SET 1

Final Submission
ABET QA
03 June 2024

SOUTH AFRICAN COMPREHENSIVE ASSESSMENT INSTITUTE
SUID-AFRIKAANSE KOMPREHENSIEWE ASSESSERINGSINSTITUUT

Adult Basic Education and Training (ABET)

Marking Guideline

Mathematical Literacy: NQF level 1

Examination Session: November 2024

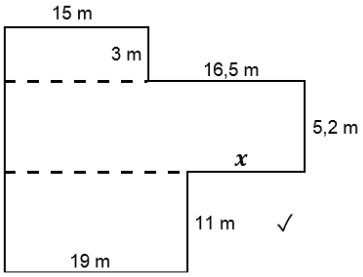
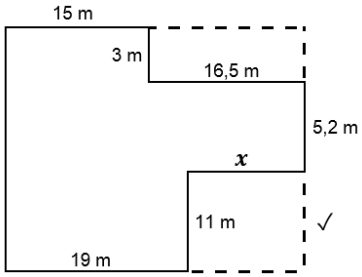
Total Marks: 100 Marks

Symbol	Explanation
A	Accuracy: answer must be exactly as given.
AO	Answer only: if correct, full marks.
CA	Consistent Accuracy. Continue marking, using the candidate's answer.
J	Justification
M	Method
MA	Method with accuracy
O	Opinion
P	Penalty, e.g. for no units, incorrect rounding off, etc.
R	Rounding off
RT/ RG/ RM/ RS	Reading from a table/ graph/ map/ scale
S	Simplification
SF	Substitution in the formula

ANSWERS

				Mark Allocation	Explanation
QUESTION 1					
1.1		C ✓		1	1A
1.2		Three hundred ✓		1	1A
1.3	a	9 x 25 ✓ **Or:** 3^2 x 5^2 ✓		1 1	1A 1A
1.3	b	3 x 5 ✓ = 15		1	1A
1.4		$-\frac{3}{4}$; 0; 3,1764 ... 9,781	*If three are correct and one wrong, award 1 mark.* *If two are wrong, no marks.*	2	2A
1.5		D ✓		1	1A
1.6		3 ✓		1	1A
1.7		4 780 ✓		1	1A
1.8		A ✓		1	1A
QUESTION 2					
2.1		$\frac{11}{4} \times \frac{16}{5}$ ✓ $- 8$ $= \frac{44}{5} - \frac{40}{5}$ ✓ $= \frac{4}{5}$ ✓ **Or:** $\frac{11}{4} \times \frac{16}{5}$ ✓ $- 8$ $= \frac{176}{20} - \frac{160}{20}$ ✓ $= \frac{4}{5}$ ✓		3 3	1M 2CA 1M 2CA

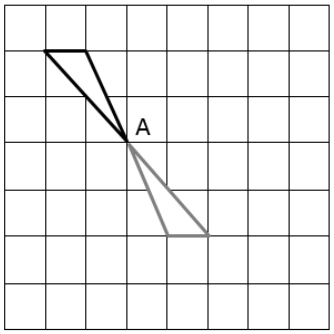
2.2		$10 - 4(0{,}5\checkmark)^2$ = 10 – 1 ✓ = 9 ✓	3	3M
QUESTION 3				
3.1	a	11 : 5 ✓	1	1A
3.1	b	$\frac{8{,}8}{11} \times \frac{5}{1}$ ✓ $= 4$ kg ✓ **Or:**	2	1 M 1 CA from 3.1a
		$\frac{5}{11} \times \frac{8{,}8}{1}$ ✓ $= 4$ kg ✓	2	1 M 1 CA from 3.1a
3.1	c	100% – (90% + 5,5% + 2,5%) = 2% ✓ 2% of 450 kg = 9 kg ✓	2	1A 1CA
3.1	d	9 litres ✓	1	1CA from 3.1c
3.2	a	$\frac{42}{60}$ ✓ = 0,7 hours ✓	2	1A 1CA
3.2	b	$\frac{14{,}7}{0{,}7}$ ✓ $= 21$ km/h ✓	2	1CA from 3.2a 1A
QUESTION 4				
4.1a		$19 + x = 15 + 16{,}5$ ✓ $x = 12{,}5$ m ✓	2	1M 1CA
		Or: 15 + 16,5 – 19 ✓ = 12,5 ✓	2	1M 1CA

4.1b		By addition:  ✓ **Or:** By subtraction:  ✓ *Or other acceptable methods using division of the shape into parts.*	1	1M
4.1c		By addition: (15 x 3) + (31,5 x 5,2) + (19 x 11) = 417,8 m^2 ✓ *Must show working, using division of the shape into parts as shown in 4.1b* **OR:** (by subtraction): (15 + 16,5) x (3 + 5,2 + 11) – [(16,5 x 3) + (11 x 12,5)] = 417,8 m^2 ✓ *Must show working, using diagram from 4.1b*	1 1	1CA 1 CA
4.2		$\frac{1}{2}(84{,}5 \times 69{,}2)$✓ = 2 923,7 cm^2 ✓	2	1 SF 1 S
4.3	a	80 x 110 ✓ = 8 800 m^2 ✓	2	1 M 1 A
4.3	b	B ✓	1	1A
4.4	a	SP = 4 m: Opposite sides of parallelogram ✓ *Must have statement and reason*	1	1A
4.4	b	ST^2 + PT^2 = PS^2 (Pythagoras) ✓ ST^2 = 16 – 9 ST = 2,6 m ✓	2	1A 1R
4.4	c	2SR + 2(4) = 20 ✓ SR = 6 m ✓	2	1CA 1A
4.4	d	TR = 1,4 m ✓ *Continued accuracy from 4.4 b and c: TR = SR – ST*	1	1CA

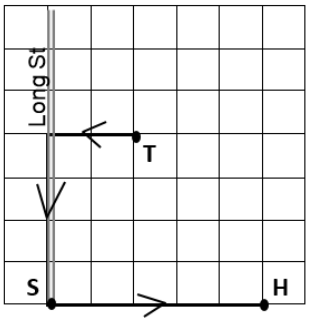
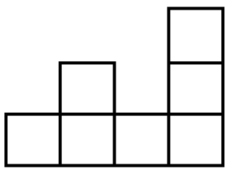
QUESTION 5

5.1		3,14(34) ✓ = 106,76 cm ✓ **Or:** $2\pi(34)$✓ = 106,76 cm ✓	2 2	1SF 1CA 1SF 1CA
5.2	a	2 cm ✓	1	1A
5.2	b	Area of rectangle = 12 x 8 = 96 ✓ Area of one circle = (3,14)$(2)^2$ = 12,56 ✓ Area of circles and semicircles = 4,5 x 12,56 = 56,52 ✓ Shaded area = 96 – 56,52 = 39,48 cm^2 ✓ **Or:** (12×8)✓ $-\frac{9}{2}$ ✓$(3,14)(2)^2$✓ = 39,48 cm^2 ✓	4 4	1A 1SF 1M 1CA 1A 1 CA from 5.2a 1SF 1S
5.3	a	Triangular prism ✓	1	1A
5.3	b	9 ✓	1	1A
5.3	c	60 cm^2 ✓	1	1A
5.3	d	15,7 x 10 ✓ = 157 cm^3 ✓	2	1M 1A

QUESTION 6

6.1	128^o ✓		1	1RS
6.2	*Triangle with one vertex at A.* ✓ *Other two vertices in correct positions.* ✓		2	1M 1A
6.3	Temperature readings are 4^o and -16^o ✓ $4 - (-16) = 20^oC$ ✓		2	1RS 1CA
6.4	$V = 3{,}14(43)^2 \times 53{,}5$ ✓ = 310 613,51 mm^3		2	1SF 1A

QUESTION 7

7.1			*First leg of journey* ✓ *Second leg of journey* ✓ *Last leg of journey* ✓	3	1A 1A 1A
7.2	a		Bottom row four squares ✓ All other squares in correct position ✓	2	2A
7.2	b	Volume of one prism = 2 x 2 x 5 ✓ Total volume = 9 x 20 = 180 cm^3 ✓ **Or:** 9 x 2 x 2 x 5 ✓ = 180 cm^3 ✓		2 2	1A 1A 2A

QUESTION 8

8.1 a

Item	Tally	Frequency
Chicken	𝍸 | | | |	9
Salad	𝍸 | |	7
Chips	𝍸 | | |	8
Beef	𝍸	5
Soup	𝍸 |	6

✓*Two tallies correct* ✓*other two tallies correct*
✓*Frequencies match tallies*

3 2A 1CA

8.1 b Chicken ✓ 1 1A

8.1 c $\frac{8}{35}$ ✓ 1 1A

8.2 a

	Men	Women	Total
Toasted sandwiches	12	**20**✓	32
Total	**29**	31	**60**

✓*for both totals*

2 2A

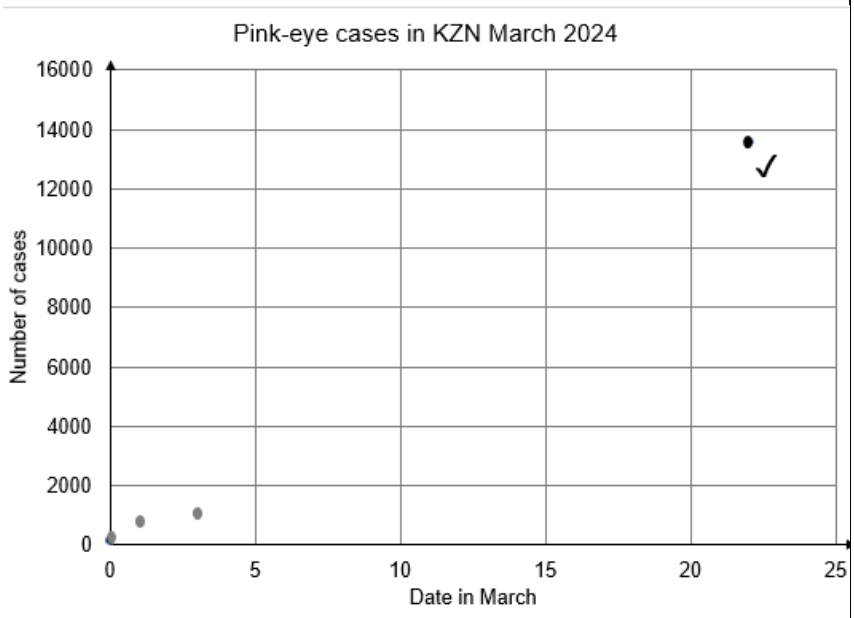
8.2 b 6 ✓ 1 1CA

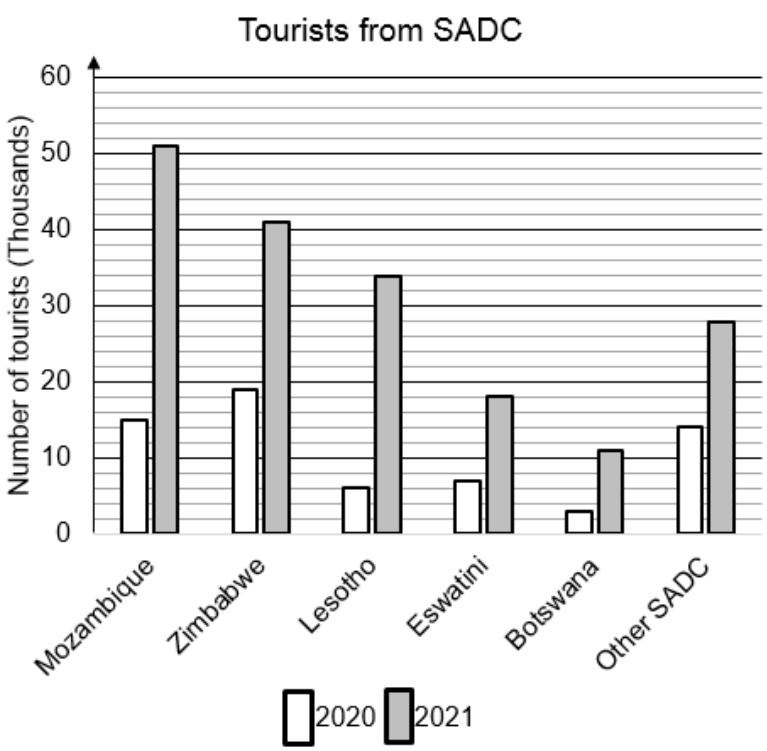
8.3 a R76 – R13 ✓
= R63 ✓ 2 1RT 1MA

8.3 b R47 ✓ 1 1A

8.3 c 12 ✓ 1 1A

QUESTION 9

9.1	a		1	1M
9.1	b	13 593 – 1 044 = 12 549 ✓ $\frac{12\,549}{1\,044} \times 100$ $= 1\,202\,\%$ ✓ **Or:** $\frac{(13\,593 - 1\,044)}{1\,044} \times 100$ ✓ $= 1\,202\,\%$ ✓	2 2	1A 1CA 1SF 1CA
9.1	c	C ✓	1	1RG
9.2	a	16 000 ✓	1	1RT
9.2	b	False ✓ *Only award if valid reason is provided* In 2020 Eswatini had 7 000, which is more than Lesotho's 6 000. ✓ **Or:** False ✓ *Only award if valid reason is provided* In 2020 Lesotho had 6 000, which is less than Eswatini's 7 000. ✓ **Or:** False ✓ *Only award if valid reason is provided* Eswatini had 1 000 more tourists than Lesotho in 2020 ✓	2 2 2	2CA 2CA 2CA

9.2	c	 ✓*Three bars correct,* ✓*other three bars correct*	2	2A
9.2	d	Lesotho ✓	1	1A
9.3	a	Distractions ✓	1	1A
9.3	b	Any relevant example of a distraction to a driver. ✓ Examples: cell phone, eating, arguing, applying makeup, dealing with children, etc.	1	1O
9.3	c	$\frac{850}{4}$ ✓ ≈ 200 ✓ **Or:** 360º represents 850 90º represents $\frac{850 \times 90}{360}$ ✓ ≈ 200 ✓ **Or:** 25% of 850 ✓ ≈ 200 ✓	2 2 2	1M 1A 1M 1A 1M 1A

QUESTION 10

10.1	EU: $\frac{4\,000}{450}$ South Africa: $\frac{28\,000}{60}$ ✓ EU = 10; South Africa = 470 ✓	2	1M 1A
10.2	B ✓	1	1CA from 10.1
10.3	$\frac{450\,000\,000}{27}$ ✓ = 17 000 000 (or 17 million) ✓	2	1M 1CA
10.4	$\frac{10}{1\,000\,000}$ ✓ $\times \frac{7\,000\,000}{1} = 70$ ✓ **Or:** 10 x 7 ✓= 70 ✓	2	1M 1CA from 10.1
	Grand Total:	**(100)**	