Grade12 Mathematical Literacy: Memorandum Paper 1

1.1	R5 000,00 × 0,0868 = €434 ✔ ✔ ✔	3
1.2.1	2,4 cm × 75 cm = 180 cm = 1,8 m ✔ ✔ ✔	3
1.2.2	14 m ÷ 75 m = 0,186 m = 18,6 cm ✔ ✔ ✔	3
1.3.1	38 ✔ ✔	2
1.3.2	5½ ✔ ✔	2
1.3.3	9⅜ inches × 2,54 cm = 23,81 cm ✔ ✔ This is correct. ✔	3
1.4.1	Outliers ✔ ✔	2
1.4.2	About 40 players ✔ ✔	2
1.4.3	> 25,5 ✔ ✔	2
1.4.4	He is definitely in the top quartile. He is closer to the highest batting averages so he compares favourably with the best batsmen in the world. ✔ ✔	2
2.1.1	Accept between R350 and R355 ✔ ✔	2
2.1.2	Accept between R265 and R270 ✔ ✔	2
2.2	% change $= \frac{\text{R329.33} - \text{R320.65}}{\text{R320.65}} = 2{,}7\%$ ✔ ✔ ✔ ✔	4
2.3	$0{,}185 = \frac{\text{R320.65} - x}{x}$ ✔ ✔ $0{,}185x = \text{R320,65} - x$ $1{,}185x = \text{R320,65}$ $x = \text{R320,65} \div 1{,}185$ ✔ $x = \text{R320,65} \div 1{,}185$ $x = \text{R270,59}$ ✔	4
3.1.1	6th April, 2009 to 4 May, 2009 ✔ ✔	2
3.1.2	R2 000 ✔ ✔	2
3.1.3	–R5 000 ✔ ✔	2
3.1.4	13 ✔ ✔	2
3.2.1	R5 000 – R1 500 = R3 500 ✔ ✔ ✔ ✔	4
3.2.2	(a) Athene withdrew R4 000. This caused her bank balance to go from R2 000 to –R2 000. ✔ ✔ ✔ (b) Athene deposited R9 500. This caused her bank balance to go from –R4 500 to R5 000. ✔ ✔ ✔	6
4.1.1	2010 Tax year ✔ ✔	2
4.1.2	R60 086 ✔ ✔	2
4.1.3	10% ✔ ✔	2
4.2.1	R0,00 ✔ ✔	2
4.2.2	R103 ✔ ✔	2
4.2.3	Weekly deduction = 10% of R1 615,51 Weekly deduction = R161,55 ✔ ✔	2
4.2.4	Take Home = R1 615,51 − (R103 + R161,55) ✔ ✔ ✔ = R1 350,96 ✔	4
4.3.1	R1 615,51 = 111% of original wage Original wage = R1 615,51 ÷ 1,11 = R1 455,41 ✔ ✔ 10% of R1 455,41 = R145,54 ✔ Take Home = R1 455,41 − (R27,87 + R145,54) ✔ = R1 282,00 ✔	5
4.3.2	% change $= \frac{\text{R1 350.96} - \text{R1 282.00}}{\text{R1 282.00}} = 5{,}4\%$ ✔ ✔ ✔ ✔	4
4.3.3	The "take home" percentage increase is less than half of the wage increase of 11%. The reason for this is the increase in the PAYE that the custodian has to pay. Originally he/she paid R27,87 per week which is 1,91% of his/her salary. After the increase he/she pays R103 PAYE per week which is 6,38% of his/her salary. Hence the discrepancy in the "take home" increase and the wage increase. ✔ ✔ ✔ ✔	4
5.1.1	681 km ✔ ✔	2

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5.1.2	455 km – 264 km = 191 km ✔ ✔ ✔	3
5.2.1	Time = distance ÷ speed Time = 568 km ÷ 80 km/hr ✔ ✔ = 7,1 hr ✔ ✔ ≈ 7 hr ✔	5
5.2.2	Ave petrol consumption = 12 l /100 km 568 km ÷ 100 km = 5,68 km ✔ Petrol used = 12 l /100 km × 5,68 km ✔ = 68,16 l ✔ Cost = 68,16 l × R7,25 = R494,16 ✔ ✔	5
5.3.1	Middleburg and Cookhouse ✔ ✔ ✔ ✔ OR any other reasonable suggestion	4
5.3.2	Dist to Middleburg = 568 km – 362 km = 206 km ✔ Time taken = 206 km ÷ 80 km/hr ✔ = 2,6 hr = 2 h 36 min. ✔ They will arrive in Middleburg at approximately 09:36 ✔ Dist to Cookhouse = 362 km – 175 km = 187 km Time taken = 187 km ÷ 80 km/hr ✔ = 2,3 hr = 2 h 18 min. ✔ They will arrive in Cookhouse at approximately 12:00 or later depending on how long they spent in Middelburg ✔	6
6.1.1	07:03 ✔ ✔	2
6.1.2	No ✔ ✔	2
6.1.3	7 stations ✔ ✔	2
6.1.4	Train leaves Nolungile at 06:54 ✔ Arrives in Ysterplaat at 07:34 ✔ It takes 40 minutes ✔ ✔	4
6.2.1	9516 ✔ ✔ 9218 ✔ ✔	4
6.2.2	The next possible train leaves at 07:46 and will arrive in Cape Town at 08:33 ✔ ✔ ✔ ✔	4
7.1	(a) 5 ✔ ✔ (b) 5 ✔ (c) 1 ✔ (d) 0 ✔ (e) 1 ✔ (f) 0 ✔	7
7.2.1	2 games ✔ ✔	
7.2.2	Junction Rovers have only 1 game left to play. If they win then they will get the maximum number of points which will be 3. ✔ ✔ Hence the maximum number of points that they can end the competition with is 3. ✔	3
7.3.1	(a) Ajax Cape Town **wins** and Bay United loses ✔ (b) Ajax Cape Town **draws** and Bay United draws ✔ (c) Ajax Cape Town loses and Bay United wins ✔ ✔ ✔ ✔	
7.3.2	(a) Ajax Cape Town 6 and Bay United 2 ✔ ✔ (b) Ajax Cape Town 5 and Bay United 4 ✔ ✔ (c) Ajax Cape Town 3 and Bay United 5 ✔ ✔	6
7.4	The maximum points that Junction Rovers can end the tournament are 3. WP United already has 5 points which means that Junction Rovers cannot be placed in position 1. ✔ In each of the three scenarios in the Ajax Cape Town vs. Bay United game one of the teams ends with more than 3 points which means that Junction Rovers cannot be placed in position 2. ✔ ✔ Hence the likelihood of Junction Rovers ending in position 1 or 2 is nil. (impossible) ✔	4

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