



education

Department:
Education
North West Provincial Government
REPUBLIC OF SOUTH AFRICA

PROVINCIAL ASSESSMENT

GRADE 10

MATHEMATICAL LITERACY P2 NOVEMBER 2024 MARKING GUIDELINES

MARKS: 75

Symbol	Explanation
M	Method
MA	Method with accuracy
MCA	Method with consistent accuracy
CA	Consistent accuracy
A	Accuracy
C	Conversion
S	Simplification
RT	Reading from a table/a graph/document/diagram
SF	Correct substitution in a formula
O	Opinion/Explanation/Reasoning
P	Penalty, e.g. for no units, incorrect rounding off, etc.
R	
NI	
AC	



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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.
- NOTE: consistent accuracy (CA) does not apply in cases of a breakdown.
- If the candidate presents any extra solution when reading from a graph, table, layout plan and map, then penalize for every extra item presented.
- As a general marking principle, if a candidate has incurred one mistake and there is evidence of sound mathematics thereafter, then that candidate should lose one mark only.
- Rounding is an independent mark.
- In opinion type questions marks will only be awarded if relevant calculations are shown.

QUESTION 1 [14 MARKS] Answer only AO – full marks			
Q	Solution	Explanation	T/L
1.1.1	C✓✓	2A answer (2)	M L1
1.1.2	D✓✓	2A answer (2)	M L1
1.1.3	B✓✓	2A answer (2)	M L1
1.1.4	A ✓✓	2A answer (2)	M L1
1.2.1	09:00✓ pm✓	1A 09:00 1A pm (2)	M L1
1.2.2	21:00 + 1 hour 45 minutes ✓ = 22:45✓	1M adding 1A answer (2)	M L1
1.3	✓M 94 kg × 1 000 = 94 000 g ✓A	1M multiplying by 1 000 1A simplification (2)	M L1
		[14]	

QUESTION 2 [21 MARKS]			
Q	Solution	Explanation	T/L
2.1.1	Room 05✓✓A	2A answer (2)	MP L1
2.1.2	✓A Kitso is staying in block B room 7.✓A	1A block B 1A room 7 (2)	MP L1
2.1.3	From room 4, turn left✓A Walk to the end of the passage✓A Enter the room on the right hand side.✓A	1A from room 4 1A to the end 1A righthand side (3)	MP L3
2.1.4	Total number = $(6 \times 3) + 4$ ✓M = 22 people✓S ∴ 22×12 blocks ✓A = 264 ✓CA	1M method of addition and multiplication 1S simplification 1A multiplying by 12 1CA (4)	MP L2
2.1.5	1 unit on the layout represent 150 units in real life.✓✓A	2A explanation (2)	MP L1
2.1.6	✓MA $3,6 \text{ m} \div 150 = 0,024 \text{ m}$ ✓A Layout length = $0,024 \times 1\,000$ ✓M = 24 mm✓CA OR ✓MA $3,6 \text{ m} \div 150 = 0,024 \text{ m}$ ✓A Layout length = $0,024 \times 100$ ✓M = 24 cm✓CA	1MA dividing 3,6 m by 150 1A answer 1M multiplying 1CA answer in mm 1MA dividing 3,6 m by 150 1A answer 1M multiplying 1CA answer in cm (4)	MP L3
2.2	$P = \frac{24}{192}$ ✓A $\times 100$ ✓M = 12,5%✓CA ≈ 13 ✓R	1A correct fraction 1M multiplying by 100 1CA 1R correct rounding (4)	MP L2
		[21]	

QUESTION 3 [21 MARKS]			
Q	Solution	Explanation	T/L
3.1	$1\frac{2}{3} \times 200 \text{ ml} \checkmark \text{M}$ $= 333,3333333 \text{ ml} \checkmark \text{A}$	1M method 1A answer (2)	M L1
3.2	No. of cups = $\frac{1\,500 \text{ ml}}{550 \text{ ml}} \times 1 \text{ banana} \checkmark \text{M}$ $= 2,727272727 \text{ bananas} \checkmark \text{CA}$ $\approx 3 \text{ bananas} \checkmark \text{R}$	1M dividing 1CA 1R rounding (3)	M L2
3.3	$\checkmark \text{MA}$ $(240 \div 10) \text{ cm} = 24 \text{ cm} \checkmark \text{A}$	1MA 1A (2)	M L2
3.4	$r = 8 \text{ cm} \div 2$ $= 4 \text{ cm} \checkmark \text{A}$ $V = 3,142 \times (4 \text{ cm})^2 \times 24 \text{ cm} \checkmark \text{SF}$ $= 1\,206,528 \checkmark \text{CA cm}^3 \checkmark \text{A}$	1A radius 1 SF substitution 1CA simplification 1A unit (4)	F L3
3.5	$1\,000 \text{ cm}^3 = 1\,000 \text{ ml}$ $\frac{1\,206,528}{1\,000} \times 1\,000 \text{ ml} \checkmark \text{C}$ $= 1206,528 \text{ ml} \checkmark \text{CA}$ $\text{No.} = 1206,528 \text{ ml} \div 550 \text{ ml} \checkmark \text{MA}$ $= 2,193687273 \checkmark \text{S}$ Claim is valid $\checkmark \text{O}$ OR $550 \text{ ml} \times 2 \checkmark$ $= 1\,100 \text{ ml} \checkmark$ $1\,206,528 \text{ cm}^3 = 1\,206,528 \text{ ml} \checkmark \text{C}$ $\therefore 1\,206,528 \text{ ml}$ is more than $1\,100 \text{ ml} \checkmark$ Twice the mixture will fit in one bottle. Claim is valid $\checkmark \text{O}$	CA from 3.1.4 1C conversion. 1CA simplification 1MA division 1S simplification 1O opinion 1MA multiplication by 2 1CA simplification 1C conversion. 1 O opinion 1O opinion (5)	M L4
3.6	$\text{SA} = 3,142 \times 4 \text{ cm}(4 \text{ cm} + 2 \times 24 \text{ cm}) \checkmark \text{SF}$ $= 653,536 \text{ cm}^3 \checkmark \text{A}$ $\text{Cost} = \text{R}0,20/\text{cm}^3 \times 653,536 \text{ cm}^3 \checkmark \text{MCA}$ $= \text{R}130,7072 \checkmark \text{CA}$ $= \text{R}130,71 \checkmark \text{R}$	1 SF substitution 1A simplification 1MCA multiplication 1CA simplification 1R correct rounding (5)	M L3
		[21]	

QUESTION 4 [19 MARKS]			
Q	Solutions	Explanation	T/L
4.1.1	Jack✓✓A	2A answer (2)	MP L1
4.1.2	Step 2: Unscrew the nut using the spanner✓A Step 3: Lift the car up with a jack ✓A Step 4 :Remove the flat tire✓A Step 5: Put on the spare wheel. ✓A	1A using the spanner 1A lift the car up 1A remove the flat tire 1A put on (4)	MP L3
4.1.3	Step 6✓✓A	2A correct step (2)	M L2
4.1.4	The car may roll over if the surface is not flat.✓✓A	2A reason (2)	M L4
4.2.1	They give indication on how to handle the box.✓✓A OR They show which side must face upwards.✓✓A	2A reason (2)	M L4
4.2.2	No along the length = $65 \text{ cm} \div 20 \text{ cm}$ ✓MA = 3,25 ≈ 3 ✓R No along the width = $65 \text{ cm} \div 20 \text{ cm}$ = 3,25 ≈ 3 ✓R No. along the height = $55 \text{ cm} \div 20 \text{ cm}$ = 2,75 ≈ 2 ✓R Total no. = $3 \times 3 \times 2$ ✓MCA = 18 ✓CA Her claim is invalid. ✓	1MA dividing correct values 1R correct rounding 1R correct rounding 1R correct rounding 1MCA multiplication 1CA answer 1O (7)	M L4
		[19]	
		TOTAL: 75	