



education

Department:
Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

MATHEMATICAL LITERACY P1

FINAL EXAMINATION 2008

MARKING GUIDELINE

MARKS: 150

Symbol	Explanation
M	Method
MA	Method with Accuracy
CA	Consistent Accuracy
A	Accuracy
C	Conversion
S	Simplification
RT /RG	Reading from a table / Reading from a graph
SF	Correct substitution in a formula
O	Opinion/Example
P	Penalty e.g. for no units, incorrect rounding off etc.
R	Rounding Off

This memorandum consists of 17 pages

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QUESTION 1 [35]		Maximum Penalty of 1 if no units given in Question 1.1.4 or 1.2.1 or 1.2.3	
Ques	Solution	Explanation	AS
1.1.1	$20\% = \frac{20}{100}$ ✓M/A OR $20\% = 0,2$ ✓M $= \frac{1}{5}$ ✓CA $= \frac{1}{5}$ ✓CA	1M Concept of % as fraction 1CA Simplification (2) ANSWER ONLY FULL MARKS	12.1.1
1.1.2	$\frac{136}{200} = \frac{136}{200} \times \frac{100}{1} \%$ ✓MA OR $\frac{136}{200} = \frac{68}{100}$ ✓MA $= 68\%$ ✓CA $= 68\%$ ✓CA	1MA Conversion to a % 1CA Simplification (2) Only 68 without % full marks ANSWER ONLY FULL MARKS	12.1.1
1.1.3	$120 : 150 = 4 : 5$ ✓A	1A Correct Simplification (1)	12.1.1
1.1.4	$12\% \text{ of } 500 \text{ kg} = \frac{12}{100} \times 500 \text{ kg}$ $= 60 \text{ kg}$ ✓A So the decrease $= 500 \text{ kg} - 60 \text{ kg}$ ✓M $= 440 \text{ kg}$ ✓CA OR A decrease of 12% gives a mass of 88%. ✓A $\text{Decreased mass} = 88\% \text{ of } 500 \text{ kg}$ ✓M $= \frac{88}{100} \times 500 \text{ kg}$ OR $0,88 \times 500 \text{ kg}$ $= 440 \text{ kg}$ ✓CA OR $\text{Decreased mass} = (500 - \frac{12}{100} \times 500) \text{ kg}$ ✓A ✓M $= 440 \text{ kg}$ ✓CA	1A Calculating % 1M Subtraction 1CA Simplification 1A Correct Subtraction 1M Calculating % 1CA Solution 1A Correct Subtraction 1M Calculating % 1CA Solution (3) ANSWER ONLY FULL MARKS	12.1.1

Ques	Solution	Explanation	AS
1.2.1	$R\ 450 - R\ 32,40 \times 10 \quad \checkmark M$ $= R\ 450 - R\ 324$ $= R\ 126 \quad \checkmark CA$	1M Multiplying 1CA Solution (2) If answer given as R4 176 Maximum 1 mark only (Error in order of operations) ANSWER ONLY FULL MARKS	12.1.1
1.2.2	$5^2 - \sqrt{36} = 25 - 6 \quad \checkmark M$ $= 19 \quad \checkmark CA$	1M Calculating (both) 1CA Simplifying (2) ANSWER ONLY FULL MARKS	12.1.1
1.2.3	$34\% \text{ of } 450 \text{ km} \quad \checkmark M \quad \text{OR} \quad = 0,34 \times 450 \text{ km}$ $= \frac{34}{100} \times 450 \text{ km}$ $= 153 \text{ km} \quad \checkmark CA$	1M Percentage as a fraction/decimal 1CA Simplifying (2) ANSWER ONLY FULL MARKS	12.1.1
1.3.1	$\frac{1}{2} \text{ lb}$ $= \frac{1}{2} \times 450 \text{ g} \quad \checkmark C \quad \text{OR} \quad 0,5 \times 450 \text{ g} \quad \text{OR} \quad \frac{450}{2} \text{ g}$ $= 225 \text{ g} \quad \checkmark CA$	1C Conversion 1CA Simplifying (2) ANSWER ONLY FULL MARKS	12.3.2
1.3.2	$1 \text{ oz} = 30 \text{ g}$ $\text{So } 9 \text{ oz} = 9 \times 30 \text{ g} \quad \checkmark C$ $= 270 \text{ g} \quad \checkmark CA$	1C Conversion 1CA Simplifying (2) ANSWER ONLY FULL MARKS	12.3.2
1.3.3	$\text{Amount of sugar} = \frac{3}{4} \times 250 \text{ m l} \quad \checkmark M$ $= 187,5 \text{ m l} \quad \checkmark CA$	1M Concept of fraction 1CA Simplifying (2) ANSWER ONLY FULL MARKS	12.3.2 12.1.1
1.3.4	$\text{Temperature in } ^\circ\text{C}$ $= (\text{Temperature in } ^\circ\text{F} - 32^\circ) \times \frac{5}{9}$ $= (350^\circ - 32^\circ) \times \frac{5}{9} \quad \checkmark SF$ $= 176,666.. ^\circ\text{C} \quad \checkmark CA$ $\approx 180 ^\circ\text{C} \quad \checkmark R$	ANSWER ONLY FULL MARKS 1SF Correct substitution 1CA Calculation 1R Rounding answer (3)	12.1.1 12.1.2 12.3.2

Ques	Solution	Explanation	AS
1.3.5	$72 \text{ tarts} = 6 \text{ dozen} \checkmark^C = 2 \times 3 \text{ dozen}$ Number of eggs = $2 \times 4 \text{ eggs}$ $= 8 \text{ eggs} \checkmark^C \checkmark^A$	1C Convert into dozen 1CA Solution (2) ANSWER ONLY FULL MARKS	12.1.1 12.3.2
1.4.1	Entertainment; social/sports club fees; repairs; maintenance of garden; church donations; transport etc. $\checkmark^O \checkmark^O$	2O Expenses not mentioned already (2)	12.4.4 12.1.1
1.4.2	Percentage spent on communication $\checkmark^A$ $= 100\% - (40\% + 5\% + 30\% + 5\% + 5\%)$ $= 100\% - 85\%$ $= 15\% \checkmark^C \checkmark^A$	1A Adding values in brackets 1CA Simplification (2) ANSWER ONLY FULL MARKS	12.4.4 12.1.1
1.4.3	Savings $= \frac{15}{100} \times R20\ 000 \checkmark^{RT/RC} \checkmark^M \text{ OR } 0,15 \times R20\ 000$ $= R\ 3\ 000 \checkmark^C \checkmark^A$	1RT/RG Reading off table and graph 1M Multiplying by the % 1CA Simplifying (3) ANSWER ONLY FULL MARKS Mixing parent's and Nabila's data Maximum 2	12.1.1 12.4.2
1.4.4	Amount $= \frac{30}{100} \times R\ 15\ 000 \checkmark^{RT/RG} \checkmark^M \text{ OR } 0,30 \times R\ 15\ 000$ $= R\ 4\ 500 \checkmark^C \checkmark^A$	1RT/RG Reading off table and graph 1M Multiplying by the % 1CA Simplifying (3)	12.1.1 12.4.2

Question 2 [26]		Penalty 1 for units in Question 2.2.4	
Ques	Solution	Explanation	AS
2.1.1	$65,6\% - 53,8\% = 11,8\%$ ✓A	1A correct subtraction (1)	12.4.4
2.1.2	Radio ✓A	1A Correct appliance (1)	12.4.4
2.1.3	Video machine ✓A	1A Correct appliance (1)	12.4.4
2.1.4	✓RT $72,9\% \times 1\,000$ households $= 0,729 \times 1\,000$ $= 729$ households ✓CA	1RT Correct % with % sign 1CA Simplification (2) 72 900 One mark ANSWER ONLY FULL MARKS	12.2.3 12.4.4
2.1.5	Difference in percentage = $53,8\% - 24,4\%$ ✓R ✓M $= 29,4\%$ ✓CA OR Difference in usage ✓R ✓M $= (53,8\% \text{ of } 1\,000) - (24,4\% \text{ of } 1\,000)$ $= 538 - 244$ $= 294$ ✓CA OR ✓R ✓M $(53,8\% - 24,4\%) \times 1\,000$ $= 29,4\% \times 1\,000$ $= 294$ ✓CA	1R Reading the % from the table 1M Subtraction only 1CA Simplification (must follow from a subtraction) Note: Learner can use the 1 000 households given in question 2.1.4 1R Reading the % from the table 1M Subtraction only 1CA Simplification (must follow from a subtraction) 1R Reading the % from the table 1M Subtraction only 1CA Simplification (must follow from a subtraction) (3) ANSWER ONLY FULL MARKS	12.2.3 12.4.4
2.2.1	Diameter = 62 m	1A correct value (1)	12.3.1
2.2.2	The maximum height $= \text{height of tower} + \text{length of blade}$ $= 50\text{ m} + 31\text{ m}$ ✓M $= 81\text{ m}$ ✓A	1M Identifying the two values 1A Solution (2) ANSWER ONLY FULL MARKS	12.3.1
2.2.3	$C = 2 \times \pi \times \text{radius}$ OR $C = \pi \times \text{diameter}$ $= 2 \times 3,14 \times 31\text{ m}$ ✓M $= 3,14 \times 62\text{ m}$ $= 194,68\text{ m}$ ✓A $= 194,68\text{ m}$	1M Substitution 1A Simplification (2) OR (π) 194,78 OR ($\frac{22}{7}$) 194,85	12.3.1

Ques	Solution	Explanation	AS
2.2.4	$\text{Area} = \pi r^2 \quad \checkmark M$ $= 3,14 \times (31 \text{ m})^2$ $= 3\,017,54 \text{ m}^2 \quad \checkmark CA \quad \checkmark A$	1M Substitution 1CA Simplification 1A Correct units (3) OR $(\pi) 3\,019,07$ OR $(\frac{22}{7}) 3\,020,29$	12.3.1
2.2.5	Number of households $= \frac{1\,750 \text{ kW}}{25 \text{ kW per household}} \quad \checkmark M/A$ $= 70 \text{ households.} \quad \checkmark CA$	1M/A Correct division 1CA Simplification (on multiplication or division only) (2)	12.2.1
2.3.1	20 days $\checkmark RG$	1RG Reading from graph (1)	12.2.3
2.3.2	Approximately $3\frac{1}{3}$ days. or $\frac{20}{6}$ or $\frac{10}{3}$ $\checkmark RG \checkmark A$ (accept any estimated reading between $3\frac{1}{4}$ and $3\frac{1}{2}$ or 3,25 and 3,5)	1RG Reading from graph 1A estimation (2)	12.2.3
2.3.3 (a)	4 workers. $\checkmark RG \quad \checkmark RG$	2RG Reading from graph (2)	12.2.3
(b)	3 workers OR about 3 workers $\checkmark RG \checkmark RG \checkmark RG$ OR $\checkmark RG \quad \checkmark RG \quad \checkmark RG$ $2\frac{1}{2}$ workers OR 2 workers on a full time basis and third worker to work half of each day	3RG Reading from graph OR 3RG Reading from graph a) 2 Marks 2 to 3 workers OR from 2 to 3 workers OR a fractional answer between 2 and 3 workers b) 1 Mark 2 workers (3)	12.2.3

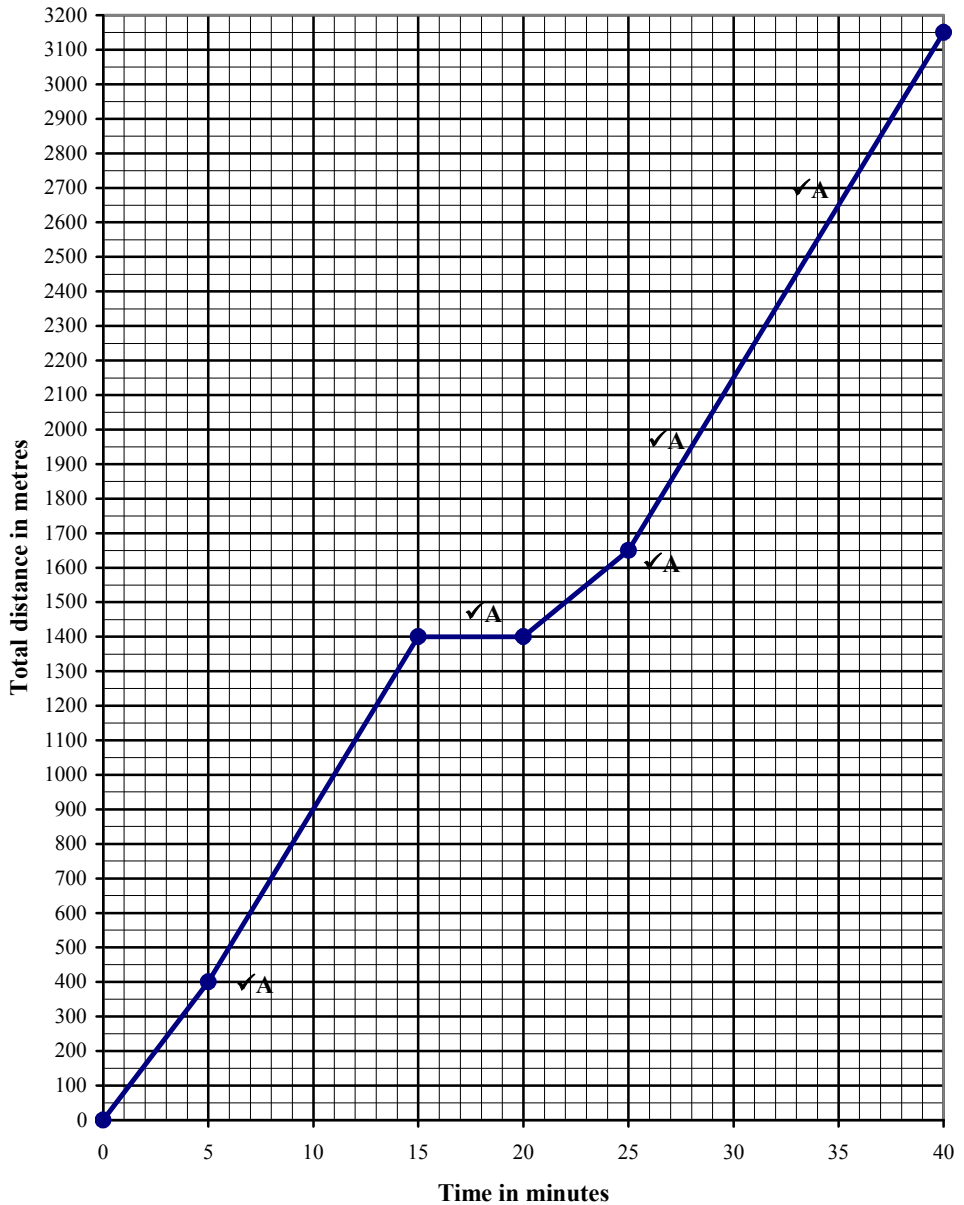
Question 3 [18]		Maximum Penalty of 2 for units in Question 3.1 and 3.2	
Ques	Solution	Explanation	AS
3.1	$V = l \times b \times h$ $= 2,5 \text{ m} \times 2 \text{ m} \times 1,5 \text{ m} \quad \checkmark\text{SF}$ $= 7,5 \text{ m}^3 \quad \checkmark\text{S}$ $= 7,5 \text{ k}\ell \quad \checkmark\text{C}$	1SF Correct substitution 1S Answer with unit 1C Conversion (3) ANSWER ONLY FULL MARKS	12.3.1 12.3.2
3.2	$\text{S.A.} = (l \times b) + 2 \times (l \times h) + 2 \times (b \times h) \quad \checkmark\text{F}$ $= [(2,5 \times 2) + 2 \times (2,5 \times 1,5) + 2 \times (2 \times 1,5)] \text{ m}^2 \quad \checkmark\text{SF}$ $= [5 + 2(3,75 + 3) \text{ m}^2]$ $= [5 + 2 \times 6,75] \text{ m}^2 \quad \checkmark\text{A}$ $= 18,5 \text{ m}^2 \quad \checkmark\text{CA}$	1F Formula correct 1SF Correct substitution 1A Simplifying 1CA Solution (4) Other correct formula and everything is correct FULL marks ANSWER ONLY FULL MARKS	12.3.1
3.3	$\text{Glass} = 20 \text{ m}^2 \times \text{R } 480,00 \text{ per m}^2 \quad \checkmark\text{M/A} \quad \checkmark\text{A}$ $= \text{R } 9\,600,00 \quad \checkmark\text{CA}$	1M/A Concept 1A Product 1CA Solution (3) ANSWER ONLY FULL MARKS	12.1.3 12.3.1

Ques	Solution	Explanation	AS
3.4	A discount of 15% gives a balance of 85%. ✓A Amount paid for the pump = 85% of R 3 999,00 OR $\frac{85}{100} \times R\ 3\ 999,00$ ✓M <u>Can also be expressed as 0,85</u> = R 3 399,15 ✓CA OR Discount = 15% of R 3 999,00 = R 599,85 ✓A Amount paid for the pump = R 3 999,00 – R 599,85 ✓M = R 3 399,15 ✓CA OR Amount paid for the pump = R 3 999,00 – 15% of R 3 999,00 ✓M = R 3 999,00 – R 599,85 ✓A = R 3 399,15 ✓CA	1A Correct subtraction 1M Calculation 1CA Simplifying 1A Actual discount 1M Subtraction 1CA Simplification 1M Subtraction 1A Actual discount 1CA Simplification (3) ANSWER ONLY FULL MARKS	12.1.1
3.5	Time taken to fill the tank = $\frac{6\ 900}{2\ 300}$ hours ✓M/A = 3 hours ✓A	1M Concept of division 1A Simplification (2) ANSWER ONLY FULL MARKS	12.2.1
3.6	Income = ✓✓SF (number of adults) × R7,50 (number of children and pensioners) × R4,00 = 900 × R 7,50 + (1 380 + 300) × R 4,00 = 900 × R 7,50 + 1 680 × R 4,00 = R 6 750,00 + R 6 720,00 = R 13 470,00 ✓A	2SF Correct Substitution 1A Simplification (3) ANSWER ONLY FULL MARKS	12.2.1

QUESTION 4 [24]			
Ques	Solution	Explanation	AS
4.1.1	1 March 2006 – 28 February 2007 OR 12 months OR One year OR March to February	1A Correct Period (1)	12.4.4
4.1.2	Local municipality OR Subsidy ✓A	1A Correct source (1)	12.4.4
4.1.3	$= \frac{\check{A} \text{ R } 308\,160}{\text{R } 443\,520} \times 100\% \check{M}$ $= 69,48051948\% \check{A}$ $\approx 69,5\% \check{R}$	1A Correct numerator and denominator 1M Calculating % 1A Simplification 1R Rounding off (4) ANSWER ONLY FULL MARKS	12.1.1 12.1.2 12.4.4
4.1.4	Average cost of one school uniform $= \text{R}10\,047 \div 48 \check{M}$ $= \text{R}209,3125 \check{CA}$ $\approx \text{R}209,31 \check{R} \quad \text{OR} \quad \text{R}209,30$	1M Dividing 1CA Calculating 1R Correct rounding (3) Multiplying instead of Dividing MAX 1 mark ANSWER ONLY FULL MARKS	12.2.1 12.4.3
4.1.5	$\text{R } 0,08 = 1 \text{ yen } \check{M}$ $\text{R } 57\,120 = \frac{1 \text{ yen} \times \text{R } 57120}{\text{R } 0,08} \check{A}$ $= 714\,000 \text{ yen. } \check{CA}$	1M Using the correct conversion 1A Division 1CA Solution Multiply instead of dividing 1 mark If in Rand instead of yen maximum 2 marks (3) ANSWER ONLY FULL MARKS	12.2.1 12.2.3
4.1.6 (a)	Petrol OR service fee (maintenance) OR license fee OR toll fee ✓O (any suitable answer)	1O Any suitable transport cost (1)	12.4.4
4.1.6 (b)	The cost per kilometre $= \text{R}22\,822 \div 18\,554 \check{F/M}$ $= \text{R}1,23003 \check{CA}$ $\approx \text{R}1,23 \text{ OR } 123 \text{ cents } \check{R}$	1F/M Dividing 1CA Simplification 1R Cost rounded off (3) ANSWER ONLY FULL MARKS Multiplying 1 Mark only NO MARKS for ADDITION or SUBTRACTION	12.1.1 12.2.1

Ques	Solution	Explanation	Ques
4.2.1	Number of orphans living with relatives ✓M = 48% of 1 712 orphans = $\frac{48}{100} \times 1\,712$ orphans OR $0,48 \times 1\,712$ orphans = 821,76 orphans ✓CA ≈ 822 orphans OR accept 821 orphans	1M Using percentage 1CA Number of children rounded off to nearest whole number (2)	12.1.1 12.1.2
4.2.2	LIGHTHOUSE FOUNDATION BENEFICIARIES FOR THE PERIOD 1 MARCH 2006 TO 28 FEBRUARY 2007 Categories of Children 2A for plotting points 2A mark for drawing bars 1mark labels A,B,C, and D (full descriptions) 1 mark Equally spaced bars ✓A NOTE: the bars must be evenly spaced OR lie next to each other Points and labels and line graph drawn Maximum 3 Marks		12.4.2
			(6)

Question 5 [18]

Ques	Solution	AS
5.1	DISTANCE COVERED DURING TRAINING PROGRAMME  ✓A ✓A Any two points plotted correctly ✓A Joining the points with straight lines ✓A rest (horizontal line 15 – 20 minutes) ✓A totally correct shape Maximum 2 marks if Bar Graph drawn	12.2.2

(5)

Ques	Solution	Explanation	AS
5.2.1	Median time = 34 minutes ✓A	1A Correct median (1)	12.4.3
5.2.2	Sandile's times : 29; 30; 30; 31; 31; 32; 32; 32; 32; 35 ✓A $\text{Median time} = \frac{32 + 31}{2} \text{ minutes} \quad \checkmark M$ $= 31,5 \text{ minutes or } 31 \text{ minutes } 30 \text{ seconds} \quad \checkmark CA$	1A Arranging in order 1 M calculation 1 CA solution (3) Subtraction – break down maximum 1 ANSWER ONLY FULL MARKS	12.4.2
5.2.3	$\text{Range} = (37 - 30) \text{ minutes} \quad \checkmark M$ $= 7 \text{ minutes} \quad \checkmark A$	1M Method 1A Correct Range (2) Incorrect calculations Maximum 1 mark ANSWER ONLY FULL MARKS	12.4.3
5.2.4	Sandile's mean time $= \frac{\text{Sum of Sandile's times}}{\text{no. of trials}} \quad \checkmark M$ $= \frac{29 + 30 + 30 + 31 + 31 + 32 + 32 + 32 + 32 + 35}{10} \text{ minutes}$ $= \frac{314}{10} \text{ minutes} \quad \checkmark A$ $= 31,40 \text{ minutes} \quad \checkmark CA \quad \text{OR } 31 \text{ minutes } 24 \text{ seconds}$	1M Using concept of mean or implied 1A addition 1 CA solution ANSWER ONLY FULL MARKS (3)	12.4.3
5.2.5	Mode = 32 minutes ✓A ✓A	2A Correct mode (2)	12.4.3
5.2.6	P(less than 35 minutes) $= \frac{7}{11} \quad \checkmark A \quad \text{OR } 63,64\% \quad \text{OR } 0,64 \quad \checkmark A$	1A Numerator 1 A Denominator (2) ANSWER ONLY FULL MARKS Writing as a ratio maximum 1 MARK	12.4.5

Question 6 [13]			
Ques	Solution	Explanation	AS
6.1	A1 or 1A ✓A	1A Correct grid reference (1)	12.3.4
6.2.1	Turn right into Montagu Drive. Go straight until the intersection of Montagu Drive and East Street. ✓M ✓A Turn left into East Street. Go along until you pass Voortrekker Street. Find friend's house before reaching Frere Street. OR Turn right in Montagu Drive. Go straight until the intersection of Montagu Drive and Station Road. ✓M ✓A Turn left into Station Road. Go along until you find Voortrekker Street. Turn right in Voortrekker Street and go straight until you find East Street. Turn left in East Street. Find friend's house before reaching Frere Street. OR Turn right into Montagu Drive. Go straight until the intersection of Montagu Drive and Short Street. ✓M ✓A Turn left into Short Street. Go along until you find Voortrekker Street. Turn right in Voortrekker Street and go straight until you find East Street. Turn left in East Street. Find friend's house before reaching Frere Street OR Follow learners own solution.	1M Method for route 1A Accuracy for description 1M Method for route 1A Accuracy for description 1M Method for route 1A Accuracy for description (2) 1 mark if any road mentioned	12.3.4

Ques	Solution	Explanation	AS
6.2.2	1 m represents 16 000 m $\therefore 0,029 \text{ m represents } 16\,000 \times 0,029 \text{ m}$ ✓M $= 464 \text{ m}$ ✓A OR 0,464 km OR 464 000 mm OR 46 400 cm	1M Proportion 1A Actual distance (2) Units are important. 1 mark for incorrect answer and no units 0 marks for incorrect answer and incorrect units 1 mark for correct answer and incorrect units 2 marks for correct answer and no units 0 marks if divide instead of multiply	12.3.3
6.2.3	South OR S ✓A (accept South West or SW)	1A Appropriate general direction (1)	12.3.4
6.2.4	North-West OR NW ✓A	1A Correct relative position (1)	12.3.4

Ques	Solution	Explanation	AS
6.3.1	$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$ $= \frac{2,4 \text{ km}}{(9,5 \div 60) \text{ hours}} \quad \checkmark \text{SF} \quad \checkmark \text{C}$ $= 15 \frac{3}{19} \text{ km/h} \quad \checkmark \text{CA}$ Also accept 15,16 km/h OR $= \frac{2,4 \text{ km}}{9,5 \text{ min}} \times 60 \quad \checkmark \text{SF} \quad \checkmark \text{C}$ $= 15 \frac{3}{19} \text{ km/h} \quad \checkmark \text{CA}$ Also accept 15,16 km/h	1SF Correct substitution 1 Conversion to hrs 1CA Solution (3) 1SF Substitution 1C Conversion to hrs 1CA Solution (3) Units are important 2 marks for correct value and no units 1 mark for correct value and incorrect units 2 marks for no conversion but correct units (km/min) i.e. $\frac{2,4 \text{ km}}{9,5 \text{ min}} = \frac{24}{95} \text{ km/min}$ = 0,25 km/min	12.2.1 10.3.1
6.3.2	Wages = R 50,00 + no. of papers delivered × R 0,10 $= \text{R } 50,00 + 150 \times \text{R } 0,10 \quad \checkmark \text{M}$ $= \text{R } 50,00 + \text{R } 15,00 \quad \checkmark \text{A}$ $= \text{R } 65,00 \quad \checkmark \text{CA}$	1M Substitution 1A Simplification 1CA Solution (3) Maximum 2 marks if order of operations incorrect $50,00 + 150 \times 0,10$ $= 200 \times 0,10$ = R20	12.2.1

Question 7 [16]			
Ques	Solution	Explanation	AS
7.1.1	$\text{Amount of water used} = 4 \times 11 \ell \quad \checkmark \text{M}$ $= 44 \ell \quad \checkmark \text{A}$	1M Concept 1A Solution (2) ANSWER ONLY FULL MARKS	12.1.1
7.1.2	$\text{Reduction} = \frac{1}{3} \times 150 \ell \quad \checkmark \text{M}$ $= 50 \ell \quad \checkmark \text{A}$ $\text{Amount of water used} = 150 \ell - 50 \ell$ $= 100 \ell \quad \checkmark \text{CA}$ OR $\text{Reduction of } \frac{1}{3} \text{ means that } \frac{2}{3} \text{ is used.} \quad \checkmark \text{M}$ $\text{Amount of water used} = \frac{2}{3} \times 150 \ell \quad \checkmark \text{A}$ $= 100 \ell \quad \checkmark \text{CA}$ OR $\text{Amount of water used} = 150 \ell - \frac{1}{3} \times 150 \ell \quad \checkmark \text{M}$ $= 150 \ell - 50 \ell \quad \checkmark \text{A}$ $= 100 \ell \quad \checkmark \text{CA}$	1M Calculating $\frac{1}{3}$ 1A Simplification 1CA Solution 1M Calculating $\frac{2}{3}$ 1A Simplification 1CA Solution 1M subtracting $\frac{1}{3}$ 1A Simplification 1CA Solution (3) 1 mark for $150 - \frac{1}{3} = 149 \frac{2}{3}$	12.1.2
7.2.1	$\text{Monthly cost} = R 44,82 + (2 \times R 8,22) \quad \checkmark \text{M}$ $= R 61,26 \quad \checkmark \text{CA}$	1M Correct substitution 1CA Solution (2)	12.2.1

Question 7 [16]			
Ques	Solution	Explanation	AS
7.2.2	The new tariff = R 44,82 + 15% of R 44,82 $\checkmark$M/A = R 44,82 + R 6,72 $\checkmark$A = R 51,54 $\checkmark$CA OR $\checkmark$A The new tariff = 115% of R 44,82 $\checkmark$M = $\frac{115}{100} \times$ R 44,82 = R 51,54 $\checkmark$CA	1M/A Adding 15% 1A Simplification 1CA Solution OR 1M/A Adding 15% 1A correct % 1CA Solution (3) 1 mark only for calculating 15% of R44,82 = R6,72	12.1.2
7.3.1	$\checkmark$ R R 0,00 OR free OR nil OR zero	1R Correct reading (1)	12.2.1
7.3.2	$\checkmark$ R $\checkmark$ R 22,5 k ℓ (Accept readings between 22 k ℓ and 23 k ℓ)	2R Correct reading (2)	12.2.3
7.3.3	R 95 $\checkmark$ R $\checkmark$ R $\checkmark$ A	2R Correct reading 1A Correct unit (3) R115 2MARKS Any amount between R88 and R115 1MARK for unit ONLY	12.2.3