



Province of the
EASTERN CAPE
EDUCATION

O.R. TAMBO INLAND

GRADE 11

MARCH 2023

**MATHEMATICAL LITERACY
CONTROLLED TEST
MEMORANDUM**

MARKS: 50

TIME: 1 HOUR

SYMBOL	EXPLANATION
M	Method
MA	Method with Accuracy
CA	Consistent Accuracy
A	Accuracy
C	Conversion
S	Simplification
RT / RG	Reading from a table / graph
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
G	Plotting/Drawing Graph

This memorandum consists of 4 pages.

QUESTION 1			
1.1.1	$12 \times 551,5 \checkmark$ $= 618g \div 1000$ $0,618kg \checkmark$ $0,62kg \checkmark$	1M 1A 1R	(3)
1.1.2	$2\frac{1}{2} \times 5ml \checkmark$ $= 12,5ml \checkmark$	1M 1A	(2)
1.1.3	$1 \text{ cup} = 250ml$ $65ml \div 250 \checkmark$ $2,5cups \checkmark$	1M 1A	(2)
1.1.4	$150 = (\text{°F} - 32^\circ) \div 1,8 \checkmark$ $\text{°F} = 150 \times 1,8 + 32^\circ \checkmark$ $\text{°F} = 302 \checkmark$	1SF 1M 1A	(3)
1.1.5	$11:35$ $+1:30 \checkmark$ $12:65 \checkmark \rightarrow 13:05 \checkmark$	1M 1A 1C	(3)
1.1.6	$15 \times 250 = 3750 \text{ ml}$ $= 3750 \text{ ml} \div 1000 \checkmark$ $= 3,75 \text{ litres} \checkmark$	1C 1A	(2)
1.2.1	$\text{Amount in kg} = 3,5 \div 2,25 \checkmark$ $= 1,556 \text{ kg} \checkmark$	1C 1A	(2)
1.2.2	$\frac{2000}{0,7}$ $= 2857,14 \text{ ml} \checkmark$ $= \underline{2857,14} \checkmark$ $1,25$ $= 4,57 \checkmark \approx 4 \text{ cakes} \checkmark$	1M 1M Division 1A 1R	(4)
			[21]

QUESTION 2			
2.1	Time - Independent variable $\checkmark$ Amount - Dependent variable $\checkmark$	1A 1A	(2)
2.2	$A = 90 + (0,50 \times t) \checkmark \checkmark \checkmark$	3 MA	(3)
2.3	$A = 90 + 36 \times 0,50 \checkmark$ $A = R90 + R 18 \checkmark$ $A = R 108 \checkmark$	1MA 1M add 1A	(3)

2.4	Time in minute	10	15	20	25	4A	(4)
	Call charges	$10 \times 0,50$ R 5	$15 \times 0,50$ R 7, 50	$20 \times 0, 50$ R 10	$25 \times 0,50$ R12,50✓✓		
	Amount (in rands)	R95	R97,50	R100	R102,50✓✓		
2.5	A: $60 \text{ min} \times \text{R } 2,50 \checkmark = \text{R } 150,00$ B: $\text{R } 100 + \text{R } 0,30 \times 60 \checkmark$ $= \text{R } 118, 00 \checkmark$ The cheaper option is B.✓					1M 1M 1A 1O	(4)
							[16]

QUESTION 3			
3.1	Perimeter: the length of the borders or outer edge of 2D object.✓✓	2O	(2)
3.2	Radius = $7,3 \div 2 \checkmark$ $= 3,65 \text{ cm} \checkmark$	1M 1A	(2)
3.3	$110 \div 10 \checkmark$ $= 11 \text{ cm} \checkmark$	1MA 1CA in cm	(2)
3.4	Volume = $\pi r^2 h$ Volume = $3,142 \times (3,65 \text{ cm})^2 \times 11 \text{ cm} \checkmark \checkmark$ $= 460,4512 \text{ cm}^3$ $= 460,45 \text{ cm}^3 \checkmark$	1SF 1M CA	(3)
3.5	Outer- area = $2 \times \pi \times \text{radius} \times \text{height}$ $= 2 \times 3,142 \times 3,65 \text{ cm} \times 11 \text{ cm} \checkmark \checkmark$ $= 252,30 \text{ cm}^2 \checkmark$ $= 252 \text{ cm}^2 \checkmark$	1MCA 1MA 1CA 1U	(4)
			[13]

ORTI MLIT G11 CONTROLLED TEST TERM 1 ANALYSIS GRID				
QUESTION	LEVELS			
	1	2	3	4
1.1.1	3			
1.1.2	2			
1.1.3	2			
1.1.4		3		
1.1.5		3		
1.1.6	2			
1.2.1		2		
1.2.2			4	
2.1	2			
2.2		3		
2.3		3		
2.4			4	
2.5				4
3.1	2			
3.2		2		
3.3	2			
3.4			3	
3.5				4
Marks	15	16	11	8
%	30%	32%	22%	16%
Expected %	30%	30%	20%	20%