Province of the
EASTERN CAPE
EDUCATION

**NATIONAL
SENIOR CERTIFICATE**

GRADE 10

NOVEMBER 2019

MATHEMATICAL LITERACY P1

MARKS: 75

TIME: 1½ hours

XMLITE1

This question paper consists of 8 pages.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of FIVE questions.

2. Answer ALL the questions.

3. Number the questions correctly according to the numbering system used in this question paper.

4. Diagrams are NOT necessarily drawn to scale.

5. Round off ALL the final answers appropriately, according to the context used, unless stated otherwise.

6. Indicate units of measurement, where applicable.

7. Start EACH question on a NEW page.

8. Show ALL calculations clearly.

9. Write neatly and legibly.

QUESTION 1

The fundraising committee of your school is planning their annual Spring Dance. They decided on a venue that charges R7 500,00 for a function of five hours, with an additional charge of R900,00 per hour, or part thereof. The venue accommodates 120 guests for a three-course meal and dancing.

NOTE: The dance starts at 18:30 and ends at 23:55.

1.1   Identify the value that represents the fixed amount. (2)

1.2   Is the number of guests attending the dance, discrete or continuous data? (2)

1.3   If 45% of the people attending the dance are males, calculate the number of males at the dance. (2)

1.4   The dance starts at 18:30 and ends at 23:55.

    1.4.1   Determine the duration of the dance, in hours and minutes. (2)

    1.4.2   Hence, calculate the cost of the venue for 120 guests. (3)

    1.4.3   Calculate the average amount each guest will pay for the three-course meal and dance. (2)

1.5   The dance floor is a square in the middle of the room, with a side length of 6 m. Calculate the perimeter of the dance floor.

    You may use the formula: Perimeter = 4 × side (2)

[15]

QUESTION 2

2.1   Study TABLE 1 below regarding bank fees at Mega Bank and answer the questions that follow.

TABLE 1: BANK FEES FOR MEGA BANK ACCOUNT

Mega Bank Account Fees	
Monthly Account Fee	R65,00
Cellphone banking	R0,00
Cash Withdrawals (Mega Bank ATM)	
First R1 500	R0,00
More than R1 500	R12,00 + R1,20 per R100 (or part thereof)
Cash Withdrawals (Other bank ATM)	R15,00

2.1.1   What is the monthly fee of having this account?   (2)

2.1.2   Ababalwe withdraws R1 700 at a Mega Bank ATM.
        Calculate what this withdrawal will cost her.   (3)

2.1.3   Ababalwe had to transfer R500 to her mother's account. She decided to use her cellphone banking to do this. How much did this transaction cost her?   (2)

2.2   While at the mall, Ababalwe had lunch at a restaurant. Her bill, excluding VAT, was R90,80. Calculate the amount of VAT that will be charged, if VAT is calculated at 15%.   (2)

2.3   Ababalwe invests R2 000 into a fixed deposit account, for a period of two years.
      The bank offers her simple interest at a rate of 9,5% p.a.
      Calculate the value of her investment after two years.   (3)

2.4   TABLE 2 below shows a rough statement of Bane's income and expenditure items for a month. Study the table and answer the questions that follow.

TABLE 2: INCOME AND EXPENDITURE FOR BANE

INCOME	AMOUNT	EXPENDITURE	AMOUNT
Salary	R11 750	Groceries	R2 100
		Rent	---------
		Petrol	R1 000
		Car payment	R1 800
		Electricity	---------
		Clothing	R450
		Insurance	R320
		Entertainment	R600

2.4.1   Name ONE variable and ONE fixed expenditure item.   (2)

2.4.2   Bane spends a total of R3 700 on electricity and rent combined. If the ratio of electricity to rent is 1 : 4, determine the amount she pays for electricity.   (3)

2.4.3   Calculate what percentage Bane's groceries is of her salary.
Round your answer off to the nearest percentage.   (3)

[20]

QUESTION 3

Given below is a simple floor plan of a one-bedroom flat. Study the plan and answer the questions that follow. The floor plan is not drawn to scale.
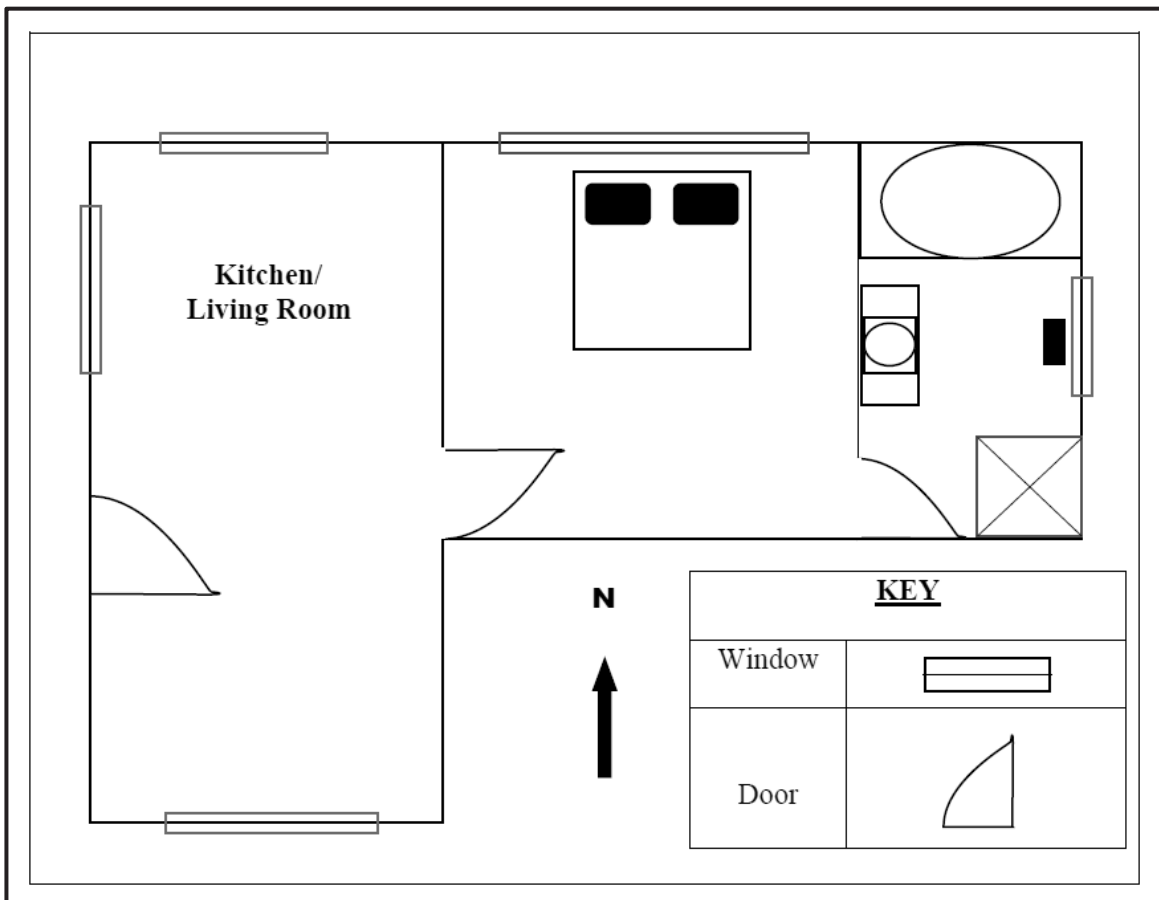
3.1   How many windows does this flat have?   (2)

3.2   From which general direction would you be entering the flat, if you came in at the front door in the living room?   (2)

3.3   The living room/kitchen is going to be tiled. The scale used for this plan is 1 : 50.

      3.3.1   Explain the meaning of the scale 1 : 50.   (2)

      3.3.2   If the width on the plan measures 4,8 cm and the length measures 9,3 cm, calculate the real area of the room. Give your answer in square metres (m^2).

          You may use the formula: Area = length × breadth   (4)

                                                           [10]

QUESTION 4

Given below is a simple cheese and tomato pizza recipe. Study the recipe and answer the questions that follow.

| |
|---|
| **SIMPLE CHEESE AND TOMATO PIZZA**
(Makes 1 large pizza)
¾ cup homemade pizza dough
1 tbsp olive oil
2 cloves garlic
75 mℓ tomato paste
0,23 kg mozzarella cheese
2 tomatoes
Salt and pepper to taste |

<u>**Remember:**</u> 1 cup = 250 mℓ 1 tablespoon = 15 mℓ 1 teaspoon = 5 mℓ

4.1   Determine the amount of homemade pizza dough needed for 3 large pizzas.
       Give your answer in millilitres (mℓ).   (3)

4.2   How many tablespoons of tomato paste is needed for this recipe?   (2)

4.3   Convert the amount of cheese to grams.   (2)

4.4   When the pizza is completed, the base has a diameter of 32 cm and a height of 12 mm.
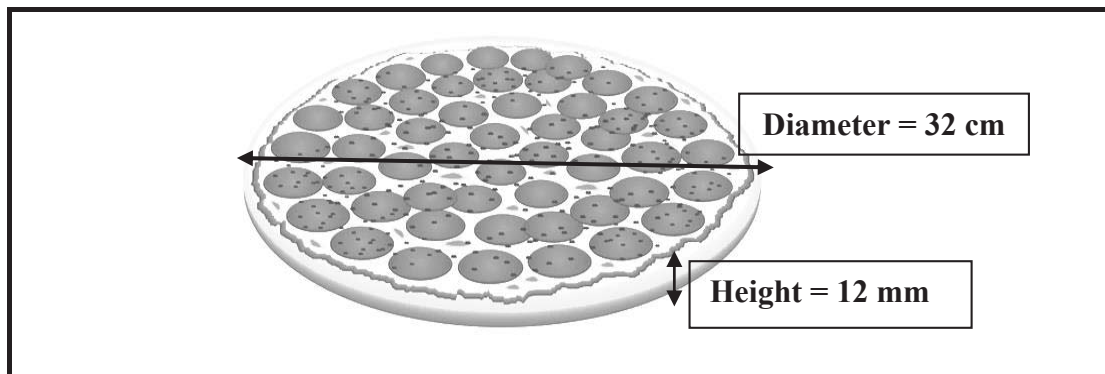
[Adapted from Google]

4.4.1   Write down the radius of one pizza base.   (2)

4.4.2   Calculate the volume of one pizza (in mm³).

         You may use the formula: Volume = $\pi r^2 \times h$; where $\pi = 3,142$ (3)

   **[12]**

QUESTION 5

5.1   A group of Grade 10 learners were asked what amount of airtime they use in a month. The results are given in the table below. Refer to the information and answer the questions that follow.

TABLE 3: RESULTS OF GRADE 10 AIRTIME USAGE SURVEY

R12	R29	R5	R5	R12	R29	R29	R110
R5	R5	R12	R29	R29	R55	R5	R12

5.1.1   Define the term *median*.   (2)

5.1.2   Determine the mode for the above data.   (2)

5.1.3   Calculate the average amount of airtime used by the learners in a month.   (3)

5.1.4   Show by means of calculation that the range of this data is R105.   (2)

5.1.5   What is the probability that a learner uses R29 airtime in a month?
Give your answer as a decimal fraction, rounded off to three decimal places.   (3)

5.2   A survey was conducted where learners were asked what their favourite brand of sneakers is. The results are shown in the figure below.
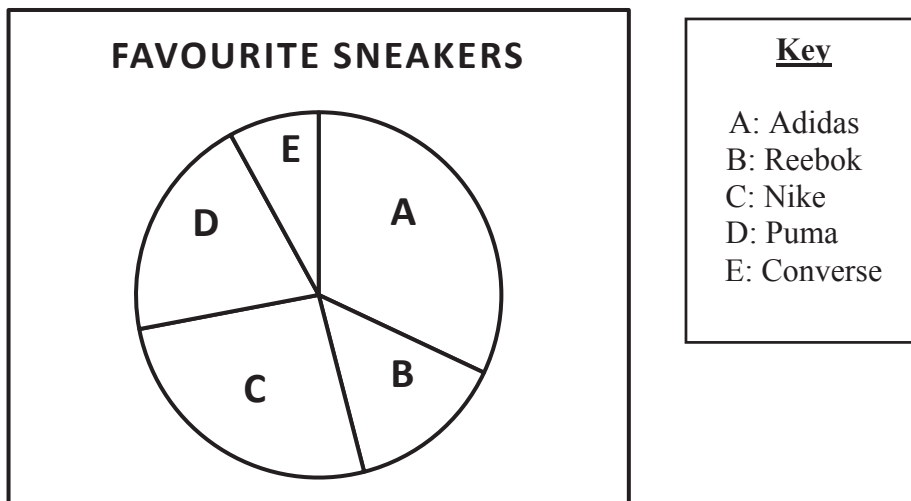
5.2.1   Name the type of graph illustrated above.   (2)

5.2.2   Name the THREE most favourite brands of sneakers.   (2)

5.2.3   If 300 learners were involved in the survey, and 32% preferred Adidas sneakers, calculate the number of learners who favoured Adidas.   (2)

                                                                        [18]

                                                      TOTAL: **75**