



**NASIONALE  
SENIOR SERTIFIKAAT**

**GRAAD 11**

**NOVEMBER 2014**

**WISKUNDIGE GELETTERDHEID V1  
MEMORANDUM**

**PUNTE:            100**

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Hierdie memorandum bestaan uit 6 bladsye.


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## VRAAG 1

VR	OPLOSSING	Finansies	
1.1.1	$R70,17 \times 3 + 2 \times R2\,367,54 + R28,06 \times 3 + R28,94$ ✓	1M	
	$R210,51 + R4\,735,08 + R84,18 + R28,94$ ✓	1S	
	$R5\,058,71$ ✓	1A	(3)
1.1.2	$\frac{R28,06}{20}$ ✓	1M	
	$= R1,40$ ✓	1 A	(2)
1.1.3	Desember ✓✓	2RT	(2)
1.1.4	BTW-nommer 8754896368 ✓✓	2RT	(2)
1.1.5	Snymasjien RYOBI 43CC ✓✓	2RT	(2)
1.1.6	Q 000002158 ✓✓	2RT	(2)
		Meting	
1.1.7	$1\,000\text{ ml} = 1\text{ l}$		
	$200\text{ ml} = x$ ✓	1M	
	$\frac{200\text{ ml}}{1\,000} = \frac{1\,000x}{1\,000}$		
	$0,2\text{ l} = x$ ✓	1A	(2)
1.1.8	$12 \times 13$ ✓		
	$= 156$ maande ✓		(2)
		Data Hantering	
1.2.1	Skool E ✓✓	2A	(2)
1.2.2	Skool A fooie – Skool B fooie		
	$R14\,000 - R12\,000$ ✓	1M	
	$= R2\,000,00$ ✓	1 A	(2)
			[21]

**VRAAG 2**

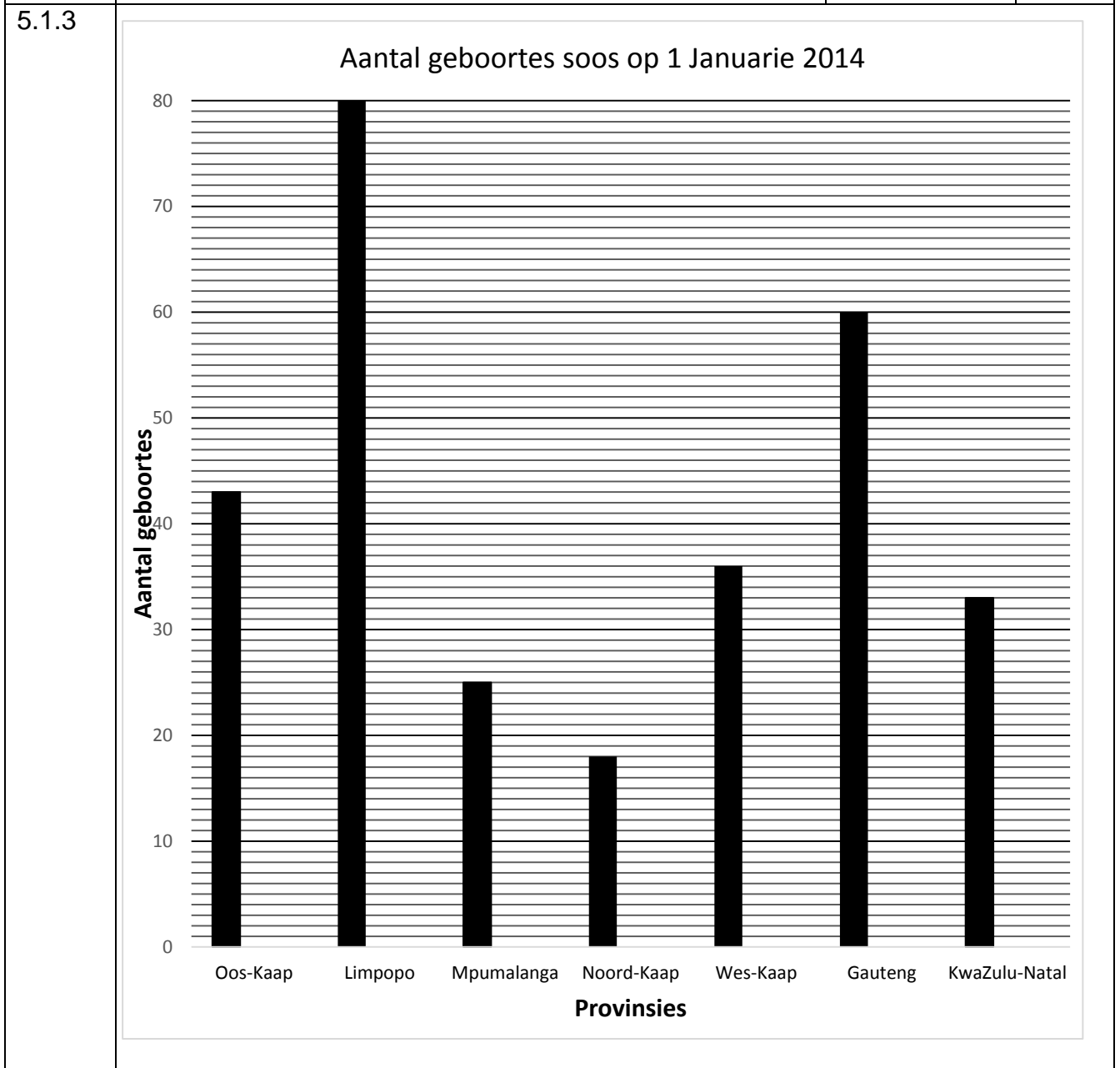
VR	OPLOSSING	Finansies	
2.1.1	$\frac{R\ 192\ 600 \times 100}{114} \checkmark$	2SF	
	$= R\ 168\ 947,37 \checkmark$ <b>OF</b> $R192\ 600 \times \frac{14}{114}$ $R23\ 652,63 \checkmark$ $R19\ 6200 - R23\ 652,63 \checkmark$ $= R\ 168\ 947,37 \checkmark$	1 A	
	<b>OF</b>		
	$R192\ 600: x \checkmark = 114\% : 100 \checkmark$ $x = R168\ 947,37 \checkmark$		(3)
2.1.2	$\frac{R478,20}{36} \checkmark = R13,28 \checkmark$	1D 1A	(2)
2.2.1	$\text{Wins} = R7\ 200,00 - R3\ 339,14 \checkmark$ $= R3\ 860,86 \checkmark$	1SF 1 A	(2)
2.2.2	$R350,00 \times 4 = R1\ 400,00 \checkmark$ $R1\ 400,00 \times 1\% \checkmark$ $= R14,00 \text{ 'n maand } \checkmark$	<b>OF</b> $1\% \text{ of } R350$ $= R3,50 \times 4$ $= R14,00$	1M 1S 1A (3)
2.2.3	$\% \text{ toename} = \frac{R380,00 - R360,00}{R\ 360,00} \times 100 \checkmark$ $= \frac{20}{360} \times 100 \checkmark$ $= 5,56 \text{ of } 5,6\% \checkmark$	1SF 1S  1CA	(3)
2.3.1	$\frac{27\%}{365} \checkmark$ $= \frac{27}{365 \times 100} \checkmark$ $= 0,00074 \checkmark$	1D 1 S 1A	(3)
2.3.2	$\text{Paalement verskuldig} = \frac{R4\ 529,96 \times 127\%}{12} + R21,00 \checkmark$ $= R5\ 753,05 \div 12 + R21,00 \checkmark$ $= R500,42 \checkmark$	1SF 1S 1CA	(3)
2.3.3	$\frac{R6\ 879}{379,83} \checkmark$ $= R\ 18,1107 \checkmark$ $= R18,11 \checkmark$	2D 1A	(3)
			[22]

<b>VRAAG 3: METING</b>			
3.1.1	Oppervlakte = $162 \text{ m} \times 160 \text{ m} \checkmark$ $= 25\,920 \text{ m}^2 \checkmark$	1SF 1A	(2)
3.1.2	Omtrek = $2(160 \text{ m} + 162 \text{ m}) \checkmark$ $= 644 \text{ m} \checkmark$	1SF 1A	(2)
3.1.3	Aantal gatte = $324 \div 2 - 1 \checkmark$ $= 162 - 1 \checkmark$ $= 161 \text{ gatte} \checkmark$	1SF 1S 1A	(3)
3.1.4	BO = $2(6,2 \text{ m} \times 3 \text{ m}) + 2(5,1 \times 3 \text{ m}) - (1,71 \text{ m}^2 + 4,875 \text{ m}^2) \checkmark$ $= 37,2 \text{ m}^2 + 30,6 \text{ m}^2 - 6,585 \text{ m}^2 \checkmark$ $= 61,215 \text{ m}^2 \checkmark$	1SF 1S 1A	(3)
3.1.5	$1 \ell = 6 \text{ m}^2$ $x = 61,215 \checkmark$ $61,215 \div 6 = x$ $x = 10,2025 / 5 \checkmark$ $= 2,0405$ Daarom 3 (5 ℓ) blikke verf $\checkmark$	1M  1M  1A	(3)
3.2	$\frac{115 \text{ kg} \checkmark}{(1,832 \text{ m}) \checkmark}$ $= 34,26 \text{ kg/m}^2 \checkmark \checkmark$ Aanvaar 114 kg ( $33,97 \text{ kg/m}^2$ )	Penaliseer vir g 1CV 1SF 1A 1U	(4)
			<b>[17]</b>
<b>VRAAG 4</b>			
4.1.1	C2 $\checkmark \checkmark$	2RM	(2)
4.1.2	Indiese oseaan $\checkmark \checkmark$	2RM	(2)
4.1.3	Swaziland $\checkmark$ en Mosambiek $\checkmark$	2RM	(2)
4.1.4	$6,5 \times 2\,600\,000 = 16\,900\,000 \checkmark$ $16\,900\,000 \div 100\,000 \checkmark$ $= 169 \text{ km} \checkmark$	1M 1C 1A	(3)
4.1.5		3RM	(3)

4.1.6	Kwazulu-Natal ✓✓	2A	(2)
4.1.7	Qumbu ✓ Mount Frere ✓	2A	(2)
			<b>[16]</b>

**VRAAG 5: DATA HANTERING**

5.1.1	Limpopo ✓✓	2RT	(2)
5.1.2	Gauteng : Totale aantal babas 60 : 320 ✓✓ 1 : 5.333... ✓ 1: 5 ✓	2CV 1A 1R	(4)



1 Punt per balk streng akkuraat (4)  
(slegs die ontbrekende balke in vraestel)

(4)

5.2.1	$\frac{108,91 \checkmark}{20 \checkmark}$ $= 5,45 \checkmark$	1 add 1M  1A	(3)
5.2.2	$\text{Mediaan} = \frac{R2,76 + R2,91}{2} \checkmark$ $= \left( \frac{R5,67 \checkmark}{2} \right)$ $= R2,84 \checkmark$	1M  1S  1A	(3)
5.2.3	Modale waarde = R6,50 ✓✓	2A	(2)
5.2.4	$\frac{2}{20} \checkmark$ $\frac{1}{10} \checkmark$	1M  1A	(2)
5.2.5	$\text{Variasiewydte} = R3,36 - R2,16 \checkmark$ $= R1,20 \checkmark$	2A	(2)
5.2.6	R1,39 ✓✓	2RB	(2)
			<b>[24]</b>
		<b>TOTAAL:</b>	<b>100</b>