



SOUTH AFRICAN COMPREHENSIVE ASSESSMENT INSTITUTE
SUID-AFRIKAANSE KOMPREENSIEWE ASSESSERINGSINSTITUUT

Adult Basic Education and Training (ABET)

Summative Assessment

Mathematical Literacy: NQF Level 1

Examination session: November 2023

Total Marks: 100 marks

Time: 3 hours

Number of pages: 18 pages

Learner Information

Candidate Number

Centre Name

Date



INSTRUCTIONS

1. Answer **ALL** the questions in the space provided.
2. Write in blue or black pen only.
3. Calculator may be used but **ALL** calculations must be shown.
4. Round off your answers to TWO decimal places, unless otherwise stated.

Question 1

1.1 Find the value of: $2^3 \times 3^2$

(2)

1.2 Expand: 3^4

(1)

1.3 Fill in the missing exponent:

1.3(a) $2^5 \times 2^7 = 2^{\text{---}}$

(1)

1.3(b) $(2^3)^4 = 2^{\text{---}}$

(1)

1.3(c) $560\,000 = 5,6 \times 10^{\text{---}}$

(1)

1.3(d) $0,034 = 3,4 \times 10^{\text{---}}$

(1)

1.4 Find the value of four fifths squared, in fraction form.

(1)

1.5(a) Write down the value of: 3×10^7

(1)

1.5(b) Write the value of: 3×10^7 in words.

(1)

[10 marks]

Question 2

2.1 Indicate which expressions are equal to 4.

A $-5 - (-1)$

B $\left(\frac{1}{4}\right)^{-1}$

C $5 - 3 \times 2$

D 20% of 20

(2)

2.2(a) Write as a decimal fraction: $3\frac{5}{8}$

(1)

2.2(b) Write in simplest fraction form: $\frac{56}{84}$

(1)

2.3(a) Round off 36,728 to 1 decimal place.

(1)

2.3(b) Round off 43 980 000 to the nearest million.

(1)

[6 marks]

Question 3

3.1 Siphon invests R3 400 in a savings account that offers 5% simple interest per year. How much is the investment worth after 6 years?

(2)

- 3.2 Fikhile buys a gas stove on hire purchase.
The cash price is R3 000.
Fikhile must pay a deposit of R300 and monthly instalments of R117 for 30 months.



- 3.2(a) How much does Fikhile owe after he has paid the deposit? Do not include interest.

(1)

- 3.2(b) How much must Fikhile pay altogether?

(3)

- 3.2(c) How much more does the stove cost Fikhile than the cash price?

(1)

- 3.2(d) The cash price of R3 000 includes 15% VAT. What is the price excluding VAT?

(2)

[9 marks]

Question 4

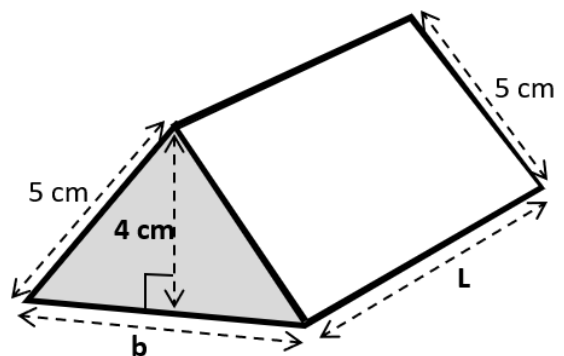
- 4.1(a) The solid shown is a

(1)

- 4.1(b) It has _____ vertices
(corners).

(1)

- 4.1(c) It has _____ rectangular faces.
(1)



- 4.1(d) Use the Theorem of Pythagoras to show that the base of the shaded triangle $b = 6$ cm.

(2)

- 4.1(e) The length L of the solid is 7 cm. Determine the volume of the solid.
Area of triangle = $\frac{1}{2}$ base x perpendicular height.
Volume of prism = area of base of prism x length.

(3)

- 4.2 Maroushka uses a large saucepan for making soup.
It has a diameter of 30 cm and height of 33 cm.



- 4.2(a) What is the radius of the saucepan?

(1)

- 4.2(b) Calculate the volume of the saucepan. Use the formula $V = \pi r^2 h$ with $\pi = 3,14$

(2)

- 4.2(c) 1 litre = 1 000 cm³. How many litres can the saucepan hold? Give your answer correct to one decimal place.

(1)

4.3 Maroushka chops the vegetables first. She uses 3 cups of carrot, 2 cups of tomato, 4 cups of potato and 1 cup of onion for her soup.

4.3(a) How many cups of potato will she use with 5 cups of tomato?

(2)

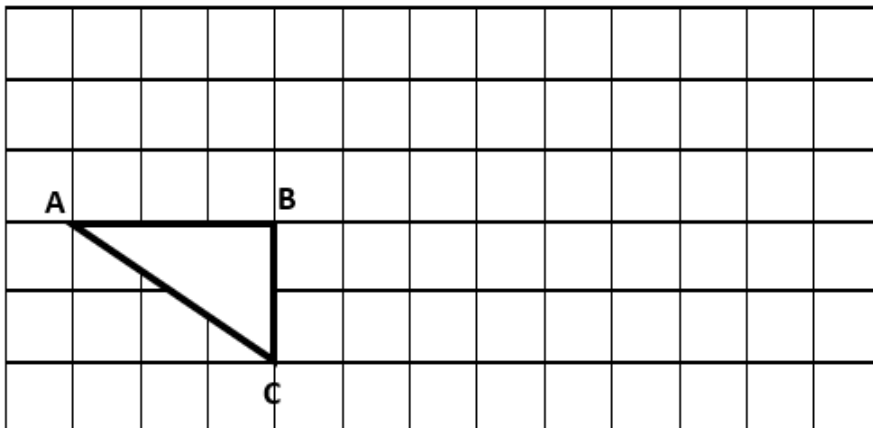
4.3(b) What is the ratio of carrots to the all the rest of the vegetables together?

(1)

[15 marks]

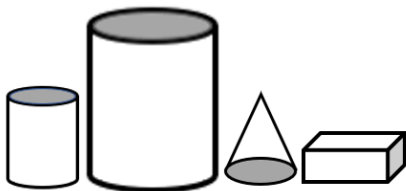
Question 5

5.1 Translate triangle ABC two spaces to the right and one space up. Label the new triangle A'B'C'.



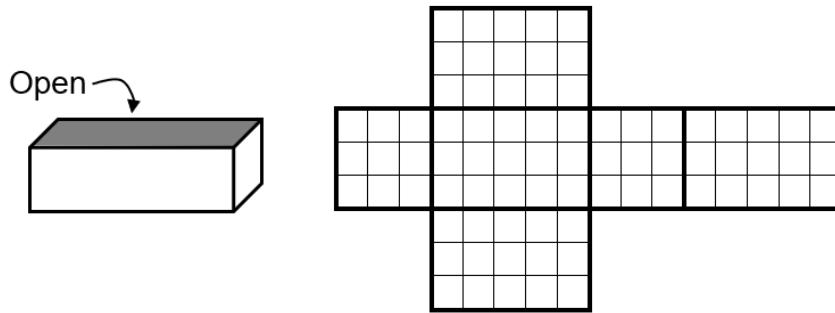
(3)

5.2 Draw the view from above of the arrangement of solids.



(2)

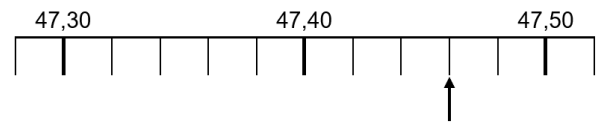
- 5.3 A square ended prism is open at the top. The net of the complete prism, including the top, is shown.



Determine the surface area of the open prism. Give the answer in square units.

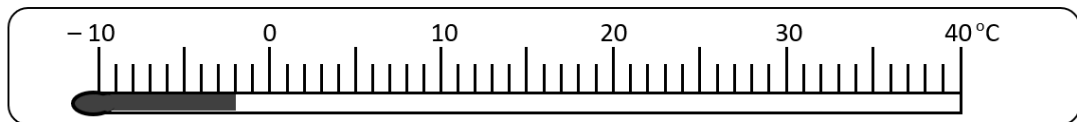
(3)

- 5.4 Give the measurement at the position of the arrow, correct to 2 decimal places.



(1)

- 5.5



The thermometer shows the minimum temperature in degrees Celsius.

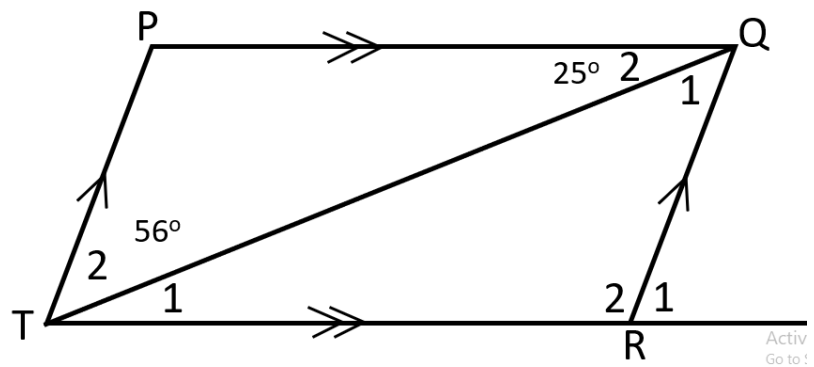
The temperature is _____

(1)

[10 marks]

Question 6

- 6.1 Refer to the diagram.
 $\hat{T}_2 = 56^\circ$ and
 $\hat{Q}_2 = 25^\circ$



- 6.1(a) What type of quadrilateral is PQRT? _____ (1)

- 6.1(b) Circle the correct answer. PQ ... TR

- A //
 B \perp

(1)

- 6.1(c) Select the correct statement:

- A ΔPQT and ΔRTQ are congruent.
 B ΔPQT and ΔRTQ are similar but not congruent.
 C ΔPQT and ΔRTQ are neither similar nor congruent.

(1)

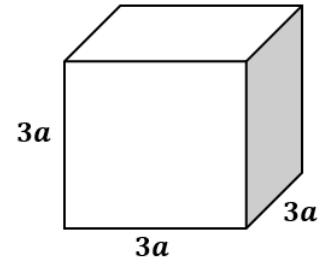
- 6.1(d) Determine the size of \hat{T}_1 . Give a reason.

(2)

- 6.1(e) Determine the size of \hat{R}_1 . Give a reason.

(3)

6.2 The length of each side of a cube is $3a$ units.



6.2(a) Determine the volume of the cube. Include the letter a .

(2)

6.2(b) Determine the surface area of the cube. Include the letter a .

(2)

6.2(c) To find the volume of the cube:

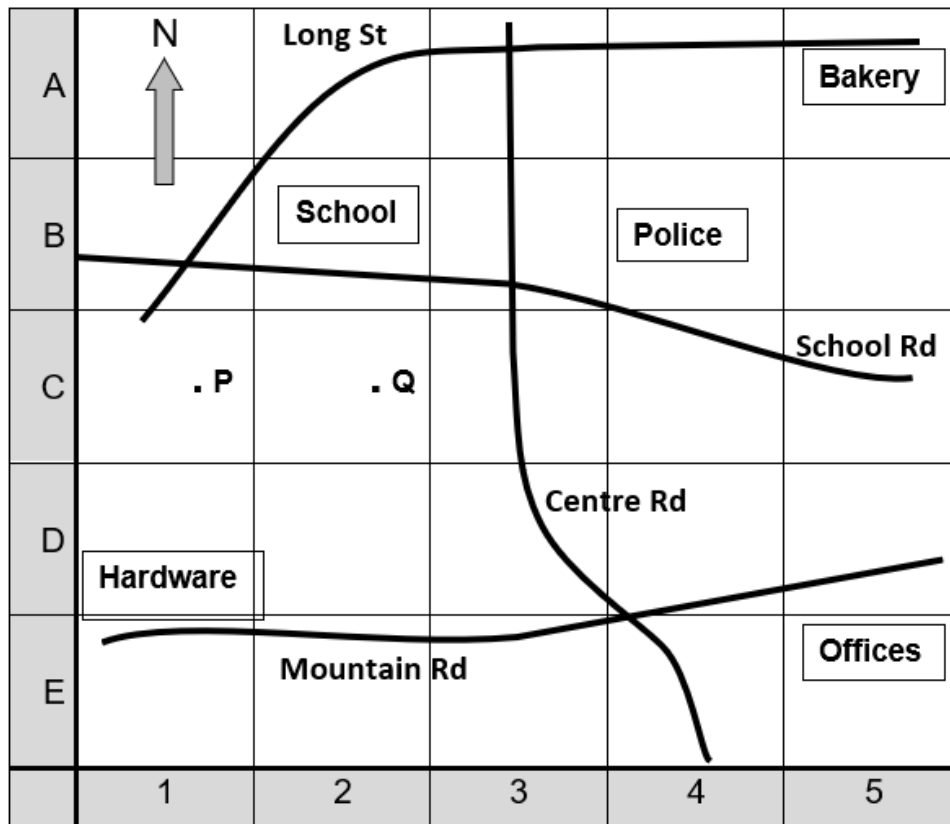
- A Multiply the surface area by the length of the side and divide by 6.
- B Find the square root of the surface area then cube the answer.

(1)

[13 marks]

Question 7

7.1 Refer to the map and answer the questions. The school is in block B2.



7.1(a) In which block do Long St and School Rd intersect?

_____ (1)

7.1(b) In what direction is the school from the offices? _____ (1)

7.1(c) Describe how to get from the bakery to the hardware shop, using roads.

 _____ (3)

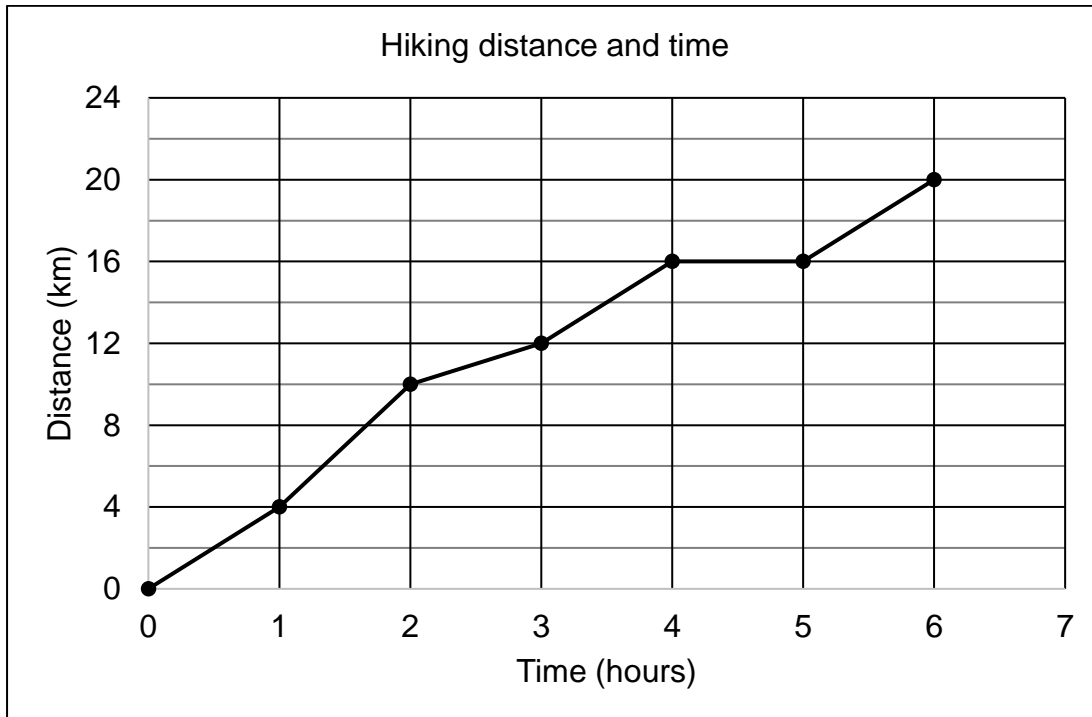
7.1(d) Estimate the length of the section of Centre Rd that appears on the map. The direct distance from P to Q is 240 m.
 _____ (1)



- 7.2 Thabo travels at a speed of 70 km per hour. How far can he travel in $1\frac{1}{2}$ hours?

(1)

- 7.3 Gugu goes on a hike with friends. The line graph shows the distance they travel over time.



- 7.3(a) How many hours did the hike take?

(1)

- 7.3(b) The graph is horizontal during the fifth hour. What were the hikers doing at that time?

- A Resting
B Travelling very slowly
C Travelling very fast

(1)

- 7.3(c) What distance is the hike altogether? _____

(1)

- 7.3(d) What distance did the hikers cover during the second hour?

(1)

[11 marks]

Question 8

8.1 Malusi works in his garden. He records the tasks he does.

Weeding	Pruning	Watering	Planting	Weeding	Fencing
Fencing	Watering	Pruning	Watering	Planting	Watering
Watering	Planting	Weeding	Watering	Weeding	Planting
Pruning	Watering	Planting	Weeding	Fencing	Weeding
Weeding	Pruning	Fencing	Pruning	Weeding	Planting

8.1(a) Complete the tally and frequency table for the tasks listed above.

Task	Tally	Frequency
Fencing		4
Planting		
Watering		
Pruning		
Weeding		

(3)

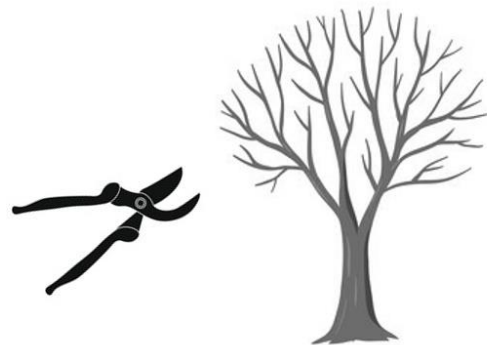
8.1(b) Malusi's friend visits while he is working in the garden. He wants to work out the probability that Malusi is fencing when he arrives.

A The probability that he arrives while Malusi is fencing is $\frac{4}{30}$

B The probability cannot be calculated because the tasks do not all take the same length of time.

(1)

8.1(c) Malusi prunes (cuts back) some fruit trees. He cuts off 30% of the length of the branches. If he cuts off a piece that is 54 cm long, what was the length of the branch before he pruned it?



(2)

8.2 Malusi measures the lengths of all the cuttings in cm.

37	50	45	62	49	25	39	46
29	51	60	46	54	59	32	27
48	49	57	40	32	49	51	60

8.2(a) Complete the stem and leaf diagram of the lengths of the cuttings. Place the numbers in order.

Tens	Units
2	5 7 9
3	
4	
5	
6	

(2)

8.2(b) What is the mode length? _____

(1)

8.2(c) Determine the range of lengths of the cuttings. _____

(1)

8.2(d) What is the median length? _____

(1)

8.2(e) Calculate the mean length and round off to 1 decimal place.

(2)

[13 marks]

Question 9

9.1 The table shows the value of buildings according to recorded building plans passed by larger municipalities for January to October 2021 compared to 2022.

	Jan – Oct 2021	Jan – Oct 2022	Difference	% change
	R	R	R	%
Residential buildings	49 662 079	52 503 936	A	5,7
-Dwelling-houses	31 453 118	34 278 310	2 825 192	B
-Flats and townhouses	17 417 421	17 238 241	-179 180	- 1,0
-Other buildings	791 540	987 385	195 845	24,7

(Data source: STATS SA)

9.1(a) Determine the value of A in the table.

(1)

9.1(b) Determine the percentage change B in the table, correct to 2 decimal places.

(2)

9.1(c) Which statement explains the percentage change for flats and townhouses?

- A There was a slight drop in the number of plans passed for flats and townhouses, but an increase for other types of buildings.
- B In 2021 there were less flats and townhouses than in 2022, but more of other types of buildings.

(1)

9.2 Stats SA conducts a monthly survey of large municipalities on buildings completed. An annual survey of the other municipalities is conducted regarding buildings completed. The monthly survey represents about 85 percent of the total value of buildings completed. Information regarding buildings for the private sector is collected by mail, fax and telephone.

9.2(a) How often does StatsSA conduct a survey on buildings completed for smaller municipalities?

(1)

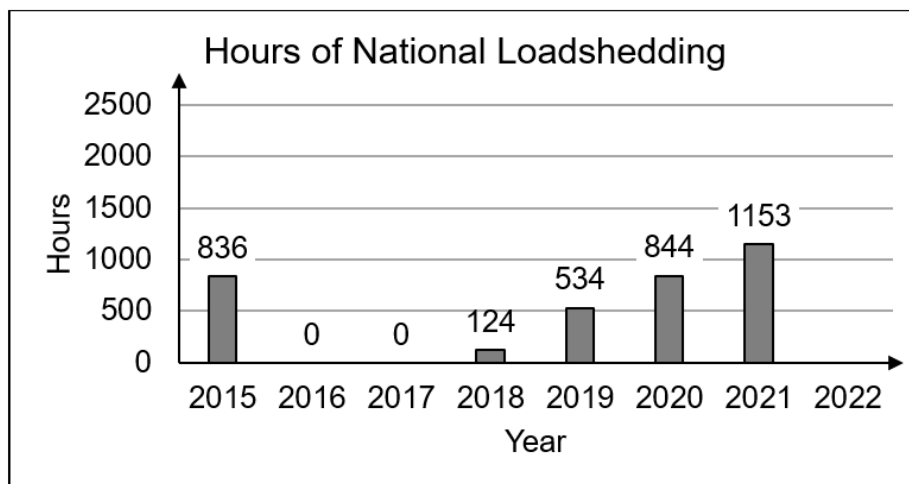
9.2(b) How is the data collected for buildings collected in the private sector?

(1)

[6 marks]

Question 10

10.1 The bar graph represents the hours of national loadshedding over the years from 2015 to 2022.



[Adapted from BusinessTech]

10.1(a) In 2022 there were 1 949 hours of loadshedding. Draw and label the bar for 2022 on the graph above.

(2)

10.1(b) Which two years had approximately the same amount of loadshedding?

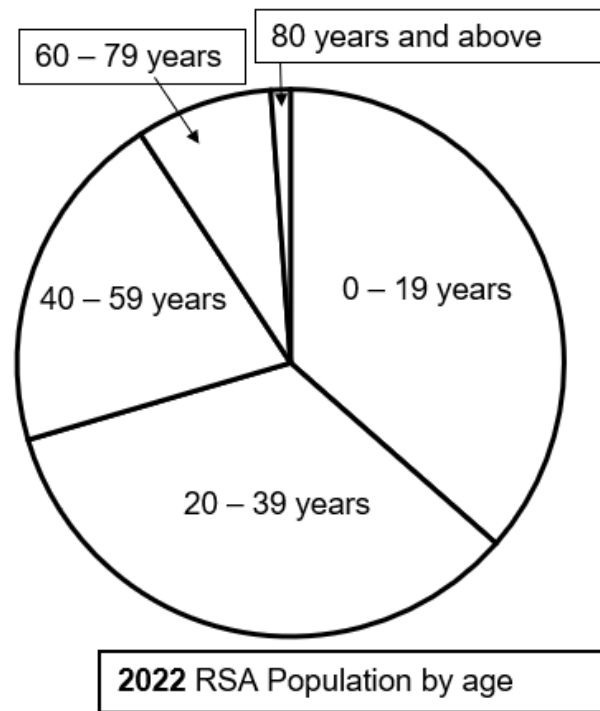
(1)

10.1(c) Describe the trend in loadshedding.

- A Loadshedding continued to increase each year from 2015 to 2022.
 B Loadshedding increased only from 2017 to 2022.

(1)

- 10.2 The pie chart represents the population of South Africa in 2022 according to age group.



- 10.2(a) Which age group has the third highest number of people?

(1)

- 10.2(b) Estimate the fraction of people under 20 years from the diagram.

- A $\frac{1}{5}$
 B $\frac{1}{4}$
 C $\frac{1}{3}$
 D $\frac{1}{2}$

(1)

- 10.2(c) A person was chosen at random from the population represented in the pie chart. Estimate the probability that the person was older than 19 years. Use your answer to question 10.2(b).

(1)

[8 marks]

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Question	Maximum Mark	Learner's Mark
1	10	
2	6	
3	9	
4	15	
5	10	
6	13	
7	11	
8	13	
9	6	
10	7	
Total	100	
Percentage		
Final Grading		

Date of marking

Date of moderation

Name and surname of marker

Name and surname of moderator