Province of the EASTERN CAPE EDUCATION

NATIONAL SENIOR CERTIFICATE

GRADE 11

NOVEMBER 2025

MATHEMATICAL LITERACY P2 MARKING GUIDELINES

MARKS: **100**

Symbol	Explanation
M	Method
MA	Method with accuracy
CA	Consistent accuracy
A	Accuracy
C	Conversion
S	Simplification
RT	Reading from a table/graph/diagram
SF	Correct substitution in a formula
O	Opinion/Explanation/Reasoning
P	Penalty, e.g. for no units, incorrect rounding off, etc.
R	Rounding Off/Reason
NPR	No penalty for correct rounding minimum two decimal places
AO	Answer only
MCA	Method with consistent accuracy
RCA	Rounding with consistent accuracy

This marking guidelines consist of 10 pages.

MARKING GUIDELINES

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 incorrect item presented.

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KEY TO TOPIC SYMBOL:
F = Finance; M = Measurement; MP = Maps, plans and other representations; P = Probability

QUESTION 1 [24 MARKS] **ANSWER ONLY FULL MARKS**

Ques.	Solution	Explanation	Level
1.1.1	Total time = 1,5 minutes + 3 minutes + 15 minutes ✓M = 19,5 minutes ✓A	1M adding time 1A total time (2)	M L1
1.1.2	Cream cheese = $\frac{10\text{ ounces}}{35{,}274}$ ✓C = 0,28349… ≈ 0,28 kg ✓A	1C dividing with 35,274 1A cream cheese in kg **NPR** (2)	M L1
1.1.3	Salt = 1½ × 5 ml ✓M = 7,5 ml ✓A	1M multiplying 1A correct answer (2)	M L1
1.1.4	°C = $\frac{5}{9}$ × (°F - 32) = $\frac{5}{9}$ × (356⁰ - 32) ✓SF = 180 °C ✓A	1SF substitution 1A temperature in °C (2)	M L1
1.2.1	Capacity refers to the maximum amount of liquid a container can hold. ✓✓ A	2A correct definition (2)	M L1
1.2.2	Capacity = 500 ml ✓✓ RT	2RT correct capacity (2)	M L1
1.3.1	Circumference of a circle = π × diameter = 3,142 × 13 ✓SF = 40,846 m ✓A	1SF substitution 1A circumference **NPR** (2)	M L1
1.3.2	Z : X 16 : 8 ✓A 2 : 1 ✓S If ratio swopped = 1 mark	1A correct ratio 1S simplification (2)	M L1
1.4.1	Oribi Animal Clinic ✓✓ RT	2RT correct clinic (2)	MP L1
1.4.2	Southeast ✓✓ A **OR** SE ✓✓ A	2A correct direction (2)	MP L1

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1.4.3	Travelling distance = 21,1 km × 1 000 ✓C = 21 100 m ✓A	1C multiply by 1 000 1A distance in m (2)	MP L1
1.4.4	Arrival time = 10:15 + 00:26 ✓M = 10:41 ✓A	1M adding time 1A correct time (2)	MP L1
		[24]	

QUESTION 2 [27 MARKS]			
Ques.	**Solution**	**Explanation**	**Level**
2.1.1	Rober's Grave ✓✓ RT	2RT correct attraction (2)	MP L2
2.1.2	Probability = 0 ✓✓ A **OR** None✓✓ A	2A correct answer (2)	P L2
2.1.3	Distance = 6,4 cm ✓✓ A (Accept 6,2 cm – 6,6 cm)	2A correct distance (2)	MP L1
2.1.4	✓A Scale line = 2,6cm (**Accept 2,5 – 2,7 cm)** Scale $= \frac{2,6\text{ cm}}{2,6} = \frac{600\text{ m}}{2,6}$ ✓M = 1 cm : 230,7692308 m ✓CA Actual distance = 6,4 cm × 230,7692308 ✓MCA $= \frac{1\,476,923077\text{ m}}{1\,000}$ = 1,48 km ✓CA **OR** Scale line = 2,6 cm ✓A Scale = 2,6 cm = 600 m $= \frac{2,6}{2,6} : \frac{60\,000}{2,6}$ ✓M = 1 : 23 076,92308 ✓CA Actual distance = 6,4 × 23 076,92308 ✓MCA = 147 692,3077 cm $= \frac{147\,692,3077}{100\,000}$ = 1,48 km ✓CA	**CA from 2.1.3** 1A scale line in cm 1M dividing correct values 1CA scale 1MCA multiplication 1CA distance in km **OR** 1A scale line in cm 1M dividing correct values 1CA scale 1MCA multiplication 1CA distance in km **NPR** (5)	MP L3
2.1.5	No of people $= \frac{1\,721}{25,40}$ ✓M = 67,7559… ≈ 68 people ✓R **(Accept 67 people)**	1M dividing correct values 1R number of people (2)	MP L1
2.2.1	Mozambique ✓✓ RT**OR** Swaziland ✓✓ RT	2RT any correct country (2)	MP L1

2.2.2	6 national roads ✓✓ RT	2RT no of national roads (2)	MP L2
2.2.3	Scale = 8,3 cm : 276 km = 276 km × 100 000✓C = 27 600 000 cm Scale = $\frac{8,3}{8,3} : \frac{27\ 600\ 000}{8,3}$✓M = 1 : 3 325 301,205✓CA	1C multiplying by 100 000 1M dividing distances 1CA scale **NPR** (3)	MP L2
2.2.4	Speed = $\frac{\text{Distance}}{\text{Time}}$ 80 km/h = $\frac{276\text{ km}}{\text{Time}}$ ✓SF Time = $\frac{276\ km}{80\ km/h}$✓M = 3,45 hours✓CA = 0,45 × 60 = 27 minutes✓C Travel time = 3h27min Arrival time = 12:45 + 03:27✓M = 16:12✓CA ∴ Siphokhazi's claim is not valid✓O	1SF substitution 1M changing subject of formula 1CA time 1C converting hrs to min 1M adding time 1CA arrival time 1O opinion (7)	MP L4
		[27]	

QUESTION 3 [23 MARKS]			
Ques.	**Solution**	**Explanation**	**Level**
3.1.1	Radius $= \frac{50}{10} = 5$ cm ✓C Volume $= 3{,}142 \times 5^2 \times 12$ ✓SF $= 942{,}6$ cm^3 ✓CA	1C radius in cm 1SF substitution 1CA volume in cm^3 (3)	M L2
3.1.2	Width $= 0{,}08 \times 1\,000$ ✓C $= 80$ mm ✓A Height $= 14{,}5 \times 10$ $= 145$ mm ✓C TSA $= 2(150 \times 80) + 2(150 \times 145) + 2(145 \times 80)$ ✓SF $= 24\,000$ mm$^2 + 43\,500$ mm$^2 + 23\,200$ mm^2 $= 90\,700$ mm^2 ✓S $\approx 91\,000$ mm^2 ✓R	1C multiply by 1 000 1A width in mm 1C height in mm 1SF substitution 1S simplification 1R rounding (6)	M L3
3.1.3	Amount of plastic needed $= \frac{91\,000}{1\,000\,000}$ ✓C $= 0{,}091$ m$^2 \times 50$ ✓M $= 4{,}55$ m^2 ≈ 5 m^2 Cost of plastic $= 5$ m$^2 \times$ R27,55 ✓M = R137,75 ✓CA	**CA from 3.1.2** 1C divide by 1 000 000 1M multiply by 50 1M multiply area with cost 1CA total cost (4)	M L3
3.1.4	Height $= \frac{7}{100} \times 12$ cm = ✓M 0,84 cm ✓CA ∴ 12cm – 0,84 cm ✓M = 11,16 ≈ 11,2 cm **OR** Height = 100% - 7% ✓M = 93% ✓ CA ∴ $\frac{93}{100} \times 12$ cm ✓M = 11,16 cm ≈ 11,2 cm	1M calculating 7% of 12 1CA answer 1M subtracting 7% from container height **OR** 1M subtracting 7% 1CA beans height in % 1M calculating 93% of 12 (3)	M L2

3.1.5	Volume of cylindrical-shaped container = 942,6 cm^3 Rectangular shaped container: Length = 15 cm ✓C Width = 8 cm ✓C Height = 14,5 cm Volume = L × W × H = 15 cm × 8 cm × 14,5 cm ✓SF = 1 740 cm^3 ✓CA Her statement is incorrect / not valid ✓O	1C length in cm 1C width in cm 1SF substitution 1CA volume in cm^3 1O opinion (5)	M L4
3.1.6	To keep the coffee beans fresh ✓✓ O **OR** To protect container against breakage ✓✓ O **(Accept any other relevant explanation)**	2O reason (2)	M L4
		[23]	

QUESTION 4 [26 MARKS]			
Ques.	**Solution**	**Explanation**	**Level**
4.1.1	Probability = $\frac{7}{11}$ ✓A × 100% ✓M = 63,64% ✓CA	1A correct fraction 1M multiply by 100% 1CA probability as a % (3)	P L2
4.1.2	Travelling time = 10:15 - 08:30 ✓M = 01:45 ∴ 0,45 ÷ 60 = 0,75 h ✓C Time = 1 h + 0,75 h = 1,75 hours ✓CA Distance = Speed × Time = 1,4 miles/h × 1,75 h ✓SF = 2,45 miles ∴ 2,45 miles × 1,60934 ✓C = 3,942883 km ✓CA Her statement is invalid ✓O **OR** Travelling time = 10:15 - 08:30 ✓M = 01:45 ∴ 0,45 ÷ 60 = 0,75 h ✓C Time = 1 h + 0,75 h = 1,75 hours ✓CA Speed = 1,4 miles/h × 1,60934 ✓C = 2,253076km/h Distance = Speed × Time = 2,253076km/h × 1,75 h ✓SF = 3,942883 km ✓CA Her statement is invalid ✓O	1M subtracting time 1C minutes to hours 1CA traveling time in hours 1SF substitution 1C multiply with conversion factor 1CA distance in km 1O opinion **OR** 1M subtracting time 1C minutes to hours 1CA traveling time in hours 1C convert speed to km/h 1SF substitution 1CA distance in km 1O opinion **NPR** (7)	MP L4
4.2.1	Area of square = side × side = 45 cm × 45 cm ✓SF = 2 025 cm^2 ✓A ≈ 2 030 cm^2 ✓R	1SF substitution 1A area of box 1R rounding (3)	M L2
4.2.2	Value of D: 2D = 45 cm – 42 cm ✓M = 3 cm D = $\frac{3\ cm}{2}$ ✓M = 1,5 cm ✓CA	1M subtraction 1M divide by 2 1CA value of D (3)	M L2

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4.2.3	Area of pizza (circle) = $3{,}142 \times 21^2$ ✓A ✓SF = 1 385,622 cm^2 Area of one slice = $\frac{1\,385{,}622}{8}$ ✓M = 173,20 cm^2 ✓CA	1A radius 1SF substitution 1M dividing area by 8 1CA area of one slice (4)	M L3
4.3.1	Diameter = 160 cm + 35 cm + 35 cm ✓M = 230 cm Radius = $\frac{230}{2}$ ✓M = 115 cm ✓CA	1M adding correct values 1M divide diameter by 2 1CA radius (3)	M L2
4.3.2	Height of support pole = 78 cm ✓M – (2,8 cm + 0,7 cm) ✓M = 74,5 cm ✓CA	1M subtraction 1M adding base and thickness 1CA height in cm (3)	M L2
		[26]	
		TOTAL: 100	

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