



LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

**NATIONAL
SENIOR CERTIFICATE**

GRADE 11

MATHEMATICAL LITERACY P1
MAY/JUNE 2026

MARKS: 75

TIME: 2 HOURS

This question paper consists of 10 pages and an answer sheet.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of FOUR questions. Answer ALL the questions.
2. Use the **ANSWERSHEET** attached to answer **QUESTION 2.2.4**.
3. Start EACH question on a NEW page.
4. You may use an approved calculator (non-programmable and non-graphical), unless stated otherwise.
5. Show ALL calculations clearly.
6. Round ALL the final answers appropriately according to the context, unless stated otherwise.
7. Indicate units of measurement, where applicable.
8. Maps and diagrams are NOT necessary drawn to scale, unless stated otherwise.
9. Write neatly and legibly.

QUESTION 1

1.1

TABLE 1 below gives definitions of terminology used in Mathematical Literacy.

TABLE 1: DEFINITIONS OF TERMINOLOGY IN MATHEMATICAL LITERACY

A	This is the actual rand amount of interest that will be added to your loan.
B	The point at which the income equals the expenses
C	A plan on how to spend money.
D	When someone or an organisation takes money out of your account.
E	Money taken out of a bank account.
F	The financial resources, assets, and wealth used to fund operations, generate revenue, and grow the company
G	Numbers that tell how far data values in a data set lie apart; spread of numerical data set (range, quartiles, and percentiles).
H	All outcomes are equally likely to occur.

Use TABLE 1 above and match a definition with the terminology below. Write only the letter (A – H) next to the question numbers (1.1.1.to 1.1.4). e.g. 1.1.7 K

- 1.1.1 Capital (2)
- 1.1.2 Measures of spread (2)
- 1.1.3 Debit (2)
- 1.1.4 Budget (2)

1.2

Below is a tax invoice for a cell phone contract for Ms. Bopape.

TAX INVOICE				
Invoice number: 10094562				
Invoice Date: 01.05.2026				
Ms. Bopape TP 265 Thabo Mbeki Street Polokwane 0700				
PACKAGE DETAILS				
Description	From	To	Amount	Total excluding VAT
Monthly charges	01.05.2026	30.06.2026		R134,78
Pinnacle 500MB			R134,78	
Call charges				R11,22
Other Mobile Calls			R4,75	
Smart Data Internet			R6,47	
INVOICE DETAILS				
Amount (Excluding VAT)				A
VAT @ 15%				R21,90
Total (Including VAT)				R167,90

[source: adapted from www.telkom.co.za]

Use the information above to answer the questions that follow.

- 1.2.1 Identify the name of Ms. Bopape's cell phone network provider. (2)
- 1.2.2 Calculate the value of A. (2)
- 1.2.3 Write down the ratio of Smart Data Internet to Other Mobile Calls. (2)

[14]

QUESTION 2

2.1

Pieter is a resident in the Musina Local Municipality. TABLE 2 below shows water tariffs on a sliding scale that the municipality uses to charge for water usage.

TABLE 2: MUSINA LOCAL MUNICIPALITY WATER TARIFFS

Block	Water usage	Rate per kilolitre (VAT of 15%) inclusive
1	0 – 6kl	R0
2	7 – 30kl	R6,48
3	30,1 – 60kl	R16,20
5	More than 61kl	R43,58

[source: adapted from www.musina.co.za]**Note:**

- Fixed charge if > 6 kl = R80, 70
- Fee for infrastructure if > 6 kl = R7, 15

Use the information and TABLE 2 above to answer questions that follow.

- 2.1.1 Define the term *tariff*. (2)
- 2.1.2 Pieter claims that he will pay more than R350,00 if he uses 35kl of water. Verify with calculations if his claim is valid. (8)
- 2.1.3 Calculate the VAT amount included in the rate per kilolitre for block 3. (3)
- 2.1.4 Give two explanations for why municipalities impose tariffs on customers. (4)

2.2

A local bakery is spending R450 on water and electricity. The cost of baking one loaf of bread is R4,00 which include labour and ingredients. A loaf is sold at R6,50. The tables below show the cost and income for selling loaves of bread.

TABLE 3: WEEKLY COST OF BAKING LOAVES OF BREAD

Number of loaves	0	60	120	180	240	300
Total cost (in rands)	R450,00	R690,00	R930,00	R1170,00	R1410,00	A

TABLE 4: WEEKLY INCOME FOR SELLING LOAVES OF BREAD

Number of loaves	0	60	120	180	240	300
Total income (in rands)	0	R390,00	R780,00	B	R1560,00	R1950,00

Use the information and TABLES above to answer the questions that follow.

- 2.2.1 Write down the formula for calculating the cost of baking bread. (2)
- 2.2.2 Calculate the missing values **A** and **B**. (4)
- 2.2.3 Use the formula in 2.2.1 above to calculate the cost of baking 50 loaves. (2)
- 2.2.4 On the same set of axes, use the values from Table 3 and Table 4, and the answer sheet provided to draw the graphs illustrating both INCOME and COST of baking loaves of bread. (5)

[30]

QUESTION 3

3.1

TABLE 6 below shows the bottom eight Betway Premiership teams competing in the South African Professional Soccer League PSL in the 2025/26 soccer season. The total number of teams in the league are sixteen.

TABLE 6: BOTTOM EIGHT BETWAY PREMIERSHIP TEAMS

TEAM	MP	W	D	L	GF	GA	GD	PTS
Stellenbosch FC	23	7	7	9	20	25	-5	28
Siwelele	23	6	9	8	13	17	-4	27
Richards Bay	24	6	9	9	20	27	-7	27
TS Galaxy	24	7	4	13	25	33	-8	25
Chippa United	25	5	9	11	20	33	-13	24
Marumo Gallants	24	4	7	13	17	34	-17	19
Orbit College FC	24	5	4	15	17	39	-22	19
Magesi FC	23	3	8	12	16	31	-15	17

Keys: MP – Matches Played**L – Loss****GD – Goals difference****W – Win****GF – Goals for****PTS - Points****D – Draw****GA – Goals against**

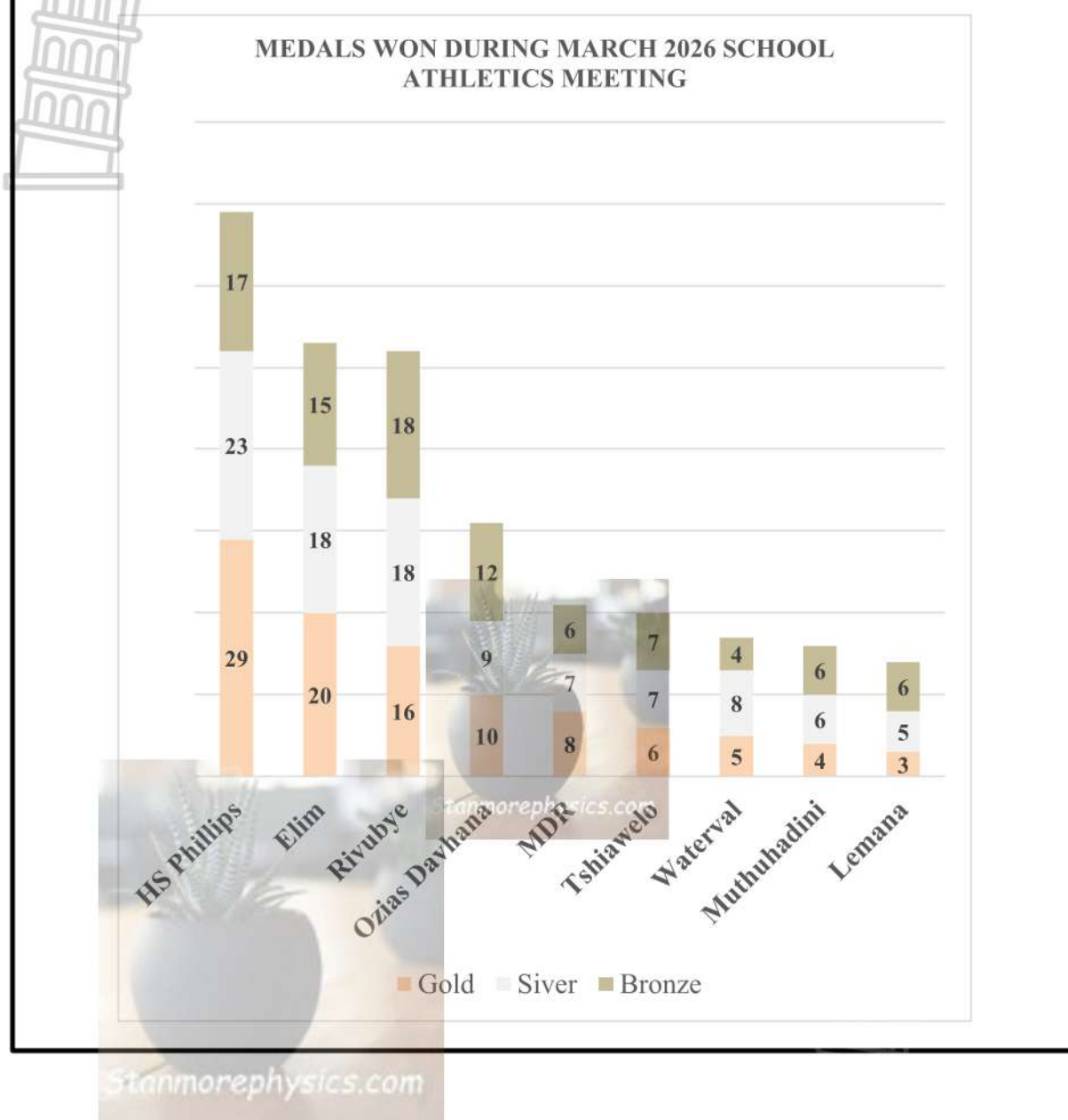
[source:www.psl.co.za]

Use TABLE 6 above to answer the questions that follow:

- 3.1.1 Determine the average points scored by all the teams in the Betway Premiership. (3)
- 3.1.2 Magesi FC will play their last fixture with TS Galaxy. Determine, as a percentage, the chances of Magesi to win the match. (3)
- 3.1.3 Orbit College FC and Marumo Gallants have played the same number of games and have equal points. Explain why Marumo Gallants are above in the league standing. (2)

3.2

The graph below shows the nine schools' medals won during the circuit school athletics meeting held in March 2026 in Elim Circuit.



Use the diagram above to answer the questions that follow.

- 3.2.1 Determine the number of medals Elim won in total. (2)
- 3.2.2 Calculate the difference between HS Phillips and Lemana's gold medals. (3)
- 3.2.3 Calculate the percentage of Elim's total number of bronze medals won during the 2026 circuit athletics meeting. (3)
- 3.2.4 Determine the probability, as a decimal rounded to two decimal places of randomly selecting a school that received more than 20 gold medals. (3)

[19]

QUESTION 4

4.1

The data below shows the shoe sizes of selected learners at Mocheudi Secondary school.

6 9 8 7 6 M 6 8 7 9
10 6 6 M

[Source: adapted from FSDoEmay/june2025]

Use the information above to answer questions that follow.

4.1.1 If the mean shoe size is 7, calculate the value of M. (5)

4.1.2 Identify the minimum value of the data. (2)

4.2

Rhandzu works as a sales representative in a company that makes business cards. Below is her payslip for total earnings and deductions.

PAYSリップ			
Greenzar Corp Inc.			
Appointment Date: 15 Jan 2026		Employee Name: Rhandzu	
Pay Period: 15 Feb 2026		Designation: Sale Rep.	
Worked days: 30		Department: Sales	
Earnings	Amount	Deductions	Amount
Basic Salary	R12 000	Provident Fund	R1 500
Incentive Pay	16,67% of basic pay	Tax	R700
House Allowance	R500	Loan	R600
Meal Allowance	C		
Total Earnings	R14 800,14	Total Deductions	R2 800
Net Pay			D

[adapted from <https://www.cleverence.co.za>]

Use the table above to answer questions that follow.

4.2.1 Calculate the missing value C. (3)

4.2.2 Determine the missing value D, the Net Pay. (2)

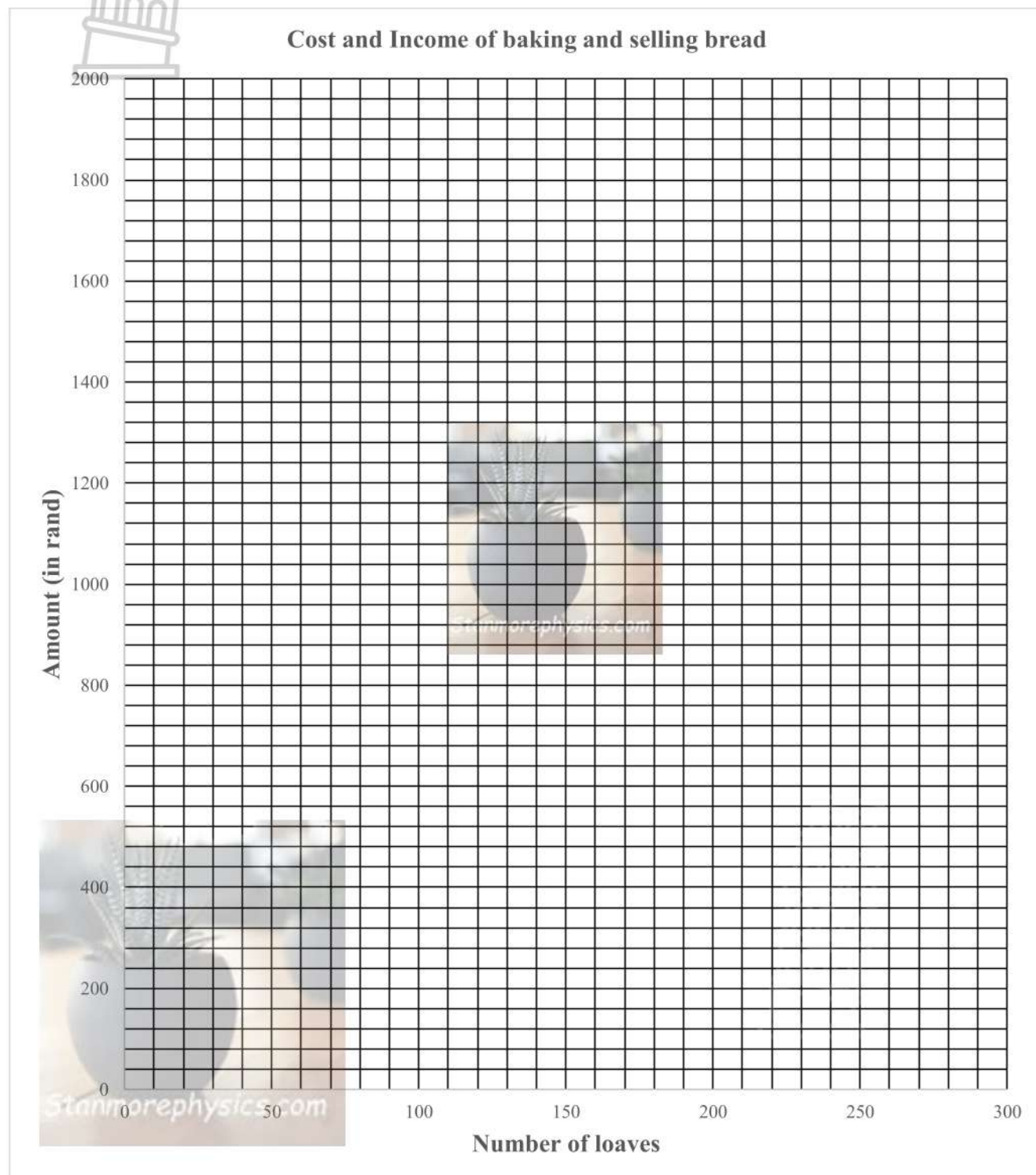
[12]

TOTAL MARKS: 75

ANSWERSHEET

QUESTION 2.2.4

NAME OF LEARNER:





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MID-YEAR EXAMINATION

GRADE 11

MATHEMATICAL LITERACY P1

MEMORANDUM

MAY/JUNE 2026

SYMBOL/SIMBOOL	EXPLANATION/VERDUIDELIKING
M	Method/METODE
MA	Method with Accuracy/metode met akkuraatheid
CA	Consistent accuracy/konstanteakkuraatheid
RCA	Rounding consistent Accuracy/af rondkonstanteakkuraatheid
A	Accuracy/akkuraatheid
O	Opinion/Explanation/verduideliking
C	Conversion/omskakeling
S	Simplification/vereenvoudiging
RT/RG/RD/RM	Reading from table/Reading from graph/Reading from diagram/Reading from map/lees van grafiekdiagram, kaart
F	Choosing the correct formula/korrekte formule
SF	Correct substitution in a formula/korrekte substitusie in formule
J	Justification/regverdiging
P	Penalty e.g. for no units, incorrect rounding off etc./pennaliseer vireenhede, afrondens.
Re	Reason/rede
Ro	Rounding /afrond
NPU/NPR	No Penalty for units/ No Penalty for rounding.

This memorandum consists of 7 pages

QUESTION 1[14 MARKS]		Answer Only Full Marks	
Ques	Solution	Explanation	Level
1.1.1	F ✓✓ A	2A correct letter (2)	F L1
1.1.2	G ✓✓ A	2A correct letter (2)	DH L1
1.1.3	D ✓✓ A	2A correct letter (2)	F L1
1.1.4	C ✓✓ A	2A correct letter (2)	F L1
1.2.1	Cell C ✓✓ RT	2A correct answer (2)	F L1
1.2.2	$A = R134,78 + R4,75 + R6,47 \checkmark$ MA $= R146,00 \checkmark$ A  $A = 134,78 + R11,22 \checkmark$ MA $= R146,00 \checkmark$ A  $A = R167,90 - R21,90 \checkmark$ MA $= R146,00 \checkmark$ A	1MA adding correct values 1A simplification OR 1MA adding correct values 1A simplification OR 1MA subtracting correct values 1A simplification (2)	F L1
1.2.3	$\checkmark$ RT 6,47: 4,75 $\checkmark$ M A	1RT correct values 1MA correct order (2)	F L1

QUESTION 2[30 MARKS]			
Ques	Solution	Explanation	Level
2.1.1	A tariff is a charge imposed by a government on goods and services to raise revenue✓✓A	2A correct definition (2)	F L1
2.1.2	Cost of water used ✓RT ✓MA ✓MA $= (6\text{kl} \times R0,00) + (24\text{kl} \times R6,48) + (5\text{kl} \times R16,20)$ $= R155,52 + R81,70$ $= R236,52$ ✓CA ✓RT $= R236,52 + R80,70 + R7,15$ ✓MA $= R324,37$ ✓CA The claim is not valid✓O	1RT 6kl 1MA multiplying correct amounts 1MA multiplying correct amounts 1CA simplification 1RT correct fixed charge 1MA adding R7,15 1CA simplification 1O conclusion (8)	F L4
2.1.3	✓RT $\text{VAT amount} = R16,20 \times \frac{15}{115}$ ✓MA $= R2,11$ ✓CA OR ✓RT ✓MA ✓MA $\text{Amount excluding VAT} = R16,20 \times \frac{100}{115}$ OR $\frac{R16,20}{1,15}$ $= R14,09$ $\text{VAT amount} = R16,20 - R14,09$ $= R2,11$ ✓CA	1RT R16,20 1MA multiplying by $\frac{15}{115}$ or $\frac{100}{115}$ or dividing by 1,15 1CA simplification (3)	F L3
2.1.4	- maintain ageing infrastructure ✓✓O - cover operational costs ✓✓O - provide essential services like water, electricity and refuse removal ✓✓O Any reasonable answer	4O reasons (4)	F L4

Memorandum

2.2.1	$\checkmark A$ $\text{Cost} = R450,00 + (R4 \times \text{number of loaves}) \checkmark A$	1A fixed cost 1A variable cost (2)	F L2
2.2.2	$\text{Value of A} = R450,00 + (R4,00 \times 300) \checkmark SF$ $= R1650,00 \checkmark A$ $\text{Value of B} = R6,50 \times R180 \checkmark MA$ $= R1170,00 \checkmark A$	1SF correct substitution 1A simplification 1MA multiplying correct values 1A simplification (4)	F L2
2.2.3	$\text{Cost of 50 loaves} = R450 + (R4 \times 50) \checkmark MCA$ $= R650,00 \checkmark CA$	CA from 2.2.1 1MCA substitution 1CA simplification (2)	F L2
2.2.4	Cost and Income of baking and selling bread 1A (0;450) 1A shape of the graph 1A labelling 2A any correct 2 points plotted	(5)	F L2

QUESTION 3[19 MARKS]			
Ques	Solution	Explanation	Level
3.1.1	$\text{Average} = \frac{28+27+27+25+24+19+19+17}{8} \checkmark \text{MA}$ $= \frac{186}{8} \checkmark \text{MA}$ $= 23,25 \text{ points} \checkmark \text{CA}$	1MA adding all values 1MA mean concept 1CA simplification (3)	DH L2
3.1.2	Probability $= \frac{1 \checkmark \text{A}}{3 \checkmark \text{A}}$ $= 33,33\% \checkmark \text{CA}$	1A numerator 1A denominator 1CA simplification (3)	DH L2
3.1.3	The goal difference of Marumo Gallants is lower than Magesi FC $\checkmark \checkmark \text{O}$ OR The goal difference of Magesi FC is higher than Marumo Gallants $\checkmark \checkmark \text{O}$	2O explanation (2)	DH L4
3.2.1	Total of Elim: $15 + 18 + 20 \checkmark \text{MA}$ $= 53 \text{ medals} \checkmark \text{A}$	1MA adding three values 1A simplification (2)	DH L2
3.2.2	Difference in gold medals $\checkmark \text{RT}$ $= 29 - 3 \checkmark \text{MA}$ $= 26 \checkmark \text{CA}$	1RT correct values 1MA subtracting values 1CA simplification (3)	DH L2
3.2.3	Elim's % bronze medals $\checkmark \text{RT}$ $\frac{15}{17+15+18+12+6+7+4+6+6} \times 100 \checkmark \text{MA}$ $= \frac{15}{91} \times 100$ $= 16,48351648\%$ $= 16,48\% \checkmark \text{CA}$	1RT 15 1MA adding correct values 1CA answer NPR (3)	DH L2

3.2.4	P (schools with more than 20 gold medals) $= \frac{2\sqrt{A}}{9\sqrt{A}}$ $= 0,22222222$ $= 0,22\checkmark R$	1A numerator 1A denominator 1R rounding (3)	P L2
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QUESTION 4[12 MARKS]			
Ques	Solution	Explanation	Level
4.1.1	$\text{Mean} = \frac{6+9+8+7+6+M+6+8+7+9+10+6+6+M}{14} \checkmark \text{MA}$ $\checkmark \text{SF}$ $7 = \frac{2M+88}{14}$ $\checkmark \text{MA}$ $7 \times 14 = 2M + 88$ $2M = 10 \checkmark \text{MA}$ $M = 5 \checkmark \text{CA}$	1MA mean concept 1SF correct substitution 1MA multiplying by 14 1MA dividing by 2 1CA simplification (5)	DH L3
4.1.2	5 $\checkmark \checkmark$ MCA	CA from 4.1.1 2MCA correct minimum (2)	DH L1
4.2.1	$16,67\% \times \text{R}12\,000$ $= \text{R}2\,000,40 \checkmark \text{A}$ $\text{R}14\,800,14 - (\text{R}2\,000,40 + \text{R}500 + \text{R}12\,000) \checkmark \text{MCA}$ $= \text{R}14\,800 - \text{R}14\,500,40$ $\text{C} = \text{R}299,74 \checkmark \text{CA}$	1A R2000,4 1MCA subtracting correct values 1CA simplification (3)	F L2
4.2.2	$\text{D} = \text{R}14\,800,14 - \text{R}2\,800 \checkmark \text{MA}$ $\text{D} = \text{R}12\,000,14 \checkmark \text{A}$	1MA subtracting correct amounts 1A simplification (2)	F L1
TOTAL: 75 MARKS			