



Province of the  
**EASTERN CAPE**  
EDUCATION

**NATIONAL  
SENIOR CERTIFICATE**

**GRADE 10**

**NOVEMBER 2017**

**MATHEMATICAL LITERACY P1  
MARKING GUIDELINES**

**MARKS: 75**

<b>Symbol</b>	<b>Explanation</b>
M	Method
A	Accuracy
CA	Consistent accuracy
RT/RG/RM	Reading from a table/graph/map
SF	Correct substitution in a formula
P	Penalty, e.g. for no units, incorrect rounding off etc.
S	Simplification
R	Rounding off
AO	Answer only

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This marking guideline consists of 6 pages.

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QUESTION 1			
Quest	Solution	Explanation	Level
1.1			
1.1.1	Inverse/Indirect proportion ✓✓	2M Correct Answer (2)	L1
1.1.2	$\frac{40}{10} : \frac{10}{10}$ ✓  $= 4 : 1$ ✓	1M Divide by 10  1 CA AO (2)	L1
1.1.3	Direct proportion ✓✓	1M Correct Answer (2)	L1
1.2			
1.2.1	Cost price = $\frac{R42,00}{12}$ ✓  $= R3,50$ ✓	1M Method  1CA Correct Answer (2)	L1
1.2.2	% profit = $\frac{\text{Selling price} - \text{Cost price}}{\text{Cost price}} \times 100\%$  $= \frac{R5,00 - R3,50}{R3,50} \times 100\%$ ✓  $= \frac{R1,50}{R3,50} \times 100\%$ ✓  $= 42,8571\%$  $= 42,86\%$ ✓	1SF Substitution  1M Mark for R1,50  1CA Answer (3)	L2
1.3			
1.3.1	Four thousand nine hundred and ninety nine rand ✓✓	2M Correct Answer (2)	L1
1.3.2	Deposit = 10% of R4 999  $= \frac{10}{100} \times R4\ 999$ ✓  $= R499,90$ ✓	1M Multiply by the correct % (10 ÷ 100)  1CA Correct Answer (2)	L1

1.3.3	Total amount = R499,90 ✓ + R369,89 × 24 ✓  = R9 377,26 ✓	1M Addition  1M Multiply by 24  1A Answer  (3)	L2
		[18]	
<b>QUESTION 2</b>			
2.1	Buffalo City Metropolitan Municipality ✓✓	2RT Reading from the table  (2)	L1
2.2	19/05/2017 ✓✓	2RT Reading from the table  (2)	L1
2.3	Payment/Credit/Amount paid ✓✓  <b>Accept any relevant explanation</b>	2Explanation  (2)	L1
2.4	14% of R184,21  $= \frac{14}{100} \times R184,21$ ✓  = R25,7894  $\approx R25,79$ ✓	1M Method   1R Rounding Answer Only Full marks (2)	L1
2.5	Cost = (6 Kl × 11,917550) + (4 Kl × 12,151250) + (3Kl × 16,876510) ✓  = 71,5053 + 48,605 + 50,62953 ✓  = R170,73983  = R170,74 ✓	1M Method  1M Addition   1CA Answer  (3)	L3

2.6	<p>Value A = R1 285,98 + R62,81 ✓✓</p> <p>= R1 348,79 ✓</p> <p>OR</p> <p>Value A = (R1 433,18 – R800 – R12,15) ✓+ (R45 + R216,40 + R210 + R136,93 + R119,43) ✓</p> <p>= R621,03 + 727,76</p> <p>= R1 348,79 ✓</p>	<p>2M Addition</p> <p>1CA Answer</p> <p>1M Addition</p> <p>1M Simplification</p> <p>1CA Answer</p> <p>(3)</p>	L1
		<b>[14]</b>	
<b>QUESTION 3</b>			
3.1			
3.1.1	<p>Spoon ✓✓ (i.e. 4 spoons = 4 × 10 ml)</p> <p>Accept teaspoons (i.e. 8 teaspoons = 8 × 5 ml)</p>	<p>2A Answer</p> <p>(2)</p>	L1
3.1.2	<p><math>24 \div 8 = 3</math> ✓</p> <p>= 7 ml × 3 ✓</p> <p>= 21 ml ✓</p> <p>OR</p> <p>7 ml : 8 cupcakes</p> <p>x : 24 cupcakes</p> <p><math>8x = 24 \times 7</math> ✓</p> <p><math>x = \frac{24 \times 7}{8}</math> ✓</p> <p>x = 21 ml ✓</p>	<p>2M Method</p> <p>1A Answer</p> <p>(3)</p>	L2
3.1.3	<p><math>^{\circ}\text{C} = \frac{(^{\circ}\text{F} - 32^{\circ})}{1,8}</math></p> <p><math>^{\circ}\text{C} = \frac{(356^{\circ} - 32^{\circ})}{1,8}</math> ✓</p> <p><math>^{\circ}\text{C} = \frac{324^{\circ}}{1,8}</math> ✓</p> <p><math>^{\circ}\text{C} = 180^{\circ}</math> ✓</p>	<p>1SF Substituting Formula</p> <p>1S Simplifying</p> <p>1A Answer</p> <p>(3)</p>	L2

3.2			
3.2.1	Perimeter is the distance around a 2-Dimensional shape ✓✓  <b>Accept any relevant answer</b>	2A Answer  (2)	L1
3.2.2	$V = l \times w \times h$  $V = 40 \text{ cm} \times 20 \text{ cm} \times 6 \text{ cm} \checkmark$  $V = 4\,800 \text{ cm}^3 \checkmark$	1SF Substituting Formula  1CA Correct Answer (2)	L2
		<b>[12]</b>	
<b>QUESTION 4</b>			
4.1	South-East (SE) ✓✓	2CA Correct Answer (2)	L1
4.2	Eight windows/ 8 windows ✓✓	2CA Correct Answer (2)	L1
4.3	Seven interior doors/ 7 interior doors ✓✓	2CA Correct Answer (2)	L1
4.4	$l = 4,5 \text{ cm} / 45 \text{ mm} \checkmark$  $w = 2,5 \text{ cm} / 25 \text{ mm} \checkmark$	2CA Correct Answer <b>Accept 4,3 – 4,7cm</b> <b>2,3 – 2,7cm</b> (2)	L1
4.5	Actual length = $4,5 \text{ cm} \times 120 \checkmark$  Actual width = $2,5 \text{ cm} \times 120$  Actual area = $5,4 \text{ m} \times 3,0 \text{ m} \checkmark$  Actual area = $16,2 \text{ m}^2 \checkmark$  OR  Actual area = $540 \text{ cm} \times 300 \text{ cm} \checkmark$ $= 162\,000 \text{ cm}^2 \div 10\,000 \checkmark$ $= 16,2 \text{ m}^2 \checkmark$	2M Method Calculating actual length and width  1CA Correct Answer  1M Method 1M Dividing by 10 000 1CA Correct Answer (3)	L2
		<b>[11]</b>	

QUESTION 5																								
5.1																								
5.1.1	17; 22; 25; 32; 34; 34; 39; 39; 42; 45; 47; 47; 47; 48; 50; 54; 62; 64; 67 ✓✓	2 Arrange values Ascending (2)	L1																					
5.1.2	Median = 45 ✓✓	2 Correct value Median (2)	L1																					
5.1.3	Mode = 47 ✓✓	2 Correct value Mode (2)	L1																					
5.1.4	Range = 67 – 17 ✓  = 50% ✓	1M Subtraction  1M Answer (2)	L3																					
5.1.5	Mean = $\frac{17+22+25+32+34+34+\dots+47+48}{19}$ ✓  = $\frac{815}{19}$ ✓  = 42,894768  ≈ 43 ✓	1M Adding value  1M Dividing by 19  1R Rounding (3)	L2																					
5.1.6	P (less than 30%) = $\frac{3}{19}$ ✓ × 100% ✓  = 15,789 ✓  ≈ 16% ✓	1M Fraction 1M Multiply by 100% 1M Answer 1M Rounding (4)	L2																					
5.2	<table border="1"> <thead> <tr> <th>Interval</th> <th>Tally</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>0–29</td> <td>///</td> <td>3</td> </tr> <tr> <td>30–39</td> <td>###</td> <td>5</td> </tr> <tr> <td>40–49</td> <td>### /</td> <td>6</td> </tr> <tr> <td>50–59</td> <td>//</td> <td>2</td> </tr> <tr> <td>60–69</td> <td>///</td> <td>3</td> </tr> <tr> <td><b>Total</b></td> <td></td> <td>19</td> </tr> </tbody> </table>	Interval	Tally	Frequency	0–29	///	3	30–39	###	5	40–49	### /	6	50–59	//	2	60–69	///	3	<b>Total</b>		19	2 answers correct 1 mark 3 answers correct 2 marks 4 answers correct 3 marks 5 answers correct 4 marks Total correct 1 mark (5)	L2
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