basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE
NASIONALE SENIOR SERTIFIKAAT

GRADE/*GRAAD* 12

MATHEMATICAL LITERACY P1
WISKUNDIGE GELETTERDHEID V1

NOVEMBER 2018

MARKING GUIDELINES/*NASIENRIGLYNE*

MARKS/*PUNTE*: 150

Symbol/*Kode*	Explanation/*Verduideliking*
M	Method/*Metode*
MA	Method with accuracy/*Metode met akkuraatheid*
CA	Consistent accuracy/*Volgehoue akkuraatheid*
A	Accuracy/*Akkuraatheid*
C	Conversion/*Herleiding*
S	Simplification/*Vereenvoudiging*
RT	Reading from a table/graph/document/diagram/*Lees vanaf tabel/grafiek/document/diagram*
SF	Correct substitution in a formula/*Korrekte vervanging in 'n formule*
O	Opinion/Explanation/*Opinie/Verduideliking*
P	Penalty, e.g. for no units, incorrect rounding off, etc./*Penalisasie, bv. vir geen eenhede, verkeerde afronding, ens.*
R	Rounding off/*Afronding*
NPR	No penalty for rounding/*Geen penalisasie vir afronding nie*
AO	Answer only/*Slegs antwoord*
MCA	Method with constant accuracy/*Metode met volgehoue akkuraatheid*

This marking guideline consists of 20 pages.
Hierdie nasienriglyne bestaan uit 20 bladsye.

	External Moderators (Question Paper)	
APPROVED ON 4 November 2018	M.M. Tshabalala	E.D. Cronje
	L.R. de Waal **Internal Moderator**	

NOTE:
- If a candidate answers a question TWICE, only mark the FIRST attempt.
- If a candidate has crossed out (cancelled) an attempt to a question and NOT redone the solution, mark the crossed out (cancelled) version.
- Consistent accuracy (CA) applies in ALL aspects of the marking guidelines; however it stops at the second calculation error.
- If the candidate presents any extra solution when reading from a graph, table, layout plan and map, then penalise for every extra incorrect item presented.

LET WEL:
- *As 'n kandidaat 'n vraag TWEE KEER beantwoord, merk slegs die EERSTE poging.*
- *As 'n kandidaat 'n antwoord van 'n vraag doodtrek (kanselleer) en nie oordoen nie, merk die doodgetrekte (gekanselleerde) poging.*
- *Volgehoue akkuraatheid (CA) word in ALLE aspekte van die nasienriglyne toegepas, dit hou op by die tweede berekeningsfout.*
- *Wanneer 'n kandidaat aflesings vanaf 'n grafiek, tabel, uitlegplan en kaart geneem en ekstra antwoorde gee, penaliseer vir elke ekstra verkeerde item.*

QUESTION/*VRAAG* 1 [32 MARKS/*PUNTE*] <u>ANSWER ONLY FULL MARKS</u>			
Q/*V*	**Solution/*Oplossing***	**Explanation/*Verduideliking***	**T&L**
1.1.1	1 / one / *een* ✓✓A **OR/*OF*** A day / *'n dag* ✓✓A **OR/*OF*** One day / *Een dag* ✓✓A	2A for correct day (2)	M L1
1.1.2	Price before saving / *Prys voor besparing* R70 + R250 ✓M = R320 ✓A	1M adding correct values 1A simplification (2)	F L1
1.1.3	Ariel ✓✓A	2A product (2)	F L1
1.1.4	✓MA 750 m ℓ ÷ 1 000 = 0,75 ℓ ✓A **OR/*OF*** ✓MA 750 m ℓ × 0,001 = 0,75 ℓ ✓A	1MA for dividing by 1 000 1A simplification only if division **OR/*OF*** 1MA for multiplying by 0,001 1A simplification only if multiplied (2)	M L1
1.1.5	Price / *Prys* = R11 × 3 ✓MA = R33,00 ✓CA	1MA multiplying correct values 1CA simplification (only if R7,70× 3) (2)	F L1

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T&L
1.1.6	R11; R15; R18; R22; R30; R43; R44; R45; R65; R250 ✓✓A	2A arranging in correct order If names used max 1 mark (2)	D L1
1.2.1	English = 35 letters **OR** 15 letters ✓✓A *Afrikaans = 37 letters **OF** 17 letters* ✓✓A	2A correct number WC, FS, NC Provinces accept both (2)	M L1
1.2.2	44 ^{0}C ✓✓A	2A correct reading Accept 44 - 45 ^{0}C (2)	M L1
1.2.3	One unit on the drawing represents twenty five units in reality / *Een eenheid op die tekening verteenwoordig vyf en twintig eenhede in werklikheid.* ✓✓A **OR/*OF*** Scale in this context means that the drawing of the T-shirt is 25 times smaller than in reality / *Skaal in hierdie konteks beteken dat die tekening van die T-hemp 25 keer kleiner is as in werklikheid.* ✓✓A **OR/*OF*** On the picture the shirt is 25 times smaller / *Op die foto is die hemp 25 keer kleiner* ✓✓A	2A correct definition Accept no units (2)	MP L1
1.2.4	± 61 mm ✓✓A	2A correct measurement (Accept 59 mm – 64 mm) Correct answer in cm = max 1 mark (2)	M L1

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T&L
1.3.1	Two Oceans Marathon / *Twee Oseane-marathon* ✓✓RT	2RT reading from table Accept: Race on 15 April 2017 Race of 56 km Race with an entry fee of R520,00 (2)	M L1
1.3.2	Comrades Marathon / *Comrades-marathon* ✓✓RT	2RT reading from table Accept: Race on 4 June 2017 Race of 89 km Race with an entry fee of R460,00 (2)	M L1
1.3.3	R520,00 – R460,00 ✓RT = R60,00 ✓A	1RT correct values from the table 1A answer (2)	F L1
1.4.1	12 Hours / *12 Ure* ✓✓A **OR/*OF*** Half a day / *Halwe dag* ✓✓A	2A correct time Accept: 12:00 **OR/*OF*** 12 o'clock Max 1 mark (2)	M L1
1.4.2	Discrete / *Diskreet* ✓✓A	2A discrete (2)	D L1
1.4.3	✓RT 17 031 **:** 13 852 ✓A	1RT correct values from table 1A correct values in correct order Accept answer as unit ratios: 1 : 0,813 1,229 : 1 Accept answer in fraction form **NPR** (2)	D L1
			[32]

QUESTION/*VRAAG* 2 [41 MARKS/*PUNTE*]			
Q/*V*	**Solution/*Oplossing***	**Explanation/*Verduideliking***	**T&L**
2.1.1	✓A Interest refers to the amount that will be added to an account that is not settled yet / ✓A *Rente verwys na die bedrag wat by die agterstallige bedrag gevoeg word.* **OR/*OF*** ✓A ✓A Extra amount is charged on the late payments / *Ekstra bedrag wat gehef word op laat betalings.* **OR/*OF*** ✓A ✓A Extra money to be charged on overdue fees / *Ekstra geld wat op agterstallige gelde gehef word.* **OR/*OF*** ✓A ✓A Money charged for not paying fees on time / *Geld gehef vir fooie nie betyds betaal nie.* **OR/*OF*** ✓A Interest in this context is the charge levied because of unpaid fees or late payment of fees /✓A *Dit is ekstra geld wat gehef word omdat die rekening nie op tyd betaal word nie.*	1A amount charged 1A reason (2)	F L1
2.1.2	R14 819,50 ✓✓RT	2RT balance (2)	F L1
2.1.3	✓RT $\frac{148{,}20}{14\,819{,}50} \times \frac{100}{1}\%$ ✓M = 1,000033739329937 ≈ 1% ✓CA	1RT correct values 1M multiply by 100 1CA answer (3)	F L2

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T&L
2.1.4	✓RT APG 2039W Design & Theory Studio II ✓RT	1RT code 1RT name If APG omitted = full marks (2)	F L1
2.1.5	✓RT R14 967,70 – R8 650,00 ✓M = R6 317,70	1RT correct values 1M subtracting deposit (2)	F L1
2.1.6	Total amount / *Totale bedrag* ✓RT ✓M = R3 030 + R3 030 + R2 280 + R2 280 + R9 580 + R4 530 + R29 460 + R2 087 + R395,95 + R395,95 = R57 068,90 ✓CA **OR/*OF*** Total amount / *Totale bedrag* ✓M ✓RT = R62 594 – R6 317,70 + 2 × R395,95 = R57 068,90 ✓CA **OR/*OF*** Total amount / *Totale bedrag* ✓RT ✓M R40 386 + R23000 + R8650 – R14819,50 – R148,50 = R57 068,90 ✓CA **OR/*OF*** Total amount / *Totale bedrag* ✓RT ✓M R3 030 + R3 030 + R2 280 + R2 280 + R9 580 + R4 530 + R29 460 + R395,95 + R395,95 = R54 981,90 ✓CA **OR/*OF*** Total amount / *Totale bedrag* ✓M ✓RT = R62 594 – R6 317,70 + 2 × R395,95 – R2 087 = R54 981,90 ✓CA **OR/*OF***	**AO** 1RT reading all correct values 1M adding values 1CA simplification **OR/*OF*** 1RT reading all correct values 1M subtracting values 1CA simplification **OR/*OF*** 1RT reading all correct values 1M subtracting values 1CA simplification **OR/*OF*** 1RT reading all correct values 1M adding values 1CA simplification **OR/*OF*** 1RT reading all correct values 1M subtracting values 1CA simplification **OR/*OF***	F L1

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T&L
	Total amount / *Totale bedrag* ✓RT ✓M R40 386 + R23000 + R8650 – R14819,50 – R148,50 – R2 087 = R54 981,90 ✓CA	1RT reading all correct values 1M subtracting values 1CA simplification	
	AFRIKAANS VRAESTEL: ✓RT ✓M R148,20 + R3030 + R3030 + R2280 + R2280 + R9580 + R4530 + R29460 + R2087 + R395,95 + R395,95 = R57 217,10 ✓CA **OR/*OF*** ✓RT ✓M R40 386 + R23000 + R8650 – R14819,50 = R57 217,10 ✓CA **OR/*OF*** ✓M ✓RT R62 594,70 – R6317,70 + 2 x R395,95 + R148,20 = R57 217,10 ✓CA **OR/*OF*** ✓RT ✓M R148,20 + R3030 + R3030 + R2280 + R2280 + R9580 + R4530 + R29460 + R395,95 + R395,95 = R55 130,10 ✓CA **OR/*OF*** ✓RT ✓M R40 386 + R23000 + R8650 – R14819,50 – R2 087 = R55 130,10 ✓CA **OR/*OF*** ✓M ✓RT R62 594,70 – R6317,70 + 2 x R395,95 + R148,20 – R2 087 = R55 130,10 ✓CA	1RT reading all correct values 1M adding values 1CA simplification **OR/*OF*** 1RT reading all correct values 1M subtracting values 1CA simplification **OR/*OF*** 1RT reading all correct values 1M subtracting values 1CA simplification **OR/*OF*** 1RT reading all correct values 1M subtracting values 1CA simplification **OR/*OF*** 1RT reading all correct values 1M adding values 1CA simplification **OR/*OF*** 1RT reading all correct values 1M subtracting values 1CA simplification (3)	

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T&L
2.1.7	Direct deposit / *Direkte deposito* ✓✓RT	2RT reading correctly Accept deposit only (2)	F L1
2.1.8	Monthly instalment / *Maandelikse paaiement* R40 386,60 ÷ 5 ✓A ✓M = R8 077,32 **OR/*OF*** Monthly instalment / *Maandelikse paaiement* R8 077,32 × 5 ✓A ✓M = R40 386,60 **OR/*OF*** Monthly instalment / *Maandelikse paaiement* $\frac{\text{R40 386,60}}{\text{R8 077,32}}$ ✓M = 5 ✓A	1A calculating 5 1M dividing by 5 **OR/*OF*** 1A calculating 5 1M multiply by 5 **OR/*OF*** 1M dividing correct values in correct order 1A calculating 5 (2)	F L1
2.2.1	✓A Inflation is a measure of rate at which the cost of goods is changing over a period of time and is usually expressed as a percentage / ✓A *Inflasie is die meting van die koers waarteen die prys van goedere verander oor 'n tydperk en word gewoonlik uitgedruk in persentasie.* **OR/*OF*** ✓A The percentage increase of the food prices over the period 1970 – 2015 /✓A *Die persentasietoename van kospryse oor die tydperk 1970 – 2015.* **OR/*OF*** ✓A ✓A Percentage increase of price over a period of time / *Persentasie verhoging van prys oor 'n tydperk.* **OR/*OF*** ✓A ✓A Inflation is the rising price of goods/items over time / *Inflasie is die stygende prys van goedere/dienste oor tyd.*	1A percentage increase 1A time (2)	F L1

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T&L
2.2.2	R0,30 **OR/*OF*** 30c ✓✓RT	2RT correct value Accept 0,30 If the candidates only wrote 30 = max 1 mark (2)	F L1
2.2.3	✓M R557,00 – R418,00 ✓RG = R139,00 ✓CA	**AO** 1RG correct amount 1M subtracting 1CA simplification (one of the 2 values must be correct) (3)	F L1
2.2.4	Percentage change / *Presentasieverandering* ✓RT $\frac{\text{R75,00} - \text{R0,25}}{\text{R0,25}} \times \frac{100}{1}\,\%$ ✓SF = 29 900 % ✓CA **OR/*OF*** Percentage change / *Presentasieverandering* ✓RT $\frac{75}{0,25} \times 100\% = 30\,000\%$ ✓M Therefore % increase = 30 000% - 100% = 29 900% ✓CA	**AO** 1RT all correct values 1SF substitute correct values 1CA correct percentage **OR/*OF*** 1RT all correct values 1M subtracting 1CA correct percentage (3)	F L2

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T&L
2.2.5	Cost price / *Kosprys* $\frac{100}{117,5} \times \frac{104,90}{1}$ ✓MA = R89,28 ✓A **OR/*OF*** Cost price / *Kosprys* $\frac{104,90}{117,5\%}$ ✓MA = R89,28 ✓A **OR/*OF*** Cost price / *Kosprys* $\frac{104,90}{1,175}$ ✓MA = R89,28 ✓A **OR/*OF*** Cost price / *Kosprys* $\frac{17,5}{117,5} \times$ R104,90 = R15,62 R104,90 – R15,62 ✓MA =R89,28 ✓A	**AO** 1MA multiplying correct values 1A answer **OR/*OF*** 1MA dividing correct values in the correct order 1A answer **OR/*OF*** 1MA dividing correct values in the correct order 1A answer **OR/*OF*** 1MA multiplying and subtracting correct values 1A answer (2)	F L2
2.3.1	✓✓A B **OR/*OF*** R241 600 000 000 ✓✓A	2A correct value (2)	F L1

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T&L
2.3.2	Budget is the proposed way in which money will be spent on different items / *Begroting is die voorgestelde manier hoe die geld vir verskillende items gespandeer behoort te word.* ✓✓A **OR/*OF*** A plan on how money is going to be spent on estimated income / *'n Plan oor hoe geld op beraamde inkomste bestee gaan word.* ✓✓A **OR/*OF*** A plan in how money is going to be spent / *'n Plan hoe geld uitgegee / spandeer gaan word.* ✓✓A **OR/*OF*** Financial plan how to spend money/finance / *Finansiële plan hoe om geld / finansiering te spandeer.* ✓✓A **OR/*OF*** Estimated income and expenditure of money / *Geskatte inkomste en uitgawes van geld.* ✓✓A	2A definition (2)	F L1
2.3.3	Skills development levy institutions / *Vaardigheidsontwikkelingheffingsinstellings* ✓✓RT	2RT correct sector (2)	F L1
2.3.4	Percentage of the total education budget / *Persentasie van die totale onderwysbegroting* ✓RG/RT $\frac{15{,}3}{320{,}5} \times 100\%$ ✓M = 4,77% ✓CA **OR/*OF*** Percentage of the total education budget / *Persentasie van die totale onderwysbegroting* ✓RG/RT $\frac{R15\ 300\ 000\ 000}{R320\ 500\ 000\ 000} \times \frac{100}{1}\%$ ✓M = 4,77% ✓CA	1RG/RT correct values 1M multiply by 100 1CA answer **OR/*OF*** 1RG/RT correct values 1M multiply by 100 1CA answer **NPR** (3)	F L2

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T&L
2.3.5	Education Administration plus NSFAS amount to 31,1 billion rand / *Onderwysadministrasie plus NSFAS bedrag tot 31,1 miljard rand* 9,7% ✓✓A Accept any estimation from 9,5% but less than 9,86% *Aanvaar enige skatting vanaf 9,5% maar minder as 9,86%* **OR/*OF*** 15,8 + 15,3 = 31,1 billion */ miljard* ✓M = 9,7% ✓A Accept any estimation from 9,5% but less than 9,86% *Aanvaar enige skatting vanaf 9,5% maar minder as 9,86%*	**AO** 2A correct estimation **OR/*OF*** 1M adding values 1A estimated value (2)	F L2
			[41]

QUESTION/*VRAAG* 3 [18 MARKS/*PUNTE*]			
Q/*V*	**Solution/*Oplossing***	**Explanation/*Verduideliking***	**T&L**
3.1.1	15 cm + 17 cm + 19 cm + 21 cm ✓A = 72 cm × 10 ✓CA = 720 mm ✓CA	1A adding of correct values 1CA conversion 1CA answer in mm (3)	M L1
3.1.2a	Diameter / *Deursnee* = 2 × radius = 2 × 14 cm ✓M = 28 cm ✓A	**AO** 1M multiplying by 2 1A diameter (2)	M L1
3.1.2b	Volume of a cylinder = $\pi \times r^2$ × height *Volume van 'n silinder* = $\pi \times r^2$ × *hoogte* Volume of a cylinder = 3,142 × $(14)^2$ × 15 cm ✓SF = 3,142 × 196 cm^2 × 15 cm ✓S = 9 237,48 cm^3 ✓CA	**AO** 1SF substitution 1S squaring 14 1CA simplification (3)	M L2
3.1.3	The perimeter of a shape is the total distance around the edges defining the outline of that shape / ✓✓A *Die omtrek van 'n vorm is die totale afstand om die sye wat die uitleg van die vorm definieer.* **OR/*OF*** Total distance around the shape / *Totale afstand rondom 'n voorwerp* ✓✓A	2A explanation (2)	M L1
3.1.4	Area of a rectangle = length × width *Area van 'n reghoek = lengte × breedte* = 15 cm × 12 cm ✓SF = 180 cm^2 ✓CA	1SF correct substitution 1CA simplification 35 cm × 33 cm = 1 155 cm^2 Max 1 mark (2)	M L2
3.2.1	Amount / *Hoeveelheid* in kg = 3,5 ÷ 2,25 ✓C = 1,556 ✓A	1C conversion 1A simplification Accept 1,56 kg ; 1,6 kg 1,5 only = 0 marks (2)	M L2

Q/*V*	**Solution/*Oplossing***	**Explanation/*Verduideliking***	**T&L**
3.2.2	1 mℓ flour = 0,7 g flour */ 1 mℓ meel = 0,7 g meel* $\frac{625}{1} \times 0,7$ g ✓C = 437,5 g ✓A	1C conversion 1A simplification (2)	M L2
3.2.3	°C = (°F – 32°) ÷ 1,8 °C = (356° – 32°) ÷ 1,8 ✓SF °C = (324°) ÷ 1,8 = 180 °C ✓A	1SF correct substitution 1A simplification (2)	M L2
		[18]	

QUESTION/*VRAAG* 4 [24 MARKS/*PUNTE*]			
Q/*V*	**Solution/*Oplossing***	**Explanation/*Verduideliking***	**T&L**
4.1.1	South West **OR** SW *Suidwes **OF** SW* ✓✓A	2A direction (2)	MPL 2
4.1.2	Namaqua National Park / *Namakwa Nasionale Park* ✓✓RM	2RM national Park (2)	MPL 1
4.1.3	✓✓RM ✓RM Keimoes, Kakamas, Pofadder (Any 2 of the 3/*enige 2 van die 3*)	2RM first correct town 1RM second correct town (3)	MPL 1
4.1.4	Ratio scale **OR** number scale **OR** numerical scale *Verhoudingskaal **OF** nommerskaal **OF** getalskaal* ✓✓A	2A ratio / number / numerical Accept unit ratio (2)	MP L1
4.1.5	✓A Measured distance */Gemete afstand* = 135 mm 1 : 3 007 874 135 mm × 3 007 874 ✓M = 406 062 990 mm $= \frac{406\,062\,990}{1\,000\,000}$ ✓C = 406 km ✓R **OR/*OF*** ✓A 13,5 cm × 3 007 874 ✓M $\frac{40\,606\,299\,\text{cm}}{100\,000}$ ✓C = 406,06299 km ≈ 406 km ✓R	1A measures distance 1M using scale 1C conversion 1R to the nearest km (Range: 130 mm to 140 mm) **OR/*OF*** 1A measures distance 1M using scale 1C conversion 1R to the nearest km (Range: 13 cm to 14 cm) (4)	MPL 3
4.2.1	Voortrekker Road / *Voortrekkerstraat* ✓✓RM **OR/*OF*** N14 ✓✓RM	2RM correct road (2)	MPL 1

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T&L
4.2.2	Rivier Street / *Rivierstraat* ✓✓RM	2RM correct road (2)	MP L2
4.2.3	Debs-Lodge / *Debs-Lodge* ✓✓RM	2RM correct road (2)	MP L2
4.2.4	Time / *Tyd* = $\frac{2{,}34\text{ km}}{40\text{ km/h}}$ ✓SF = 0,0585 h × 60 ✓C = 3,51 minutes ✓CA	1SF calculating time 1C multiply by 60 1CA simplification **NPR** (3)	MP L2
4.2.5	$P = \frac{13}{42}$ ✓A ✓A **OR/*OF*** 0,310 **OR/*OF*** 31% **OR/*OF*** ✓MA $1 - \frac{29}{42} = \frac{13}{42}$ ✓A	1A numerator (independent) 1A denominator **OR/*OF*** 1MA subtracting from 1 1A simplification (2)	P L2
		[24]	

QUESTION/*VRAAG* 5 [35 MARKS/*PUNTE*]			
Q/*V*	**Solution/*Oplossing***	**Explanation/*Verduideliking***	**T&L**
5.1.1	R2 085 600 000 ✓✓RT **OR/*OF*** R2 085,6 million / *miljoen* ✓✓RT **OR/*OF*** R2,0856 billion / *miljard* ✓✓RT	2RT correct amount Table value = max 1 mark (2)	D L1
5.1.2	$\frac{\text{R1 323} + \text{R2 085,6} + \text{R3 162} + \text{R2 158} + \text{R1 847} + \text{R2 732}}{6}$ ✓RT ✓M million / *miljoen* ✓CA = R2 217 933 333 ***OR/OF*** R2 217,933333 million / *miljoen*	**AO** 1RT correct values 1M concept of mean 1CA simplification **NPR** (3)	D L2
5.1.3	Maximum = 46,1 thousand / *duisend* ✓A ✓A **OR/*OF*** Maximum = 46 100 ✓✓RT	1A correct value 1A unit **OR/*OF*** 2RT correct maximum (2)	D L1
5.1.4	$A = \frac{2\ 158\ 000\ 000}{3\ 441\ 000\ 000\ 000} \times \frac{100\,\%}{1}$ ✓RT ✓M = 0,062714327% ✓CA = 0,06% ✓R	**AO** 1RT correct values 1M multiply by 100 1CA simplification 1R rounding If omitted zeros = max 3 marks (4)	D L2
5.2.1	A person who is able and willing to work, but cannot find work / *'n Persoon wat geskik en gewillig is om te werk, maar nie 'n werk kry nie.* ✓✓A **OR/*OF***	2A explanation	D L1

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T&L
	People who are without work / *Mens wat sonder werk is* ✓✓A **OR/*OF*** People who are jobless / *Mense wat werkloos is* ✓✓A **OR/*OF*** Not earning a salary / wage / income *Verdien nie 'n salaris / loon / inkomste nie* ✓✓A **OR/*OF*** Retrenched / *Afgedank* ✓✓A	2A explanation (2)	
5.2.2	**X** = 1 748 – 506 ✓M =1 242 ✓A **OR/*OF*** ✓M **X** = 16 172 – (1 391+ 806 + 4 991+ 2 513 + 1 417 + 321 + 999 + 2 492) = 1 242 ✓A	1M subtracting correct values 1A simplification 1M subtracting correct values 1A simplification No penalty for including zeros (2)	D L1
5.2.3	Questionnaire / *vraelys* ✓✓A **OR/*OF*** Survey / *opname* ✓✓A **OR/*OF*** Population census / *populasie sensus* ✓✓A **OR/*OF*** Document analysis / *dokument analise* ✓✓A **OR/*OF*** Interview / o*nderhoud* ✓✓A	2A correct answer (2)	D L1

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T&L
5.2.4	Percentage of people / *Persentasie mense* ✓RT $\frac{1\,412\,000}{4\,507\,000} \times \frac{100}{1}\%$ ✓M = 31,329 % ✓CA	1RT using both correct values 1M percentage calculation 1CA simplification If omitted zeros = full marks **NPR** (3)	D L2
5.2.5	✓RT 16 172 000 : 5 882 000 2,7494 : 1 ✓A	1RT both correct values 1A ratio in unit form Accept: 2,749 / 2,75 / 2,7 (2)	D L2
5.2.6	✓RT Probability (NEA) = $\frac{697\,000}{1\,893\,000}$ ✓RT = 0,368 ✓CA **OR/*OF*** ✓RT Probability (NEA) = $\frac{697\,000}{15\,475\,000}$ ✓RT = 0,045✓CA **AFRIKAANS VRAESTEL** ✓RT Probability (NEA) = $\frac{1\,196\,000}{1\,893\,000}$ ✓RT = 0,63 ✓CA ≈ 0,6 **OR/*OF*** ✓RT Probability (NEA) = $\frac{1\,196\,000}{22\,054\,000}$ ✓RT = 0,05 ✓CA ≈ 0,1	**AO** 2RT correct values 1CA simplification **OR/*OF*** 2RT correct values 1CA simplification **OR/*OF*** 2RT correct values 1CA simplification **OR/*OF*** 2RT correct values 1CA simplification If omitted zeros = full marks **NPR** (3)	P L2

Q/*V*	Solution/*Oplossing*	Explanation/*Verduideliking*	T&L
5.2.7	**Do not mark this question.** ***Moenie hierdie vraag merk nie.***		
5.2.8	$\frac{3}{9}$ ✓✓A $\frac{3}{9}$ ✓A $= \frac{1}{3}$ ✓CA	**AO** 2A numerator 1A denominator 1CA simplification (4)	P L3
		[35]	
		TOTAL: 150	

Upscaling of Question 5 mark
Aanpassing van Vraag 5 punt

QUESTION/*VRAAG* 5	
Mark out of 29	Mark out of 35
29	35
28	34
27	33
26	31
25	30
24	29
23	28
22	27
21	25
20	24
19	23
18	22
17	21
16	19
15	18
14	17
13	16
12	14
11	13

QUESTION/*VRAAG* 5	
Mark out of 29	Mark out of 35
10	12
9	11
8	10
7	8
6	7
5	6
4	5
3	4
2	2
1	1