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GAUTENG PROVINCE

EDUCATION

REPUBLIC OF SOUTH AFRICA

GAUTENG NORTH DISTRICT OFFICE

MEMORANDUM		
SUBJECT	:	MATHEMATICS
GRADE	:	9
TASK	:	Term 1 Assignment
MARKS	:	50
DURATION	:	1 Hour

Question 1 [Properties of Numbers]

	1.1.1	$-\frac{7}{3}$; 2,3 ; 0 ; $\sqrt{4}$; 10 ✓ A	(1)
	1.1.2	0 ; $\sqrt{4}$; 10 ✓ A	(1)
	1.1.3	0 ; $\sqrt{4}$; 10 ✓ A	(1)
	1.1.4	$\sqrt{4}$; 10 ✓ A	(1)
	1.1.5	2π ; $\sqrt[3]{9}$ ✓ A	(1)
1.2	Insert the two whole numbers on both sides of $\sqrt{24}$:		(2)
	4 ✓ $< \sqrt{24} <$ 5 ✓ A		
			[07]

Question 2 [Calculations and Calculation Techniques]

2.1	2.1.1 $723 + 586$ $723 \approx 700$ $586 \approx 600$ $\therefore 700 + 600 = 1300$ ✓ CA 2.1.2 $2850 - 1155$ $2850 \approx 2900$ $1155 \approx 1200$ $\therefore 2900 - 1200 = 1700$ ✓ CA		(4)
2.2	2.2.1 $723 + 586$ Estimated answer = 1300 $1300 + 23 - 14$ ✓ M $= 1309$ ✓ CA 2.2.2 $2850 - 1155$ Estimated answer = 1700 $1700 - 50 + 45$ ✓ M $= 1695$ ✓ CA Award only 1 mark for the answer if learner did not show the compensated errors.		(4)
2.3	Multiply the following by using the column Method: 1988×34 1988		(2)

	$\begin{array}{r} \times 34 \\ 7952 \checkmark \text{A} \\ \hline 59640 \checkmark \text{A} \\ \hline 67592 \end{array}$ No mark for the final answer.	
2.4	$1988 \times 34 = 67\,592 \checkmark \text{A}$ one mark for answer.	(1)
2.5	$R80\,000 \div R134 = 597,0149254$ $\therefore 597 \text{ street names can be put up.} \checkmark \text{A}$ $597 \times R134 = R79\,998$ $R80\,000 - R79\,998 = R2$ $\therefore \text{there will be R2 left} \checkmark \text{CA}$	(2)
		[13]

Question 3 [Multiples and Factors]

3.1	<table><tr><td> 1848 <table><tr><td>1848</td><td>2</td></tr><tr><td>924</td><td>2</td></tr><tr><td>462</td><td>2</td></tr><tr><td>231</td><td>3</td></tr><tr><td>77</td><td>7</td></tr><tr><td>11</td><td>11</td></tr><tr><td>1</td><td></td></tr></table> ✓A </td><td> 132 <table><tr><td>132</td><td>2</td></tr><tr><td>66</td><td>2</td></tr><tr><td>33</td><td>3</td></tr><tr><td>11</td><td>11</td></tr><tr><td>1</td><td></td></tr></table> ✓A </td><td> 462 <table><tr><td>462</td><td>2</td></tr><tr><td>231</td><td>3</td></tr><tr><td>77</td><td>7</td></tr><tr><td>11</td><td>11</td></tr><tr><td>1</td><td></td></tr></table> ✓A </td></tr></table> 1 848 = 2³ × 3 × 7 × 11 132 = 2² × 3 × 11 462 = 2 × 3 × 7 × 11 LCM = 2³ × 3 × 7 × 11 = 924✓CA HCF = 2 × 3 × 11 = 66✓CA	1848 <table><tr><td>1848</td><td>2</td></tr><tr><td>924</td><td>2</td></tr><tr><td>462</td><td>2</td></tr><tr><td>231</td><td>3</td></tr><tr><td>77</td><td>7</td></tr><tr><td>11</td><td>11</td></tr><tr><td>1</td><td></td></tr></table> ✓A	1848	2	924	2	462	2	231	3	77	7	11	11	1		132 <table><tr><td>132</td><td>2</td></tr><tr><td>66</td><td>2</td></tr><tr><td>33</td><td>3</td></tr><tr><td>11</td><td>11</td></tr><tr><td>1</td><td></td></tr></table> ✓A	132	2	66	2	33	3	11	11	1		462 <table><tr><td>462</td><td>2</td></tr><tr><td>231</td><td>3</td></tr><tr><td>77</td><td>7</td></tr><tr><td>11</td><td>11</td></tr><tr><td>1</td><td></td></tr></table> ✓A	462	2	231	3	77	7	11	11	1		(5)
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Question 4 [Integers]

4.1	The certain number = $-12 \checkmark \text{A}$	(1)
4.2.1	$\frac{50 \times 33 + 25 \times 50}{19 \times 50 - 50 \times 48}$	(3)

	$= \frac{50(33 + 25)}{50(19 - 48)} \checkmark \mathbf{M}$ $= \frac{58}{-29} \checkmark \mathbf{CA}$ $= -2 \checkmark \mathbf{CA}$	
4.2.2	$-3 - (-2)(5) - (-4)^3$ $= -3 - 10 - (-64) \checkmark \mathbf{M}$ $= -13 + 64 \checkmark \mathbf{CA}$ $= 51 \checkmark \mathbf{CA}$	(3)
4.2.3	$\frac{3^3 - (-\sqrt{4})^2 + \sqrt[3]{-64}}{-4^2 \times 1^3 + 17}$ $= \frac{27 \checkmark \mathbf{A} - (4) \checkmark \mathbf{A} + (-4) \checkmark \mathbf{A}}{-16 + 17 \checkmark \mathbf{M}}$ $= \frac{19}{1}$ $= 19 \checkmark \mathbf{CA}$	(5)
[12]		

Question 5 [Solving Problems]

5.1	4 : 3✓A						(1)												
5.2	<table border="1"><tr><td>Numbers of pens</td><td>2</td><td>6</td><td>10</td><td>12✓A</td><td>20</td></tr><tr><td>Price in Rands</td><td>7</td><td>21</td><td>35✓A</td><td>42</td><td>70✓A</td></tr></table> The proportion is direct, as the number of pens increase the price also increases at the same rate. ✓A(no mark should be awarded for the reason if 'same rate' is not mentioned). Or The proportion is direct, number of pens divided by the price equals a constant. ✓A $\left(\frac{\text{number of Pens}}{\text{Price in rands}} = a \text{ constant}\right)$						Numbers of pens	2	6	10	12✓A	20	Price in Rands	7	21	35✓A	42	70✓A	(4)
Numbers of pens	2	6	10	12✓A	20														
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5.3	Indirect Proportion: number of days × number of tractors = a constant Let the number of days using 3 tractors equal x.						(3)												

	$x \times 3 = 12 \times 5 \checkmark \mathbf{M}$ $3x = 60 \checkmark \mathbf{CA}$ $x = 20 \checkmark \mathbf{A}$	
5.4	By the time John catches up with Karabo, the distance travelled by each of them will be equal. distance = time $\times$ speed Let John's travelling time be = x Karabo started travelling 2 hours before John $\therefore$ Karabo's travelling time will be = $(x + 2)$ John's Distance = Karabo's Distance time $\times$ speed = time $\times$ speed $\therefore x \times 120 = (x + 2) \times 90 \checkmark \checkmark \checkmark \mathbf{M}$ $120x = 90x + 180 \checkmark \mathbf{CA}$ $120x - 90x = 180$ $30x = 180$ $x = 6 \checkmark \mathbf{CA}$ It will take John 6 hours to catch up with Karabo.	(5)
[13]		

The End?