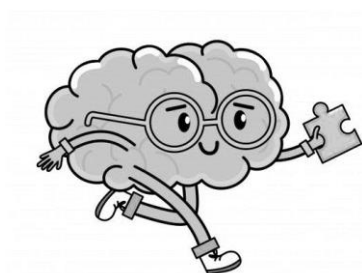
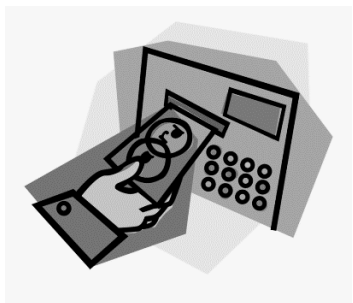




SUBJECT and GRADE	Mathematical Literacy Grade 10	
TERM 4	Week 2	
TOPIC	Banking, loans & investments	
AIMS OF LESSON	<i>Remember that this lesson follows on the lesson in Week 1. Keep the Week 1 lesson next to you when you go through this lesson to look for important terminology etc.</i> You need to be able to do the following: • Determine bank charges for different types of accounts using given fee tables and formulae. • Draw graphs from given bank charge formulae to represent bank charges for different transaction amounts on different types of accounts.	
RESOURCES	Paper based resources	Digital resources
	<i>In your textbook look for the topic BANKING / LOANS / INVESTMENTS under the FINANCE heading. This should include information, definitions examples and calculations on banking/loans/investments.</i>	• www.siyavula.com (Chapter 11) • https://viaafrika.com/wp-content/uploads/2019/07/Maths-Lit-G10-studyguide.pdf (Chapter 3 Section 5) • https://businesstech.co.za/news/banking/358795/2020-banking-fees-compared-capitec-vs-absa-vs-standard-bank-vs-nedbank-vs-fnb/ (comparison of banking fee structures in South Africa)
INTRODUCTION	• <i>In this week's lesson we will look at how to interpret bank fees and bank charges.</i> • <i>This will include performing calculations using given information as well as drawing graphs to represent the cost.</i> • <i>A bank fee or charge is something that you will have to pay to the bank, so you will try and keep the bank fees as low as possible.</i> • <i>It is always advisable to look at different account options, to see what each one offers.</i> • <i>When choosing a bank, or bank account remember that different individuals / households have different needs and therefore will benefit from different account options.</i>	

CONCEPTS AND SKILLS



Bank fee charges:

- Read through the definition of bank fees/charges again in the Week 1 lesson.
 - When we are asked to determine bank fees/charges we must ensure that we firstly understand how to use the bank fee structure.
 - The bank fees normally indicate a range of different transaction **types**. Therefore, when you need to perform a calculation you need to make sure that you choose the correct transaction type. These could be:
 - ❖ Deposit
 - ❖ Withdrawal
 - ❖ Debit Order
 - ❖ Monthly account fee
 - ❖ Purchases
 - ❖ Account payments/ Transfers
 - Next you will need to be able to determine **WHERE** the transaction took place.
 - The amount charged per transaction is normally different depending on where it was done. Some examples can include:
 - At the Bank's OWN ATM
 - At another Bank's ATM
 - At the Branch Counter (of the Bank)
 - Point of Sale (POS)
- (Point of sale (POS) refers to the place where someone pays for goods or services. This can include grocery stores, clothing stores, restaurants etc.)*
- We will then need to be able to perform calculations using the information from the banking fee structure.
 - Let's look at some examples from the bank fee structure we examined last week:



CAN YOU?

- Make sure that you remember the terminology from week 1?
- Go through the examples of bank fees and highlight all the different types of transactions different colours?
- Practice more examples of how to calculate bank charges?
- Explain to a family member or friend how bank charges work?

EXAMPLE 1:

Below is an extract of the bank charges & transaction fees for B- Bank :

Transaction:	Fee:
Monthly Account Charge	R55
Deposits:	
Cash deposit at the ATM	R1,50 + R2,00/ R100
Cash deposit at a branch counter	R20 + 3,5 % of transaction value
Cash Withdrawals:	
At B-Bank ATM	R2,00 per R100
At other Bank's ATM	R11,50 + R2,00/R100
At POS (or purchases)	R2,00
Balance enquiries:	
On internet Banking	FREE
At B- Bank ATM	FREE
At other Bank's ATM	R4,50

Use the bank fee structure above to answer the questions that follow:

1. How much would a customer at B bank pay to do a balance enquiry at ABC Bank?
(remember to look at what bank the fees are for).
2. Where would you suggest a client at B-bank does a balance enquiry?
3. How much would you pay to withdraw R500 at
 - a) B-Bank ATM
 - b) Another Bank's ATM
 - c) POS
4. How much more would you pay to deposit R3 000 at the branch counter than at the ATM?

SOLUTIONS EXAMPLE 1:

1.	<i>R 4,50</i>	2.	Either B- Bank ATM or Internet Banking.
3.	<i>Remember if you pay fees per R100 you will need to divide your transaction amount by 100. This normally also means per R 100 or part thereof.</i> a) $R 2 \times \frac{500}{100} = R 10$ b) $R 11,50 + (R2 \times \frac{500}{100})$ $= R11,50 + R10$ $= R21,50$ c) <i>R 2</i>	4.	ATM: $R1,50 + (R 2 \times \frac{3\,000}{100})$ $= R1,50 + R 60$ $= R61,50$ BRANCH COUNTER: $R20 + (\frac{3,5}{100} \times 3\,000)$ $= R20 + R105$ $= R125$ $\therefore R125 - R61,50$ $= R 63,50 \text{ more at the branch counter.}$

EXAMPLE 2:

Below is an extract from the Bank fees for ABSA bank 2020. Use this information to answer the questions that follow:

Pay-as-you-transact	
Monthly fees	
Prosperity monthly account fee	R50,00
Monthly subscription fees – Online, Mobile, Telephone Banking	No charge
Deposits	
Cheque deposit: Branch counter	R60,00
Cash deposit: Branch counter	R60,00 + R2,00/R100
Cash deposit: Absa ATM	R2,00 per R100
Cardless cash deposit: Cash acceptor	R2,00 per R100
Cash withdrawals	
Branch counter	R75,00 + R2,10/R100
Absa ATM	R2,00 per R100
Point of sale (POS) (Includes Purchases)	R2,00
Absa-supported ATM	R6,00 + R2,00/R100
Saswitch ATM	R11,50 + R2,00/R100
Overseas ATM/POS ⁽¹⁾	R75,00
Cheque encashment	R75,00 + R2,10/R100 plus cheque issued fee

Source: <https://www.absa.co.za/content/dam/south-africa/absa/pdf/pricing-brochure/2020/2020-pricing-guide-products-on-sale.pdf>

Questions on EXAMPLE 2:

Use the Bank fees above to calculate the total bank charges for August 2020 if the following transactions took place:

3/8 Withdraws R 500 from Branch counter

7/8 Deposits R 4 700 at ABSA ATM

13/8 Withdraws R 250 at an ABSA ATM

13/8 Buys Groceries from Checkers, uses card to pay.

15/8 Buys a take away coffee from Mugg & Bean and uses card to pay.

17/8 Withdraws R 325 at an ABSA ATM.

23/8 Buys clothes from PEP to the value of R 277,50, uses card to pay.

Remember that charges per R100 normally include or part thereof (so part of a R1

*00, therefore you will need to **round up** to the next hundred).*

Solutions for EXAMPLE 2:

Date:	Fee calculation:	Total payable:
	Monthly account fee	R 50
3/8	$R\ 75 + (R\ 2,10 \times \frac{500}{100})$	R 85,50
7/8	$R\ 2 \times \frac{4\ 700}{100}$	R 94
13/8	$R250 \text{ rounded up to the next } R\ 100 = R\ 300$ $So: \frac{300}{100} = 3$ $So: R\ 2 \times 3$	R 6
13/8; 15/8; 23/8	Each time you purchase something using a POS system you pay R2, regardless of the transaction value, $so : R2 \times 3$	R 6
17/8	$R325 \text{ rounded up to the next hundred is: } R\ 400.$ $so: R\ 2 \times \frac{400}{100}$	R 8
Total Bank Fees/ Charges Payable for August:		R249,50

Draw graphs from given bank charge formulae to represent bank charges for different transaction amounts on different types of accounts.

This could require you to:

- first perform calculations with cost.
- Draw graphs of cost & compare the costs for different accounts

EXAMPLE 1:

Below is an extract of the bank charges for withdrawals from two different accounts at ABC bank:

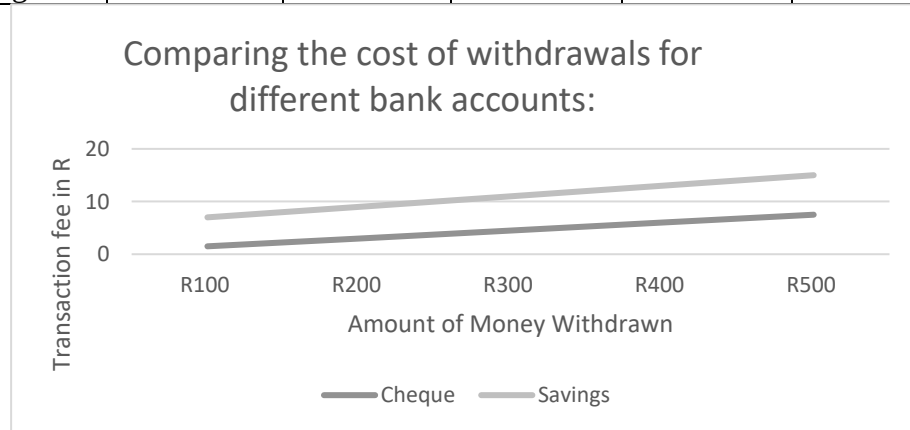
Transaction:	Cheque Account	Savings Account
Cash Withdrawal fee	R1,50 /R100 or part of	R 5 + R2,00 /R 100 or part of

1. Use the information above to calculate the cost of withdrawing (in R 100 intervals) up to R 500 from both types of accounts at ABC Bank.
2. Use the information from your calculations to draw two graphs on set of axes to compare the costs of withdrawing up to R 500.

Solutions EXAMPLE 1:

		Amount withdrawn:				
		R100	R 200	R 300	R 400	R 500
Fee Payable:	Cheque	R1,50	R 3	R 4,50	R 6	R 7,50
	Savings	R7	R 9	R11	R13	R15

2.



ACTIVITIES/ASSESSMENT

Use the information above to help you answer the questions that follow:

1. Use the bank charge information in example 1 for B-Bank to calculate Ben's total monthly bank charges for August.

Below is a list of all his transactions for August:

1/8	Deposit wages at ATM: R 5 600	3/8	Buy Groceries at SPAR: R 287,50
6/8	Withdraw R 250 at B Bank ATM	12/8	Withdraw R 400 at ABC Bank ATM
16/8	Balance enquiry on internet banking	22/8	Withdraw R 125 at own ATM.

2. Study the table below regarding the bank fees at Mega Bank and answer the questions that follow.

Mega Bank Account Fees	
Monthly account fee	R65,00
Cellphone Banking	R0,00
Cash Withdrawals (Mega Bank ATM)	
First R 1 500	R0,00
More than R 1 500	R12,00 + R1,20 per R100(or part thereof)
Cash Withdrawals (Other Bank ATM)	R 15,00

Source : https://www.ecexams.co.za/2019_November_Gr_10_Exams.htm

2.1) Ababalwe withdraws R 1 700 at a Mega Bank ATM. Calculate what this withdrawal will cost her.

2.2) Ababalwe had to transfer R 500 to her mother's account. She decided to use her cellphone banking to do this.
How much did the transaction cost her?

2.3) What is the difference in cost between withdrawing R 275 and R 688 at another Bank's ATM?

3. Use the information below regarding withdrawals and answer the questions that follow:

- Cash withdrawal at POS: R3,00
 - Cash withdrawal at another bank's ATM : R 9,50 + R1,25 / R 100 or part thereof.
- 3.1 Calculate the cost of withdrawing R 100 and R 200 at both options.
- 3.2 Draw two separate graphs indicating the cost of the withdrawals for each option.

Solutions to questions:

1.

$$\frac{1}{8} \quad R1,50 + \left(R2 \times \frac{5600}{100} \right) = R113,50$$

$$\frac{6}{8} \quad R2 \times 3 = R6$$

$\frac{16}{8}$ Free / R 0

$\frac{3}{8}$

R2

$\frac{12}{8}$

$$R11,50 + \left(R2 \times \frac{400}{100} \right) = R19,50$$

$\frac{22}{8}$

$$R2 \times 2 = R4$$

Monthly account charge : R 55

$$\text{Total banking charges : } R113,50 + R2 + R6 + R19,50 + R2 + R55 \\ = R198$$

2.

2.1 $R1\,700 - R1\,500 = R200$ (so she will have to pay for R200)

$$R12 + \left(R1,20 \times \frac{200}{100} \right) \\ = R14,40$$

2.2 R0,00 / Nothing / It was free.

2.3 Nothing, the fee is a fixed amount of R15, regardless of the transaction value.

3.

3.1

	R100	R200
POS	R3	R3
Other ATM	$R9,50 + (R1,25 \times 1) = R10,75$	$R9,50 + (R1,25 \times 2) = R12$

3.2



CONSOLIDATION

Make sure that after going through this lesson you can:

- *identify different types of transactions.*
- *use transaction fees/ bank charges to perform calculations for certain transactions.*
- *draw graphs to indicate the cost of different transactions for different bank accounts.*

VALUES

*Work independently.
Calculate accurately.*