SOUTH AFRICAN COMPREHENSIVE ASSESSMENT INSTITUTE
SUID-AFRIKAANSE KOMPREHENSIEWE ASSESSERINGSINSTITUUT

Adult Basic Education and Training (ABET)
Site-Based Assessment
Portfolio Of Evidence

Mathematical Literacy:	**NQF Level 1**
Total:	**40 marks**
Duration:	**4 hours**
Task 2:	**Worksheet**
Number of Pages:	**12 pages**

Learner Information

Name : _____

Surname : _____

Identity/

Passport Number : _____

Employee Number : _____

Company : _____

Centre : _____

Date : _____

Declaration

I declare that this portfolio of evidence is my own work: _____

Signature

PROUDLY SOUTH AFRICAN

INSTRUCTIONS

1. This task consists of **TWO ACTIVITIES.**
2. Complete **ALL questions in each ACTIVITY**.
3. Learners should work on **ALL** activities individually.
4. You may use a calculator but show ALL your working.
5. Round off your answers to TWO decimal places (where necessary).
6. Write your answer in the simplest form.
7. Adhere to the numbering system used in this question paper.

ACTIVITY 1: LIFT TRAVEL

Use the following formulae:

Area of rectangle = length x breadth

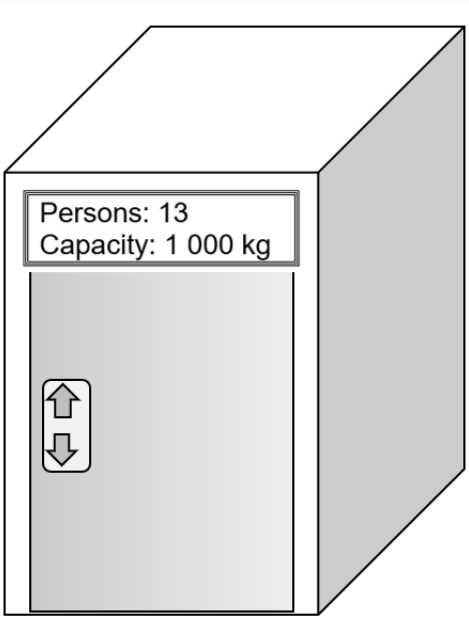
Volume of rectangular prism = L x B x H

Speed = $\frac{\textbf{Distance}}{\textbf{Time}}$

A lift or elevator is a convenient means of moving people from one level of a building to another.

1.1 Shayla and Musi want to enter the lift shown in Diagram1. Circle the correct words for the meaning of the notice on the door.

DIAGRAM 1



(a) **Not more than** / **more than** 13 people can be in the lift at one time.

(1)

(b) Capacity: **amount of space in the lift** / **maximum mass of people**.

(1)

1.2 Show that the mean mass of a person described on the notice is 77 kg.

(2)

1.3 There are already 11 people in the lift. Their masses in kg are given below.

94 62 55 64 76 95 60 87 73 80 115

Determine their mean mass, rounded off to a whole number. Show working.

(2)

1.4 Shayla and Musi together have a mass of 120 kg. Can they get into the lift with the other 11 people? Show working.

(2)

1.5 The lift levels are indicated by the numbers: –3, –2, –1, 0, 1, 2, 3, 4 and 5.

Shayla and Musi want to go from level: –2 up to the third level from the top. How many levels will they go through? Show working.

(2)

1.6 The lift is in the shape of a square prism of height 2,5 m. The total area of the floor is 2,89 m^2.

(a) There is a narrow rubber strip all around the edge of the floor of the lift. Determine the total length of the rubber strip.

(3)

(b) Determine the volume of the lift.

(2)

(c) Mirrors cover the three walls of the lift. Determine the total area of the mirrors.

(2)

1.7 The lift travels at a speed of 1,2 m per second. The height of each level is 5,7 m. If there are no stops on the way, how long does it take to go from the lowest level of the building to the top level? Select the answer closest to the correct time. Show working.

A. 0,4 minutes **B.** 0,6 minutes **C.** 0,8 minutes **D.** 0,9 minutes

(3)

TOTAL MARKS FOR ACTIVITY 1 **(20)**

ACTIVITY 2: POPULATION COMPARISONS

2.1 In a census, the number of males and females in each district is recorded. The sex ratio refers to the number of males per 100 females. Table 1 shows the sex ratio for a few districts.

TABLE 1

	Sex ratio	
District	2011	2022
Swartland	99	94
Gamaragara	120	100
Hantam	100	91
Mnquma	88	92
Richtersveld	110	103
Setsoto	88	88
Nqutu	83	86

Data source: Provinces at a Glance, Statistics South Africa

2.1.1 Name the districts with equal numbers of males and females and the corresponding years.

_____

_____

_____

(2)

2.1.2 How many of the districts had more females than males in 2022?

_____

_____

(1)

2.1.3 In which districts did the ratio of males to females increase from 2011 to 2022?

_____

_____

(1)

2.1.4 Write the following ratio for Mnquma in 2011 in simplest form.

Female: Male = …

_____

_____

(1)

2.2 Phumlani does a survey of 20 runners to find out whether they prefer sprinting or long distance running. He also records their gender. The raw results are shown in Table 2. For example, participant number 1 is a male who prefers sprinting.

TABLE 2

	Running preference		Gender	
	Sprinting	Long distance	Male	Female
1	x		x	
2	x			x
3		x		x
4	x		x	
5		x		x
6		x		x
7		x	x	
8		x		x
9	x		x	

10		x	x	
11	x			x
12	x		x	
13		x		x
14	x			x
15	x			x
16		x	x	
17	x			x
18	x		x	
19	x			x
20		x		x

A two-way table records data for two different categories at the same time. Refer to Table 3.

TABLE 3: TWO WAY TABLE

		Running		
		Sprinting	Long distance	Total
Gender	Male	5	A	8
	Female	B	6	C
	Total	D	E	20

2.2.1 Some of the values in Table 3 have been left out. Use the raw results in Table 2 to fill in the missing values of A to E.

(5)

2.2.2 If Phumlani chooses an athlete at random, what is the probability that he chooses a female that prefers sprinting? Show working.

(3)

2.3 Phumla waits at the train station for half an hour before she gets on a train. The train travels at a speed of 90 km per hour.

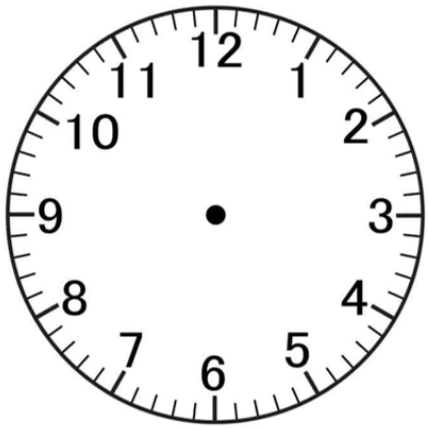
2.3.1 If Pumla gets off the train 2 hours 45 minutes after she arrives at the station, how far does she travel on the train?

(3)

2.3.2 The train leaves another station at 13:40. At what time does the train complete a trip of 135 km, travelling at the same speed?

(3)

2.3.3 On the clock face below, indicate the time the train completes the trip by drawing the hands of the clock.



(1)

TOTAL MARKS FOR ACTIVITY 2 **(20)**

TOTAL MARKS FOR TASK 2 **[40]**

TOTAL FOR TASK 2: 40 MARKS

	Activity 1 - 2	Maximum Mark	Learner's Mark	Moderated Mark
Task 2	Activity 1	20		
	Activity 2	20		
	Total: Task 2	40		