



Education and Sport Development

Department of Education and Sport Development
Departement van Onderwys en Sport Ontwikkeling
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NORTH WEST PROVINCE

**NATIONAL
SENIOR CERTIFICATE**

GRADE 11

**MATHEMATICAL LITERACY P1
JUNE EXAMINATION MEMO**

2019

MARKS: 75

Symbol	Explanation
M	Method
CA	Continuous accuracy
A	Accuracy
C	Conversion
S	Simplification
RT/RG/RM	Read from Table / Read from graph/ Read from Map
SF	Substitution in formula
O	Opinion/Example / Deduction/conclusion
P	Penalise for example no units / incorrect rounding etc
R	Rounding
J	Justification/ Motivation/ Supply a Reason

QUESTION 1 [15]			
QUES	SOLUTIONS	EXPLANATIONS	L1-4
1.1.1	Rent ✓ Cell phone contract ✓ (2)	2 A	1
1.1.2	$R\ 250,00 \times 4 = R\ 1\ 000,00$ ✓ $R\ 1\ 000,00 + R\ 600,00$ ✓ $R\ 1\ 600,00$ ✓ (3)	1M 1M 1A	2
1.1.3	$B = R150,00 + R\ 500,00 + R\ 300,00 + R\ 120,00$ ✓ $= R\ 1\ 070,00$ ✓ (2)	1M 1A	2
1.1.4	$\frac{1\ 070,00}{1\ 600,00} \times 100$ ✓ $= 66,875\%$ ✓ $= 67\%$ ✓ (3)	1M 1A 1R	3
1.2.1	$4:30 - 9:00$ ✓ $= 5\text{hours } 30\text{minutes}$ ✓ (2)	1M 1A	2
12.2	$5\text{hours} \times 60\text{minutes} = 300\text{minutes}$ ✓ $300\text{minutes} + 30\text{minutes}$ ✓ $= 330\text{minutes}$ ✓ (3)	1M 1M 1A	3

QUESTION 2 [19]			
2.1.1	Cost = $R450 + (R4 \times \text{number of loaves})$ ✓ ✓	2 Correct formula (2)	2
2.1.2	Value for A = $R450 + (R4 \times 300)$ ✓ $= R1\ 650,00$ ✓ Value for B = $R6.50 \times R180$ ✓ $= R1\ 170,00$ ✓	1 Substitution 1 Answer 1 Substitution 1 Answer (4)	2
2.1.3	Cost of 50 loaves = $R450 + (R4 \times 50)$ ✓ $= R650,00$ ✓	1 Substitution 1 Answer (2)	



	Graph: See attached page	1 heading 1 A (0;450) 1 A (0;0) 1 breakeven point 1 labelling both axis 1 labelling both graphs 1A joining the points (7)	2
2.1.5	Coordinates (180✓; R1 170) ✓ It means that both cost and income for baking and selling 180 loaves is the same amount which is R1 170. ✓ ✓	2 coordinates 2 Meaning (4)	2

QUESTION 3 [20]			
3.1.1	Two items ✓✓ (2)	2A	1
3.1.2	$R\ 499,00 \times \frac{33}{100}$ ✓ R 164,00✓ (2)	1M 1M	2
3.1.3	Total including VAT $R\ 768,00 \times \frac{15}{100}$ ✓ = R 115,20 + R 768,00✓ = R 883,40 ✓ (3)	1Mmultiplication 1Maddition 1Aanswer	2
3.2.1	Cost of water used 6kl = R0,00 $24kl \times 6,48$ ✓ = R155,52✓ $5kl \times 16,20$ = R81,00✓ $R155,52 + R81,70$ ✓ = R236,52 $R236,52 + R80,70$ ✓ + R17,15✓ = R324,37 ✓ (7)	1Multiplication 1Aanswer 1Aanswer 1Maddition 1Madding R80,70 1Madding R17,15 1Aanswer	2
3.2.2	New price = $R80,70 \times \frac{15}{100}$ = R 12,01✓ = R80,82 + R12,01✓ = R 92,81✓ (3)	1Mmultiplication 1Maddition 1Aanswer	2
3.3	1st year = $(\frac{7,5}{100} \times R120\ 000,00) + R\ 120\ 00,00$ ✓		



	$= R129\,000,00 \checkmark$ $2nd\ year = \frac{7,5}{100} \times R129\,000,00 + R129\,000,00$ $= R138\,675,00 \checkmark$ $3rd\ year = \frac{7,5}{100} \times R139\,675,00 + R139\,675,00$ $= R149\,075,63 \checkmark$ (4)	1 Multiplication 1 Answer 1 Answer 1 Answer	3
QUESTION 4			
[15]			
4.1.1	Radius = $\frac{14}{2} \checkmark$ = 7cm \checkmark (2)	1 dividing by 2 1 Answer	1
4.1.2	Volume = $\pi r^2 \times h$ $V = 3,142 \times (7cm)^2 \times 24cm^2 \checkmark$ $V = 3694,99\ cm^3 \checkmark$ $V = 3694,99\ cm^3 - 3456\ cm^3 \checkmark$ $V = 238,99\ m^3 \checkmark$ (4)	1 Substitution 1 Answer 1M 1A	3
4.1.3	Volume = $(side)^2 \times height$ $= 3456\ cm^3 = (A)^2 \times 24cm \checkmark$ $(A)^2 = 3456\ cm^3 \div 24cm \checkmark$ $(A)^2 = 144\ cm^3$ $(A)^2 = \sqrt{144} \checkmark$ $A = 12 \checkmark$ (4)	1S 1M 1M 1A	3
4.2.1	Boipelo nature reserve $\checkmark \checkmark$ (2)	2A	1
4.2.2	N 12 \checkmark , N 14 \checkmark and N 4 \checkmark (3)	3A	1
4.2.3	Turn into R505 \checkmark and continue until you reach Lichtenburg \checkmark . Turn into R52 \checkmark and join N14 \checkmark and continue until you reach Sannieshof. $\checkmark \checkmark$ (6)		2

Cost and Income of loaves of Bread

