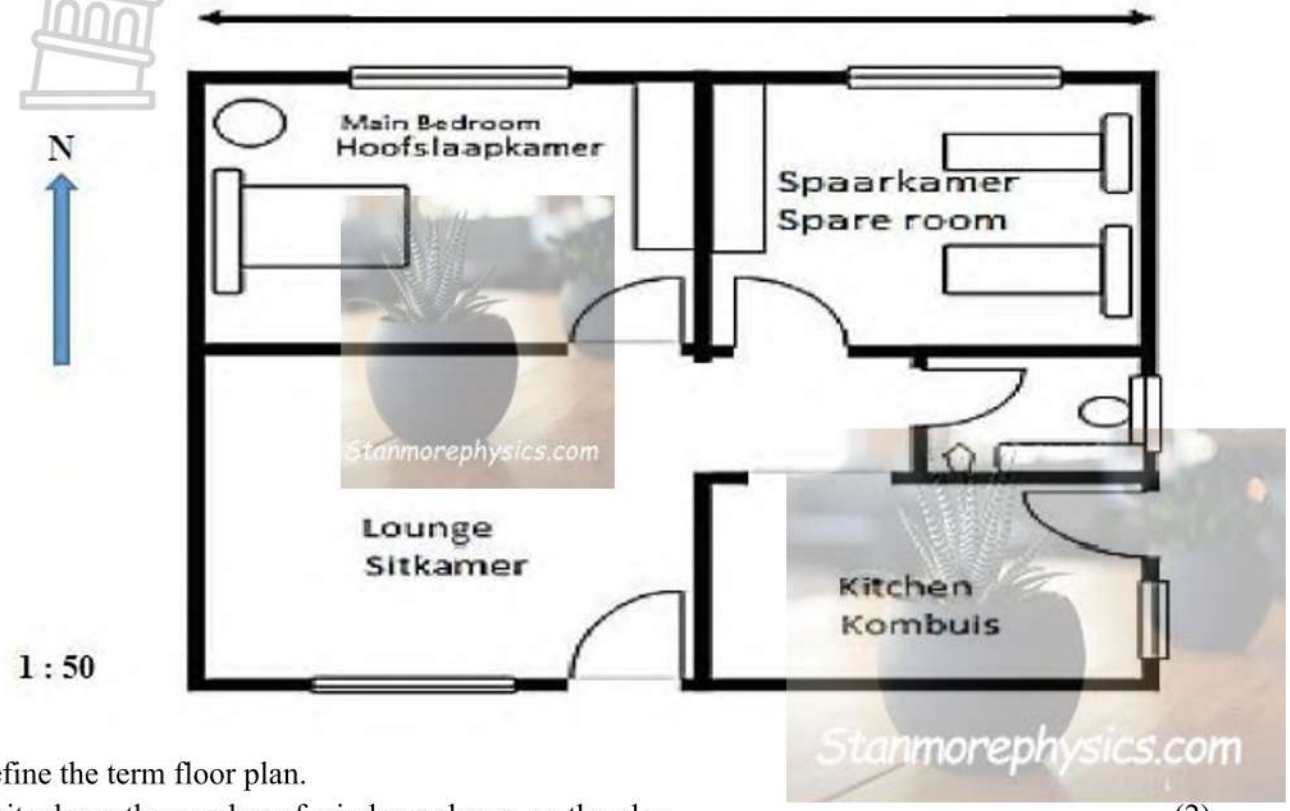
Verify, showing all calculations whether her statement is valid.
You may use the following formula: (8)

Circumference of circle = 2 × 3,142 × radius

[20]

QUESTION 3

The diagram below shows a floor plan of the house. It is not drawn according to scale The scale is 1: 50



3.1 Define the term floor plan.
3.2 Write down the number of windows shown on the plan. (2)
3.3 Name any two features that can be found in the bathroom (2)
3.4 Write down the meaning of the scale given on the floor plan. (2)
3.5 Determine the actual length of the north facing wall in metres. (3)
3.6 Which room(s) will get sunlight in the morning? (2)
3.7 Determine the general direction of the kitchen from the main bedroom. (2)
3.8 What is the probability of finding windows in the western side (2)

(15)

QUESTION 4

4.1 A shoe company packs their brand of shoes in a small box and then the small boxes will be packed in a bigger box for transportation.

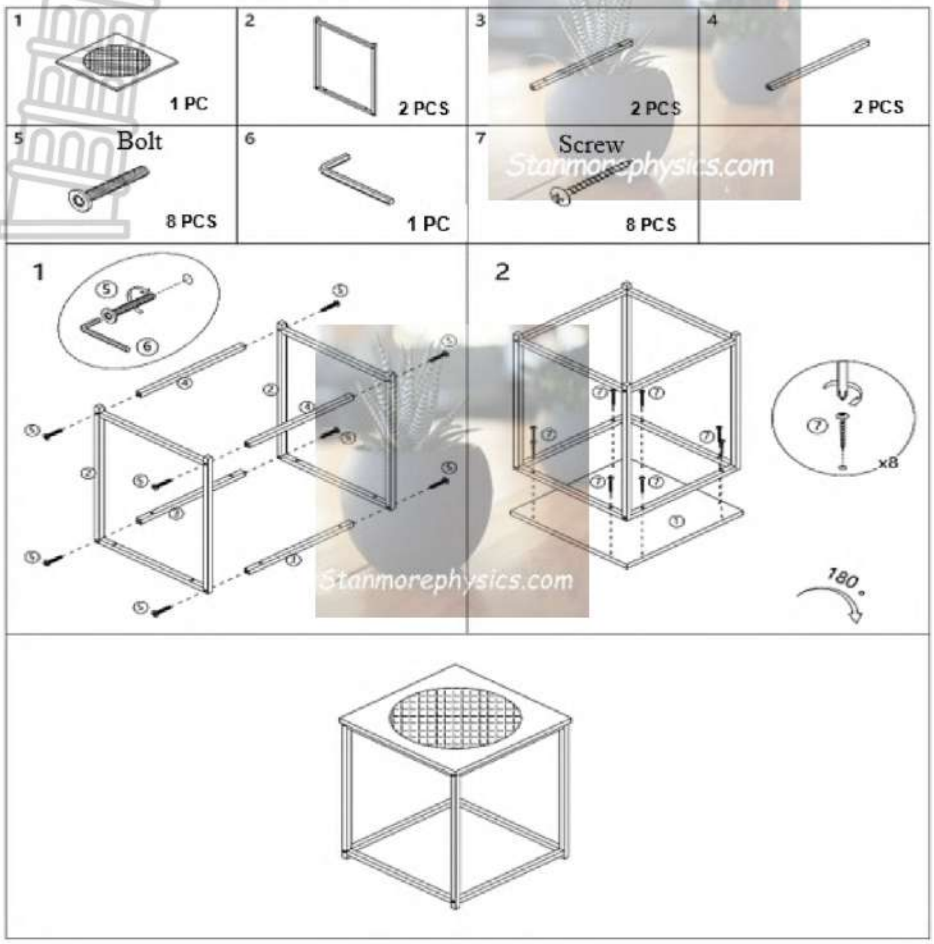
Small box	**Big box**
	
Length = 33.5cm Width = 23cm Height = 13cm	Length = 2.01m Width = 0.69m Height = 0.52m

4.1.1 Calculate the volume of a small box (3)
You may use the following formula
Volume = l x b x h

4.1.2 The courier company claims that one big box will have 72 small boxes if the small boxes are lengthwise in the big boxes. (7)

4.2

Bukho bought a piece of furniture that needs to be assembled. It ismade up of a wooden top and wooden frame and metal screws and bolts. The diagram below shows the part numbers and the assembly instructions using the part numbers.



Use the diagram above to answer the following questions.

4.2.1 Determine the quantity of wooden parts. (2)

4.2.2 Determine the total number of bolts and screws. (2)

4.2.3 Identify the part number that can be used to tighten the bolts. (2)

4.2.4 Must the screws be turned in a clockwise or anti clockwise direction? (2)

4.2.5 Name the piece of furniture Bukho assembled. (2)

(20)

TOTAL = 75

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MARKING GUIDELINES

GRADE 10 PAPER 2

FINAL EXAMINATION

MARKS: 75

DATE: 30/10/2025

DURATION: $1\frac{1}{2}$ hours

This marking guideline consists of 6 pages including cover page

Symbol	Explanation
M	Method
MA	Method with Accuracy
CA	Consistent Accuracy
A	Accuracy
C	Conversion
D	Define
J	Justification/Reason/Explain
S	Simplification
RT	Read from the table OR a graph
F	Choosing the correct formula
SF	Substitution in formula
O	Opinion
P	Penalty, e.g for no units, incorrect rounding
R	Rounding off
AO	Answer only
NPR	No penalty for rounding off OR omitting units
PR	Penalty for rounding off OR omitting units

NOTE:

- **If a candidate answers a question TWICE, only mark the FIRST attempt.**
- **If a candidate has crossed out (cancelled) an attempt to a question and NOT redone the solution, mark the crossed out (cancelled) version.**

- **Consistent accuracy (CA) applies in ALL aspects of the marking guidelines; however, it stops at the second calculation error.**
- **If the candidate presents any extra solution when reading from a graph, table, layout plan and map, then penalize for every extra item presented.**
- **Rounding is an independent mark.**
- **General principle of marking, if the candidate makes one mistake he loses one mark.**

A conclusion mark can only be given if relevant calculations precedes it.

- **No penalty for rounding (NPR) if the first decimal is correct.**

QUESTION 1			
Ques.	**Solution**	**Explanation**	**Marks**
1.1			
1.1.1	24 muffins √√	2A	2
1.1.2	4 batches √√	2A	2
1.1.3	2: 8 √ 1 : 4 √	1A 1A (simplified)	2
1.1.4	Metric and Imperial √√	2A	2
1.1..5	15minuters +20 minutes √ =35/60 =0,5833hrs √	2A	2
1.1.6	1 cup: 250ml 2 cup:? 2×250 =500ml √√	2A	2
1.2			
	(a) Figure1 = Analogue √ (b) Figure2 = Digital √	1A 1A	2
1.2.2	Ten minutes past ten √√	2A	2
1.2.3	Morning √√	2A	2
1.2.4	22:10 pm √√	2A	2
			{ 20}
QUESTION 2			
2.1 (a)	Diameter = 68cm × 2 √ = 136CM = 136cm × 10 √ = 1360mm √	1M 1C 1A	3
(b)	Diameter is a distance from the circumference passing through center to the other side of the circumference while radius is the distance from circumference to the center. OR diameter is a full circle while radius is a half of the circle. √√ √	2A	2
2.2	P = 136cm × 4 √ P = 544cm √ P = 500cm √	1M 1S 1A	3

2.3	$A = \pi r^2$ Area =3,142 × 68 × 68 √ Area =14528,608cm^2 √ Area =14529cm^2 √	 1SF 1S 2R	4
2.4	Circumference = 2 × 3,142 × 0,68 √√ = 4,27312m√ No. of strips = $\frac{427312m}{2m}$ √ = 3 strips √ Cost of strips = 3 × R150 √ = R450 √ Her statement is valid. √	 2SF 1A 1M 1A 1M 1A 1O	8
			(20)
QUESTION 3			
3.1.1	Floor plan shows the top view of the object. √√	2A	2
3.1.2	5 windows √√	2A	2
3.1.3	Sink, toilet sit √√	2A	2
3.1.4	1 unit on the is equal to 50 units on the ground or reality. √√	2A	2
3.1.5	1: 50 12,1 cm: 12,1 × 50 √ = $\frac{605cm}{100}$ √ = 6,05m √	 1M 1C 1A	3
3.1.6	South West /SW √√	2A	2
3.1.7	0% impossible or none √√	2A	2
			[15]
QUESTION 4			
4.1.1	Volume=Length × width × height = 33.5 × 23 × 13 √ =10016,5cm^3 √	 1SF 1A	2

4.1.2	Length of small box $= \frac{33,5cm}{100}$ $= 0,33\text{m}$ √ Width of small box $\frac{23cm}{100}$ √ $= 0,23m$ $Height\ of\ small\ box = \frac{13cm}{100}$ $= 0,13m$ √ $Lengthwise = \frac{2,01m}{0,335}$ √ $= 6\ box$ $Widthwise = \frac{0,69m}{0,23}$ $= 3\ box$ √ $Heightwise = \frac{0,52m}{0,13}$ $= 4\ box$ √ $6 \times 3 \times 4 = 72\ boxes$ √ *The claim is valid* √	1A 1M 1A 1M 1A 1A 1M 1O	8
4.2			
4.2.1	Number of wooden parts = 7 √√	2A	2
4.2.2	Total number of screws = 16 √√	2A	2
4.2.3	Part = 6√√	2A	2
4.2.4	Clockwise direction √√	2A	2
4.2.5	Table or Side Table √√	2A	2
			(20)
			TOTAL = 75