education

Lefapha la Thuto la Bokone Bophirima
Noord-Wes Departement van Onderwys
North West Department of Education
NORTH WEST PROVINCE

PROVINCIAL ASSESSMENT

GRADE 10

MATHEMATICAL LITERACY P2

NOVEMBER 2019

MARKS: 75

TIME: 1½ hours

This question paper consists of 6 pages, 3 ANNEXURES and 1 ANSWER SHEET.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of FOUR questions. Answer ALL the questions.

2. Use the ANNEXURES to answer the following questions:

   ANNEXURE A for QUESTION 1.1
   ANNEXURE B for QUESTION 2.1
   ANNEXURE C for QUESTION 3.1
   ANSWER SHEET for QUESTION 4.2.3

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

4. Start EACH question on a NEW page.

5. You may use an approved calculator (non-programmable and non-graphical), unless stated otherwise.

6. Show ALL the calculations clearly.

7. Round off ALL final answers to TWO decimal places, unless stated otherwise.

8. Maps and diagrams are NOT necessarily drawn according to scale, unless otherwise stated.

9. Write neatly and legibly.

QUESTION 1

Mr. Litlake has an account with Exclusive Clothing Store and receive an account statement every month. **ANNEXURE A** shows ONE of Mr. Litlake's account statements

1.1 Use the account statement in **ANNEXURE A** to answer the questions that follow.

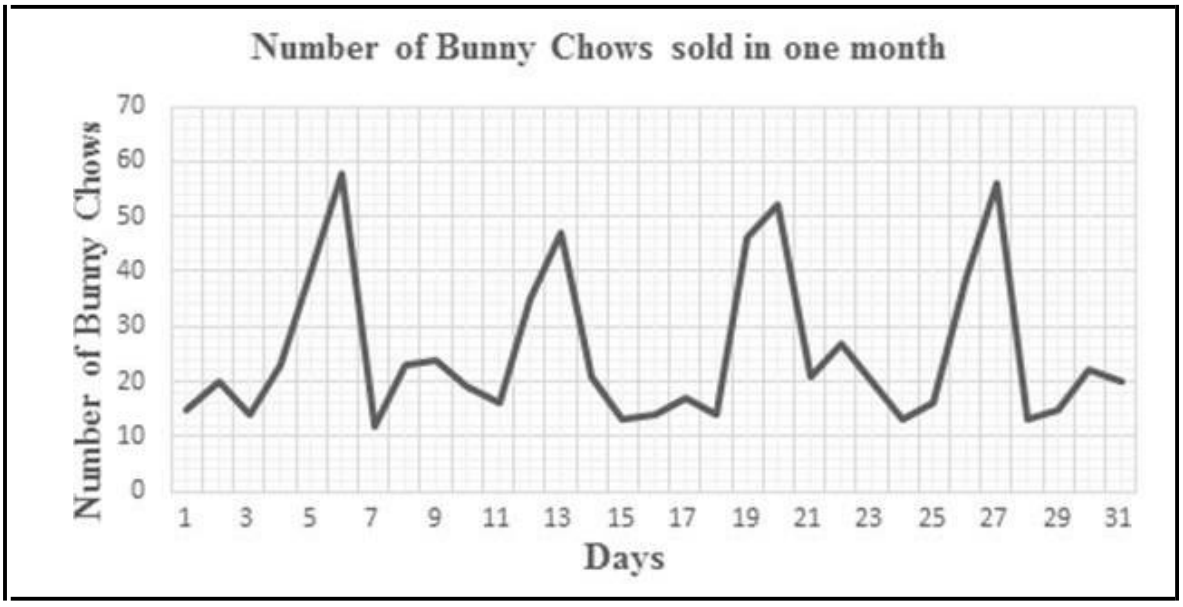
1.1.1 Show with the necessary calculations how the purchases for the month has been calculated. (3)

1.1.2 Determine the missing value, A (interest on the money outstanding) (4)

1.1.3 Exclusive Clothing Store calculates the amount owing using a percentage.

Calculate the percentage they have used to determine the amount that Mr. Litlake has to pay on the balance that he owes. (3)

1.2 Mrs. Litlake sells "Bunny Chows" at her house to support her husband with the financial running of the household. Below is a graph representing her sales for one month.



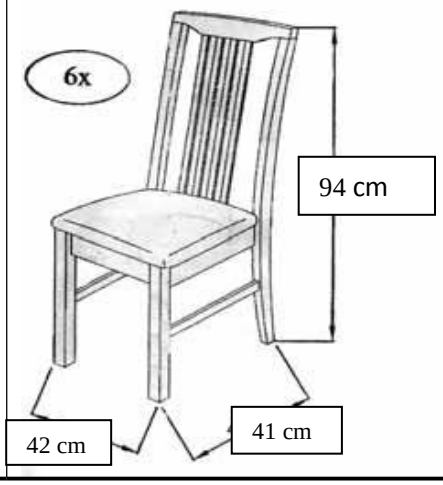
Note: A Bunny Chow is a quarter loaf of bread where the soft part of the bread is removed. The inside is then filled with various fillings and the softer part is put back on top.

Refer to the graph above to answer the following question:

Mrs. Litlake states that she sells more Bunny Chows on weekends than on weekdays. Can it be said with certainty that her statement is true?
Give a reason for your answer. (2)
[12]

QUESTION 2

Mrs Litlake bought a set of six dinner chairs. She now has to assemble the chairs.
The picture alongside shows an assembled chair.



2.1 **ANNEXURE B** shows the pieces and the desired quantities required to assemble the chair and the steps to follow to assemble the chair.

2.1.1 Use **ANNEXURE B** to determine the number of JCBC screws (F) required to assemble ONE chair. (3)

2.1.2 By referring to the picture of the chair above, determine which part(s) of the chair (from **ANNEXURE B**) are still to be fitted onto the chair in STEP 2 of **ANNEXURE B**. (3)

2.1.3 According to the diagram of the assembled chair, the chair occupies a floor area of 42 cm x 41 cm.

Calculate the minimum floor area occupied by each chair.

Use the following formula:
Area = length x width (3)

2.2 The actual height of the chair as indicated on the diagram is 94 cm. If it is placed in a box that allow 1cm EACH side for packaging, what will the dimensions of the box be? (4)

2.3 What will piece K in ANNEXURE B parts be used for? (2)

2.4 Read the following information carefully to answer the questions that follows:

- Material used to cover the cushion of the chairs is R64,50 per meter.
- Each chair needs approximately 1,1 meter per chair.
- Labour cost is R75 per chair.

2.4.1 Calculate how much material Mrs. Litlake needs to buy, to cover all the chairs. (2)

2.4.2 Calculate the cost of material needed for all the chairs. (2)

2.4.3 Calculate the total cost of material and the labour? (4)
[23]

QUESTION 3

Mr Letlake's youngest son Thabang and his fiancé are going to get married. They have chosen a hall for their ceremony and decided on how the seating plan should look like for the reception. The seating plan is represented in **ANNEXURE C**.

Refer to the seating plan in **ANNEXURE C** and answer the questions below:

3.1 How many people do the couple intend to invite. (3)

3.2 Why are there no chairs arranged on the shorter sides of the tables? (2)

3.3 A person seated at Table 6 close to the main table wants to put her gift on the gift table. Describe a possible route this person can take without walking over the dance floor. (2)

3.4 Tables 1, 2 and 3 are reserved for the bridal couple, parents of the couple, 1 bridesmaid and 1 best man. Calculate the probability that, if you are invited as a guest, you will be sitting at a table with an even number. Write your final answer to three decimal places. (2)

3.5 The caretaker of the hall stated that the area of the dance floor is $\frac{1}{4}$ of the floor area of the hall. The length of the floor is 16 m and the width is 12 m. Calculate the area of the dance floor.

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

3.6

The bridal couple have to spend a lot of money for their entire wedding reception. The reception will be held from 17:00 to midnight.

Their expenses are as follows:

Hiring of the venue: R6 500,00; Draping and décor: R7 750,00

Disc Jockey (DJ): R350 per hour or part thereof

Catering: R350 per person for the first 100 guests and R200 for every person above 100

NOTE: The Disc Jockey will also be included for the catering cost**.**

The bridal couple stated it will cost R50 000 for the entire reception.
Verify, with the necessary calculations, whether the statement is valid or not. (10)
[22]

QUESTION 4

Ms. Kishma Litlake, a Grade 10 Mathematical Literacy teacher at Bishoki High School, recorded the results (as a percentage) of her class test as follows:

56	58	38	70	30	56	67	85	32	25
58	35	74	67	84	30	76	58	35	29

4.1 Use the information above to answer the following questions:

4.1.1 Determine the median percentage of the class. (3)

4.1.2 Calculate the range of the results. (2)

4.1.3 Calculate the modal percentage of the class. (2)

4.2 Learner's performance is summarized using a rating code.

The results of the Grade 10 Mathematical Literacy learners in Ms. Kishma's class is summarized below in TABLE 1.

TABLE 1: Rating code with summary of learners' performance

Rating code	Description of competence	Percentage	Frequency
7	Outstanding achievement	80–100	2
6	Meritorious achievement	70–79	3
5	Substantial achievement	60–69	2
4	Adequate achievement	50–59	5
3	Moderate achievement	40–49	**P**
2	Elementary achievement	30–39	**Q**
1	Not achieved	0–29	2

4.2.1 Determine the values of **P** and **Q**. (2)

4.2.2 Determine the probability that a learner selected at random from Ms Kishma's class scored 60% or more for the test. Write the solution as a percentage. (3)

4.2.3 Complete the bar graph drawn on the Answer sheet , using the information in TABLE 1. (3)

4.2.4 Kishma offered an amount of R500 as a reward to be shared amongst all learners with a rating code of 6 or 7 in the ratio 2 : 3 respectively.

How much will each of the learners with a rating of 7 get? (3)

[18]

TOTAL: 75

ANNEXURE A

QUESTION 1.1

Account Statement of Mr. Litlake for April 2019

Luxury Clothing Store

18 Riverwalk, Sea View, Potchefstroom
Tel. 018 123 4567 Cell. 089 878 6533

Business hours: Monday to Friday
8:30 am. to 5:00 pm.
Saturday: 8:00 am. to 12:00 pm.

STATEMENT

Store Account Holder:		
Mr. Y. Litlake **29 Humming** **Bird Street,** **Potchefstroom**	**Date**	01 April 2019
	Statement period	01 March 2019 – 31 March 2019
	Page	1 of 1
	Account Number	3658190

SUMMARY

MONEY OWING ON PREVIOUS PURCHASES: R1 215,80
Interest on outstanding amounts is calculated at 31% per annum.

	This month	Last month
Payment received:	R450,00	R320,00
Total purchases for the month:	R975,00	R215,50
Total refunds:	R135,50	R0,00

TOTAL OWING: R1 636,71
MINIMUM PAYMENT REQUIRED: R327,34

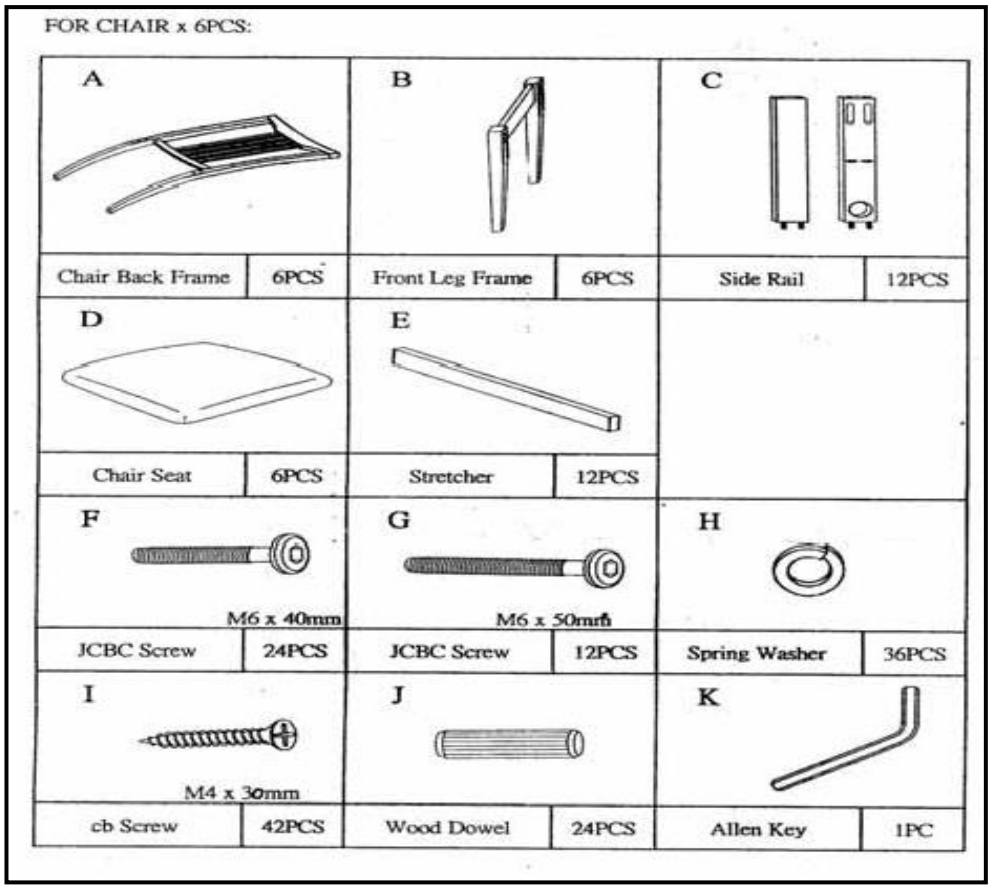
DETAILED DESCRIPTION OF PURCHASES

Date	Description	Code	Debit	Credit
01/04/2019	Interest on money owing		**A**	
06/03/2019	Payment received	----------		R450,00
10/03/2019	Men's jacket	J145875	R476,00	
15/03/2019	Ladies dress	L552632	R135,50	
19/03/2019	Kiddies shoes	C398710	R99,50	
23/03/2019	Refund on returned item	----------		R135,50
26/03/2019	Ladies accessories	L764318	R77,50	
27/03/2019	Kiddies underwear	C444654	R129,50	
29/03/2019	Men's sleepshirt	M265498	R57,00	

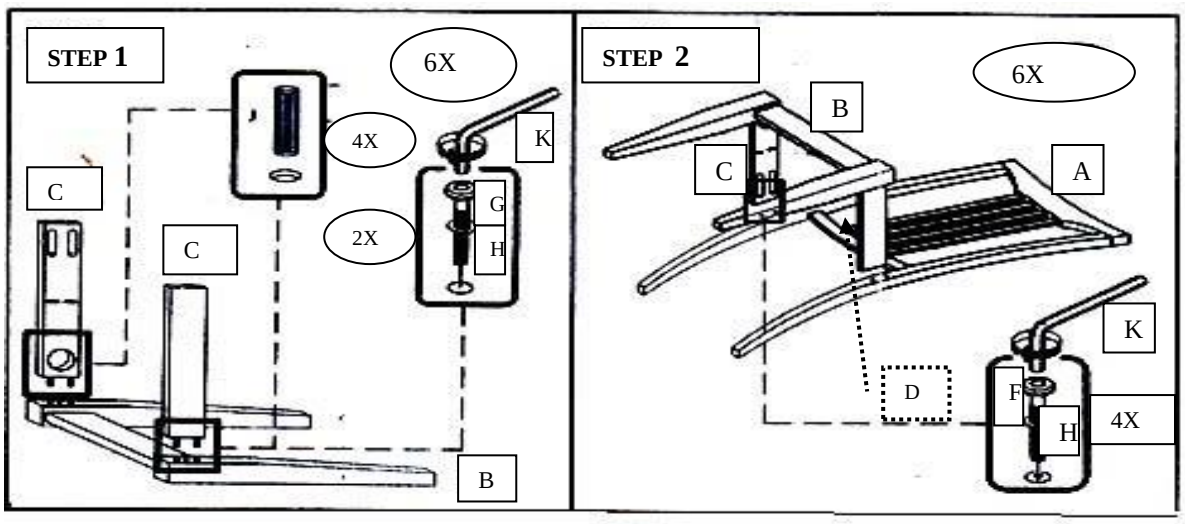
ANNEXURE B

QUESTION 2.1

Parts for assembling a chair



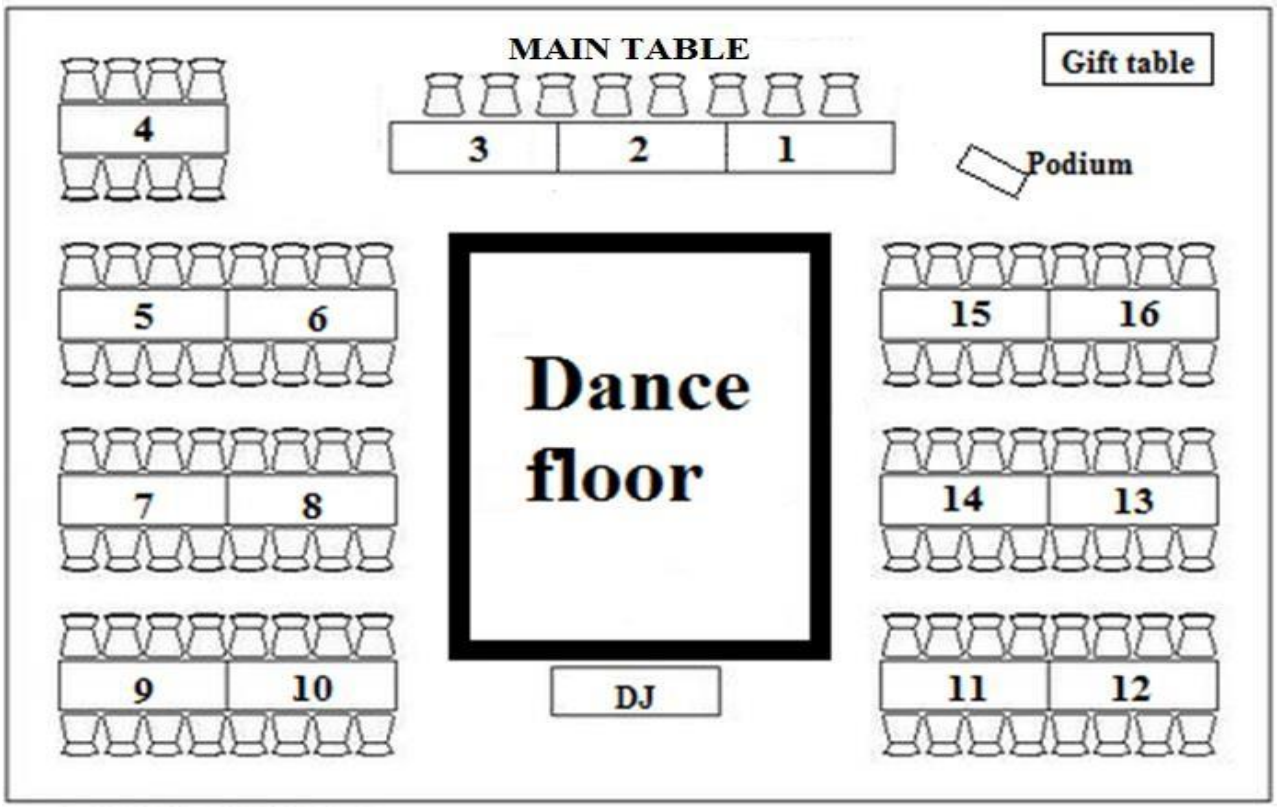
Steps to follow to assemble the chair



ANNEXURE C

QUESTION 3.1

Wedding Seating



ANSWER SHEET

QUESTION 4.2.3

NAME: _____ CLASS: _____

NUMBER OF LEARNERS PER LEVEL