

SA's Leading Past Year

Exam Paper Portal



You have Downloaded, yet Another Great Resource to assist you with your Studies 😊

Thank You for Supporting SA Exam Papers

Your Leading Past Year Exam Paper Resource Portal

Visit us @ www.saexampapers.co.za



SA EXAM PAPERS

SA EXAM PAPERS
Proudly South African



education

Department:
Education
North West Provincial Government
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE/ NASIONALE SENIOR SERTIFIKAAT

GRADE 12/GRAAD 12

MATHEMATICAL LITERACY P2/ WISKUNDIGE GELETTERDHEID V2 SEPTEMBER 2025 MARKING GUIDELINES/NASIENRIGLYNE

MARKS/PUNTE: 150

Symbol/Kode	Explanation/Verduideliking
M	Method/Metode
MA	Method with accuracy/Metode met akkuraatheid
MCA	Method with consistent accuracy/Metode met volgehoue akkuraatheid
CA	Consistent accuracy/Volgehoue akkuraatheid
A	Accuracy/Akkuraatheid
C	Conversion/Herleiding
S	Simplification/Vereenvoudiging
RT	Reading from a table/a graph/document/ diagram/ Lees vanaf tabel/grafiek/diagram
SF	Correct substitution in a formula/Korrekte vervanging in formule
O	Opinion/Explanation/Reasoning/Opinie/Verduideliking/Redenasie
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 correct rounding/Geen penalisasie vir korrekte afronding nie
AO	Answer only/Slegs antwoord

These marking guidelines consists of 10 pages./
Hierdie nasienriglyne bestaan uit 10 bladsye.

SA EXAM PAPERS

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 penalize for every extra item presented.
- Rounding is an independent mark.
- General marking principle, if the candidate makes one mistake one mark is deducted.
- A conclusion mark can only be given if $\frac{1}{3}$ of the total marks for the sub-question have been awarded.
- No penalty for rounding (NPR) if the first decimal is correct.

LET WEL:

- As 'n kandidaat 'n vraag TWEE KEER beantwoord, sien slegs die EERSTE poging na.
- As 'n kandidaat 'n antwoord van 'n vraag doodtrek (kanselleer) en nie oordoen nie, sien die doodgetrekte (gekanselleerde) poging na.
- 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 item.
- Afronding tel as 'n afsonderlike punt.
- Die algemene beginsel van nasien is, as 'n leerder een fout maak, word een punt afgetrek.
- 'n Gevolgtrekkingspunt kan slegs gegee word indien $\frac{1}{3}$ van die totale punte vir die subvraag toegeken is.
- Geen penalisering vir afronding (NPR) nie as die eerste desimaal korrek is.

QUESTION/VRAAG 1 [30 MARKS/PUNTE] Answer only AO – full marks			
Q/V	Solution/Oplossing	Explanation/Verduideliking	T/L
1.1.1	B✓✓A	2A correct definition/korrekte definisie (2)	M TL1 E
1.1.2	J✓✓A	2A correct definition/korrekte definisie (2)	M TL1 E
1.1.3	C✓✓A	2A correct definition/korrekte definisie (2)	M TL1 E
1.1.4	I✓✓A	2A correct definition/korrekte definisie (2)	M&P TL1 E
 SA EXAM PAPERS			

Q/V	Solution/Oplissing	Explanation/Verduideliking	T/L
1.1.5	G✓✓A	2A correct definition/ <i>korrekte definisie</i> (2)	M&P TL1 E
1.1.6	D✓✓A	2A correct definition/ <i>korrekte definisie</i> (2)	P TL1 E
1.2			
1.2.1	Baseball/ <i>basketbal</i> & tennis ✓✓RM	1RM first correct sport 1RM second correct sport <i>1RM vir elke korrekte sport</i> (2)	M&P TL1 E
1.2.2	Miller street/ <i>straat</i> ✓✓RM 7 th Street/ <i>straat</i> Huron street/ <i>straat</i> Chopin street/ <i>straat</i>	2RM choose any 2 streets / <i>2RM kies enige 2 strate</i> (2)	M&P TL1 E
1.2.3	G - proposed parking/ <i>voorgestelde parkering</i> ✓✓RM	2RM read from key/ <i>lees af van gegewe sleutel</i> (2)	M&P TL1 E
1.2.4	B - amphitheater / <i>amfiteater</i> ✓✓RM	2RM read from map/ <i>lees af vanaf kaart</i> (2)	M&P TL1 E
1.2.5	50 mm ✓✓M (Accept from/ <i>aanvaar van</i> 49 – 51 mm)	2M measure correct values/ <i>meet korrekte waardes</i> (2)	M&P TL1 E
1.3			
1.3.1	Clockwise/ <i>kloksgewys</i> ✓✓RD	2RD read from diagram/ <i>lees vanaf diagram</i> (2)	M&P TL1 E
1.3.2	2 barrel nuts and 2 assembly bolts = 4 <i>2 balie moere en 2 vasdraai boute = 4</i> ✓✓RD	2RD read from diagram/ <i>2RD lees vanaf diagram</i> (2)	M&P TL1 E
1.3.3	Large barrel nut/ <i>groot balie moere</i> ✓✓RD	2RD read from diagram/ <i>2RD lees vanaf diagram</i> (2)	M&P TL1 E
1.3.4	Assembling a cot/ <i>aanmekaar sit van bababed</i> Wooden baby cot/ <i>hout bababedjie</i> ✓✓A	2A for what is assembled/ <i>2A vir korrekte produk aanmekaar gesit.</i> (2)	M&P TL1 E
		[30]	



QUESTION/VRAAG 2 [34 MARKS/PUNTE]			
Q/V	Solution/Oplossing	Explanation/Verduideliking	T/L
2.1.1	One unit on paper represents 125 unit on actual ground/Een eenheid op papier verteenwoordig 125 eenhede op die grond. ✓ ✓ A	2A answer/verduideliking (2)	M&P L1 E
2.1.2	Bucket loader/laaigraaf: 4,6 m : x Scale/skaal 1 : 125 OR/OF 1 : 125 $\frac{4,6}{125} \checkmark M$ = 0,0368 ✓ A = 0,0368 × 1000 = 36,8 mm on the diagram ✓ A	1M divide bucket loader height with scale/hoogte van laaigraaf gedeel deur skaal 1M multiply with 1000/vermenigvuldig met 1000 1A answer/antwoord (3)	M&P TL3 M
2.1.3	No/Nee ✓ A, the bridge clearance is 4,4 m but the bucket loader is 4,6 m/die brug se hoogte is 4,4 m maar die laaigraaf is 4,6 m. ✓ J	1A answer No/antwoord Nee 1J reason for not fitting/rede waarom nie sal pas nie (2)	M&P TL4 M
2.2			
2.2.1	Pniel ✓ ✓ RM	2RM reading from map/ lees vanaf kaart (2)	M&P TL1 E
2.2.2	Helshoogte Mountain Pass ✓ A	2RM reading from map/ lees vanaf kaart. (2)	M&P TL1 E
2.2.3	SW ✓ ✓ and SE ✓ M	2RM first correct direction/ eerste rigting korrek 1RM second correct direction/ tweede rigting korrek (3)	M&P TL2 E
2.2.4	R301 and/en R44 (accept/aanvaar R45) ✓ ✓ RM	2RM reading from map/aflees van kaart (2)	M&P TL1 E
2.2.5	9: 35 + 2 hours/uur 50 minutes/minute ✓ M = 12:25 ✓ A Claim not correct/stelling onwaar ✓ O	1M correct values/ tel korrekte waardes bymekaar 1A answer/antwoord 1O opinion/mening (3)	M&P TL4 E
2.3			
2.3.1	18 : 72 ✓ ✓ RM 1:4 ✓ S	1RT reading info from map 1 Ratio in correct order 1S simplification of ratio (3)	M&P L2 E





Q/V	Solution/Oplissing	Explanation/Verduideliking	T/L
2.3.2	The 11 th row/11 ^{de} ry ✓✓ A	2A correct answer/regte antwoord (2)	M&P L2 M
2.3.3	$72 \times 3 \checkmark \text{MA}$ $= 216 \checkmark \text{A}$ Statement not true/stelling onwaar ✓ O OR/OF $72 + 72 + 72 = 216$	1MA correct values/korrekte waardes 1A correct answer/regte antwoord 1O opinion/ opinie (3)	M&P L4 M
2.4			
2.4.1	A = 23:35 - 04:00 ✓ M	1M subtract times/trek tye af	M
a)	$= 19 \text{ hours } 35 \text{ min} \checkmark \text{A}$ (19,35 one mark only/slegs een punt)	1A answer/antwoord (2)	TL2 E
b)	$\text{speed/spoed} = \frac{\text{Distance}}{\text{time}} / \frac{\text{afstand}}{\text{tyd}}$ $35 \div 60 = 0,58333 \checkmark \text{C}$ $\text{speed/spoed} = \frac{1336}{19,58333} \checkmark \text{SF}$ $S = 68,221 \text{ km/h}$ $\approx 68 \text{ km/h} \checkmark \text{R}$	1C converting min to hours/skakel min om in ure 1SF substitute into formula/vervang in formule 1R answer in km/h/antwoord in km/h PENALTY IF WRONG UNIT/ PENALISEER INDIEN VERKEERDE EENHEID GEBRUIK (3)	M TL3 M
		[32]	



QUESTION/VRAAG 3 [32 MARKS/PUNTE]			
Q/V	Solution/Oplossing	Explanation/Verduideliking	T/L
3.1			
3.1.1	$V = L \times W \times H$ $= 1,82 \times 1,54 \times 0,67 \checkmark \text{SF}$ $= 1,877876 \text{ m}^3$ $= 1,88 \text{ m}^3 \checkmark \text{A} \checkmark \text{U}$	1SF substitution/vervanging 1A answer/antwoord 1U correct unit/korrekte eenheid NPR (3)	M TL2 E
3.1.2	$h = 73 \div 1000 = 0,073 \text{ m}$ $l = 222 \div 1000 = 0,222 \text{ m}$ $w = 106 \div 1000 = 0,106 \text{ m}$ } $\checkmark \text{C}$ $V = L \times W \times H$ $= 0,222 \times 0,106 \times 0,073 \text{ m}$ $= 0,001717836 \text{ m}^3 \checkmark \text{CA}$ $\frac{1,88}{0,001717836} \checkmark \text{M}$ $= 1094,40$ $= 1094 \text{ bricks/bakstene} \checkmark \text{R}$ Statement correct/ Stelling is waar $\checkmark \text{O}$	CA from/van Q 3.1.1 1C converting to m/ <i>omskakel in m</i> 1CA simplification/vereenvoudig 1M dividing/deling 1R round down/afronding na <i>onder</i> 1O opinion (5)	M L4 D
3.1.3	$A = L \times W$ $= 0,222 \times 0,106 \checkmark \text{SF}$ $= 0,023532 \checkmark \text{A}$ $= 0,024 \text{ m}^2 \checkmark \text{R}$	1SF substitute into formula/ <i>vervang in formule</i> 1A simplification/ vereenvoudig 1R rounding to three decimal <i>places/rond af tot drie desimale</i> <i>plekke</i> (3)	M L2 E
3.1.4	$A = L \times W$ $= 20 \times 1,33 \text{ m} \checkmark \text{SF}$ $= 26,6 \text{ m}^2 \checkmark \text{A}$ $\frac{26,6}{0,024} \checkmark \text{M} = 1108,3$ $= 1109 \text{ bricks needed/bakstene nodig} \checkmark \text{CA}$ Have only 1093 (1094) bricks, therefor will short/ Het slegs 1093 (1094) bakstene, kort dus nog $1109 - 1093 = 16 \text{ bricks} \checkmark \text{O} / 1109 - 1094 = 15$ Do not have enough bricks in pile/het nie genoeg bakstene in die palet nie. $\checkmark \text{O}$ OR/of Area of 1 brick/oppervlak van een baksteen $0,023532 \times 1093$ $= 25,720476 \text{ m}^2$ $A = l \times w$ $= 20 \times 1,33 \text{ m}$	CA from 3.1.3 1SF substitution/vervanging 1A simplification/vereenvoudig 1M divide by area of brick/deel <i>deur oppervlakte van baksteen</i> 1CA simplification/ vereenvoudig 1O conclusion/verduideliking (5)	M L4 M



	$= 26.6 \text{ m}^2$ Not enough brick/plaveiselstene nie genoeg OR/OF $0,023532 \times 1094$ $= 26,256 \text{ m}^2$ $A = L \times W$ $= 20 \times 1,33$ $= 26,6 \text{ m}^2$ Not enough brick/plaveiselstene nie genoeg		
3.2			
3.2.1	a) $A = 0,8 \text{ m} + 0,1 \text{ m} \checkmark \text{M}$ $= 0,9 \text{ m} \checkmark \text{A}$ b) $B = 0,7 \times 2 \checkmark \text{M}$ $= 1,4 \text{ m} \checkmark \text{A}$	1M adding 0,1 m/tel 0,1 by 1A answer/antwoord (2) 1M multiply by 2/vermenigvuldig met 2 1A simplification/vereenvoudig (2)	M TL2 M
3.2.2	Length XY of kitchen $= 1,4 + 0,7 + 0,9 + 0,8 + 0,2 \checkmark \text{M}$ $= 4 \text{ m} \checkmark \text{A}$	CA with Q 3.2.1 1M add all correct value/tel korrekte waarde bymekaar 1A correct answer/korrekte antwoord (2)	M TL2 E
3.2.3	a) Area of kitchen $= L \times W$ $14,8 \text{ m}^2 = 4\text{m} \times \text{width} \checkmark \text{SF}$ $\text{Width} = \frac{14,8 \text{ m}^2}{4} \checkmark \text{M}$ $= 3,7 \text{ m} \checkmark \text{A}$ b) $14,8 - 8,4 \checkmark \text{M}$ $= 6,4 \text{ m}^2 \checkmark \text{A}$ $R238 \times 6,4 \checkmark \text{M}$ $= R1\,523,20$ Statement is correct/Stelling korrek $\checkmark \text{O}$ c) For breakage/indien teëls sou breek. $\checkmark \checkmark$	CA with length of Q 3.2.2 1SF substitute correct values/ vervang korrekte waardes 1M change formula/ verander formule 1A correct answer/regte antwoord (3) 1M subtract correct areas/ trek korrekte oppervlakte af van mekaar 1A answer/antwoord 1M multiply correct values/ vermenigvuldig korrekte waardes 1O opinion/ opinie (4) 2O opinion/ opinie (2)	M TL3 E F TL3 M TL4 M



QUESTION/VRAAG 4 [30 MARKS/PUNTE]			
Q/V	Solution/Oplossing	Explanation/Verduideliking	T/L
4.1			
4.1.1	Volume = $2,5 \times 2,5 \times 2 \text{ m} \checkmark \text{SF}$ $= 12,5 \text{ m}^3 \checkmark \text{A}$ $= 12,5 \text{ k}\ell \checkmark \text{C}$	1SF substitution/vervanging 1A answer/antwoord 1C converting to kℓ/skakel om na kℓ (3)	M TL2 E
4.1.2	65% of capacity/65% van kapasiteit $= 0,65 \times 12,5 \text{ k}\ell \checkmark \text{M}$ $= 8,125 \text{ k}\ell \checkmark \text{A}$ OR/OF $0,35 \times 12,5 \text{ k}\ell \checkmark \text{M}$ $= 4,375$ $= 12,5 - 4,375$ $= 8,125 \text{ k}\ell \checkmark \text{M}$ Full output/volle krag = $3,6 \text{ k}\ell/\text{h}$ $\frac{2}{3}$ of output/van krag $= \frac{2}{3} \times 3,6 \text{ k}\ell/\text{h} \checkmark \text{M}$ $= 2,4 \text{ k}\ell/\text{h} \checkmark \text{CA}$ Time taken to fill 65% $= \frac{8,125 \text{ k}\ell}{2,4 \text{ k}\ell/\text{h}} \checkmark \text{M}$ $= 3,385 \dots \text{ hours} \checkmark \text{CA}$ $= 3 \text{ hours} + 0,385 \dots \times 60$ $= 3 \text{ hours } 23,125 \text{ min}$ $\approx 3 \text{ hours } 24 \text{ min} \checkmark \text{CA}$	1M calculating/bereken 65% 1A answer/antwoord 1M multiplication/vermenigvuldig 1CA calculating output rate/bereken uitsetkrag 1M finding time/bereken tyd 1CA time in hours/bereken uur 1CA time in hours and minutes/tyd in uur en minute (7)	M TL3 D
4.2			
4.2.1	Daily water consumption/daaglikse waterverbruik $= 40 \times 90\ell + 20 \times 50\ell + 30 \times 50\ell + 50 \times 5\ell \checkmark \checkmark \text{M}$ $= 6\,350 \ell \checkmark \text{S}$ $= 6.350 \text{ k}\ell \checkmark \text{C}$ Statement is correct/Stelling is waar ✓ O	1M multiplication from table/vermenigvuldig van tabel 1S simplification/vereenvoudig 1C conversion/omskakeling 1O opinion/opinion (4)	M TL4 E
4.2.2	Water needed for ten days/water benodig vir 10 dae $= 6,35 \text{ k}\ell \times 10 \checkmark \text{M}$ $= 63,5 \text{ k}\ell$ $= 63,5 \text{ m}^3 \checkmark \text{C}$ $3,142 \times (\text{radius})^2 \times 2 = 63,5 \text{ m}^3 \checkmark \text{SF}$	1M multiply by correct days/vermenigvuldig met korrekte dae 1C conversion 1SF substitute into formula/vervang in formule	M TL3 D



	$(\text{radius})^2 = \frac{63,5 \text{ m}^3}{3,142 \times 2\text{m}} \checkmark \text{M}$ $(\text{radius})^2 = 10,111111 \text{ m}^2 \checkmark \text{S}$ $\text{Radius} = \sqrt{10,11111 \text{ m}^2}$ $\text{Radius} = 3,17985 \text{ m}$ $\text{Radius} = 3,18 \text{ m} \checkmark \text{R}$	1M change formula/ <i>verander in formule</i> 1S simplification/ <i>vereenvoudig</i> 1R correct rounding/ <i>korrekte afronding</i> (6)	
4.2.3	$^{\circ}\text{F} = (^{\circ}\text{C} \times \frac{9}{5}) + 32 \checkmark \text{F}$ $^{\circ}\text{F} = (34 \times \frac{9}{5}) + 32 \checkmark \text{SF}$ $= 93,2^{\circ}\text{F} \checkmark \text{S}$ $= 93^{\circ}\text{F} \checkmark \text{R}$	1F change formula/ <i>verander formule</i> 1SF substitute/ <i>vervang</i> 1S simplify/ <i>vereenvoudig</i> 1R rounding/ <i>afronding</i> (4)	M TL3 M
4.3			
4.3.1	8 windows/ <i>vensters</i> $\checkmark \checkmark \text{RM}$	2RM reading from map/ <i>aflees vanaf kaart</i> (2)	M&P TL2 E
4.3.2	Bathroom, door opens in front of bedroom door/ <i>badkamer deur maak oop verkeerde kant toe</i> $\checkmark \checkmark \text{RM}$	2RM reading from map / <i>lees vanaf kaart</i> (2)	M&P TL2 E
4.3.3	a) Toilet $\checkmark$ b) Kitchen sink/ <i>kombuiswasbak</i> $\checkmark \text{RM}$	2RM reading from map/ <i>lees vanaf kaart</i> (2)	M&P TL2 E
4.3.4	North wall/ <i>noordelike muur</i> $\checkmark \checkmark \text{RM}$	2RM reading from map/ <i>lees vanaf kaart</i> (2)	M&P TL2 E
4.3.5	$\frac{2}{6} \times 100 \checkmark \checkmark \text{A}$ $= 33,33\% \checkmark \text{CA}$	1A numerator/ <i>teller</i> 1A denominator/ <i>noemer</i> 1A correct percentage/ <i>regte persentasie</i> (3)	P TL2 M
		[34]	
QUESTION/VRAAG 5 [23 MARKS/PUNTE]			
5.1			
5.1.1	Square, triangle or rectangle, oval, circle <i>Vierkant, driehoek en reghoek, ovaal, sirkel</i> $\checkmark \checkmark \checkmark \text{A}$	3A correct shapes/ <i>korrekte vorms</i> (3)	M TL2 E

Q/V	Solution/Oplossing	Explanation/Verduideliking	T/L
5.1.2	$l' = 2,54 \text{ cm}$ Length/lengthe = $4 \times 8\checkmark = 40 \text{ inches/duim}\checkmark C$ Breadth/breedte = $6 \times 5 = 30 \text{ inches/duim}\checkmark C$ The whole blanket/die hele kombers Length/lengthe $= 40 \times 2,54$ $= 101,6 \text{ cm}\checkmark$ Width/breedte $30 \times 2,54$ $= 76,2 \text{ cm}\checkmark$	2C convert length and width in Inches/ omskakel van lengte en breedte na duim 2C correct length and width in cm/korrekte lengte en breedte in cm (5)	M TL3 D
5.1.3	$L = 101,6 \text{ cm}$ $B = 76,2 \text{ cm}$ $P = 2(101,6) + 2(76,2) \checkmark\checkmark SF$ $= 203,2 \text{ cm} + 152,4 \text{ cm}\checkmark S$ $= 355,6 \text{ cm}\checkmark A$	CA from q 5.2.2 2SF substitute values in formul a/Vervang waardes in formule 1S simplification/vereenvoudig 1A answer/antwoord (4)	M TL3 M
5.2			
5.2.1	Length = $4,1 \text{ m}\checkmark RM$ Width = $1,8 \text{ m}\checkmark RM$	1RM read from diagram 1RM read from diagram (2)	M&P TL1 E
5.2.2	Diameter = $572 \text{ mm} \div 100\checkmark C$ $= 0,572 \text{ m}\checkmark A$	1C conversion 1A answer (2)	M&P TL1 E
5.2.3	To ensure that each item packaged fit appropriately into the given container/ structure <i>Om seker te maak dat elke item deeglik binne in 'n gepaste houer sal pas</i> $\checkmark\checkmark O$	2O opinion (2)	M&P TL 4 M
5.2.4	Number of oil drums: Length = $\frac{4,1}{0,572} = 7,1678$ $\approx 7\checkmark A$ Width = $\frac{1,8}{0,572} = 3,1468$ $\approx 3\checkmark A$ Lower shelf = $7 \times 3 = 21\checkmark A$	1A length 1A width 1A lower shelf (3)	M&P TL 2 M
5.2.5	3 shelves $3 \times 21\checkmark\checkmark M$ $= 63 \text{ drums.}\checkmark A$	2M multiplying correct values 1A correct answer (3)	M&P TL2 E
		[23]	
		TOTAL/TOTAAL:	150

