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MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

GENERAL EDUCATION AND TRAINING

MATHEMATICS

GRADE 9

ASSIGNMENT 1 – **MARKING GUIDELINE**

FEBRUARY 2023

MARKS : 50

Number of pages: 3

Question 1

1.1.	1.1.1.	$\frac{18}{2}$ ✓	✓ Answer	(1)
	1.1.2.	$\pi - 4$ ✓	✓ Answer	(1)
	1.1.3.	$\sqrt{-27}$ ✓	✓ Answer	(1)
	1.1.4	$\frac{2}{3}$ ✓	✓ Answer	(1)
1.2.	$\sqrt{121} < \sqrt{138} < \sqrt{144}$ ✓ $\sqrt{11^2} < \sqrt{138} < \sqrt{12^2}$ ✓ $11 < \sqrt{138} < 12$ $\therefore \sqrt{138}$ lies between 11 and 12. ✓		✓ For method ✓ For answer ✓ For conclusion	(3)
1.3.	Let $10x = 2,66666$ (1) ✓ Then $100x = 26,66666$ (2) ✓ $(2) - (1) =$ $100x - 10x = 26,66666 - 2,66666$ ✓ $\frac{90x}{90} = \frac{24}{90}$ $x = \frac{24}{90}$ $x = \frac{4}{15}$ ✓		✓✓ For method ✓ For computation ✓ For Answer	(4)
				[11]

Question 2

2.1.	$92 = 2 \times 2 \times 23$ ✓ $146 = 2 \times 73$ ✓	✓Answer ✓Answer	(2)
2.2.	HCF = 2 ✓ LCM = 6 716 ✓	✓Answer ✓Answer	(2)
2.3.	$5 + 3 + 4 = 12$ $240g \times \frac{5}{12} = 100g$ ✓ $240g \times \frac{3}{5} = 60g$ ✓ $240g \times \frac{4}{5} = 80g$ ✓	✓Answer ✓Answer ✓Answer	(3)
2.4.	2.4.1. Distance = $15 \times \frac{10}{60} = 2,5 \text{ km}$ ✓ Time taken when walking: $= \frac{2,5}{5} = 0,5 \text{ h}$ = 30 minutes. ✓	✓Method ✓Final Answer	(2)
	2.4.2. Indirect proportion ✓, $\frac{5}{30} \neq \frac{15}{10}$ ✓	✓Stating Indirect Proportion ✓Valid reason	(2)
2.5.	Method 1: R2 100 to British Pounds: $= 2\ 100 \times 0,075199 = \text{£}157,92$ ✓ Commission paid: $157,92 \times 1,5\% = \text{£}2,37$ ✓ Amount Brian will get: $157,92 - 2,37 = \text{£}155,55$ ✓ Method 2: Commission paid: $2\ 100 \times 1,5\% = \text{R}31,5$ ✓ Amount Brian has: $2\ 100 - 31,5 = \text{R}2\ 068,5$ ✓ Amount of British Pound Brian will get: $2\ 068,5 \times 0,075199 = \text{£}155,55$ ✓	✓✓✓Award 3 marks if final answer is correct. Else a mark per each correct computation	(3)
2.6.	$= \frac{13,28 - 12,58}{12,58} \times 100$ ✓ $= \frac{0,7}{12,58} \times 100$ $= 5,56\%$ ✓	✓For Method ✓Answer	(2)
2.7.	$\text{Distance} = \text{Speed} \times \text{Time}$ $\text{Distance} = 106 \times 2,75 \text{ or } 106 \times 2\frac{45}{60}$ ✓ $\text{Distance} = 291,5 \text{ km}$ ✓ $\text{Speed} = \frac{\text{Distance}}{\text{Time}}$ $\text{Speed} = \frac{291,5}{2\frac{35}{60}}$ ✓ $\therefore \text{Speed} = 112,84 \text{ km/h}$ ✓	✓Substitution ✓Answer ✓Substitution ✓Final answer	(4)
			[20]

Question 3

3.1.	$= 318,92 \times 48$ ✓ $= R15\,308,16$ ✓	✓Method ✓Final answer	(2)
3.2.	Part of their marketing strategy/ to attract clients. (Any relevant answer) ✓	✓Valid reason	(1)
3.3.	Simple interest: $A = P(1 + in)$ ✓ $A = 9\,000(1 + 0,08 \times 3)$ ✓ $A = R11\,160$ ✓ Compound interest: $A = P(1 + i)^n$ ✓ $A = 9\,000(1 + 0,07)^3$ ✓ $A = R11\,025,34$ ✓ Simple interest <u>or</u> Option 1 is a better option. ✓	✓Formula ✓Substitution ✓Answer ✓Formula ✓Substitution ✓Answer ✓Correct conclusion	(7)
3.4.	It is the most profitable, has higher interests received. ✓	✓Correct reasoning	(1)
			[11]

Question 4

4.1.	$1\frac{2}{3} : 2\frac{2}{3}$ $\Rightarrow \frac{5}{3} : \frac{8}{3}$ ✓ $\Rightarrow 5:8$ ✓	✓Computation ✓Answer	(2)
4.2.	$2(\sqrt[3]{64} + \sqrt{25})$ $= 2(4 + 5)$ ✓ $= 18$ ✓	✓Computation ✓Answer	(2)
4.3.	$(3,6 \times 10^6) - (5,2 \times 10^5)$ $= 3600000 - 520000$ ✓ $= 3\,080\,000$ or $3,08 \times 10^6$ ✓	✓Computation ✓Answer	(2)
4.4.	$\frac{1}{2} + 2\frac{3}{4} - \frac{3}{8}$ $= \frac{4}{8} + \frac{22}{8} - \frac{3}{8}$ ✓ $= \frac{23}{8}$ $= 2\frac{7}{8}$ ✓	✓Computation ✓Answer	(2)
			[8]

GRAND TOTAL: 50