GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

GAUTENG DEPARTMENT OF EDUCATION

PREPARATORY EXAMINATION

2021

MARKING GUIDELINES

MATHEMATICAL LITERACY P1 (10601)

Codes	Explanation
M	Method
MA	Method with Accuracy
CA	Consistent Accuracy
A	Accuracy
C	Conversion
D	Define
J	Justification/Reason/Explain/Conclusion
S	Simplification
RT/RD/RG	Reading from a table OR a graph OR a diagram OR a map OR a plan
F	Choosing the correct formula
SF	Substitution in a formula
O	Opinion
P	Penalty, e.g. for no units, incorrect rounding-off, etc.
R	Rounding-off
NP	No penalty for rounding-off OR omitting units

KEY TO TOPIC SYMBOLS:

F = Finance; M = Measurement; MP = Maps, Plans and other representations.
DH = Data Handling; P = Probability

22 pages

QUESTION 1

Q	ANSWER	EXPLANATION		LEVEL
1.1				
1.1.1	Multi-tank SA ✓✓A	2 A Correct answer	(2)	F1
1.1.2	Unemployment Insurance Fund✓✓ A	2A Correct answer	(2)	F1
1.1.3	✓MA $1\% \times R12\ 790 = R127{,}90$ ✓A **OR** $\frac{1}{100} \times$ R12 790 ✓MA = R127,90 ✓A	1 MA Multiplying by 1% 1 A Answer	(2)	F1
1.1.4	✓MA $R12\ 790 \times \frac{100-40}{100} = R7\ 674$ ✓ A **OR** ✓MA $R12\ 790 \times \frac{60}{100} =$ R7 674 ✓ A **OR** $R12\ 790 \times \frac{40}{100} = R5\ 116$ R12 790 – R5 116 ✓MA = R7 674 ✓A	1 MA Multiplying by 60% 1 A Correct answer 1 MA Multiplying by 60% 1 A Correct answer 1MA Subtracting the correct amount 1A Correct answer	(2)	F1

Q	ANSWER	EXPLANATION		LEVEL
1.1.5	He will have less money to spend. ✓✓J **OR** His buying power will be reduced. **OR** He will buy less goods/food/petrol.	2J Justification **Accept any reasonable/ valid answer**	(2)	F1
1.1.6	✓MA R21,50 × $\frac{100+20}{100}$ = R25,80 ✓A **OR** ✓MA R21,50 × 1,2 = R25,80 ✓A **OR** R21,50 × $\frac{20}{100}$ = R4,30 ✓MA R21,50 + R4,30 = R25,80 ✓A	1MA Multiplying by 120% 1A Answer 1MA Multiplying by 1,2 1A Answer 1MA Adding R4,30 1A Answer	(2)	F1
1.1.7	✓MA 400 ÷ 0,046 = R8 695,652 ≈ R8 695,65✓ A **OR** $\frac{400}{0,046}$ = R 8 695,652 ≈ R8 695,65	1MA dividing by 0,046 1A Correct answer	(2)	F1
1.2				
1.2.1	Discrete data only consists of whole numbers and continuous data consists of decimal numbers as well. ✓✓ O	2 O Correct explanation of both discrete and continuous data.	(2)	DH1
1.2.2	Western Cape ✓✓ A	2A Answer	(2)	DH1

Q	ANSWER	EXPLANATION		LEVEL
1.2.3	Range = Maximum value – Minimum value 44 143 – 63 ✓ RT = 44 080 ✓ A	2RT Correct values 1A Answer **Answer only, full marks**	(2)	DH1
1.2.4	205, 322, 362, 512, **1 177**, 3 959, 10 597, 12 193, 44 143 ✓ M Median = 1 177 ✓ CA	1M Arrangement 1CA Answer **Penalty:** **Penalise 1 mark if learner used all 10 provinces and got 844,5** **Answer only, full marks**	(2)	DH1
1.2.5	205 + 322 + 362 + 512 + 1 177 + 3 959 + 10 597 + 12 193 + 44 143 ✓ MA = 73 470 ✓ A	1MA Addition 1A Answer	(2)	DH1
1.3				
1.3.1	Males ✓✓ A	2A Answer	(2)	DH1
1.3.2	Bar Graph ✓✓ A	2A Answer	(2)	DH1
1.3.3	30 – 49 years old ✓✓ A	2A Answer	(2)	DH1
			[30]	

QUESTION 2

Q	ANSWER	EXPLANATION		LEVEL
2.1				
2.1.1	It means that people 65 years and younger, receiving **an annual income of R83 100 or less, does not have to pay tax.** ✓✓J	2J Reason explaining less than R83 100 and does not have to pay tax	(2)	F4
2.1.2	Income – pension – UIF = taxable income ✓M ✓M R60 000 − (7,5% × 60 000) − R148,72 = *R*55 351,28 ✓CA ✓M R55 351,28 × 12 = R664 215,36 ✓CA **OR** ✓M R60 000 × 12 = R720 000 ✓CA R720 000 × $\frac{7,5}{100}$ = R54 000 R720 000 – R54 000 = R666 000 ✓M R666 000 – (R148,72 × 12) = R666 000 – R1 784,64 ✓M = R664 215,36 ✓CA **OR** ✓M R60 000 × 12 = R720 000 ✓CA R720 000 × $\frac{7,5}{100}$ = R54 000 R148,72 × 12 = R1 784,64 R54 000 + R1 784,64 = R55 784,64 R720 000 – R55 784,64 ✓M✓M = R664 215,36 ✓CA	1M Subtracting pension 1M Subtracting UIF 1CA Answer 1M Multiplying by 12 1CA Answer 1M Multiplying by 12 1CA Answer 1M Subtracting pension 1M Subtracting UIF 1CA Answer 1M Multiplying by 12 1CA Answer 1M Subtracting pension 1M Subtracting UIF 1CA Answer	(5)	F3

Q	ANSWER	EXPLANATION		LEVEL
2.1.3	✓MA $(R319 \times 2) + (R215 \times 2) =$ R1 068 per month ✓A ✓M R1 068 × 12 = R12 816 per year ✓ CA **OR** ✓MA (R319 + R319) + (R215 + R215) = R638 + R430 = R1 068 ✓A ✓M R1 068 × 12 = R12 816 per year ✓ CA **OR** R319 × 12 = R3 828 R3 828 × 2 = R7 656 ✓MA R215 × 12 = R2 580 ✓A R2 580 × 2 = R5 160 R7 656 + R5 160 ✓M = R12 816 ✓CA **OR** R319 × 2 = R638 R638 × 12 = R7 656 ✓MA R215 × 2 = R430 ✓A R430 × 12 = R5 160 R7 656 + R5 160 ✓M = R12 816 ✓CA **OR** 12 × 2 = 24 ✓MA R319 × 24 = R7 656 ✓A R215 × 24 = R5 160 R7 656 + R5 160 ✓M = R12 816 ✓CA **OR**	1MA Addition and multiplication 1A Answer 1M Multiplying by 12 1CA Answer 1MA Addition A Answer 1M Multiplying by 12 1CA Answer 1MA Multiplication by 12 and 2 1A Both answers 1M Addition 1CA Answer 1MA Multiplication by 12 and 2 1A Both answers 1M Addition 1CA Answer 1MA for 24 1A Both Answers 1M Addition 1CA Answer		F2

	$12 \times 2 = 24$ ✓MA R319 + R215 ✓A = R534 × 24 ✓M = R12 816 ✓CA	1MA for 24 1A Total or 1M Addition of both values 1M Multiplying by 24 1CA Answer	(4)	
2.1.4	$\text{R}155\,505 + 39\%\,(\text{R}664\,215{,}36 - \text{R}584\,200)$ ✓RT ✓SF $= \text{R}155\,505 + (39\% \times \text{R}80\,015{,}36)$ $= \text{R}155\,505 + \text{R}31\,205{,}99$ $= \text{R}186\,710{,}99$ ✓CA ✓M $\text{R}186\,710{,}99 - \text{R}14\,958 = \text{R}171\,752{,}99$ ✓M R171 752,99 – R12 816 = R158 936,99 ✓M $\text{R}158\,935{,}99 \div 12 = \text{R}13\,244{,}75$ ✓CA No, her claim is NOT VALID. ✓J	**CA from Q 2.1.2 and Q 2.1.3** 1RT Correct tax bracket 1SF Substitute into formula 1CA Answer 1M Subtract rebate 1M Subtract medical tax credits 1M Division by 12 1CA Answer 1J Opinion/Conclusion		F4

	OR **Annual Tax payable:** ✓RT R155 505 + 39% of income above R584 200 R155 505 + 39% × (R664 215,36 – R584 200) ✓SF $= \text{R155 505} + \left(\frac{39}{100} \times \text{R80 015,36}\right)$ = R155 505 + R312 065,99 = R186 710,99 ✓CA **Rebate:** ✓M R186 710,99 – R14 958 = R171 752,99 **Medical Tax credits:** ✓M R171 752,99 – R12 816 = R158 936,99 **Monthly Tax payable:** $\frac{\text{R158 936,99}}{12}$ ✓M = R13 244,75 ✓CA No, her claim is NOT VALID. ✓J	1RT Correct tax bracket 1SF Substitute in formula 1CA Answer 1M Subtract rebate 1M Subtract medical tax credits 1M Division by 12 1CA Answer 1J Opinion		

	OR **Annual Tax payable:** ✓RT R155 505 + 39% of income above R584 200 R155 505 + 39% × (R664 215,36 – R584 200) ✓SF $= R155\ 505 + \left(\frac{39}{100} \times R80\ 015{,}36\right)$ = R155 505 + R312 065,99 = R186 710,99 ✓CA **Rebate and medical tax credits:** ✓M ✓M R186 710,99 – R14 958 – R12 816 = R158 936,99 **Monthly Tax payable:** $\frac{\text{R158 936,99}}{12}$ ✓M = R13 244,75 ✓CA No, her claim is NOT VALID. ✓J	1RT Correct tax bracket 1SF Substitute in formula 1CA Answer 1M Subtract rebate 1M Subtract medical tax credits 1M Division by 12 1CA Answer 1J Opinion		

	OR			
	Annual Tax payable: ✓RT R155 505 + 39% of income above R584 200 R155 505 + 39% × (R664 215,36 – R584 200) ✓SF $= \text{R}155\,505 + \left(\frac{39}{100} \times \text{R}80\,015{,}36\right)$ = R155 505 + R312 065,99 = R186 710,99 ✓CA **Rebate:** ✓M R186 710,99 – R14 958 = R171 752,99 **Monthly tax before medical tax deductions:** $\frac{\text{R}171\,752{,}99}{12}$ ✓M = R14 312,75 **Medical tax credits:** R14 312,75 – (2 × R319) – (2 × R215) = R14 312,75 – R638 – R430 = R14 312,75 – R1 068 ✓M = R13 244,75 ✓CA No, her claim is NOT VALID ✓J	RT Correct tax bracket 1SF Substitute in formula 1CA Answer 1M Subtract rebate 1M Division by 12 1M Subtract medical tax credits 1CA Answer 1J Opinion	(8)	
2.2				
2.2.1	✓RT ✓M R92 400 − R37 700 = R54 700 ✓CA	1RT Correct values from table 1M subtraction/concept of difference 1CA answer	(3)	F1

Q	ANSWER	EXPLANATION		LEVEL
2.2.2	✓MA 12 x R20 725 = R248 700 ✓A Private High School in 2025 ✓RT **OR** 2020: R148 300 ÷ 12 = R12 358,33 ✓MA 2025: R248 700 ÷ 12 = R20 725 ✓A Private High School in 2025 ✓RT	1MA Multiplying by 12 1A Answer 1RT Reading year from table 1MA Division by 12 1A Answer 1RT Reading year from table	(3)	F1
2.2.3	**Year 1 (2022)** ✓MA R88 635,77 + (R88 635,77 × 6,6%) = R94 485,73 ✓A **Year 2 (2023)** R94 485,73 + (R94 485,73 × 6,6%) = R100 721,79 ✓CA **Year 3 (2024)** R100 721,79 + (R100 721,79 × 6,6%) = R107 369,43 ✓CA University fees for 2025 – savings = shortfall ✓RT R107 600 − R107 369,43 = R230,57 ✓CA Joshua is correct, R250 would cover the shortfall ✓O **OR** Joshua is incorrect, the amount is less than R250 **OR**	1MA Multiplying by 6,6% 1A Answer for 1st year 1CA Answer for 2nd year 1CA Answer for 3rd year 1RT Reading University fees from table for 2025 1CA Difference 1O Opinion *NOTE: If Compound interest formula was used:* *Award FULL MARKS, given that the answer is 100% correct.* *NO marks if answer is incorrect.*		F4

	Year 1 (2022) R88 653,77 × $\frac{6,6}{100}$ = R5 851,14882 ✓MA ✓A R88 653,77 + R5 851,14882 = R94 504,91882 **Year 2 (2023)** R94 504,91882 × $\frac{6,6}{100}$ = R6 237,324642 R94 504,91882 + R6 237,324642 = R100 742,2435 ✓CA **Year 3 (2024)** R100 742,2435 × $\frac{6,6}{100}$ = R6 648,988068 R100 742,2435 + R6 648,988068 = R107 391,2316 = R107 391,23 ✓CA **Difference:** ✓RT R107 600 – R107 391,23 = R208,77 ✓CA Joshua is correct, R250 would cover the shortfall ✓O **OR** Joshua is incorrect, the amount is less than R250 **OR** **Year 1 (2022)** ✓MA R88 653,77 x 1,066 = R94 504,91882 ✓A **Year 2 (2023)** R94 504,91882 x 1,066 = R100 742,2435 ✓CA **Year 3 (2024)** R100 742,2435 x 1,066 = R107 391,23 ✓CA **Difference:** ✓RT R107 600 – R107 391,23 = R208,77 ✓CA Joshua is correct, R250 would cover the shortfall ✓O **OR** Joshua is incorrect, the amount is less than R250	1MA Multiplying by 6,6% 1A Answer for 1st year 1CA Answer for 2nd year 1CA Answer for 3rd year 1RT Reading University fees from table for 2025 1CA Difference 1O Opinion 1MA Multiplying by 1,066 1A Answer for 1st year 1CA Answer for 2nd year 1CA Answer for 3rd year 1RT Reading University fees from table for 2025 1CA Difference 1O Opinion	(7)	

Q	ANSWER	EXPLANATION		LEVEL
2.3				
2.3.1	R200,00 ✓✓RT	2RT Reading from table	(2)	F1
2.3.2	Conversion to rand: $\frac{69,36}{100} = R0,6936$ $\frac{81,60}{100} = R0,8160$ ✓C First 50 kWh 50 × R0,6936 = R34,68 ✓A 286 kWh – 50 kWh = 236 kWh ✓A Next 236 kWh 236 x R0,8160 = R192,576 ✓CA Total: R34,68 + R192,576 = R227,256 = R227,26 ✓CA **OR** First 50 kWh 50 x 69,36 = 3 468c ✓A 286 kWh – 50 kWh = 236 kWh ✓A Next 236 kWh 236 x 81,60 = 19 257,6c ✓CA Total: 3 468 + 19 257,6 = 22 725,6c ✓CA Conversion to rand: ✓C $\frac{22\,725,6}{100} = R227,256$ = R227,26	1C Conversion to rand 1A Answer for 50 kWh 1A Difference 1CA Answer 1CA Total 1A Answer for 50 kWh in cents 1A Difference 1CA Answer 1CA Total 1C Conversion to rand	(5)	F3

Q	ANSWER	EXPLANATION		LEVEL
2.3.3	Cost excluding VAT: ✓MA R720 $\times \frac{100}{115}$ = R626,0869565 ✓A **OR** ✓MA $\frac{R720}{1,15}$ = R626,0869565 ✓A Cost excluding fixed monthly fee: R626,0869565 – R200 = R426,0869565 ✓CA Cost per unit in Rand: $\frac{70,855}{100}$ = R0,70855 ✓C kWh used: $\frac{R426,0869565}{R0,70855}$ = 601,3505843 = 601,35 kWh used ✓CA	1MA for VAT exclusive method 1A Answer 1CA Cost excluding fixed monthly fee 1C Conversion 1CA Answer	(5)	F2
				[44]

QUESTION 3

Q	ANSWER	EXPLANATION		LEVEL
3.1				
3.1.1	Range = Maximum – Minimum ✓M = 78,2% - 60,6% ✓ MA = 17,6% ✓ A	1M Range concept 1MA Correct values in correct order 1A Answer	(3)	DH2
3.1.2	Bi-modal = 70,2% ✓A and 78,2% ✓A	2A Correct Answers	(2)	DH2
3.1.3	Arrangement of values: 60,6 ; 67,8 ; 70,2 ; 70,2 ; 72,5 ; 73,9 ; 75,1 ; 75,8 ; 78,2 ; 78,2 ✓MA Median = $\frac{72,5 + 73,9}{2}$ ✓MA = $\frac{146,4}{2}$ = 73,2 ✓ CA	1MA Correct arrangement 1MA Correct values divided by 2 1CA Answer	(3)	DH3
3.1.4	Continuous ✓A The data consists of decimal numbers. ✓✓J **OR** Continuous ✓A The data can be measured ✓✓J	1A Continuous 2J Correct definition	(3)	DH4
3.1.5	IQR = Q3 – Q1 Q3 = 75,8% Q1 = 70,2% ✓A IQR = 75,8% - 70,2% ✓M = 5,6% ✓ CA	1A Correct Quartile 1 and 3 values 1M IQR method/concept 1CA Answer	(3)	DH3
3.1.6	The third Quartile value (Q3) represents 75% of the data collected. ✓✓ J **OR** The third Quartile value (Q3) represents $\frac{3}{4}$ of the data collected. ✓✓ J	2J Explanation of Q3, must include 75% **Accept any reasonable/ valid explanation including 75%**	(2)	DH4
3.1.7	Probability = $\frac{4}{10}$ ✓✓MA = $\frac{2}{5}$ ✓S	1MA Denominator 1MA Numerator 1S Simplification	(3)	P2

Q	ANSWER	EXPLANATION		LEVEL
3.2				
3.2.1	**Ordinary pass rate:** The pass rate dropped/decreased/fell from 2015 to 2016 and then increased/went up/went higher from 2016 to 2018. ✓✓J **University pass rate:** There is a continuous increase from 2015 to 2018. ✓✓J **OR** **University pass rate:** There is an increase from 2015 to 2016, and another increase from 2016 – 2017 and another increase from 2017 – 2018 ✓✓J	2J Explanation of the trend of ordinary pass rate 2J Explanation of the trend of university pass rate **Penalise learner if years are not used**	(4)	DH4
3.2.2	Biased ✓A The data was only collected from one province instead of all the provinces. ✓J **OR** Biased ✓A The data was only collected from a small part of the country. ✓J **OR** Biased ✓A The data does not represent the whole country, only one part. ✓J	1A Biased 1J Explanation **Accept any valid/reasonable answer referring to the entire country or only part of the country**	(2)	DH4
3.2.3	Survey questions: 1. Did you attend school every day? 2. How long before the exams did you start studying? 3. Did you study every day? 4. What are you going to study next year? 5. What or who influenced your choice to study further? 6. Who will finance your studies? 7. Will you get a part-time job to help pay for your studies? 8. How did COVID-19 influence your approach to school and your studies? 9. Did any of your parents attend university?	4O Four questions asked relating to the University pass rate **9 Possible options are given – mark only the first four answers; any relevant/valid questions relating to a learner who achieved a university entrance can be accepted.**	(4)	DH4
			[29]	

QUESTION 4

Q	ANSWER	EXPLANATION		LEVEL
4.1				
4.1.1	3 days in Jan + 28 days in Feb + 31 days in March ✓MA $= 62\ days$ ✓CA ✓M $\frac{\$1\ 348\ 258\ 224}{62} = \$21\ 746\ 100{,}39$ $\approx \$22\ 000\ 000$ ✓R	1MA Mark for adding 1CA for Answer 1M for Dividing by days 1R Rounding to the nearest million	(4)	F3
4.1.2	$62\ days \times 60\ tickets \times \$76 = \$282\ 720$ ✓M ✓MA ✓CA **OR** 60 tickets × \$76 = \$4 560 per day ✓MA ✓M \$4 560 × 62 days = \$282 720 ✓CA **OR** 62 days × \$76 = \$4 712✓M ✓MA \$4 712 × 60 tickets = \$282 720 ✓CA	1M Multiplying tickets by days **(CA from 4.1.1.)** 1MA Multiplying tickets by \$76 1CA Mark for answer 1MA Multiplying tickets by \$76 1M Mulitplying with days **(CA from 4.1.1.)** 1CA Answer 1M Multiplying days by \$76 **(CA from 4.1.1.)** 1MA Multiplying amount by 60 1CA Answer	(3)	F2
4.1.3	✓M \$282 720 × 11,8321 $= R3\ 345171{,}312$ ✓CA	**(CA from 4.1.2.)** 1M Multiply by 11,8321 1CA Mark for answer	(2)	F1

Q	ANSWER	EXPLANATION		LEVEL
4.1.4	$60 \times \text{R}120 = \text{R}7\ 200\ total\ income$ ✓MA $40\% \times \text{R}7\ 200 = \text{R}2\ 880\ lockdown\ income$ ✓CA ✓M $\text{R}7\ 200 - \text{R}2\ 880 = \text{R}4\ 320$ loss **OR** 60 people × $\frac{40}{100}$ = 24 people allowed to attend daily ✓CA 24 people × R120 = R2 880 Total = 60 people × R120 = R7 200 ✓CA ✓M Loss = R7 200 – R2 880 = R4 320 loss	1MA Total income per day 1CA Calculating 40% of total income 1M Subtracting difference 1MA Calculating number of people attending daily 1CA Calculating total income per day 1M Subtracting difference	(3)	F2
4.2				
4.2.1	R200 ✓✓A	2A Marks for answer	(2)	F1
4.2.2	Minimum fee of R30 when you make a deposit ✓✓A **OR** When you make a deposit at FNB bank **OR** When you make a deposit of less than R5 000 **OR** When you make a deposit of R5 000 or less **OR** Minimum fee when you make a deposit of less than R5 000 **OR** When you make a deposit at FNB of less than R5 000	2A Marks for answer	(2)	F2

Q	ANSWER	EXPLANATION		LEVEL
4.2.3	R8,40 + (R1,49 × $\frac{\text{R11 300}}{100}$) ✓MA = R8,40 + R168,37 = R176,77✓CA **OR** $\frac{\text{R11 300}}{100} = 113$ 113 × R1,49 = R168,37✓MA R8,40 + R168,37 = R176,77 ✓CA	1MA Multiplication by R11 300 and R1,49 1CA Mark for answer 1MA Multiplying 113 by R1,49 1CA Answer	(2)	F2
4.2.4 (a)	✓MA $\frac{2,4\%}{12}$ ✓A $= 0,2\%$ ✓CA **OR** $\frac{2,4}{100} = 0,024$ ✓MA $\frac{0,024}{12}$ ✓A = 0,002 ✓CA	1MA Correct percentage 1A Mark for dividing by 12 1CA Mark for answer 1MA Calculating decimal 1A Division by 12 1CA Answer	(3)	F1

Q	ANSWER	EXPLANATION		LEVEL
4.2.4 (b)	Month 1 ✓M R11 300 × 0,002 = R22,60 ✓CA R11 300 + R22,60 = R11 322,60 ✓CA Month 2 R11 322,60 × 0,002 = R22,6452 ✓CA R22,60 + R22,65 = R45,25 ✓CA **OR** Maand 1 ✓M R11 300 × $\frac{0,2}{100}$ = R22,60 ✓CA R11 300 + R22,60 = R11 322,60 ✓CA Month 2 R11 322,60 × $\frac{0,2}{100}$ = R22,6452 ✓CA R22,60 + R22,65 = R45,25 ✓CA	**CA from 4.2.2** 1M Multiplication by decimal 1CA Interest for 1st month 1CA Total interest for 1st month 1CA Interest for 2nd month 1CA Total interest **CA from 4.2.2** 1M Multiplying by 0,2% 1CA Interest for 1st month 1CA Total interest for first month 1CA Interest for 2nd month 1CA Total interest *NOTE: If compound interest formula was used:* *Award FULL MARKS, given that the answer is 100% correct.* *NO marks if answer is incorrect.*	(5)	F3
4.3				
4.3.1	✓M R40 000 ÷ 300 = R133,33 ... ✓ CA ≈ R130,00 income per person✓R **OR** $\frac{\text{R40 000}}{300}$ ✓M = R133,3333333... ✓CA ≈ R130 ✓R	1M Division by 300 1CA Answer 1R Rounding 1M Division by 300 1CA Answer 1R Rounding	(3)	F2

Q	ANSWER	EXPLANATION		LEVEL
4.3.2	✓RT $(\text{R}40\,000 - \text{R}30\,000) \div 500$ ✓M ✓MA $= \text{R}20\ cost\ per\ person$ ✓ CA **OR** $\frac{\text{R}40\,000 - \text{R}30\,000}{500}$ ✓✓MA $= \frac{\text{R}10\,000}{500}$ ✓M = R20 per person ✓CA	1 RT Mark for the fixed expenses (R30 000) 1MA Mark for subtracting 1M for Dividing by 500 1 CA Mark for cost per person 2MA Calculating difference between total expense and fixed cost 1M Dividing by 500 1CA Answer	(4)	F2
4.3.3	✓M $\frac{\text{R}130 - R20}{\text{R}20} \times 100 = 550\%$ ✓CA ✓M **OR** $\frac{\text{R}130 - \text{R}20}{\text{R}20} \times 100$ ✓M $= \frac{\text{R}110}{\text{R}20} \times 100$ ✓M = 550% ✓CA	**CA from 4.3.2** 1M Difference between amounts 1M Division 1CA Percentage 1M Difference 1M Division 1CA Percentage	(3)	F2

Q	ANSWER	EXPLANATION		LEVEL
4.4				
4.4.1	**Grade 11s from 2014 – 2019:** ✓MA 827 677, 864 618, 858 769, 869 513, 890 971 **Grade 12s from 2014 – 2019:** ✓MA 501 303, 512 735, 534 484, 610 178, 644 536	1MA Correct order of grade 11s 1MA Correct order of grade 12s	(2)	DH 2
4.4.2	Median = 534 484 Quartile 3 (Q3) $= \frac{644\,536 + 610\,178}{2}$ $= \frac{1\,254\,714}{2}$ = 627 357 ✓A Quartile 1 (Q1) = $\frac{501\,303 + 512\,735}{2}$ $= \frac{1\,014\,038}{2}$ = 507 019 ✓A IQR = Q3 – Q1 = 627 357 – 507 019 ✓M = 120 338 ✓CA	1A Q3 1A Q1 1M Concept of IQR 1CA Answer **If range is used, no marks.** **CA only if other values are used and the concept IQR is used.**	(4)	DH3
4.4.3	None ✓✓A No mode	2A Answer	(2)	DH 1
4.4.4	Mean = $\frac{\text{Total}}{5}$ Mean = ✓MA $\frac{501\,303 + 512\,735 + 534\,484 + 610\,178 + 644\,536}{5}$ ✓MA $= \frac{2\,803\,236}{5}$ = 560 647,2 ✓CA	1MA Addition or total 1MA Division by 5 1CA Answer	(3)	DH2
			[47]	
				TOTAL: 150