GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

GAUTENG DEPARTMENT OF EDUCATION

JUNE EXAMINATION

2024

10602

MATHEMATICAL LITERACY

MARKING GUIDELINE

PAPER 1

MARKS: 100 **TIME: 2 hours**

Symbol	Explanation
MA	Method with accuracy
MCA	Method with consistent accuracy
CA	Consistent accuracy
A	Accuracy
C	Conversion
S	Simplification
RT	Reading from a table/graph/document/diagram
SF	Correct Substitution in a formula
O	Opinion/Explanation
P	Penalty e.g. for no unit, incorrect rounding off, etc.
NPR	No penalty for correct rounding
NPU	No penalty for omitting unit, but wrong unit is penalized
AO	Answer Only

This marking guidelines consist of 8 pages.

QUESTION 1				[20 MARKS]
	Explanation	**Awarding of marks**	Marks	**T&L**
1.1.1	Bar graph✓✓A **OR** Vertical bar graph✓✓A **OR** Single bar graph.✓✓A	2 A identifying the graph	(2)	D L1 E
1.1.2	Snap Chat ✓✓RT	2RT Correct social media platform	(2)	D L1 E
1.1.3	63% ✓✓RT	2 RT Correct percentage	(2)	D L1 E
1.1.4	35% × 10 000 000 ✓MA 3 500 000 ✓A ***OR*** 35%×10million✓MA =3,5million✓A	1MA calculating percentage 1 A answer **AO** 1MA calculating percentage 1A answer	(2)	D L1 E
1.2.1	One million two hundred and six thousand seven hundred and eleven rand. ✓✓A	2A correct wording **NPU**	(2)	F L1 E
1.2.2	C ✓✓A	2A choosing correct symbol explaining the term	(2)	F L1 E
1.2.3	Gross salary R 68 000 0,2×68 000✓MA R13 600 ✓A **OR** 68 000 ×20%✓MA =R13 600 ✓A	1MA calculating 20% of R68 000 1A Simplification 1MA calculating 20% of R68 000 1A Simplification	(2)	F L1 E
1.2.4	R 834 900 ✓✓RT	2RT correct value from given table	(2)	F L1 E

*1.2.5	✓MA R1 206 711 – 834 900 = R371 811 ✓A	1 MA subtracting correct values 1 A simplification	(2)	F L1 E
1.2.6	✓MA 72÷12 6 years✓A	1MA dividing by 12 1A simplification	(2)	F L1 E
QUESTION 2				**[36 MARKS]**
2.1.1	The more Randy earns the more Randy will pay personal income tax towards SARS ✓✓A	2A Explanatin	(2)	F L1 E
2.1.2	Gross income ✓RT = R39 380,75 + R1 691,38✓A = R41 072,13	1RT for both correct values 1 A for adding the values	(2)	F L2 E
2.1.3	8 496,32 + 1701,00 + 15 250 ✓MA = R25 447,32✓A	1 MA adding all correct values 1 A Simplifying	(2)	F L2 E
2.1.4	Nett salary = Gross – deductions ✓A = 41 072,13 – 25 447,32 ✓MA = R15 624,81 Mr Ford is incorrect with his calculations ✓O	**CA 2.1.3** 1 A writing the formula 1 MA subtracting correct values 1O verification	(3)	F L3 M
*2.1.5	✓RT $\frac{1\,701}{4027} \times 100$ ✓MA =42,2398808% =42% ✓R	1 RT for both correct values 1 MA concept of percentage 1 Rounding to the nearest percentage	(3)	F L2 M
2.2.1	R719720,00✓✓RT	2 RT reading correct value from E-filing document	(2)	F L1 E
2.2.2	R 583797 ✓✓RT	2 RT reading correct value from E-filling document	(2)	F L1 E

2.2.3	133571,92-129408,22 ✓MA = R4 163,70 This amount is to be paid to SARS as Mr Fords Employee tax and tax credits are less than the subtotal calculated. ✓✓O	1 MA calculating 2 O explaining that the amount is owed to SARS	(3)	F L4 M
2.2.4	Income tax before rebates. ✓RT 115 762 + (36% ×95097)✓SF ✓M 115 762 + 34234,92✓S =149 996,92 ✓A ✓A Yes .the amount is correctly calculated before rebates	1 RT correct tax bracket 1 SF calculating amount above 488 700 1M Adding 1S simplification of 36% of amount above 2 A for verification	(6)	F L4 M
2.3.1	R29,86 ✓✓RT	2RT identifying the tariff	(2)	F L1 E
*2.3.2	✓RT Percentage increase = $\frac{36,58-32,66}{32,66} \times 100$✓MA 12% increase✓A	1RT correct values 1MA Calculating percentage 1A simplification	(3)	F L3 M
2.3.3	2023 35kl (6×16,18) + (9×26,66)+(15×32,66)+(5×40,64) ✓MA = R1 030,12✓A With increase (6×18,12) + (9×29,86)+(15×36,58)+(5×45,52) ✓M 108,72 + 268,74 +548,70+227,60 =R1 153,76 ✓MCA Difference of R 123,64 therefore Mr Ford is incorrect ✓✓O he will pay less. **OR** (6×16,18) + (9×26,66)+(15×32,66)+(5×40,64)✓MA = R1 030,12 ✓A 1 030,12×1,12✓M R1 153,73	1MA calculating tariff 2022 1 A Simplification 1 M calculating the tariff 2023 1MCA Simplification 2 O justifying your answer		F L4 D

	R1 153,73– R1 030,12 ✓MCA =R123,61 Difference is R123,61 therefore Mr Fords statement is incorrect/invalid he pays less ✓✓O			
QUESTION 3				**[24 MARKS]**
*3.1.1	✓RT 2,06m – 1,70m ✓MA =0,36m ✓A	1 RT for both correct values 1MA concept of Range 1A simplification	(3)	D L2 E
3.1.2	Mean = total height ÷ number of players 1,86 = total height ÷15 ✓SF ✓M 1,86 ×15= total height ✓M ✓A 27,9m = total height of all the players	1SF Substituting into given formula 2 M Manipulating formula 1 A simplification	(4)	D L3 D
3.2.1	Inter quartile range = Q3 – Q1 ✓SF ✓MA 25 kg = 113kg- A A= 113-25✓M A= 88kg ✓A	1 MA concept of mean 1 SF correct substitution into formula 1M manipulating formula 1 A Simplification **NPU**	(4)	D L3 M
3.2.2	✓A Continious data, it is about the weights of the south african and New Zealand rugby teams and weight can be measured.✓✓O	1A stating the correct type of data 2 explaining that weight can be measured	(3)	D L 4 E
3.2.3	Outlier ✓✓A	2A identifying an outlier	(2)	D L1 E
3.3.1	€35 000 000 × 20,05 ✓MA R 701 750 000 ✓A	1 MA using correct exchange rate 1 A answer	(2)	F L2 E
3.3.2	20,130 ; 20,130 ; 21,000 ; 22,000 ; 35 000 ✓MA ✓A Median R21 000 000 ✓U	1 MA arranging the data in ascending order 1 A concept of middle value 1 U writing the amount earned in full.	(3)	D L2 E
3.3.3	✓A 701 750 000: 35 000 000	CA from 3.3.1 1 A writing the correct ratio		F L 4 E

	✓S 20,05:1 For every one rand earned by Sia Kolisi, Ranaldo earnes R20,05✓O	1S simplification of the ratio 1 O explaining the ratio	(3)	
QUESTION 4				**[20 MARKS]**
4.1.1 a	Profit = income -expense ✓✓A	2A Writing the formula for profit	(2)	F L2 E
b	Profit = \$125- \$22,99 = \$102,01 ✓MA 102,01 ×18,36 R1 872,9036 R1 872,90✓CA	1MA changing the profit in \$ to R multiplying with the correct exchange rate 1 CA answer	(2)	F L2 E
4.1.2	Profit margin = $\frac{REVENUE-EXPENSE}{REVENUE}\times 100$ ✓SF 60% = $\frac{125\ MIL-EXPENSE}{125\ MIL}\times 100$✓MA 0,6 = 125- EXPENSE ✓M 75= 125 – Expense ✓MCA 125-75 = Expense 50 Million = Expense Yes the expenses calculate to 50 million ✓J	1 SF substituting into formula 1 MA manipulating formula by dividing with 100 on both sides 1 M multiplying with 125 on both sides 1 MCA getting 75 1 M subtracting 75 from 125 1 J Justifying answer	(5)	F L4 D
4.2.1	✓MA 47% × 21 000 000 ✓A =9 870 000 Gen Z people went to watch the movie 9 870 000 ×R75✓M = R740 250 000✓CA	1 MA calculating 47% of Gen Z population 1 A simplification 1 M population multiplied with R 75 1CA answer	(4)	F L3 D

4.2.2	Zero ✓✓A **OR** Imposible ✓✓A **OR** 0% ✓✓A	2A determining the probability	(2)	P L1 E
4.3.1	Vanilla; sprinkles ✓✓A	2A determining the outcome Accept Vanilla **and (&)**Sprinkles	(2)	P L1 E
4.3.2	$\frac{1}{6}$ ✓A = 0,1666666667 ✓A ≈ 0,17 ✓R	1 A as fraction 1 A as decimal fraction 1R Rounding	(3)	P L3 E

NOTES

1.2.5	16 760 × 72 =1 206 720 Interest 1 206 720 – 834 900✓MA = R371 820✓A	1MA (Multiply and subtract in correct order) 1 A answer
2.1.5	If learners use the Gross Income of 41 072,13 $\frac{1\,701}{41\,027} \times 100$✓MA 4,146050162% 4%✓R	1MA concept of percentage 1R rounding to the nearest percentage. Learner will lose the RT mark
2.3.2	If learners use wrong values, they will get 2 out of 3 marks.	
3.1.1	✓RT 2,06 – 0,017✓MA = 2,043✓	1RT for both values 1 MA concept of range 1A simplification