



**education**  
Department:  
Education  
NORTHERN CAPE

**PROVINCIAL  
EXAMINATIONS**

**GRADE 12**

**MATHEMATICAL LITERACY P2**

**MAY / JUNE 2024**

[Stannmorephysics.com](http://Stannmorephysics.com)

**MARKS: 100**

**TIME: 2 hours**

**This question paper consists of 12 pages including 2 annexures.**

## INSTRUCTIONS AND INFORMATION

1. This question paper consists of FOUR questions. Answer ALL the questions.
2. Use the ANNEXURES to answer the following questions:  
ANNEXURE A for QUESTION 2  
ANNEXURE B for QUESTION 4.1
3. Number the answers correctly according to the numbering system used in this question paper.
4. Start EACH question on a NEW page.
5. You may use an approved calculator (non-programmable and non-graphical), unless stated otherwise.
6. Show ALL calculations clearly.
7. Round off ALL final answers appropriately according to the given context, unless stated otherwise.
8. Indicate units of measurement, where applicable.
9. Maps and diagrams are NOT drawn to scale, unless stated otherwise.
10. Write neatly and legibly.



**QUESTION 1**



- 1.1 TABLE 1 below contains a list of explanations and definitions of concepts used in Mathematical Literacy.

**TABLE 1: EXPLANATIONS AND DEFINITIONS OF CONCEPTS**

<b>A</b>	A change from one system / unit to another.
<b>B</b>	The total distance around the boundary or edge that outlines a specific shape.
<b>C</b>	The measurement between two points, in a straight line.
<b>D</b>	Measurement that uses metres, litres, kilograms, etc.
<b>E</b>	Using an instrument to determine size, weight etc.
<b>F</b>	An indication of how heavy an object is.

Use TABLE 1 above to write down the letter of the explanation or definition (A to F) of EACH of the concepts.

- 1.1.1 Length (2)
- 1.1.2 Metric system (2)
- 1.1.3 Perimeter (2)
- 1.2 The picture below show a tin of Clover Full Cream Condensed Milk 385g and a diagram of the condensed milk tin with its dimensions.

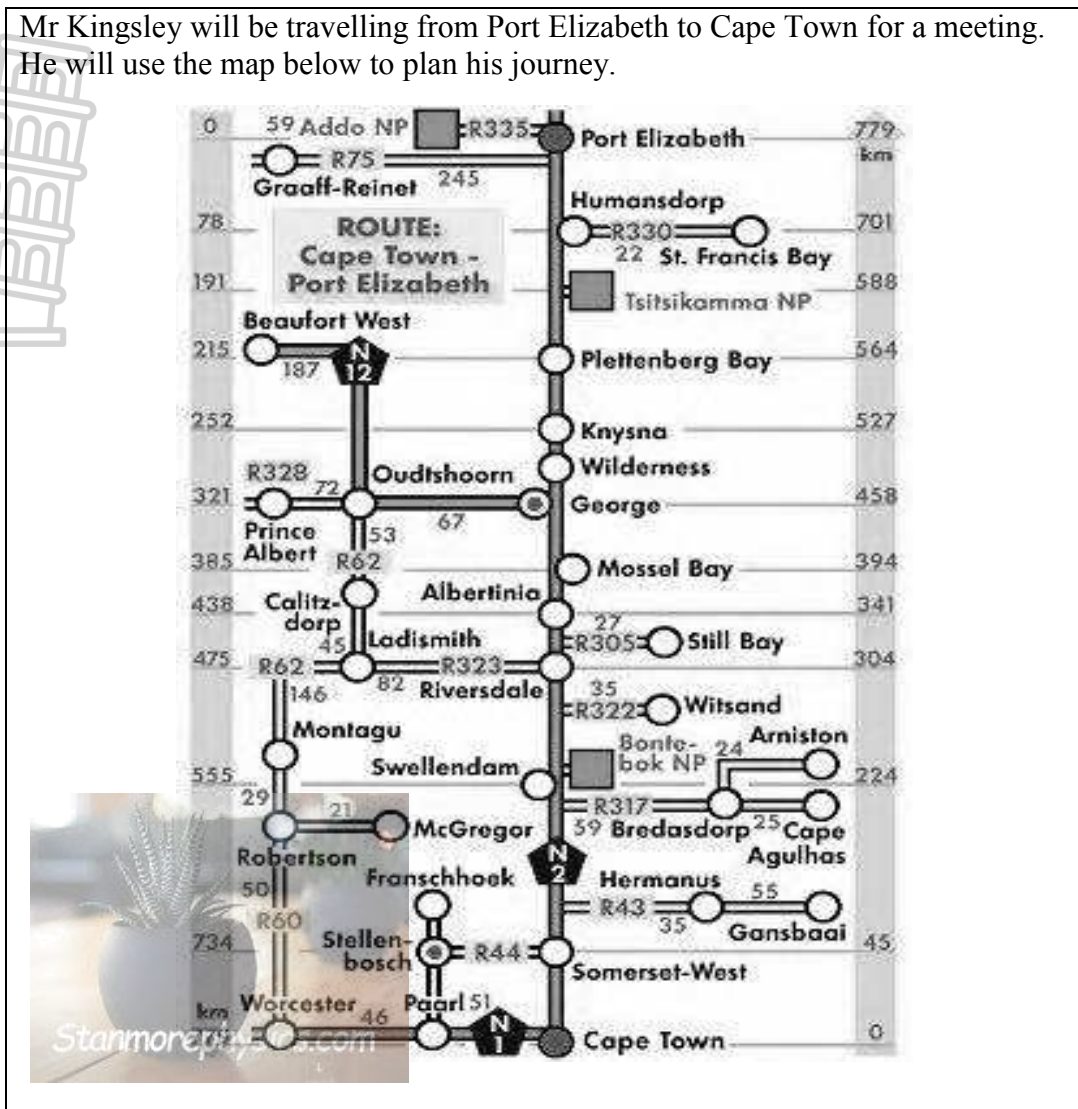
<b>PICTURE OF A TIN OF CONDENSED MILK</b>	<b>DIAGRAM OF A TIN OF CONDENSED MILK WITH DIMENSIONS</b>
	

[Adapted from <https://www.checkers.co.za/All-Departments/Food/>]

Use the information above to answer the questions that follow.

- 1.2.1 Determine the radius of the condensed milk tin. (2)
- 1.2.2 Convert 385g to kilograms. (2)

1.3 Mr Kingsley will be travelling from Port Elizabeth to Cape Town for a meeting. He will use the map below to plan his journey.



[Adapted from <https://www.nfecandexpo.com>]

Use the map above to answer the questions that follow.

- 1.3.1 Identify the type of map used above. (2)
- 1.3.2 Name the national route between Port Elizabeth and Cape Town. (2)
- 1.3.3 Write down the actual distance between Port Elizabeth and Humansdorp. (2)
- 1.3.4 Mr Kingsley decides to visit his brother in McGregor before going home after the meeting in Cape Town. He takes the N1. The distance between Worcester and Robertson is 50 km.
  - (a) Name two towns he will pass when travelling from Cape Town to McGregor. (2)
  - (b) Calculate the total distance he will travel to McGregor from Cape Town. (2)

[20]

**QUESTION 2**

ANNEXURE A shows the layout plan of a conference room that is used by the College of Engineering staff.

Use ANNEXURE A to answer the questions that follow.

2.1 Determine how many people can be seated comfortably on the couch. (2)

2.2 Write down the number of chairs against the West wall. (2)

2.3 Determine the simplified ratio of the total number of tables to the number of chairs in the conference room, excluding the couch. (3)

2.4 Write down the number of power outlets available in this conference room. (2)

2.5 Determine the probability, as a percentage, of getting a telephone next to the overhead projector. (2)

2.6 One of the members attending the conference, worked inside the conference room and followed the following route:

- Turned right after entering the door
- Walked towards the white board passing the floor shelving on his right
- He turned left and took the fourth chair

Write down the table number he is sitting at. (2)

2.7 The actual inside length of the conference room is 11 m.

(a) Measure the inside length of the conference room on the layout plan, in cm. (2)

(b) Hence, calculate the scale used in this layout plan. Round your answer to the nearest ten. (4)

2.8 Determine the probability, as a decimal, of selecting a chair around the table that is an odd number. (3)

2.9 Give ONE reason why there is a wall cabinet in the conference room. (2)

**[24]**

**QUESTION 3**

3.1 Adam wants to plaster and paint wall **A** and wall **B** of his garage.

The dimensions of the floor are 7,4 m × 4,3 m with a wall height of 2,7 m.

PICTURE OF UNPLASTERED WALL OF GARAGE	DIAGRAM SHOWING GARAGE WITH DIMENSIONS
	

[Adapted from [www.houseplanshelper.com](http://www.houseplanshelper.com)]

**NOTE:** Plaster is a soft mixture of sand and cement and sometimes lime with water, for spreading on walls, ceilings, or other structures, to form a smooth hard surface when dried.

Use the information above to answer the questions that follow.

3.1.1 Calculate, in m<sup>2</sup>, the total surface area of the two walls that need to be plastered.

You may use the following formula:

$$\text{Area of a wall} = \text{length} \times \text{width} \quad (5)$$

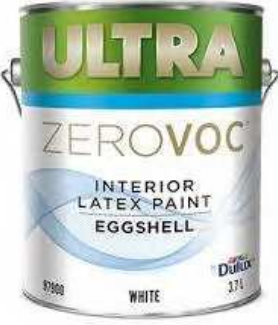
3.1.2 The plaster on the walls has the same thickness of 12 mm.

Determine, in cm<sup>3</sup>, the volume of plaster required to plaster these two walls.

You may use the following formula:

$$\text{Volume of plaster} = \text{area of walls} \times \text{thickness of plaster} \quad (5)$$

- 3.2 Adam also intends painting the two walls using the Ultra Zerovoc interior latex paint. The information about the latex paint is given below.

INFORMATION	
Latex paint <ul style="list-style-type: none"><li>• Dry to the touch in about 1 hour, and there after you can safely recoat in 4 hours.</li><li>• 1 ℓ paint will cover 6 metres squared (<math>\text{m}^2</math>) of wall.</li></ul>	
<b>NOTE:</b> 1 gallon = 3,785 ℓ	
[Adapted from <a href="https://www.dulux.ca/pro/products/interior-paint/ultra-zero-cov">https://www.dulux.ca/pro/products/interior-paint/ultra-zero-cov</a> ]	

Use the information above to answer the questions that follow.

- 3.2.1 Convert 3,785 litres (ℓ) to millilitres (mℓ). (2)

- 3.2.2 It will take Adam 60 minutes to paint the two walls.

Determine the time that Adam must start painting if he wants to apply the second coat at 11:30. (3)

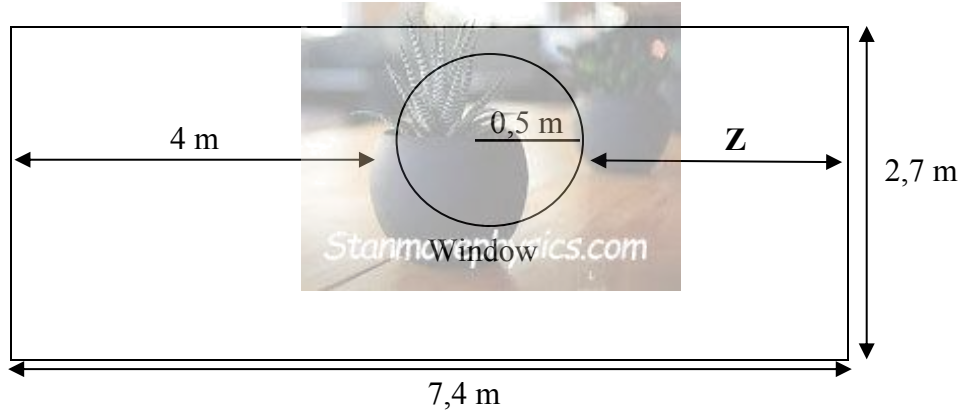
- 3.2.3 Adam rounded the total surface area up to  $35 \text{ m}^2$ , in case he needs more paint.

Calculate the amount of paint Adam will use to paint the garage walls. Round the amount of paint needed up to the nearest 5 ℓ. (3)





- 3.3 Adam will install a circular window in the wall that has not been painted, as shown in the diagram below.  
He intends painting the wall after installing the window.
- The dimensions of the wall are  $7,4 \text{ m} \times 2,7 \text{ m}$ .
- The shortest distance between the edge of the window and the edge of the wall is shown as **Z** in the sketch.



[Adapted from [www.pella.com](http://www.pella.com)]

Use the information above to answer the questions that follow.

- 3.3.1 Determine the value of **Z**. (3)
- 3.3.2 Calculate the circumference, in cm, of the window.

You may use the following formula:

$$\text{Circumference of a circle} = \pi \times d,$$

where  $d$  = the diameter of the window, and using  $\pi = 3,142$  (4)

[25]





**QUESTION 4**

- 4.1 Conrad and his three friends plan to drive to the Pilanesberg National Park. They will travel from Bloemfontein and stay at Pilanesberg Private Lodge.

ANNEXURE B shows the map of Pilanesberg National Park with an overview of where each Lodge or Resort is located in the park.

Use ANNEXURE B and the information above to answer the questions that follow.

4.1.1 Identify the type of scale used in the map. (2)

4.1.2 Name the game lodge closest to the airport. (2)

4.1.3 Give the general direction of Makorwane Hide from Pilanesburg Private Lodge. (2)

4.1.4 Conrad and his friends covers the distance of 521,6 km in 5 hours and 12 minutes. He states that their average speed is less than 120 km/h.

Verify, showing ALL calculations, whether his statement is valid.

You may use the following formula:

$$\text{Distance} = \text{speed} \times \text{time} \quad (5)$$

4.1.5 The distance from Bloemfontein to Pilanesberg is 521,6 km. The petrol fee for the trip to Pilanesberg and back will be shared equally amongst all friends.

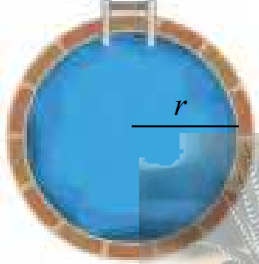
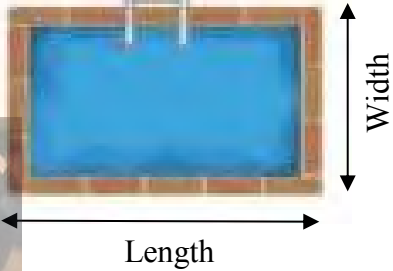
The vehicle has a fuel economy consumption of 7,3 ℓ/100 km.

Calculate the total cost per person if the current fuel price per litre is R22,92. (6)



4.2 The caretakers of Pilanesberg National Park plan to build a cylindrical pool in one of the picnic sites to accommodate small children.

The pictures below show the existing rectangular swimming pool and a cylindrical swimming pool which the caretakers plan to build at the picnic site.

CYLINDRICAL SWIMMING POOL	RECTANGULAR SWIMMING POOL
	
<p>Inner dimensions of the pool:</p> <p>Radius (<math>r</math>) = 4 m                      Depth = 1 m                      Tiles = 0,2 m × 0,2 m (16 in a box)</p>	<p>Inner dimensions of the pool:</p> <p>Length = 8,2 m                      Width = 4,3 m                      Depth = 1,75 m</p>
<p><b>NOTE:</b> 1m<sup>3</sup> = 1 000 ℓ</p> <p style="text-align: right;">[Adapted from <a href="https://pngtree.com">https://pngtree.com</a>]</p>	

Use the information above to answer the questions that follow.

4.2.1 Calculate, rounded to the nearest litre, the difference in capacity of the two swimming pools.

You may use the following formulae:

**Volume of a cylinder = 3,142 × (radius)<sup>2</sup> × depth**

**Volume of rectangular prism = length × width × depth**

(6)

4.2.2 The total inner surface of the cylindrical pool will be tiled. The tiler states that he requires more than 100 boxes of tiles to complete the tiling.

Verify, showing ALL calculations, whether his statement is valid.

You may use the following formula:

**Surface area of an open cylinder = 3,142 × radius × (radius + 2 × depth)**

(8)

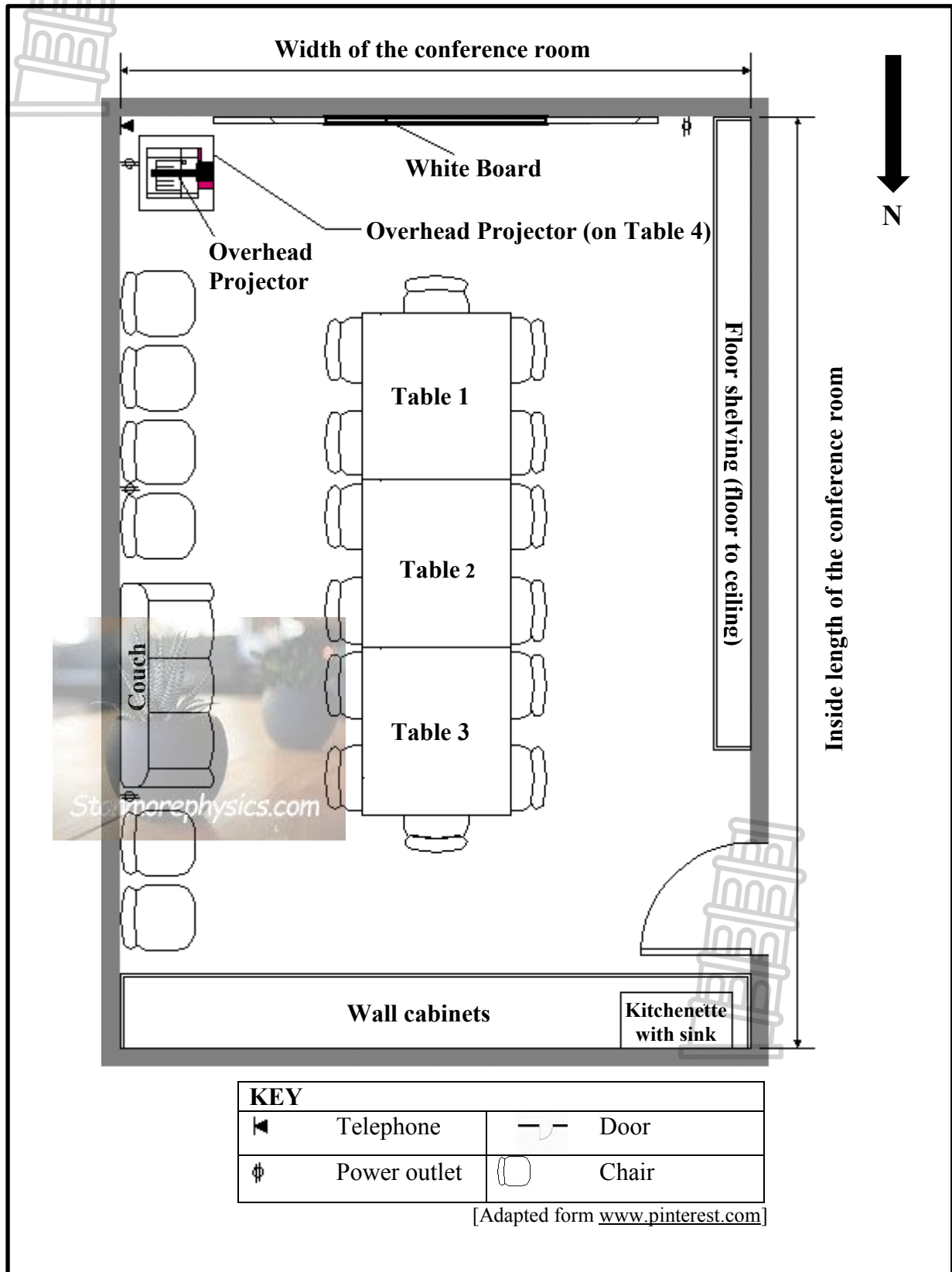
[31]

**TOTAL: 100**

ANNEXURE A

QUESTION 2

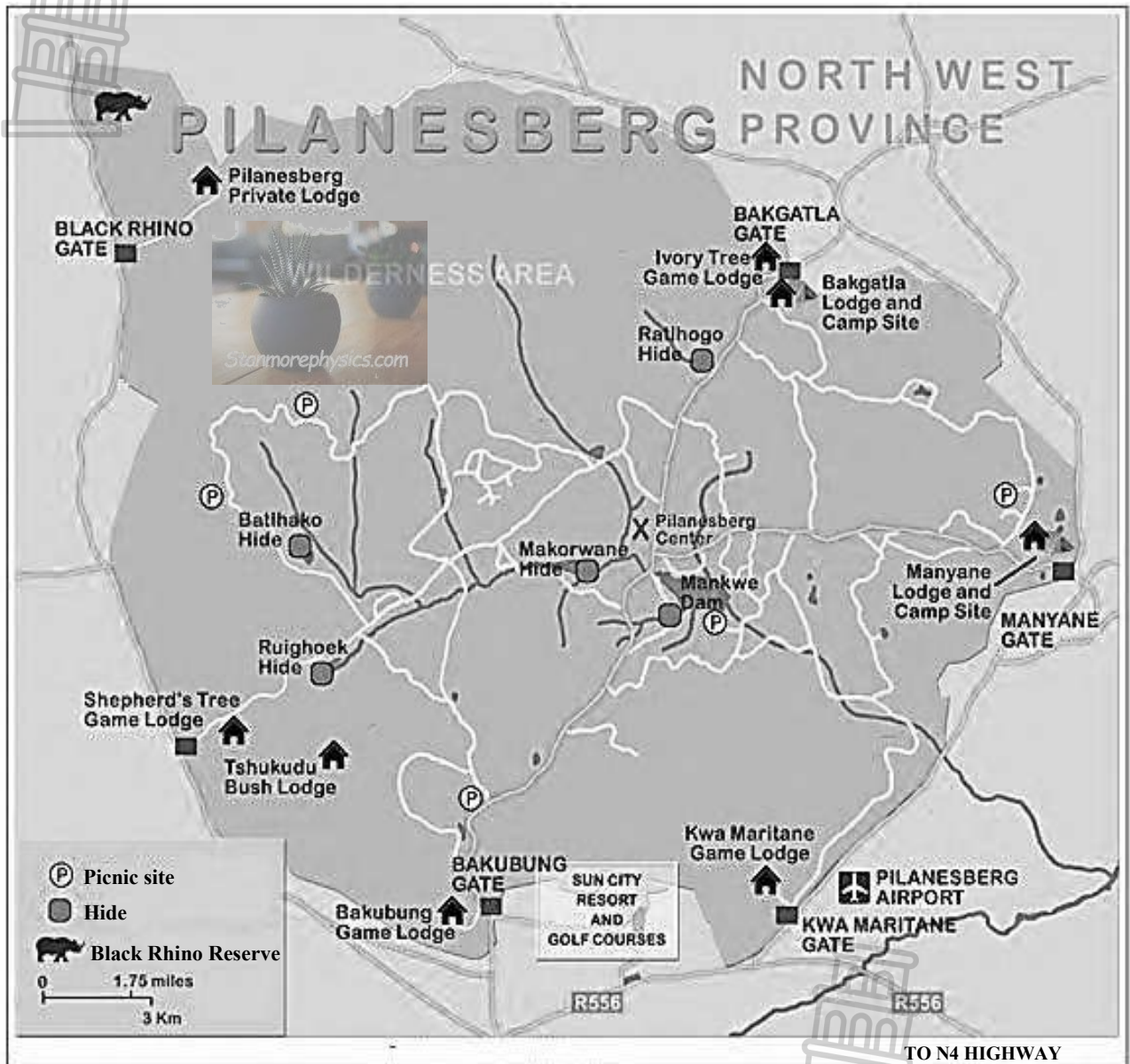
THE LAYOUT PLAN OF A BOARD ROOM



ANNEXURE B

QUESTION 4.1

THE MAP OF PILANESBERG NATIONAL PARK



[Adapted from <http://findtripinfo.com/africantravel/pilansberg-national-park-south-africa>]



**education**  
Department:  
Education  
**NORTHERN CAPE**

**GRADE/GRAAD 12**

**MATHEMATICAL LITERACY P2/  
WISKUNDIGE GELETERDHEID V2**

**MAY / JUNE 2024**

**MARKING GUIDELINES/NASIENRIGLYNE**

*Stanmorephysics.com*

**MARKS/PUNTE: 100**

<b>Symbol/Kode</b>	<b>Explanation/Verduideliking</b>
<b>MA</b>	Method with accuracy/ <i>Metode met akkuraatheid</i>
<b>CA</b>	Consistent accuracy/ <i>Volgehoueakkuraatheid</i>
<b>A</b>	Accuracy/ <i>Akkuraatheid</i>
<b>C</b>	Conversion/ <i>Herleiding</i>
<b>S</b>	Simplification/ <i>Vereenvoudiging</i>
<b>RT</b>	Reading from a table/graph/document/diagram/ <i>Lees vanaftabel/grafiek/document/diagram</i>
<b>SF</b>	Correct substitution in a formula/ <i>Korrektevervanging in 'n formule</i>
<b>O</b>	Opinion/Explanation/ <i>Opinie/Verduideliking</i>
<b>P</b>	Penalty, e.g. for no units, incorrect rounding off, etc./ <i>Penalisasie, bv. virgeeneenhede, verkeerdeafronding, ens.</i>
<b>R</b>	Rounding off/ <i>Afronding</i>
<b>NPR</b>	No penalty for rounding/ <i>Geen penalisasie vir afronding nie</i>
<b>AO</b>	Answer only/ <i>Slegsantwoord</i>
<b>MCA</b>	Method with constant accuracy/ <i>Metode met volgehoueakkuraatheid</i>
<b>J</b>	Justification

**These marking guidelines consist of 11 pages including 2 pages of notes.  
Hierdie nasienriglyne bestaan uit 11 bladsye insluitende 2 bladsye met notas.**

**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 or break-down.
- If the candidate presents any extra solution when reading from a graph, table, layout plan and map, then penalise for every extra item presented.
- Rounding is an independent mark.
- General principle of marking, if the candidate makes one mistake one mark is deducted.
- A conclusion mark can only be given if relevant calculations precedes it (at least 1 mark before conclusion).
- No penalty for rounding (NPR) if the first decimal is correct, except questions involving money.

**LET WEL:**

- *As 'n kandidaat 'n vraag TWEE KEER beantwoord, sien slegs die EERSTE poging na.*
- *As 'n kandidaat 'n antwoord van 'n vraag doodtrek (kanselleer) en nie oordoen nie, sien die doodgetrekte (gekanselleerde) poging na.*
- *Volgehoue akkuraatheid (CA) word in ALLE aspekte van die nasienriglyne toegepas; dit hou egter op by die tweede berekeningsfout of 'break-down'.*
- *Wanneer 'n kandidaat aflesings vanaf 'n grafiek, tabel, uitlegplan en kaart geneem en ekstra antwoorde gee, penaliseer vir elke ekstra item.*
- *Afronding tel as 'n afsonderlike punt.*
- *Die algemene beginsel van merk as 'n leerder een fout maak, word een punt afgetrek.*
- *'n Gevolgtrekkingspunt kan slegs gegee word indien relevante berekening dit voorgaan (ten minste een punt voor die gevolgtrekking).*
- *Geen penalisering vir ronding (NPR) as die eerste desimaal korrek is nie, behalwe as vrae geld insluit.*

QUESTION/VRAAG 1 [20 MARKS/PUNTE]		ANSWER ONLY FULL MARKS	
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
* 1.1.1	C ✓✓A	2A correct explanation (2)	M L1
* 1.1.2	D ✓✓A	2A correct explanation (2)	M L1
* 1.1.3	B ✓✓A	2A correct explanation (2)	M L1
1.2.1	Radius / Radius = 75 mm ÷ 2 ✓MA = 37,5 mm ✓A	1MA dividing by 2 1A simplification (2)	M L1
1.2.2	= 385g ÷ 1 000 ✓MA = 0,385 kg ✓A	1MA dividing by 1 000 1A simplification (2)	M L1



Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
1.3.1	Strip chart (map) / <i>Strookkaart</i> ✓✓A	2A correct type (2)	MP L1
1.3.2	N2 ✓✓A	2A correct national route (2)	MP L1
* 1.3.3	78 km ✓✓A	2A correct distance (2)	MP L1
1.3.4 (a)	✓A ✓A Paarl / Worcester / Robertson	1A correct town 1A correct town (2)	MP L1
* 1.3.4 (b)	Total distance / <i>Totale afstand</i> = 51 km + 46 km + 50 km + 21 km ✓MA = 168 km ✓A	1MA adding correct values 1A simplification (2)	MP L1
		<b>[20]</b>	

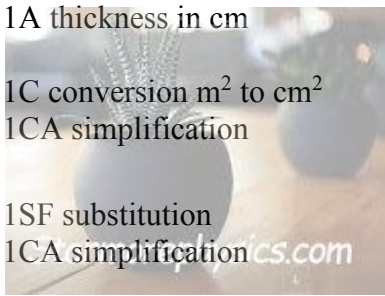




QUESTION/VRAAG 2 [24 MARKS/PUNTE]			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
2.1	3 people / mense ✓✓A	2A correct number (2)	MP L1
2.2	0 chairs / stoele ✓✓A	2A correct number (2)	MP L2
* 2.3	✓RT 4 : 20 ✓MA 1 : 5 ✓CA	1RT number of tables and chairs 1MA correct order 1CA simplification (3)	MP L1
2.4	4 power outlets / krag punte ✓✓A	2A correct number (2)	MP L2
2.5	100% ✓✓A	2A probability (2)	P L2
2.6	Table / Tafel 2 ✓✓A	2A correct table (2)	MP L2
* 2.7 (a)	16 cm ✓✓A	2A measurement in cm Accept: 15 – 17 cm (2)	MP L1
* 2.7 (b)	16 cm : 11 m ✓MA 16 cm : 11 m × 100 16 : 1 100 ✓C 1 : 68,75 ✓CA ≈ 1 : 70 ✓R	<b>CA from question 2.7 (a)</b> 1MA concept of scale  1C conversion  1CA simplification 1R correct rounding (4)	MP L3

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
2.8	14 chairs / <i>stoele</i> Odd numbers / <i>Ongelykke getalle</i> = 1, 3, 5, 7, 9, 11, 13 Probability / <i>Waarskynlikheid</i> $= \frac{7}{14} \checkmark A$ $= 0,5 \checkmark CA$	1A numerator 1A denominator 1CA simplification (3)	P L2
* 2.9	To keep conference material safe, such as laptops, projectors, extension cords / <span style="float: right;">✓✓O</span> <i>Om konferensie materiaal soos skoot rekenaars,</i> <i>projectors en verlengingskoorde veilig te hou.</i>	2O reason (2)	MP L4
		<b>[24]</b>	



<b>QUESTION/VRAAG 3 [ 25 MARKS/PUNTE]</b>			
<b>Q/V</b>	<b>Solution/Oplissing</b>	<b>Explanation/Verduideliking</b>	<b>T&amp;L</b>
3.1.1	<p>Area of wall A / <i>Area van die muur A</i></p> $= 4,3 \text{ m} \times 2,7 \text{ m} \checkmark\text{MA}$ $= 11,61 \text{ m}^2 \checkmark\text{CA}$ <p>Area of wall B / <i>Area van die muur B</i></p> $= 7,4 \text{ m} \times 2,7 \text{ m}$ $= 19,98 \text{ m}^2 \checkmark\text{A}$ <p>Total surface area</p> $= 11,61 \text{ m}^2 + 19,98 \text{ m}^2 \checkmark\text{MA}$ $= 31,59 \text{ m}^2 \checkmark\text{CA}$	<p>1MA multiplying correct values</p> <p>1CA simplification</p> <p>1A simplification</p> <p>1MA adding correct surface area</p> <p>1CA simplification</p> <p><b>NPR</b></p> <p>(5)</p>	M L2
* 3.1.2	$12 \text{ mm} \div 10$ $= 1,2 \text{ cm} \checkmark\text{A}$ $31,59 \text{ m}^2 \times (100)^2 \checkmark\text{C}$ $= 315\,900 \text{ cm}^2 \checkmark\text{CA}$ <p>Volume = <math>315\,900 \text{ cm}^2 \times 1,2 \text{ cm} \checkmark\text{SF}</math></p> $= 379\,080 \text{ cm}^3 \checkmark\text{CA}$	<p><b>CA from Question 3.1.1</b></p> <p>1A thickness in cm</p>  <p>1C conversion <math>\text{m}^2</math> to <math>\text{cm}^2</math></p> <p>1CA simplification</p> <p>1SF substitution</p> <p>1CA simplification</p> <p>(5)</p>	M L3



Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
3.2.1	$= 3,785 \ell \times 1\,000 \checkmark\text{MA}$ $= 3\,785 \text{ ml} \checkmark\text{A}$	$1\text{MA} \times 1\,000$ 1A simplification (2)	M L1
* 3.2.2	Starting time / <i>Begin tyd</i> $\checkmark\text{MA}$ $= 11:30 - 1 \text{ hour/uur} - 4 \text{ hours/uur} \checkmark\text{MA}$ $= 06:30 \checkmark\text{CA}$	1MA subtracting 1 hour 1MA subtracting 4 hours 1CA simplification <b>AO</b> (3)	M L2
* 3.2.3	Total number of litres needed / <i>Aantal liter benodig</i> $= \frac{35 \text{ m}^2}{6 \text{ m}^2} \checkmark\text{MA}$ $= 5,8333333333 \ell \checkmark\text{CA}$ $= 10 \ell \checkmark\text{R}$	1MA dividing by $6 \text{ m}^2$ 1CA simplification 1R correct rounding (3)	M L2
* 3.3.1	Length of Z / <i>Lengte van Z</i> $= 7,4 \text{ m} - 4 \text{ m} - (2 \times 0,5 \text{ m})$ $\checkmark\text{A}$ $= 7,4 \text{ m} - 4 \text{ m} - 1 \text{ m} \checkmark\text{MA}$ $= 2,4 \text{ m} \checkmark\text{CA}$	1A diameter 1MA subtracting values 1CA simplification (3)	M L2
* 3.3.2	Circumference / <i>Omtrek</i> $= \pi \times d$ $= 3,142 \times 1 \text{ m} \checkmark\text{SF}$ $= 3,142 \text{ m} \checkmark\text{CA}$ $= 3,142 \text{ m} \times 100 \checkmark\text{MA}$ $= 314,2 \text{ cm} \checkmark\text{A}$	1SF correct substitution 1CA simplification 1MA multiplying by 100 1A simplification (4)	M L2
		<b>[25]</b>	

QUESTION/VRAAG 4 [ 31 MARKS/PUNTE]			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
4.1.1	Bar scale / Linear scale / Line scale / Graphic scale <i>Staafskaal / Liniêre skaal / Lynskaal / Grafiese skaal</i> ✓✓A	2A correct scale (2)	MP L1
4.1.2	Kwa Maritane ✓✓A	2A correct game lodge (2)	MP L1
4.1.3	South East / SE <i>Suid-Oos / SO</i> ✓✓A	2A general direction (2)	MP L2
* 4.1.4	Speed / <i>Spied</i> ✓SF 521,6 km = speed × 5 hrs 12 min $\text{Speed} = \frac{521,6 \text{ km}}{5,2 \text{ hours}} \quad \checkmark\text{MA}$ $= 100 \text{ km/h} \quad \checkmark\text{CA}$ His statement is VALID / <i>Sy bewering is GELDIG</i> ✓O	1SF correct substitution (521,6 km) 1MA change subject of formula 1A correct time (5,2 hours) 1CA simplification 1O conclusion (5)	MP L4
4.1.5	Return trip / <i>Re-toer</i> $= 521,6 \text{ km} \times 2$ $= 1\,043,2 \text{ km} \quad \checkmark\text{A}$ Fuel used / <i>Brandstof gebruik</i> $= \frac{1\,043,2 \text{ km}}{100 \text{ km}} \times 7,3 \ell \quad \checkmark\text{MA}$ $= 76,1536 \ell \quad \checkmark\text{A}$ Fuel cost / <i>Brandstof koste</i> $= 76,1536 \ell \times \text{R}22,92 \quad \checkmark\text{MA}$ $= \text{R}1\,745,44 \quad \checkmark\text{CA}$ Cost per person / <i>Koste per persoon</i> $= \text{R}1\,745,44 \div 4$ $= \text{R}436,36 \quad \checkmark\text{CA}$	1A total distance 1MA fuel consumption rate 1A simplification 1MA multiplying with R22,92 1CA fuel cost 1CA cost per person (6)	M L3

Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
4.2.1	<p>Volume of cylinder / <i>Volume van 'n silinder</i>  <math>= 3,142 \times (4 \text{ m})^2 \times 1 \text{ m} \checkmark\text{SF}</math>  <math>= 50,272 \text{ m}^3 \checkmark\text{CA}</math></p> <p>Volume of rectangular prism / <i>Volume van 'n reghoeking prisma</i>  <math>= 8,2 \text{ m} \times 4,3 \text{ m} \times 1,75 \text{ m}</math>  <math>= 61,705 \text{ m}^3 \checkmark\text{A}</math></p> <p>Difference / <i>Verskil</i>  <math>= 61,705 \text{ m}^3 - 50,272 \text{ m}^3 \checkmark\text{MCA}</math>  <math>= 11,433 \text{ m}^3 \checkmark\text{CA}</math></p> <p><math>= 11,433 \text{ m}^3 \times 1\,000</math>  <math>= 11\,433 \text{ l} \checkmark\text{CA}</math></p>	<p>1SF correct substitution                      1CA simplification</p> <p>1A simplification</p> <p>1MCA subtracting values                      1CA simplification</p> <p>1CA simplification</p>	<p>M L3</p> <p>(6)</p>
4.2.2	<p>S.A. of cylinder / <i>B.O. van silinder</i>  <math>= 3,142 \times 4 \text{ m} \times (4 \text{ m} + 2 \times 1 \text{ m}) \checkmark\text{SF}</math>  <math>= 75,408 \text{ m}^2 \checkmark\text{CA}</math></p> <p>Area of one tile / <i>Area van een teel</i>  <math>= 0,2 \text{ m} \times 0,2 \text{ m}</math>  <math>= 0,04 \text{ m}^2 \checkmark\text{CA}</math></p> <p>Number of tiles needed / <i>Aantal teels benodig</i>  <math>= \frac{75,408 \text{ m}^2}{0,04 \text{ m}^2} \checkmark\text{MCA}</math>  <math>= 1\,885,2</math>  <math>\approx 1\,886 \checkmark\text{CA}</math></p> <p>Number of boxes / <i>Aantal bokse</i>  <math>= 1\,886 \div 16 \checkmark\text{MCA}</math>  <math>= 117,875</math>  <math>\approx 118 \checkmark\text{CA}</math></p> <p>His statement is VALID / <i>Sy bewering is GELDIG</i> <math>\checkmark\text{O}</math></p>	<p>1SF substituting                      1CA simplification</p> <p>1CA area of one tile</p> <p>1MCA finding number of tiles</p> <p>1CA number of tiles</p> <p>1MCA dividing by 16</p> <p>1CA number of boxes</p> <p>1O conclusion</p>	<p>M L4</p> <p>(8)</p>
			[31]
<b>TOTAL/TOTAAL: 100</b>			

<b>NOTES:</b>																						
<b>***CA-Mark can only be awarded if one of the two values is correct.</b>																						
<b>QUESTION 1</b>																						
1.1	Learners wrote explanation (sentence) = full marks																					
1.3.3	<b>AFRIKAANS ONLY / SLEGS AFRIKAANS</b> $= \frac{\text{Leerder se punt}}{18} \times 20$ <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Leerder se punt uit 18</th> <th>Leerder se punt uit 20</th> </tr> </thead> <tbody> <tr><td>10</td><td>11</td></tr> <tr><td>11</td><td>12</td></tr> <tr><td>12</td><td>13</td></tr> <tr><td>13</td><td>14</td></tr> <tr><td>14</td><td>16</td></tr> <tr><td>15</td><td>17</td></tr> <tr><td>16</td><td>18</td></tr> <tr><td>17</td><td>19</td></tr> <tr><td>18</td><td>20</td></tr> </tbody> </table> <p>Die vraestel Totaal bly 100, ons pas slegs Vraag 1 aan.</p>	Leerder se punt uit 18	Leerder se punt uit 20	10	11	11	12	12	13	13	14	14	16	15	17	16	18	17	19	18	20	
Leerder se punt uit 18	Leerder se punt uit 20																					
10	11																					
11	12																					
12	13																					
13	14																					
14	16																					
15	17																					
16	18																					
17	19																					
18	20																					
1.3.4 b	Adding at least 3 correct values = ✓MA	1/2 marks																				
<b>QUESTION 2</b>																						
2.3	✓MA 3 : 20 ✓CA <b>OR</b> 1 : 6,67	2/3 marks																				
2.7 a	Measure according to layout plan learners received (range – 1 up and 1 down)																					
2.7 b	Calculate scale according to measure distance in 2.7.a																					
2.9	Storage / a place to store items used in the conference room. Make the room look neat – everything is packed away. For filing purposes.	2/2 marks																				
<b>QUESTION 3</b>																						
3.1.2	Answer in m <sup>3</sup> = 0,37908 m <sup>3</sup>	3/5 marks																				
3.2.2	Starting time / <i>Begin tyd</i> ✓MA = 11:30 – 1 hour/uur – 1 hour/uur – 4 hours/uur ✓MA = 05:30 ✓CA	3/3 marks																				
3.2.3	Apply 2 coats = 15 ℓ	3/3 marks																				
3.3.1	Subtract radius = 2,9 m	2/3 marks																				
3.3.2	Substitute radius = 157,1 cm	3/4 marks																				



<b>QUESTION 4</b>		
4.1.4	Distance = speed $\times$ time $= 120 \times 5,2$ $= 624 \text{ km}$  $624 \text{ km} > 521,6 \text{ km}$  His statement is VALID.  Accept: 100,3076923 km/h	5/5 marks

