NATIONAL SENIOR CERTIFICATE EXAMINATION
NOVEMBER 2024

MATHEMATICAL LITERACY: PAPER I
MARKING GUIDELINES

Time: 3 hours 150 marks

These marking guidelines are prepared for use by examiners and sub-examiners, all of whom are required to attend a standardisation meeting to ensure that the guidelines are consistently interpreted and applied in the marking of candidates' scripts.

The IEB will not enter into any discussions or correspondence about any marking guidelines. It is acknowledged that there may be different views about some matters of emphasis or detail in the guidelines. It is also recognised that, without the benefit of attendance at a standardisation meeting, there may be different interpretations of the application of the marking guidelines.

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QUESTION 1

1.1	20 × 1 650 + 12 500 + 20 000 = R65 500	Product Sum with 12 500 & 20 000 Solution	
1.2	12 300 ÷ 33 000 × 100 = 37,27%	12 300 33 000 Solution	
1.3	2 300 + $\frac{4}{5}$ × 2 300 = R4 140 OR 2 300 + 80%× 2 300 = R4 140	$\frac{4}{5}$ of OR 80% of Sum Solution	
1.4	15 × 2 × 2 × 20 = R1 200	2 children return journey x 20 days Solution	
1.5	0,05 × 20 000 = R1 000	% of Solution	
1.6	Percentage increase: 0,0546 × R6 854,90 = R374,28 Current cost: 6 854,90 + 374,28 = R7 229,18 OR Current cost: 6 854,90 × 105,46% = R7 229,18 Percentage increase: 7 229,18 – 6 854,90 = R374,28	% of R374,28 Sum of R7 229,18	
1.7	3 000 ÷ 5 × 2 = R1 200 OR 3000 ÷ 2,5 = R1 200 OR $\frac{2}{5}$ × 3 000 = R1 200 OR $\frac{7}{5}$ × 3 000 = R4 200 4 200 – 3 000 = R1 200	÷ 5 x 2 Allow for various orders of these functions Solution	

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1.8.1	R25,15 – R22,17 = R2,98	Identify correct values Subtraction R2,98	
1.8.2	Range	x 2 solution	
1.8.3	Continuous	x 2 solution	
1.8.4	February	x 2 solution	

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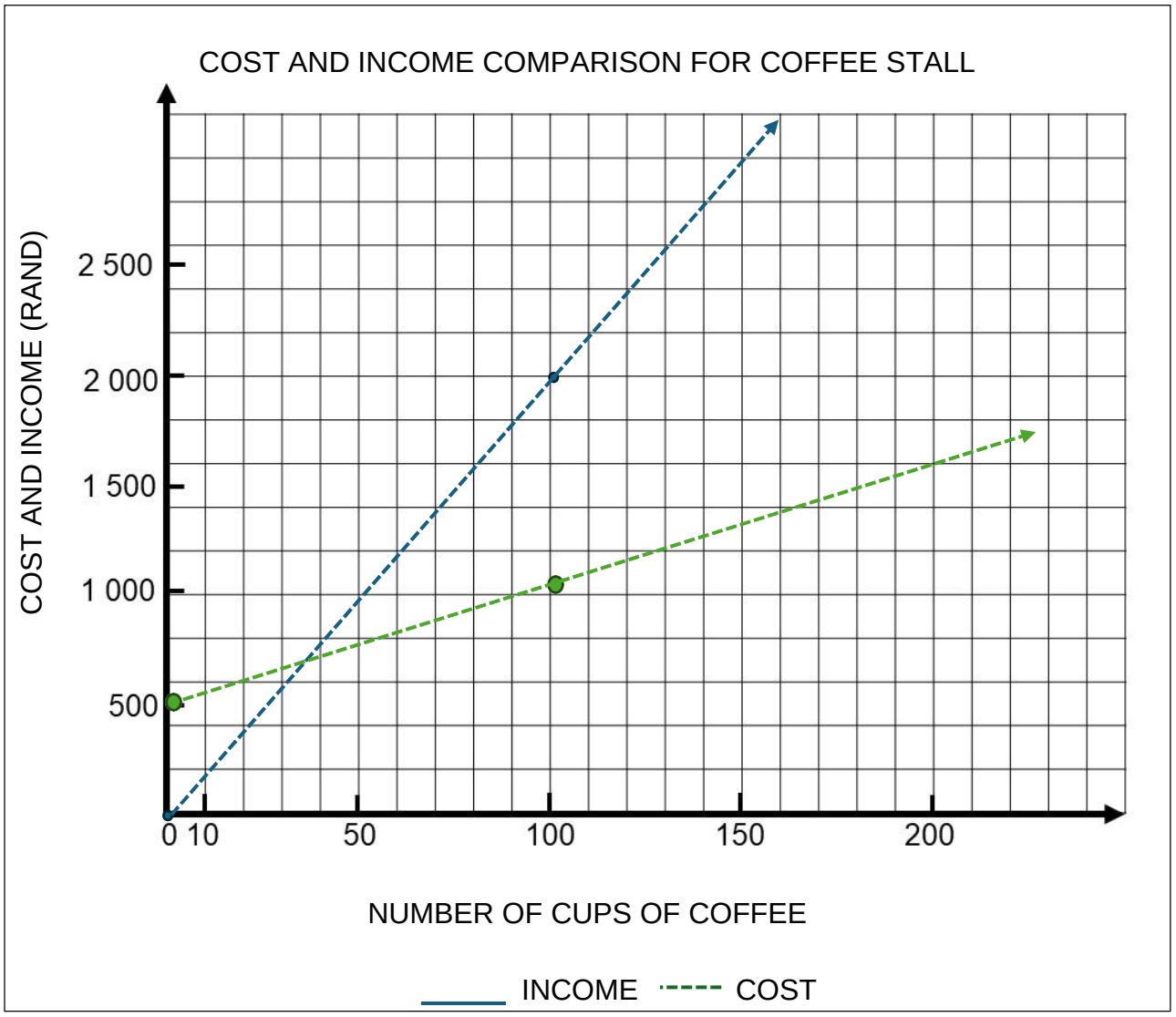
QUESTION 2

2.1.1	Pictograph/Bargraph	x 2 pictograph	
2.1.2	$465,9 billion OR $465 900 000 000	x 2 solution	
2.1.3	Predicted increased amount 668,4 - 465,9 = $202,5 billion OR = $202 500 000 000	Subtraction Solution	
2.1.4	$\frac{668,4 - 465,9}{465,9} \times 100$ 465,9 = 43,46%	Difference Division by 2020 value Solution	
2.2.1	Indicates the missing values 11–13	x 2 solution	
2.2.2	$\frac{56,4 + x}{10} = 6,12$ 56,4 + x = 61,2 x = 61,2 − 56,4 x = 4,8 kg/ person OR 6,12 × 10 = 61,2 61,2 – 56,4 = 4,8 kg/person OR 56,4 ÷ 10 = 5,64 6,12 – 5,64 = 0,48 0,48 × 10 = 4,8 kg/person	56,4 x 10 – 56,4 Allow for various orders of these functions	
2.2.3	$\frac{5,5+5,3}{2}$ = 5,4 *kg/persoon*	Divide by 2 Solution	
2.3.1	Cost (R) = 500 + 5,5n	Format (R =) Fixed Cost 500 + 5,5n	
2.3.2	A = R500 B = R20 C = 30 cups of coffee D = R1 050	x 2 solution x 2 solution x 2 solution x 2 solution	
2.3.3	See next page	Suitable graph heading Axis labels Key Income (0;0) Income (100; 2 000) Cost (0;500) Cost (100;1 050) Dotted lines	


COST AND INCOME COMPARISON FOR COFFEE STALL
COST AND INCOME (RAND)
2 500
2 000
1 500
1 000
500
0 10
50
100
150
200
NUMBER OF CUPS OF COFFEE
INCOME
COST

QUESTION 3

3.1	303 648 – (3795,60 × 12) = 303 648 – 45 547,20 = R258 100,80 42 678 + 0,26(258 100,8 – 237 100) = 48 138,21 48 138,21 – 17 235 = 30 903,21 30 903,21 ÷ 12 = R2 575,27/month	3795,60 × 12 Subtraction of annual pension from gross Tax bracket 258 100,8 – 237 100 Subtract primary rebate Only (17 235) Divide by 12 Solution	
3.2	Months per year: 52 OR Accept: 12 × 4 = 48 USA $1 100 × R18,83 = R20 713 per week RSA R303 648 ÷ 52 = R5 839,38 per week USA has the highest average salary OR USA $1 100 × R18,83 = R20 713 per week RSA R303 648 ÷ 48 = R6 326 per week USA has the highest average salary	 Conversion $ to R Solution (R20 713) Division by 52 (monthly) Solution Conclusion Conversion $ to R Solution (R20 713) Divide by 48 (monthly) Solution Conclusion	
	USA $1 100 × 52 = $57 200 p.a. 57 200 × 18,83 = R1 077 076 per year SA R303 648 per year USA has the highest average salary OR USA $1 100 × 48 = $52 800 p.a. 52 800 × 18,83 = R994 224 per year SA R303 648 per year USA has the highest average salary	Multiplication by 52 Solution ($57 200) Conversion $ to R Solution (R1 077 076) Conclusion Multiplication by 48 Solution ($52 800) Conversion $ to R Solution (R994 224) Conclusion	

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	SA R303 648 ÷ 18,83 = $16 125,75 per year USA $1 100 × 52 = $ 57 200 per year USA has the highest average salary OR SA R303 648 ÷ 18,83 = $16 125,75 per year USA $1 100 × 48 = $ 52 800 per year USA has the highest average salary	Conversion R to $ Solution ($16 125,75) Multiplication by 52 Solution ($57 200) Conclusion Conversion R to $ Solution ($16 125,75) Multiplication by 48 Solution ($52 800) Conclusion	
	SA R303 648 ÷ 18,83 = $16 125,75 per year 16 125,75 ÷ 52 = $310,11 per week USA $1 100 per week USA has the highest average salary OR SA R303 648 ÷ 18,83 = $16 125,75 per year 16 125,75 ÷ 48 = $335,95 per week USA $1 100 per week USA has the highest average salary	Conversion R to $ Solution ($16 125,75) Division by 52 Solution ($310,11) Conclusion Conversion R to $ Solution ($16 125,75) Divide by 48 Solution ($335,95) Conclusion	
3.3.1	R108 313 ÷ 12 = R9 026,08	Divide by 12 Solution	
3.3.2	1980	x 2 solution	
3.3.3	R100 000	x 2 solution	
3.3.4	After an initial dip in income, the National income increases to a maximum 1974. A sudden and sharp decrease follows this in income before quickly rising again.	Increase Decrease Increase	
3.4	R25,42 + 0,08497 × R25,42 = R27,58/h 27,58 × 40 × 4 = R4 412,80 OR 25,42 × 40 × 4 = 4 067,2 4 067,2 × 1,08497 =R4 412,79	Percentage increase of 8,497% Solution (R27,58) x 40 x 4 Solution	

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3.5	A. R269 000 B. R203 000 C. R187 000	A B C	

QUESTION 4

4.1	R1 914 404 : $101 463,41 1 914 404 ÷ 101 463,41 $1 = R18,8679	Division Exchange rate Rounding (4 decimals)	
4.2	1 148 642,40 ÷ 400 = R2 871,61	Identifying correct value Division by 400 Solution	
4.3	400 × 80 = 32 000 kg 1 148 642,4 ÷ 32 000 = R35,90/kg OR 2 871,61 ÷ 80 = R35,90/kg	400 × 80 32 000 kg Min divided by 32 000 Solution	
4.4.1	400 ÷ 50 = 8 hostesses 0,01 × 1 148 642,40 = R11 486 11 486 ÷ 8 = R1 435,80 1 435,8 ÷ 2 = R717,90/hr	8 hostesses 1% of R11 486 Divide by 8 Divide by 2 Allow for various orders of these functions	
4.4.2	0,09 × 360 = 32,4°	9% of 360 Solution	
4.5.1	50 %	x 2 solution	
4.5.2	58 kg	x 2 solution	
4.5.3	58 – 36 = 22 kg	Max – min Solution	
4.5.4	An outlier is a number in a data set that is very different from all the other values in the data set	x 2 reasoning	
4.5.5	Skewed to the **right**	x 2 solution	

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QUESTION 5

5.1	$150 800 000	x 2 solution	
5.2	A = 801 223 B = 36 369,31 C = 892 445,51 D = 39 602,26 949 998,15 ≈ 950 000 (must be whole) = 0,95 million	Solutions for A Solutions for B Solutions for C Solutions for D Showing ≈ 950 000 = 0,95 million	
5.3.1	1 299,99 ÷ 1,15 = 1 130,43 1 299,99 – 1 130,43 = R169,56 OR $1\,299{,}99 \times \frac{15}{115}$ = R169,56	Calculating original amount (÷ 1,15) Subtraction of VAT I – VAT E Solution	
5.3.2	South African Revenue Services	x 2 solution	
5.3.3	(a) $\frac{1}{5}$ (b) $\frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$ (c) 0,1 = 10%	x 2 solution Product Solution 0,1 10%	
5.3.4	$\frac{(950 + 1100 + 1200 + 1299{,}99 + 1400)}{5}$ = R1 189,998 = R1 190 × 50 × 4 = R237 999,60	Addition ÷ 5 x 50 x 4	
5.3.5	1 400 – 950 = R450	Subtraction Solution	
5.3.6	If you know which size is MOSTLY sold, you can ensure that you have enough stock.	x 2 reason	
5.4	The bars of the graph decrease as the percentage increases. OR Bars show heel height, not the %.	x 2 reason	

Total: 150 marks

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