education

Department:
Education
North West Provincial Government
REPUBLIC OF SOUTH AFRICA

PROVINCIAL ASSESSMENT

GRADE 11

MATHEMATICAL LITERACY P2
JUNE 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	Rounding off
NPR	No penalty for correct rounding
AO	Answer only

These marking guidelines consist of 5 pages.

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 penalise for every extra item presented.
- General principle of marking, 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 – FULL MARKS			
Q	**Solution**	**Explanation**	**T/L**
1.1.1	4 people✓✓A	2A correct answer (2)	M L1
1.1.2	10 + 40 min ✓MA = 50 min✓A	1MA adding 1A answer (2)	M L1
1.1.3	✓MA $\frac{1}{4}$ cup : 60 ml **OR** 60 ml ÷ $\frac{1}{4}$ ✓MA **OR** 60 ml × 4 = 1 ÷ $\frac{1}{4}$ × 60 ml✓MA = 60 ml ÷ 0,25 = 240 ml ✓A = 240 ml✓ A = 240 ml ✓A	1MA multiplying and/or dividing 1A answer (2)	M L1
1.1.4	18 : 37✓✓A	2A correct format (2)	M L1
1.2.1	1 unit on the map represents 50 units on the actual ground/in reality✓✓A	2A correct explanation (2)	MP L1
1.2.2	Bar/ Linear / Graphic scale✓✓A	2A correct answer (2)	MP L1
1.3	Results of an experiment/trial✓✓A	2A correct definition (2)	P L1
		[14]	

QUESTION 2 [20 MARKS]			
QUES	**SOLUTION**	**EXPLANATION**	**T&L**
2.1.1	4 provinces✓✓RT	2RT reading from the map (2)	MP L1
2.1.2	Zeerust, Swartruggens, Rustenburg, Hartebeespoort✓✓ RT (Accept Kroondal)	2RT ANY two towns (2)	MP L1
2.1.3 (a)	$\frac{104\ 882}{1\ 220\ 813}$✓A $\times 100$✓MA = 8,59%✓R	1A correct fraction 1MA finding a % 1A rounded answer (3)	MP L2
(b)	Botswana is not in South Africa. ✓✓O **OR** North West is in another country (South Africa) ✓✓O **OR** People need passports to travel from one country to another. ✓✓O	2O opinion (2)	MP L4
2.2.1	Top/ Aerial/Bird's eye view✓✓A	2A correct answer (2)	MP L2
2.2.2	Distance = speed × time 460 km = speed × 4,5 hours✓SF Speed = 460 km ÷ 4,5 hours✓M = 102,2 km/h✓A	1SF substitution 1M changing the subject 1A answer (3)	MP L2
2.2.3	Amount of petrol = $\frac{6,42 \times 460}{100}$✓MA = 29,532 litres✓A Return trip = 29,532 ×2✓MCA = 59,064 litres✓CA **OR** Return trip = 460 km × 2✓MA = 920 km✓A Amount of petrol = $\frac{6,42 \times 920}{100}$✓MCA = 59,064 litres✓CA	1MA multiplying and dividing 1A answer 1MCA multiplying by 2 1CA simplification (4)	MP L3
2.2.4	Less likely✓✓A	2A correct answer (2)	P L2
		[20]	

QUESTION 3 [24 MARKS]			
3.1.1	Total height = (15 + 17 + 19 + 21) cm ✓M = 72 cm✓CA = 720 mm✓C **OR** 21 cm = 210 mm: 19 cm = 190 mm; 17 cm = 170 mm and 15 cm = 150 mm✓C Total height = (210 + 190 + 170 + 150) mm✓M~~A~~ = 720 mm✓CA	1MA adding all values 1CA answer 1C conversion **OR** 1C Conversion 1MA adding 1CA answer (3)	M L2
3.1.2	Pounds → grams : 3,5 × 453,592✓C = 1 587,572 g✓A g → kg : 1 587,572 ÷ 1 000 = 1,59 kg✓C	1C conversion 1A answer 1C conversion **NPR** (3)	M L3
3.1.3 (a)	Diameter = 14 cm × 2✓MA = 28 cm✓A	1MA multiplying 1A answer **AO** (2)	M L1
(b)	Volume = 3,142 × (14 cm)^2 ✓SF × 15 cm✓SF = 9 237,48 cm^3 The volume is CORRECT✓O	1SF radius squared 1SF substitution 1O opinion (3)	M L4
3.1.4	°F − 32° = $\frac{9}{5}$ × 5✓SF °F = 9 + 32✓M = 41✓CA	1SF substitution 1M changing the subject 1CA simplification (3)	M L2
3.2.1	$\frac{15}{60}$✓MA = 0,25✓A	1MA dividing 1A answer **AO** (2)	M L1
3.2.2 (a)	True✓✓A	2A correct answer (2)	M L2
(b)	False✓A The distance from Tom's school to Neo's school is 5 km✓O	1A correct choice 1O reason (2)	M L2
3.2.3	Time taken = 06:47 + 50 min✓A + 20 min✓MCA = 07 : 57 a.m.✓CA before 8:00 Statement is correct✓O **OR** Time taken: 50 min✓A + 20 min = 1hr + 10 min 06:47 + 1 hr 10min ✓MCA = 07:57✓CA before 8:00 Statement is correct✓O	1A identifying 50 min 1MCA adding 1CA answer 1O opinion (4)	M L4
		[24]	

QUESTION 4 [17 MARKS]			
Q	**Solution**	**Explanation**	**T/L**
4.1.1	Circumference = 3,142 × 144 cm✓SF = 452,448 cm✓A	1SF substitution 1A answer **NPR** (2)	M L2
4.1.2	Area of a circle = 3,142 × $(\frac{144}{2})^2$✓SF = 16 288,128 cm^2✓A Area of a square = 230^2✓SF = 52 900 cm^2✓A Shaded area = 52 900 cm^2 - 16 288,128 cm^2✓MCA = 36 611,872 cm^2✓CA	1SF substitution 1A answer 1SF substitution 1A answer 1MCA subtraction 1CA answer (6)	M L3
4.1.3	36 611,872 ÷ $10\,000/100^2$✓MA = 3,6611872 m^2✓CA	**CA area from 4.1.2** 1MA dividing 1CA simplification **NPR** (2)	M L2
4.2.1	4 offices✓✓RT	2RT reading from the diagram (2)	MP L1
4.2.2	Actual length = 2,2 cm × 300✓MA = 660 cm✓A = 6,6 m✓C	1MA using scale 1A answer 1C conversion to m (3)	MP L2
4.2.3	Space/Area for learners/ parents/ visitors to wait before they can be assisted.✓✓O	2O opinion (2)	MP L4
		[17]	
		TOTAL: 75	