



Education

KwaZulu-Natal Department of Education
REPUBLIC OF SOUTH AFRICA

**NTABASUKA
SECONDARY SCHOOL**

GRADE 11

**MATHEMATICAL LITERACY
CLASS TEST NUMBER 01
21 JANUARY 2025**

MARKS: 30

TIME: 45 minutes

“Proper Preparation Prevents Poor Performance”

This question paper consist of 4 pages.

Please Turn Over

INSTRUCTIONS AND INFORMATION

1. This question paper consists of TWO questions. Answer ALL the questions.
2. Number the answers correctly according to the numbering system used in this question paper.
3. Start EACH question on a NEW page.
4. You may use an approved calculator (non-programmable and non-graphical), unless stated otherwise.
5. Show ALL calculations clearly.
6. Round off ALL final answers appropriately according to the given context, unless stated otherwise.
7. Indicate units of measurement, where applicable.
8. Skip the line between the sub-questions
9. Write neatly and legibly.

QUESTION 1

1.1

Agricultural Sciences students at James Nxumalo Agricultural High School plant rose trees with the aim of selling bunches of roses. TABLE 1 below shows the number students needed to complete the planting of rose trees.

TABLE 1: THE NUMBER OF STUDENTS AND THE NUMBER OF DAYS NEEDED TO PLANT ROSE TREES.

Number of students	1	2	3	6	L	18	36
Number of days	36	18	K	6	4	2	1

[Adapted from: September 2020 Preparatory Examination]

Use TABLE 1 and the information above to answer the questions that follow.

1.1.1 Determine the constant product in TABLE 1 above. (2)

1.1.2 Identify the variable that is dependent. (2)

1.1.3 Choose which of the following will be the best to represent the graph above. Write down ONLY the correct letter. (2)

A. $\text{Petrol cost (in rand)} = \frac{36}{\text{Number of students}}$

B. $\text{Petrol cost (in rand)} = 36 \times \text{Number of students}$

1.1.4 Calculate the missing values **K** and **L**. (4)

1.1.5 What type of proportion is represented by TABLE 1 above?

Give a reason for your answer. (3)

1.2

The students decided to sell bunch of roses at R80,00 each.

1.2.1 Write down the formula for calculating the income received in the form of:

Income in (R) = ... (2)

1.2.2 One of the students claims that they will receive the income of R10 200,00 if they sell 85 bunches of roses.

Verify, showing ALL calculations, whether student's claim is correct or not. (3)

[18]

QUESTION 2

2.1

Ayanda intends selling cups of Milo at the Ulundi local taxi rank for extra money.

She started her business one month later and because of the price increase of products, it then cost her R9,50 to make ONE cup of Milo. She calculated that the daily fixed cost was R90,00 and she would be able to sell 100 cups of Milo per day.

She will sell the Milo at R12,50 per cup.

NOTE : Milo is a nutritious supplementary drink developed to provide active people with key vitamins and minerals.

Use the information above to answer the questions that follow.

2.1.1 TABLE 2 shows the income from the sale of cups of Milo.

TABLE 2: INCOME FROM THE SALE OF CUPS OF MILO

Number of cups of Milo	0	20	30	D	80	100
Income in (R)	0	250	375	500	1 000	1 250

(a) Determine the value of **D** in TABLE 2 above. (3)

(b) Identify the independent variable in TABLE 2. (2)

2.1.2 Ayanda uses the following formula to determine the cost price of the cups of Milo.

$$\text{Cost in (R)} = \text{R90,00} + \text{R9,50} \times \text{Number of cups of Milo}$$

TABLE 3 shows the cost price for a number of cups of Milo.

TABLE 3: COST PRICE OF A NUMBER OF CUPS OF MILO

Number of cups of Milo	0	20	30	55	80	100
Cost price in (R)	90	280	375	F	850	1040

Calculate the value of **F** in TABLE 3 above. (3)

2.1.3 Use the tables and the information above to answer the following questions.

(a) Identify, in TABLE 3, the number of cups of Milo if the cost price in rand (R) is R90,00. (2)

(b) Identify the variable cost from the above formula. (2)

[12]

TOTAL: 30