



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

MATHEMATICAL LITERACY P2

FEBRUARY/MARCH 2018

MARKING GUIDELINES

MARKS: 150

SYMBOL	EXPLANATION
M	Method
MA	Method with accuracy
CA	Consistent accuracy
RCA	Rounding consistent accuracy
A	Accuracy
C	Conversion
S	Simplification
RT/RG	Reading from a table/graph/diagram
SF	Correct substitution in a formula
O	Opinion/Example/Definition/Explanation/Justification/Verification
P	Penalty, e.g. for no units, incorrect rounding off, etc.
R	Rounding off
NPR	No penalty rounding or omitting units
AO	Answer only, full marks

These marking guidelines consist of 19 pages.

QUESTION 1 [37 MARKS]			
Ques	Solution	Explanation	T/L
1.1.1	Number of days = 10 ✓A Number of hours per day = 10 ✓A Total hours = $10 \times 10 = 100$ ✓CA	1A 10 days 1A 10 hours 1CA 100 hours AO (3)	M L2
1.1.2	VAT on teens ticket $\begin{aligned} & \checkmark_{RT} \\ & = R50 \times \frac{14}{114} \quad \checkmark_{MA} \\ & = R6,14035 \\ & \approx R6,14 \quad \checkmark_{RCA} \end{aligned}$ $\begin{aligned} \text{Price without VAT} &= \frac{\text{OR } R50}{114\%} \quad \checkmark_{RT} \quad \text{or} \quad \frac{R50}{1,14} \quad \checkmark_{MA} \\ &\approx R43,86 \end{aligned}$ $\begin{aligned} \text{VAT} &= R50 - R43,86 \\ &= R6,14 \quad \checkmark_{RCA} \end{aligned}$	1RT using correct value 1MA for multiplying by $\frac{14}{114}$ 1RCA VAT rounded to nearest cent OR 1RT using correct value 1MA for dividing by 114% (1,14) 1RCA VAT rounded to nearest cent (3)	F L2
1.1.3	$\begin{aligned} P_{(\text{Friday})} &= \frac{2}{10} \quad \checkmark_A \\ & \quad \checkmark_{CA} \\ &= \frac{1}{5} \quad \text{or } 20\% \quad \text{or } 0,2 \quad \checkmark_{CA} \end{aligned}$	1A numerator 1CA denominator (Q 1.1.1) 1CA simplification AO (3)	P L2

Ques	Solution	Explanation	T/L
1.1.4	<p>For 23 April:</p> $\begin{aligned} \text{Total ticket cost} &= 2 \times \overset{\check{RT}}{R150} + \overset{\check{M}}{R50} + \overset{\check{M}}{R50} + \overset{\check{M}}{R20} \\ &= R420 \quad \check{CA} \end{aligned}$ <p>For 20 April:</p> $\begin{aligned} \text{Total ticket cost} &= 2 \times \overset{\check{A}}{R75} + \overset{\check{A}}{R25} + \overset{\check{M}}{R50} + \overset{\check{M}}{R20} \\ &= R245 \quad \check{CA} \end{aligned}$ <p>Amount saved in rand = $R420 - R245 = R175$ \check{CA}</p> $\begin{aligned} \text{Percentage savings} &= \frac{175}{420} \times 100\% \quad \check{M} \\ &= 41,66...\% \quad \check{CA} \end{aligned}$ <p>Mrs Abrahams statement is VALID \check{O}</p> <p style="text-align: center;">OR</p> <p>For 23 April:</p> $\begin{aligned} \text{Total ticket cost} &= 2 \times \overset{\check{RT}}{R150} + \overset{\check{M}}{R50} + \overset{\check{M}}{R50} + \overset{\check{M}}{R20} \\ &= R420 \quad \check{CA} \end{aligned}$ <p>For 20 April:</p> $\begin{aligned} \text{Total ticket cost} &= 2 \times \overset{\check{A}}{R75} + \overset{\check{A}}{R25} + \overset{\check{M}}{R50} + \overset{\check{M}}{R20} \\ &= R245 \quad \check{CA} \end{aligned}$ <p>Percentage of original = $\frac{245}{420} \times 100\%$ \check{M}</p> $= 58,333...\% \quad \check{CA}$ <p>Percentage savings = $100\% - 58,333...\%$</p> $= 41,66...\% \quad \check{CA}$ <p>Mrs Abrahams statement is VALID \check{O}</p>	<p>1RT all correct values 1M adding values 1CA total cost</p> <p>1A calculating adult and pensioner ticket price 1CA total cost 1CA amount saved 1M multiplying by 100% 1CA percentage 1O verification</p> <p style="text-align: center;">OR</p> <p>1RT all correct values 1M adding values 1CA total cost 1A calculating adult and pensioner ticket price 1CA total cost 1M multiplying by 100% 1CA simplification 1CA percentage 1O verification NPR</p> <p style="text-align: right;">(9)</p>	F L4
1.2.1	Eastern Cape or EC $\check{\check{RT}}$	2RT correct province (2)	Data L2

Ques	Solution	Explanation	Topic/L
1.2.5	<p>Gauteng Employed citizens : social grants recipients 4 942 000 : 2 474 055 ✓RT ✓M 1 : 0,500 6 ✓CA</p> <p>Western Cape 2 266 000 : 1 506 147 ✓RT 1 : 0,664672 ✓CA</p> <p>Gauteng ✓O</p> <p>OR</p> <p>Gauteng ✓M Employed citizens : social grants recipients 4 942 000 : 2 474 055 ✓RT 1,99753 : 1 ✓CA</p> <p>Western Cape ✓RT 2 266 000 : 1 506 147 ✓CA 1,5045 : 1</p> <p>Gauteng ✓O</p>	<p>1M writing as a ratio 1RT ratio with correct values 1CA Unit ratio</p> <p>1RT ratio with correct values 1CA Simplification</p> <p>1O conclusion</p> <p>OR</p> <p>1M writing as ratio 1RT ratio with correct values 1CA Unit ratio</p> <p>1RT ratio with correct values 1CA simplification</p> <p>1O conclusion</p>	<p>Data L4</p> <p>(6)</p>
		[37]	

QUESTION 2 [40 MARKS]			
Ques	Solution	Explanation	T/L
2.1.1	32 OR 31 ✓✓A	2A correct number of days (2)	M L2
2.1.2	<p>Total credit ✓MA $= -R37,81 + (-R200,00) + (-R0,01)$ $= -R237,82$ ✓CA</p> <p>Total debit ✓MA $= R200,00 + R4,00 + R31\ 716,69 + R10\ 770,00$ $= R42\ 690,69$ ✓CA</p> <p>Closing balance = $R42\ 690,69 + (-R237,82)$ ✓MA $= R42\ 452,87$</p> <p style="text-align: center;">OR</p> <p style="text-align: center;">✓MA $R37,81 + R200 + R0,01 = R237,82$ credit ✓CA</p> <p>Total debit ✓MA $= R200,00 + R4,00 + R31\ 716,69 + R10\ 770,00$ $= R42\ 690,69$ ✓CA</p> <p>Closing balance = $R42\ 690,69 - R237,82$ ✓MA $= R42\ 452,87$</p>	<p>1MA adding credits 1CA simplification</p> <p>1MA adding debits 1CA simplification</p> <p>1MA adding credits to debits</p> <p style="text-align: center;">OR</p> <p>1MA adding credits 1CA simplification</p> <p>1MA adding debits 1CA simplification</p> <p>1MA adding credits to debits</p> <p>[Using the Account Summary: Closing Balance $= 42\ 690,69 - 200,01 - 37,81$ $= 42\ 452,87$ max 4 marks] (5)</p>	F L3
2.1.3	<p style="text-align: center;">✓✓O</p> <p>Safety reasons OR prevent Fraud / Confidentially/ Account number private to Mr Son only</p>	2O Explanation (2)	F L4
2.1.4	<p>Insurance premium $= R42\ 452,87 \div R1\ 000$ ✓M $= 42,45287$ ✓CA ≈ 43 ✓R</p> <p>Insurance cost $= 43 \times R3,50$ ✓MA $= R150,50$ ✓CA</p>	<p>1M dividing by 1 000 1CA simplification 1R rounding up</p> <p>1MA multiplying correct values 1CA correct premium [not rounding up max 3 marks] (5)</p>	F L3

Ques	Solution	Explanation	T/L
2.1.5	<p>The bank owes Mr Son R 37,81 ✓✓O</p> <p>OR</p> <p>The account has a credit balance ✓✓O</p> <p>OR</p> <p>Over-payment from previous months. ✓✓O</p>	<p>20 reason</p> <p>(2)</p>	<p>F</p> <p>L4</p>
2.1.6	<p>Does not have large amounts of cash to purchase expensive goods ✓✓O</p> <p>OR</p> <p>Easier / convenient to settle expensive items with smaller monthly payments ✓✓O</p> <p>OR</p> <p>Loyalty points ✓✓O</p> <p>OR</p> <p>Safety ✓✓O</p> <p>OR</p> <p>Did not have money when he saw something he likes. ✓✓O</p> <p>OR</p> <p>To be able to see on what he spent his money. ✓✓O</p> <p>OR</p> <p>Credit card could be used in times of crisis. ✓✓O</p> <p>OR</p> <p>Some people use credit merely because it is easily accessible (available) ✓✓O</p> <p>OR</p> <p>To build a good credit record. ✓✓O</p> <p>OR</p> <p>He is using the interest free period. ✓✓O</p>	<p>20 reason</p> <p>(2)</p>	<p>F</p> <p>L4</p>

Ques	Solution	Explanation	T/L
2.2	<p>Distance = average speed \times time \checkmarkSF 34 km = 85 km per hour \times time</p> <p>Time = 0,4 hours \checkmarkA = 24 minutes \checkmarkC</p> <p>Mr Son left home at 24 minutes before 12:10 = 11:46 \checkmarkCA He did NOT leave at 11:40 \checkmarkO</p> <p style="text-align: center;">OR</p> <p>Time diff. = 12:10 – 11:40 = 30 min = 0,5 hours \checkmarkA \checkmarkSF \checkmarkCA Distance = 85 km/h \times 0,5 h = 42,5 km more than 34 km \checkmarkO Mr Son did NOT leave at 11:40 but a bit later \checkmarkO</p>	<p>1SF substitution of both values</p> <p>1A time in hours</p> <p>1C time in minutes</p> <p>1CA simplification 1O conclusion</p> <p style="text-align: center;">OR</p> <p>1A time in hours 1SF substitution 1CA distance 1O comparing 1O conclusion</p> <p style="text-align: right;">(5)</p>	M L4
2.3.1	<p>No data was available for Japan $\checkmark\checkmark$O</p> <p>OR</p> <p>Japan did not provide data $\checkmark\checkmark$O</p> <p>OR</p> <p>The books were not published in time $\checkmark\checkmark$O</p>	<p>2O no data available</p> <p style="text-align: right;">(2)</p>	Data L4
2.3.2	<p>Range = maximum – minimum \checkmarkM</p> <p>463 223 = maximum – 4 612 \checkmarkA</p> <p>Maximum = 463 223 + 4 612 = 467 835 \checkmarkA</p>	<p>1M range concept 1A identifying minimum</p> <p>1A calculating the maximum</p> <p style="text-align: right;">(3)</p>	Data L2
2.3.3	<p style="text-align: right;">\checkmarkMA</p> <p>4 612; 6 373; 8 870; 24 177; 43 146; 47 352; 64 117; 76 434; 77 910; 93 600; 95 483; 184 000; 304 912; 444 000; 467 835 \checkmarkCA</p> <p>Median = 76 434 $\checkmark\checkmark$CA</p>	<p>CA from 2.3.2 1MA all values in correct order 1CA maximum value</p> <p>2CA median AO</p> <p style="text-align: right;">(4)</p>	Data L2
2.3.4	<p>no mode $\checkmark\checkmark$A</p>	<p>2A no mode</p> <p style="text-align: right;">(2)</p>	Data L2

Ques	Solution	Explanation	T/L
2.3.5	7 countries ✓✓✓A	3A correct number of countries [Listing ALL 7 without counting max 2 marks] (3)	Data L2
2.3.6	$P = \frac{12}{15} \times 100\%$ $= 80\%$	1A numerator 1A denominator 1CA probability as a percentage (3)	Prob. L2
		[40]	

QUESTION 3 [36 MARKS]			
Ques	Solution	Explanation	T/L
3.1	<p>Area of display</p> $= \text{length} \times \text{width}$ $= 48 \text{ inches} \times 36 \text{ inches} \quad \checkmark\text{SF}$ $= 48 \times \overset{\checkmark\text{C}}{25} \text{ mm} \div 10 \times \overset{\checkmark\text{C}}{36} \times 25 \text{ mm} \div 10$ $= 120 \text{ cm} \times 90 \text{ cm} = 10\,800 \text{ cm}^2 \quad \checkmark\text{CA}$ <p>Total area of 25 displays</p> $= 10\,800 \text{ cm}^2 \times 25 \quad \checkmark\text{M}$ $= 270\,000 \text{ cm}^2 \quad \checkmark\text{CA}$ <p>Amount of whiteboard paint needed</p> $= 270\,000 \text{ cm}^2 \div 50 \text{ cm}^2 \quad \checkmark\text{M}$ $= 5\,400 \text{ m}^2 \div 1\,000 = 5,4 \text{ litres} \quad \checkmark\text{CA}$ <p>5ℓ is not enough. $\checkmark\text{O}$</p> <p style="text-align: center;">OR</p> <p>5 litres of paint can cover</p> $5 \text{ ℓ} \times 1\,000$ $= 5\,000 \text{ m}^2 \times 50 \quad \checkmark\text{M}$ $= 250\,000 \text{ cm}^2 \quad \checkmark\text{CA}$ <p>Area of display</p> $= \text{length} \times \text{width}$ $= 48 \text{ inches} \times 36 \text{ inches} \quad \checkmark\text{SF}$ $= 48 \times \overset{\checkmark\text{C}}{25} \text{ mm} \div 10 \times \overset{\checkmark\text{C}}{36} \times 25 \text{ mm} \div 10$ $= 120 \text{ cm} \times 90 \text{ cm} = 10\,800 \text{ cm}^2 \quad \checkmark\text{CA}$ <p>Total area of 25 displays</p> $= 10\,800 \text{ cm}^2 \times 25 \quad \checkmark\text{M}$ $= 270\,000 \text{ cm}^2 \quad \checkmark\text{CA}$ <p>5 ℓ is NOT enough. $\checkmark\text{O}$</p> <p style="text-align: center;">OR</p>	<p>1SF substituting correct values 1C converting inches to mm 1C converting mm to cm</p> <p>1CA area of one display</p> <p>1M multiplying by 25</p> <p>1CA calculating total area</p> <p>1M working with ratio</p> <p>1CA calculating paint used 1C converting to litres</p> <p>1O conclusion</p> <p style="text-align: center;">OR</p> <p>1C converting to mℓ</p> <p>1M multiplying by 50</p> <p>1CA area</p> <p>1SF substitution 1C conversion to mm 1C conversion to cm</p> <p>1CA one display board area</p> <p>1M multiplying by 25</p> <p>1CA total area</p> <p>1O conclusion</p> <p style="text-align: center;">OR</p>	M L4

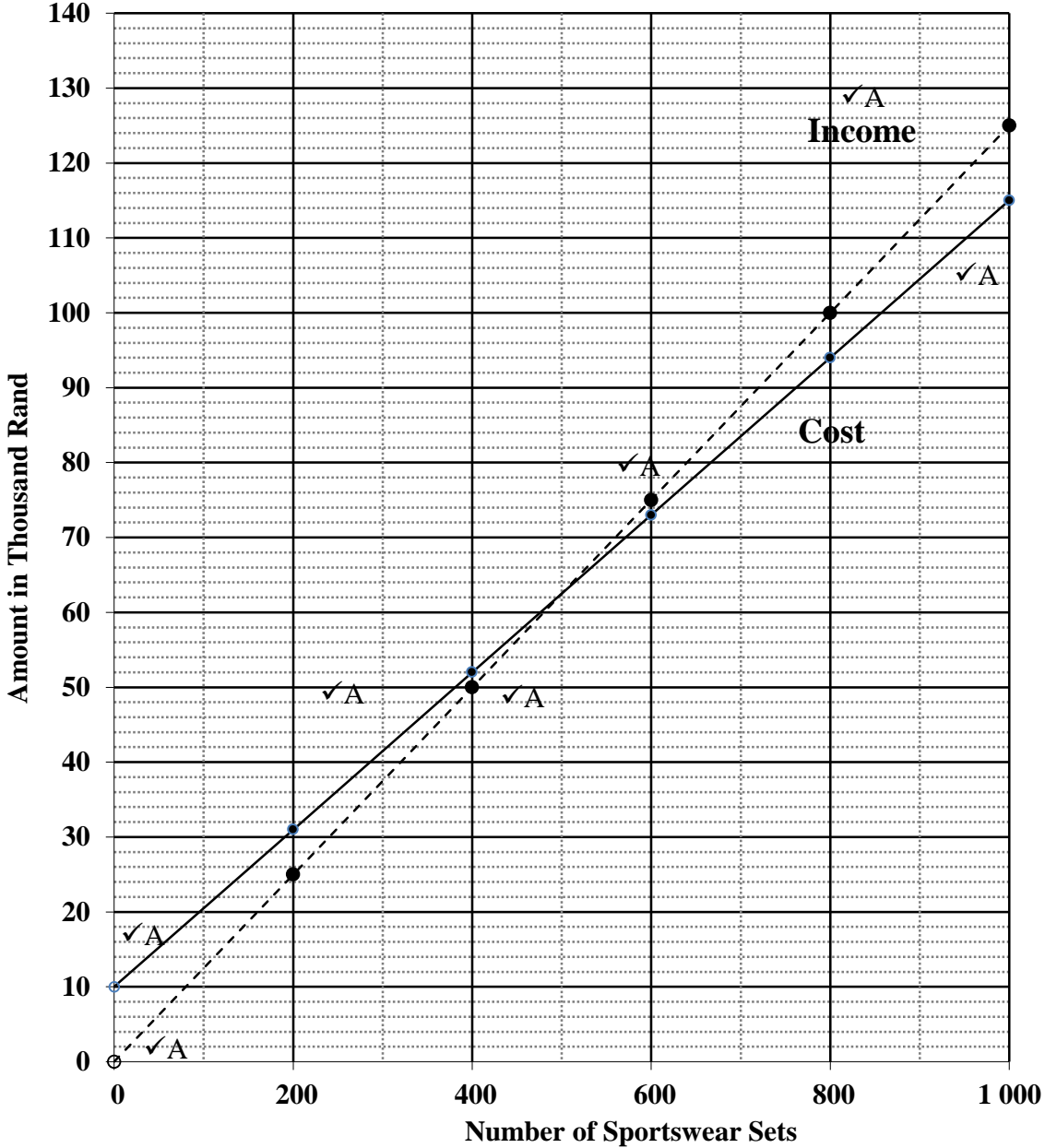
Ques	Solution	Explanation	T/L
	<p>5 litres of paint can cover</p> $5 \ell \times 1\,000$ <p style="text-align: center;">✓C</p> $= 5\,000 \text{ m} \ell \times 50$ <p style="text-align: right;">✓M</p> $= 250\,000 \text{ cm}^2$ <p style="text-align: right;">✓CA</p> <p>Display</p> $48 \times 25 \text{ mm} = 1200 \text{ mm} = 120 \text{ cm}$ <p style="text-align: center;">✓C</p> <p style="text-align: right;">✓C</p> $36 \times 25 \text{ mm} = 900 \text{ mm} = 90 \text{ cm}$ <p>Area = $120 \text{ cm} \times 90 \text{ cm}$ ✓SF</p> $= 10\,800 \text{ cm}^2$ <p style="text-align: right;">✓CA</p> <p>Spray paint is enough for = $\frac{250\,000}{10\,800}$ ✓M</p> $= 23,148 \text{ boards}$ <p style="text-align: right;">✓CA</p> <p>5 ℓ is not enough ✓O</p> <p style="text-align: center;">OR</p> <p>Area of display</p> $= 48 \text{ inches} \times 36 \text{ inches}$ <p style="text-align: right;">✓SF</p> $= 1\,728 \text{ inches}^2$ <p style="text-align: right;">✓CA</p> $= 1\,728 \times 625 \text{ mm}^2$ <p style="text-align: right;">✓C</p> $= 1\,080\,000 \text{ mm}^2$ $= 1\,080\,000 \div 100 \text{ cm}^2$ $= 10\,800 \text{ cm}^2$ <p style="text-align: right;">✓CA</p> <p>Total area of 25 displays</p> $= 10\,800 \text{ cm}^2 \times 25 = 270\,000 \text{ cm}^2$ <p style="text-align: center;">✓M</p> <p style="text-align: right;">✓CA</p> <p>Amount of whiteboard paint needed</p> $= 270\,000 \text{ cm}^2 \div 50 \text{ cm}^2$ <p style="text-align: center;">✓M</p> <p style="text-align: right;">✓CA</p> $= 5\,400 \text{ m} \ell \div 1\,000$ $= 5,4 \text{ litres}$ <p style="text-align: right;">✓C</p> <p>5ℓ is not enough. ✓O</p>	<p>1C converting to mℓ</p> <p>1M working with ratio</p> <p>1CA calculating area that paint can cover</p> <p>1C converting inches to mm</p> <p>1C converting mm to cm</p> <p>1SF substituting correct values</p> <p>1CA area of one display board</p> <p>1M dividing</p> <p>1CA number of boards</p> <p>1O conclusion</p> <p style="text-align: center;">OR</p> <p>1SF substitution</p> <p>1CA area in inches</p> <p>1C converting to mm²</p> <p>1CA area of one display board</p> <p>1M multiplying by 25</p> <p>1CA total area</p> <p>1M dividing by rate</p> <p>1CA ml needs</p> <p>1C converting to litre</p> <p>1O conclusion</p>	(10)

Ques	Solution	Explanation	T/L
3.2	<p>Total Surface Area of cylinder A $= \pi \times \text{diameter} \times \text{height}$</p> <p>$= 3,142 \times 30 \times 30 \quad \checkmark\text{SF}$</p> <p>$= 2\,827,80 \text{ cm}^2 \checkmark\text{CA}$</p> <p>Total Surface Area of decorative sticker for cylinder A $= 2\,827,80 \text{ cm}^2 + (1 \times 30) \text{ cm}^2 \quad \checkmark\text{M}$</p> <p>$= 2\,857,80 \text{ cm}^2 \quad \checkmark\text{CA}$</p> <p>Total Surface Area of cylinder B $= \pi \times \text{diameter} \times \text{height}$</p> <p>$= 3,142 \times 40 \times 20$</p> <p>$= 2\,513,60 \text{ cm}^2 \quad \checkmark\text{CA}$</p> <p>Total Surface Area of decorative sticker for cylinder B $= 2\,513,60 \text{ cm}^2 + (1 \times 20) \text{ cm}^2$</p> <p>$= 2\,533,60 \text{ cm}^2 \quad \checkmark\text{CA}$</p> <p>Correct, B will require less $\checkmark\text{O}$</p> <p style="text-align: center;">OR</p> <p>Total Surface Area of sticker for cylinder A</p> <p>$= [(\pi \times \text{diameter}) + 1] \times \text{height} \quad \checkmark\text{M}$</p> <p style="text-align: center;">$\checkmark\text{M}$</p> <p>$= [(3,142 \times 30) + 1] \times 30 \quad \checkmark\text{SF}$</p> <p>$= 2\,857,8 \text{ cm}^2 \quad \checkmark\text{CA}$</p> <p>Total Surface Area of sticker for cylinder B</p> <p>$= [(\pi \times \text{diameter}) + 1] \times \text{height}$</p> <p style="text-align: center;">$\checkmark\text{SF}$</p> <p>$= [(3,142 \times 40) + 1] \times 20$</p> <p>$= 2\,533,6 \text{ cm}^2 \quad \checkmark\text{CA}$</p> <p>Correct, B will require less $\checkmark\text{O}$</p>	<p>1SF correct values</p> <p>1CA calculating area</p> <p>1M adding area of overlap</p> <p>1CA calculating area of sticker</p> <p>1CA area of cylinder B</p> <p>1CA area of sticker B</p> <p>1O conclusion</p> <p style="text-align: center;">OR</p> <p>1M formula</p> <p>1M for adding 1 to circumference</p> <p>1SF substitution</p> <p>1CA calculating area</p> <p>1SF correct values</p> <p>1CA calculating area</p> <p>1O conclusion</p> <p>[Max 5 marks if the overlap is left out]</p>	<p>M</p> <p>L4</p> <p>(7)</p>

Ques	Solution	Explanation	T/L
3.3.1	Easily accessible to all stands ✓✓R OR Would not waste any time looking for the stand. ✓✓R OR Any other suitable reason	2R reason (2)	Maps L4
3.3.2	Maximum number of HEI from the USA $= 6 \times 6$ ✓M ✓A $= 36$ ✓CA	1M multiplying by 6 1A correct USA's stands 1CA simplification AO (3)	Maps L2
3.3.3	$P_{(\text{Not China})} = \frac{288}{324} \checkmark A$ $= \frac{8}{9} \text{ or } 0,89 \text{ or } 88,89\% \checkmark CA$ <p style="text-align: center;">OR</p> $P_{(\text{Not China})} = \frac{48}{54} \checkmark A$ $= \frac{8}{9} \text{ or } 0,89 \text{ or } 88,9\% \checkmark CA$ <p style="text-align: center;">OR</p> $P_{(\text{not China})} = \frac{54-6}{54} \times 100\% \checkmark A \text{ OR } P_{(\text{Not China})} = 1 - \frac{6}{54} \checkmark A$ $= 88,89\% \checkmark CA \qquad \qquad \qquad = \frac{8}{9} \checkmark CA$	1A numerator 1A denominator 1CA simplification OR 1A numerator 1A denominator 1CA simplification OR 1M subtracting from whole 1A numerator 1CA simplification (3)	P L2
3.3.4	Delivery entrance 3 ✓✓A L01 ✓✓A	2A Delivery entrance 2A stand (4)	Maps L3
3.3.5	L 42 ✓✓A	2A stand number (2)	Maps L2

Ques	Solution	Explanation	T/L
3.3.6	<p>Length of Information centre on plan = 70 mm \checkmarkA</p> <p style="text-align: center;">\checkmarkC</p> <p>Scale = 70 mm : 24 500 mm \checkmarkM</p> <p style="padding-left: 40px;">$= \frac{70 \text{ mm}}{70 \text{ mm}} : \frac{24\,500 \text{ mm}}{70 \text{ mm}}$ \checkmarkM</p> <p style="padding-left: 40px;">$= 1 : 350$ \checkmarkCA</p> <p style="text-align: center;">OR</p> <p style="padding-left: 40px;">\checkmarkA</p> <p>Scale : 70 mm = 24,5 m \checkmarkM</p> <p style="padding-left: 40px;">1mm = 0,35 m \checkmarkM</p> <p style="padding-left: 40px;">\checkmarkC</p> <p>Scale = 1 : 350 \checkmarkCA</p>	<p>1A measuring with ruler (Accept a range of 66–74; dependant on provincial printing) 1M concept of ratio 1C converting to same unit of measurement 1M dividing by 70 mm</p> <p>1CA simplified scale</p> <p style="text-align: center;">OR</p> <p>1A measurement 1M ratio concept</p> <p>1M unit ratio 1C converting to like units 1CA simplified scale NPR</p> <p style="text-align: right;">(5)</p>	<p>Maps L3</p>
		[36]	

QUESTION 4 [37 MARKS]			
Ques	Solution	Explanation	T/L
4.1.1 (a)	$R105 = \text{cost of T-shirt} + \text{cost of Shorts} + \text{printing}$ $= R50,00 + R35,00 + 2 \times R10$ $\text{OR } = (R50 + R10) + (R35 + R10)$ $= R60 + R45$	1A cost of T-shirt 1A cost of short 1A printing	F L2 (3)
4.1.1 (b)	$\text{Total cost} = R10\,000 + R105 \times 500$ $= R62\,500$	1SF substitution 1A simplification AO [Using the selling price 0 marks]	F L2 (2)
4.1.2	$87,5 \text{ thousand rand} = R87\,500$ $A = \frac{R87\,500,00}{R125,00}$ $= 700$ $B = \frac{800 \times 125}{1\,000}$ $= 100$ <p style="text-align: center;">OR</p> $A = \frac{500 \times 87,5}{62,5} = 700$ $B = \frac{800 \times 62,5}{500} = 100$ <p style="text-align: center;">OR</p> $A = 500 + 200 = 700$ (because $25 + 62,5 = 87,5$) $B = 50 \times 2 = 100$ (because $400 \times 2 = 800$)	1A writing value in full 1M dividing 1CA value of A 1M multiplying by 125 1A dividing by 1 000 1CA value of B <p style="text-align: center;">OR</p> 1RT values from table 1M using ratio 1CA value of A 1RT values from table 1M using ratio 1CA value of B <p style="text-align: center;">OR</p> 3A value of A 3A value of B AO	F L2 (6)

Ques	Solution	Explanation	T/L
4.1.3	<p data-bbox="588 331 1086 367" style="text-align: center;">INCOME and COST GRAPHS</p>  <p data-bbox="240 1671 1121 1744">3 A for each graph (start point; any other point; correct straight line) 1A Graphs clearly labelled.</p>	F L3	(7)

Ques	Solution	Explanation	Topic/L
4.1.4 (a)	Number of Sets = 500 ✓CA Income at break-even point = R62 500 or R62,5 thousand ✓CA	1CA number of sets 1CA income [Accept values between R62 000 to R63 000] (2)	F L3
4.1.4 (b)	Number of sets = 800 ✓✓✓RT <p style="text-align: center;">OR</p> x = number of sets Profit = Income – Expenses $R6\ 000 = 125 \times x - (10\ 000 + 105 \times x)$ ✓M $R6\ 000 = 20x - R10\ 000$ $x = 800$ ✓✓CA <p style="text-align: center;">OR</p> x = number of sets Income = $125 \times x$ Expenses = $10\ 000 + 105 \times x$ Profit = $20x - R10\ 000$ ✓M $20x - R10\ 000 = R6\ 000$ $x = 800$ ✓✓CA	3RT number of sets from graph (CA from graph) <p style="text-align: center;">OR</p> 1M using thousand rand 2CA number of sets <p style="text-align: center;">OR</p> 1M using thousand rand 2CA number of sets (3)	F L3

Ques	Solution	Explanation	T/L
4.2	<p>For Scale: 1 : 3</p> <p style="text-align: right;">✓M ✓A</p> <p>Total length of the set = 71 cm + 34 cm = 105 cm</p> <p>Scaled length of the set = 105 cm ÷ 3 ✓M</p> <p style="text-align: right;">= 35 cm ✓CA</p> <p>Length of page is 29,6 cm (does not fit) ✓O</p> <p>The width of the T-shirt = 57 cm</p> <p>Scaled width = 19 cm</p> <p>Hence the scale 1 : 3 should NOT be used ✓O</p> <p style="text-align: center;">OR</p> <p>For Scale: 1 : 4</p> <p style="text-align: right;">✓M ✓A</p> <p>Total length of the set = 71 cm + 34 cm = 105 cm</p> <p>Scaled length of the set = 105 cm ÷ 4 ✓M</p> <p style="text-align: right;">= 26,25 cm ✓CA</p> <p>Length of page is 29,6 cm (does fit) ✓O</p> <p>The width of the T-shirt = 57 cm</p> <p>Scaled width = 14,25 cm</p> <p>The scale 1 : 4 SHOULD be used ✓O</p>	<p>1M adding lengths 1A total length</p> <p>1M concept of ratio 1CA scaled length</p> <p>1O does not fit</p> <p>1O conclusion</p> <p style="text-align: center;">OR</p> <p>1M adding lengths 1A total length</p> <p>1M concept of ratio 1CA scaled length</p> <p>1O does fit</p> <p>1O conclusion</p> <p style="text-align: right;">(6)</p>	<p>T/L Maps L4</p>
4.3.1	<p>Convenient ✓✓O</p> <p>OR</p> <p>Cheaper ✓✓O</p> <p>OR ✓✓O</p> <p>Save time to go to the shop / transport cost</p> <p>OR</p> <p>No need to drive and look and pay for parking ✓✓O</p> <p>OR</p> <p>Your purchases gets delivered to you ✓✓O</p> <p>OR</p> <p>Availability of stock in stores – if it is sold out. ✓✓O</p> <p>OR</p> <p>Greater choice ✓✓O</p>	<p>2O reason</p> <p style="text-align: right;">(2)</p>	<p>F L4</p>

Ques	Solution	Explanation	Topic/L
4.3.2	$\checkmark A$ Electronics $51\% - 43\% = 8\%$ $\checkmark M$ $\checkmark A$ Sports equipment $44\% - 36\% = 8\%$	1A Electronics 1A Sports equipment 1M difference of 8% (3)	F L2
4.3.3	Groceries $\checkmark A$ Fresh produce like bread and milk is immediately available. $\checkmark\checkmark O$ <p style="text-align: center;">OR</p> $\checkmark\checkmark O$ Wrong items will not be delivered to your home <p style="text-align: center;">OR</p> You can pay cash for your groceries $\checkmark\checkmark O$ <p style="text-align: center;">OR</p> You can taste or test some products before you buy them. $\checkmark\checkmark O$ <p style="text-align: center;">OR</p> Frozen goods may melt before they reach you. $\checkmark\checkmark O$ <p style="text-align: center;">OR</p> Better comparison can be made if you buy groceries in store. $\checkmark\checkmark O$ <p style="text-align: center;">OR</p> $\checkmark A$ Clothing and footwear - it has to be tried to see whether it fits correctly. $\checkmark\checkmark O$ <p style="text-align: center;">OR</p> $\checkmark A$ Jewellery – to fit the size of a ring. $\checkmark\checkmark O$ <p style="text-align: center;">OR</p> $\checkmark A$ Electronic goods – it can be tested in the shop before buying. $\checkmark\checkmark O$ <p style="text-align: center;">OR</p> Or any other items where instore graph is higher than the internet graph with a valid reason.	1A Item 2O opinion (3)	F L4
		[37]	
		TOTAL: 150	