



SOUTH AFRICAN COMPREHENSIVE ASSESSMENT INSTITUTE  
SUID-AFRIKAANSE KOMPREENSIEWE 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 3:** Project  
**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**



**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.

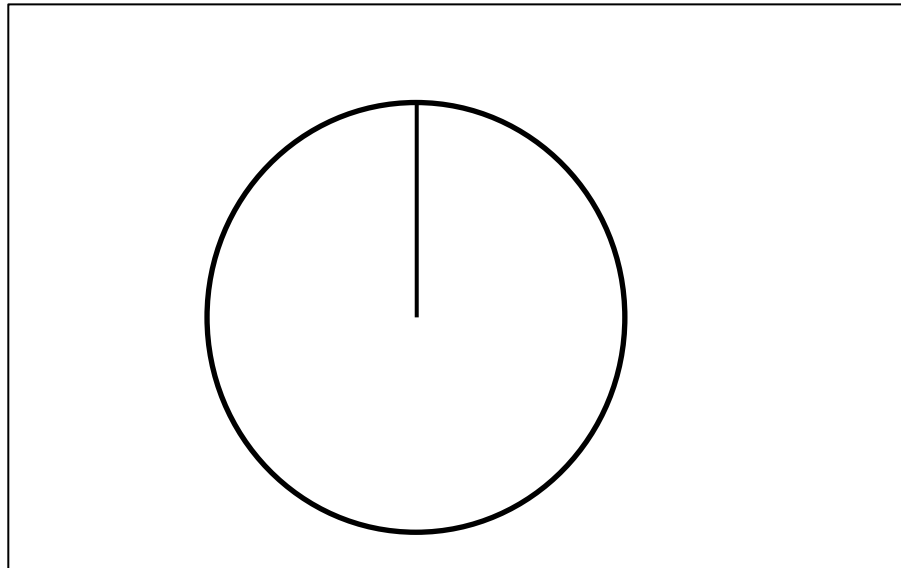


**ACTIVITY 1: HOUSEHOLD ENERGY FOR COOKING****TABLE 1: ENERGY TYPES USED FOR HOUSEHOLD COOKING IN SOUTH AFRICA**

Electricity	Gas	Paraffin	Solid fuel	Other
78%	3%	7%	11%	1%

*Data source: Household provincial, Statistics South Africa*

- 1.1 Use Table 1 to draw a pie chart representing the energy types used for household cooking in South Africa. Clearly label the energy types and show the percentage for each.



(5)

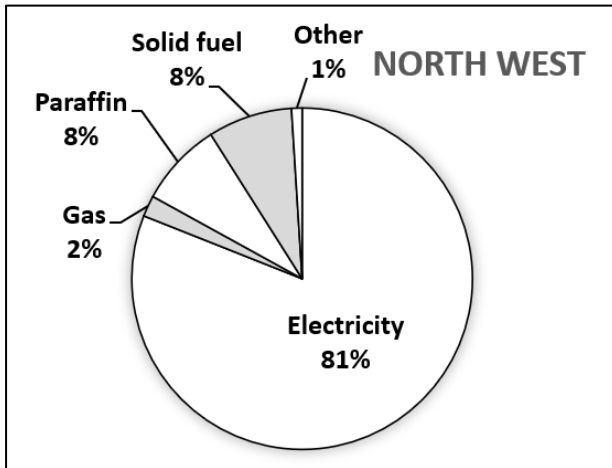
- 1.2 Table 2 shows the number of households in North West and Limpopo.

**TABLE 2**

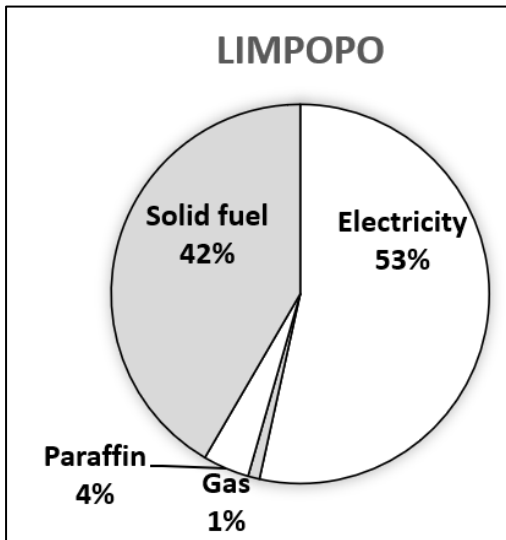
	North West province	Limpopo province
Households (million)	1,39	1,729

Graphs 1 and 2 show the main type of energy used by households in the provinces of North West and Limpopo.

**GRAPH 1**



**GRAPH 2**



Coal and wood are known as solid fuels. These are responsible for health problems because they produce smoke that releases toxins into the air.

Use Tables 1 and 2 and Graphs 1 and 2 to answer the following questions.

1.2.1 How many households use solid fuels (a) in North West? (b) in Limpopo?

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(3)



1.2.2 Complete the statement: More than .... times as many households in Limpopo use solid fuels, compared to North west. Show working.

- A. 6 times
- B. 7 times
- C. 8 times

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(2)

1.2.3 There are 184 800 households in South Africa that cook using energy other than electricity, gas, paraffin or solid fuels. How many households are there in South Africa? Refer to Table 1.

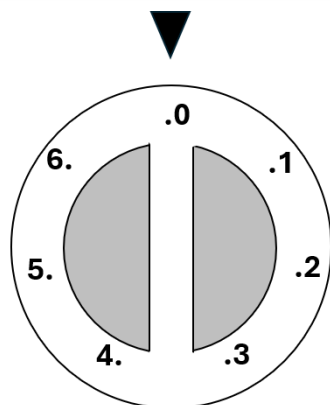
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(1)

1.3 Andile has an electric hotplate. Diagram 1 shows the dial of the hotplate. Andile turns the dial to the setting marked 4 in an anticlockwise direction. Calculate the angle through which the dial turns. Show your working.

**DIAGRAM 1**

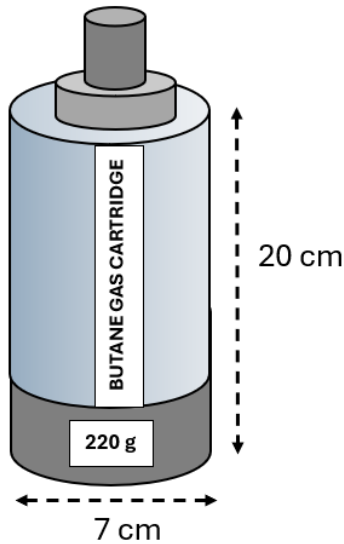


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(2)

- 1.4 Mandla has a Spaza shop. He stocks butane gas for home cookers. Diagram 2 shows a butane gas canister.

**DIAGRAM 2**

- 1.4.1 Calculate the volume of the canister. Use the formulae  $V = \pi r^2 h$  and  $\pi = 3,14$

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(2)

- 1.4.2 Mandla places 48 canisters on a shelf in rows of 8 so that they just fit on a rectangular shelf. What is the area of the shelf?

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(3)

**TOTAL MARKS FOR ACTIVITY 1****(18)**

**ACTIVITY 2: SHAPES AND PATTERNS**

Use the following formulae:

$$\text{Circumference of circle} = 2\pi r$$

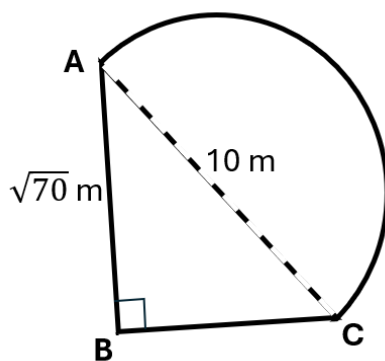
$$\text{Area of circle} = \pi r^2$$

$$\pi = 3,14$$

$$\text{Area of triangle} = \frac{1}{2} \text{ base} \times \text{perpendicular height}$$

- 2.1 Diagram 3 shows a garden in the shape of a semi-circle and a right-angled triangle.

**DIAGRAM 3**



- 2.1.1 Determine the length of BC, rounded off to 2 decimal places.

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(2)

- 2.1.2 Determine the perimeter of the garden, rounded off to the nearest whole number.

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(3)

2.1.3 Determine the area of the garden, rounded off to the nearest whole number.

(4)

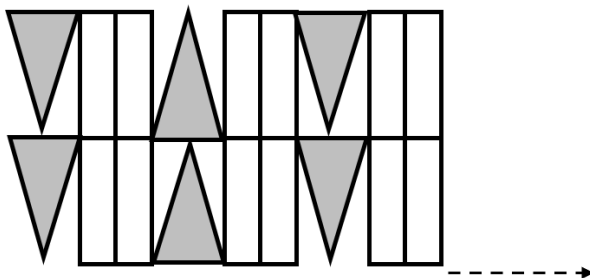
2.1.4 List the irrational numbers:

A = 3,14    B =  $\sqrt{70}$     C =  $\pi$     D =  $\sqrt{100}$     E =  $\frac{22}{7}$     F =  
8,366600265

(2)

2.2 Diagram 4 shows a pattern using triangles and rectangles.

**DIAGRAM 4**



Continue the pattern by drawing the next 6 shapes in the correct position.

(2)

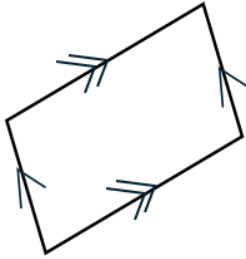
2.3 Draw your own pattern using right-angled triangles of two different sizes.

(2)



2.4 Name the shape in Diagram 5.

**DIAGRAM 5**



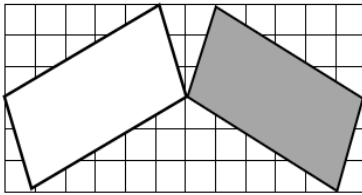
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(1)

2.5 Three transformations are shown in Diagrams 6, 7 and 8. Identify the type of transformation in each case and describe the transformation in detail. The white shape is transformed to the grey shape.

2.5.1

**DIAGRAM 6**

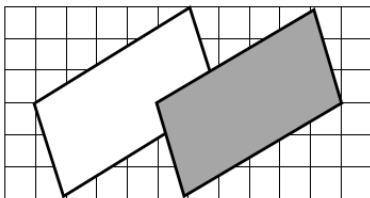


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(2)

2.5.2

**DIAGRAM 7**

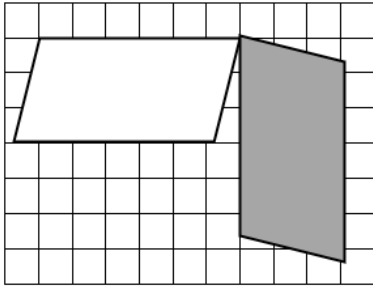


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(2)

2.5.3

**DIAGRAM 8**



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(2)

**TOTAL MARKS FOR ACTIVITY 2**

**(22)**

**TOTAL MARKS FOR TASK 3**

**[40]**

**TOTAL FOR TASK 3: 40 MARKS**

	<b>Activity 1 - 2</b>	<b>Maximum Mark</b>	<b>Learner's Mark</b>	<b>Moderated Mark</b>
<b>Task 3</b>	<b>Activity 1</b>	<b>18</b>		
	<b>Activity 2</b>	<b>22</b>		
	<b>Total: Task 3</b>	<b>40</b>		

