

Maths Literacy grade 11 November Exam – Paper 1 MEMORANDUM

Time: 3 hours

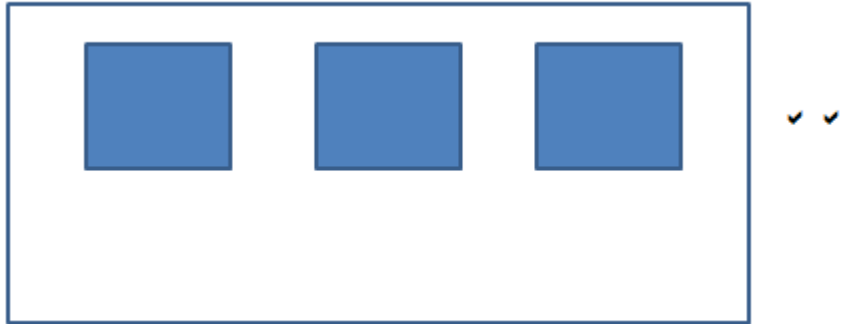
Marks: 150

Key:

M	Method
MA	Method with accuracy
C	Calculation
S	Substitution
SF	Simplification
A	Answer
RA	Rounded answer
J	Justification

Question	Solution	Explanation	Marks
1.1.1	$50,74 - 43 \checkmark = R7,74 / \text{kg} \checkmark$	1 C 1 A	(2)
1.1.2	$\frac{35 - 28 \checkmark}{28} \times 100 \checkmark = 25\% \checkmark$	2 M 1 A	(3)
1.1.3	$76 \times 0,15 = R11,40 \checkmark$ $11,40 + 76 \checkmark = R87,40 \checkmark$	1 A 1 C 1 A	(3)
1.1.4	$(35 \times 2) \checkmark + (0,5 \times 60) \checkmark + (1,8 \times 50,74) \checkmark + (1,6 \times 87,40) \checkmark = R331,17 \checkmark$	4 MA 1 A	(5)
1.1.5	$(28 \times 2) \checkmark + (0,5 \times 50) \checkmark + (1,8 \times 43) \checkmark + (1,6 \times 76) \checkmark = R280 \text{ cost} \checkmark$ $331,17 - 280 = R51,17 \text{ profit} \checkmark$	4 MA 1 A 1 A	(6)
1.1.6	$1,8 \times 35 = R63 \checkmark$ $63 \times \frac{100}{114} = R55,26 \checkmark$ $63 - 55,26 = R7,74 \checkmark$ (accept other methods with correct answer)	1 C 1 M 1 A	(3)
1.2.1	$3,5 / 2,2 \checkmark = 1,6\text{kg} \checkmark$	1 C 1 A	(2)
1.2.2	$2,2 \times 2,2 = 4,84 \text{ pounds} \checkmark$ $4,84 \times 16 \checkmark = 77,44 \text{ ounces} \checkmark$	1 C 1 C 1 A	(3)

1.2.3	$5,5/2,2 = 2,5 \text{ kg} \checkmark$ $2,5 \times 35 = R87,50 \checkmark$	1 C 1A	(2)
1.2.4	$87,50 \times 0,10 \checkmark = R8,75 \checkmark$	1 M 1 A	(2)
2.1.1	Rental, wages, insurance, loan repayments ( <i>any TWO; accept other fixed costs</i> ) $\checkmark \checkmark$	1 A 1 A	(2)
2.1.2	Cost = $280 \checkmark + 3,50 x \checkmark \checkmark$	1 S 2 A	(3)
2.1.3	Income = $12x \checkmark \checkmark$	2 A	(2)
2.1.4	A – $400 \times 12 = R4\ 800 \checkmark$ B – $6\ 280 + 3,5 \times 600 \checkmark = R8\ 380 \checkmark$	1 A 1 MA 1 A	(3)
2.1.5	Graph (ANNEXURE A)		(7)
2.1.6	$739 \checkmark \checkmark$ ( <i>accept 735 to 745</i> )	2 A	(2)
2.2.1	$6 \times 12 \checkmark = R72 \checkmark$	1 C 1 A	(2)
2.2.2	$72/17,55 \checkmark = 4,10 \text{ BPS} \checkmark$	1 M 1 A	(2)
2.2.3	$28,70/4,10 \checkmark = 7 \text{ sets} \checkmark$	1 C 1 A	(2)
2.2.4 a)	$6 \times 12 = 72 \text{ cups} \checkmark$ $72 \times 230 \checkmark = 16\ 560\text{g}$ $= 16,56 \text{ kg} \checkmark$ $= 17 \text{ kg} \checkmark$	1 A  1 C 1 A 1 RA	(4)
2.2.4 b)	$62,50 + (14,50 \times 17) \checkmark = R309 \checkmark$	1 C 1 A	(2)
2.2.4 c)	$72 + 309 \checkmark = R381 \checkmark$	1 C 1 A	(2)
3.1.1	$(2 \times 15 \times 1,5) \checkmark + (2 \times 8 \times 1,5) \checkmark = 69 \text{ m}^2 \checkmark$	2 S 1 A	(3)
3.1.2	$20/100 = 0,2\text{m} \checkmark$ $0,2 \times 0,2 = 0,04 \text{ m}^2 \text{ per tile} \checkmark$ $69/0,04 \checkmark = 1\ 725 \text{ tiles} \checkmark$	1 conversion 1 A  1 M 1A	(4)
3.2	V = $15 \times 8 \times 1,5 \checkmark$ $= 180 \text{ m}^3 \checkmark$ $= 180 \text{ kl} \checkmark$	1 S  1 A 1 A	(3)
3.3	$0,94 \times 180 = 169,4 \text{ kl} \checkmark$	1 M 1 C	(3)

	$169,2 \times 5,68 \checkmark = R961,10 \checkmark$	1 A	
3.4	$0,015 \times 169,2 \checkmark = 2,54 \text{ kl} \checkmark$	1 M 1 A	(2)
3.5.1	$10 - 8 = 2\text{m} \checkmark \checkmark$	2 A	(2)
3.5.2	Area of paving and pool: $A = 17 \times 10$ $= 170 \text{ m}^2 \checkmark$ Area of pool: $A = 15 \times 8$ $= 120 \text{ m}^2 \checkmark$ Area of paving: $170 - 120 \checkmark = 50 \text{ m}^2 \checkmark$	1 A  1 A 1 C 1 A	(4)
3.5.3	$14,50 \times 50 \checkmark = R725 \checkmark$	1 C 1 A	(2)
4.1.1	9 $\checkmark \checkmark$	2 A	(2)
4.1.2	Dining Room $\checkmark$ and Lounge $\checkmark$	1 A 1A	(2)
4.1.3		2 correct number of windows	(2)
4.1.4	$8,6 \times 110 \checkmark = 946 \text{ cm} \checkmark = 9,46 \text{ m} \checkmark$	1 C 1 A 1 A	(3)
4.2.1	B2 $\checkmark \checkmark$ (do not accept 2B)	2 A	(2)
4.2.2	Karoo National Park $\checkmark$ and Bontebok National Park $\checkmark$	1 A 1 A	(2)
4.2.3	SE or ESE $\checkmark \checkmark$	2 A	(2)
4.2.4	$S = \frac{135}{0,5} \checkmark \checkmark$ $= 270 \text{ km / h} \checkmark$	2 M 1 A	(3)
4.2.5	Golden Gate National Park $\checkmark$ and Vaalbos National Park $\checkmark$ Or Kruger National Park $\checkmark$ and Bontebok National Park $\checkmark$	1 A 1 A	(2)
4.2.6	13 $\checkmark \checkmark$	2 A	(2)

5.1.1	16 <sup>th</sup> ✓	1 A	(1)
5.1.2	5 <sup>th</sup> ✓	1 A	(1)
5.1.3	4 ✓ ✓	2 A	(2)
5.1.4	6 ✓ ✓	2 A	(2)
5.1.5	$8/20 = 2/5$ ✓ ✓	2 A	(2)
5.1.6	206 ✓ ✓	2 A	(2)
5.1.7	$206/20$ ✓ = 10,3 ✓	1 M 1 A	(2)
5.1.8	New Zealand had 172 runs ✓ so South Africa (Proteas) won ✓	2 A	(2)
5.2.1 a)	Teenagers in South Africa ✓ ✓	2 A	(2)
5.2.2 b)	400 learners at 5 schools ✓ ✓	2 A	(2)
5.2.2	$72/400$ ✓ x 100 ✓ = 18% ✓	2 M 1 A	(3)
5.2.3	$80/400$ ✓ x 360 ✓ = 72° ✓	2 M 1 A	(3)
5.2.4	$8/100 \times 400$ ✓ = 32 ✓ therefore it is SMS ✓	1 M 1 A 1 A	(3)
5.2.5	$45 / 400$ ✓ = $9/80$ ✓ $9 / 80 \times 100 = 11,25\%$ ✓	2 M 1 A	(3)
5.2.6	$33 + 61 = 94$ ✓ $94 / 400$ ✓ = $47 / 200$ ✓	1 A 2 A	(3)
5.3.1	$40 - 21 = 19$ ✓ ✓	2 A	(2)
5.3.2	34 ✓ ✓	2 A	(2)
5.3.3	24 ✓ ✓	2 A	(2)
5.3.4	60% of 40 = 24 ✓ Therefore 14 learners ✓	1 M 1 A	(2)

ANNEXURE A

QUESTION 2.1.5

