



**LIMPOPO**  
PROVINCIAL GOVERNMENT  
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF  
**EDUCATION**

**GRADE 10**

Stanmorephysics.com

**MATHEMATICAL LITERACY**

**TERM 2**

**INVESTIGATION**

**DATE: 15 MAY 2026**

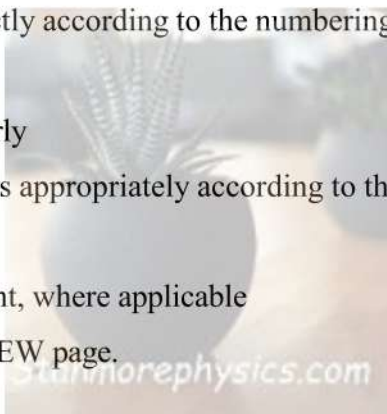
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**MARKS : 50**

**TIME : 1 HOUR**

### Instructions

1. This question paper consists of THREE Questions.
2. Answer all the questions
3. Number your answers correctly according to the numbering system used in this question paper.
4. Show ALL calculations clearly
5. Round-off ALL final answers appropriately according to the given context, unless stated otherwise.
6. Indicate units of measurement, where applicable
7. Start EACH question on a NEW page.
8. Write neatly and legibly



**QUESTION 1**

1.1

The table below indicates the Mangaung Local residential water tariffs for 2024/2025 and 2025/2026. These tariffs are applicable for both the prepaid and billed accounts. All tariffs are VAT exclusive.

| <b>Step tariffs</b>     | <b>2024/2025<br/>Prices per Kℓ</b> | <b>% increases</b> | <b>2025/2026<br/>Prices per Kℓ</b> |
|-------------------------|------------------------------------|--------------------|------------------------------------|
| 0 – 6 kℓ                | 11,97                              | 11%                | 13,28                              |
| 7 – 15 kℓ               | 30,11                              | 11%                | 33,42                              |
| 16 – 30 kℓ              | 34,49                              | 11%                | 38,62                              |
| 31 – 60 kℓ              | 43,27                              | 11%                | 48,02                              |
| Above 61 kℓ             | 53,20                              | 11%                | 59,05                              |
| Basic charges per month | R47,52                             | 11%                | 52,75                              |

NOTE: All prices are VAT exclusive.

Use the table above to answer the questions that follow

- 1.1.1 Define the basic charge in the given context. (2)
- 1.1.2 Show how the tariff of R38,62 during 2025/2026 was calculated. (2)
- 1.1.3 Mr Morake's municipal bill showed R201,27, for water usage at the end of August 2026. He stated that the basic charge was not included on the water bill. Verify if this statement is correct. (5)

1.2

Jane goes to buy her groceries at Shaney Stores. Study the till slip below and answer the questions that follow:

| <b>SHANEY STORES</b><br><b>11<sup>TH</sup> STR, DOODELVILLE</b><br><b>TEL: 031 454 5765</b><br><b>TAX INVOICE: VAT No. 44223377556644</b> |         |           |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------|
| Milk Tart                                                                                                                                 |         | R17,99    |
| Apple Crumble                                                                                                                             |         | R29,99    |
| Carrier bag                                                                                                                               |         | R0,40     |
| Carrier bag                                                                                                                               |         | R0,40     |
| Marshmallow                                                                                                                               |         | R9,99     |
| Dairy Custard                                                                                                                             |         | R17,99    |
| Hot dog rolls                                                                                                                             |         | R6,65     |
| Lemon Biscuits                                                                                                                            |         | R7,99     |
| ENT. Bacon/egg 0,458kg                                                                                                                    |         | R22,90    |
| @ R49,99/kg                                                                                                                               |         |           |
| Sunflower Oil 250ml                                                                                                                       |         | R14,99*   |
| Popcorn                                                                                                                                   |         | R7,99     |
| Chicken Mayo Roll                                                                                                                         |         | R23,99    |
| Brown Bread                                                                                                                               |         | R10,99*   |
| Pumpkin Seed                                                                                                                              |         | R6,99*    |
| Sauce Peri Peri                                                                                                                           |         | R13,99    |
| Balance before VAT                                                                                                                        |         | R193,24   |
| EFT credit card payment                                                                                                                   |         | R217,28   |
| Tax Code                                                                                                                                  | Taxable | Tax Value |
| Zero VAT                                                                                                                                  | R32,97  | R0,00     |
| VAT                                                                                                                                       | R160,27 | R23,73    |
| Total Tax                                                                                                                                 |         | R23,73    |

Use the till slip above to answer the questions that follow

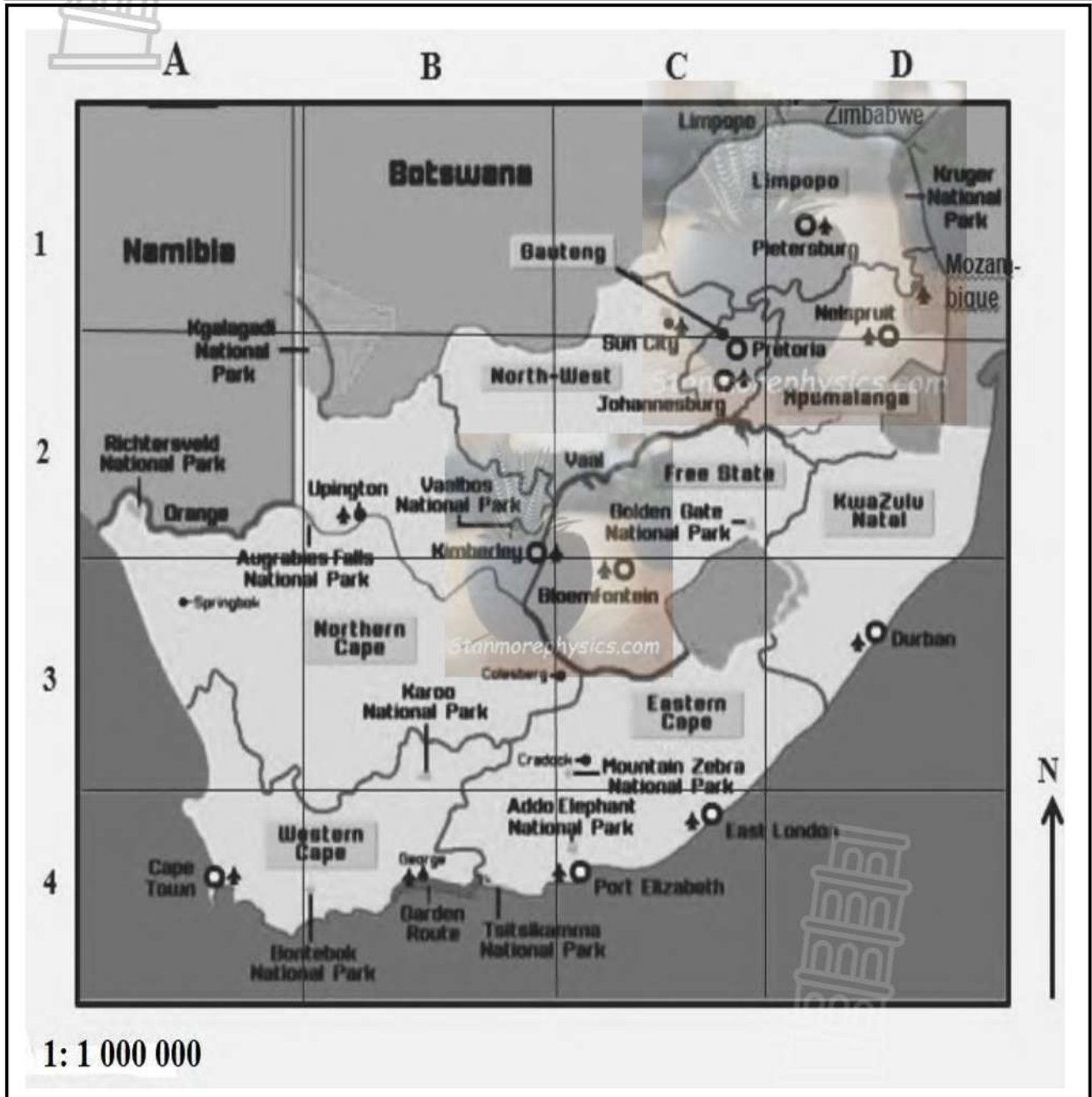
- 1.2.1 How did Jane pay for her shopping? (2)
- 1.2.2 How much will she have paid for buying 1 litre quantity of oil at the Shaney store? (2)
- 1.2.3 Why are some of the items marked with an asterisk(\*)? (2)
- 1.2.4 Show, by means of calculations whether the VAT calculation is correct or not correct. (3)

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## QUESTION 2

2.1

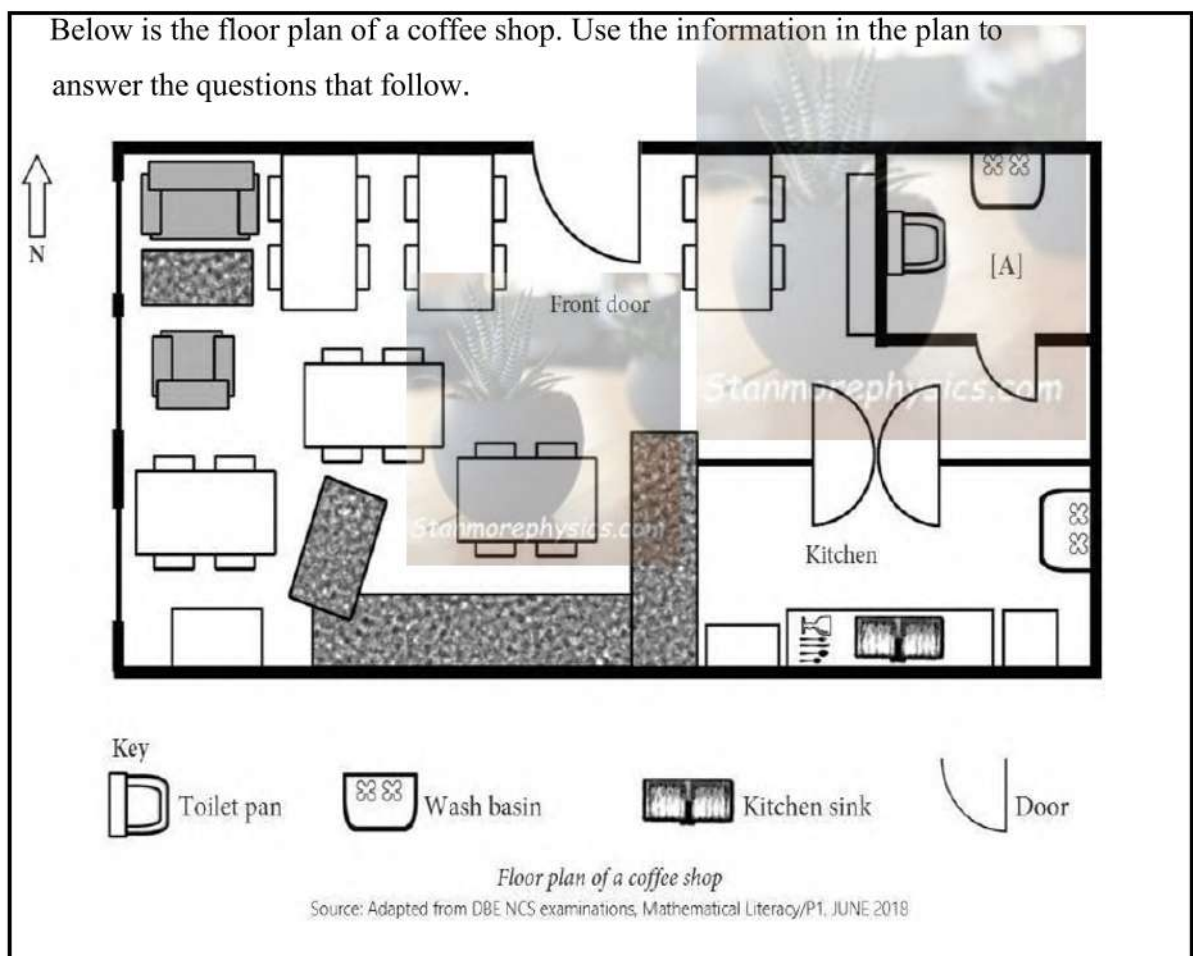
Below is the map of South Africa and parts of Namibia, Botswana, Zimbabwe and Mozambique. The map shows the major parks found in South Africa.



Use the map above to answer the questions that follow:

- 2.1.1 Write down the grid reference for Kruger National Park. (2)
- 2.1.2 In which compass direction is Cape Town from Durban? (2)
- 2.1.3 Which National Parks are situated in the Western Cape? (2)
- 2.1.4 James measured the distance from Sun city to Johannesburg on her map and found it to be 17, 4 cm long. Use the given scale to calculate the actual distance in kilometres. (4)

- 2.2 Below is the floor plan of a coffee shop. Use the information in the plan to answer the questions that follow.



Use the map above to answer the questions that follow:

- 2.2.1 Which view of the floor is shown on the plan? (2)
- 2.2.2 Identify the room labelled A. (2)
- 2.2.3 Give the general direction of the front door from the kitchen. (2)
- 2.2.4 The measured length of the coffee shop is 150 mm on the floor plan. The actual length is 24 m. determine the scale used to draw the floor plan, in the form of 1: .... (3)

[19]



### QUESTION 3

3.1. Choose an item from COLUMN B that matches a description in COLUMN A. Write the letter A-E next to the question numbers (3.1.1 to 3.1.4) in the answer sheet.

(4)

| COLUMN A                                                                 | COLUMN B                                                                                                |
|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| 3.1.1. The most appropriate scale to draw a map of South Africa          | A. 1000 m = 1 km<br>  |
| 3.1.2. The instrument most suited to measure the length of a rugby field | B.                    |
| 3.1.3. The instrument most suited to measure circumference of a pot lid  | C.                    |
| 3.1.4. The instrument most suited to measure the length of an eraser     | D. <br>E. 1 : 100 000 |

3.2. Cardboard is very good recycling material. Collected cardboard is flattened first and then tied in bundles that are 15 cm thick.

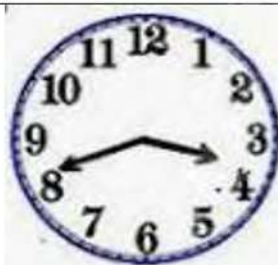
3.2.1. Convert 15 cm to mm. (2)

3.2.2. A box is approximately 8mm thick when it is flattened. Use the answer in question 3.2.1 to determine the number of boxes that can be tied together to form a bundle. (2)

3.2.3. The bundles are stacked and tied into blocks that are 1,2 metres high. How many bundles are used to make one block of cardboard? (2)

3.3.

The time of day is displayed on the clock below. This was the time on Thursday afternoon.



3.3.1. Is this an analogue or digital time display? (2)

3.3.2. Write down the time using the 24-hour-time format. (2)

[13]

**TOTAL MARKS: 50**