Worksheet 6 – Financial documents and tariff systems

Mathematical Literacy – Grade 11

1. Below is the incomplete bank statement for Johnty's Savings Account. Use the information given below to answer the questions that follow.

Date	Transaction	Payment	Deposit	Balance
1/10/2013	Opening balance			3064.08
1/10/2013	Interest on credit balance		30.64	3094.72
1/10/2013	Cheque (savings deposit)		2400	5494.72
10/10/2013	Purchase	444.27		5050.45
18/10/2013	Deposit			5300.45
23/10/2013	Purchase	685.00		
26/10/2013	Closing balance			

a) How much money did Johnty deposit on 18/10/2013?

b) What is the closing balance for Johnty's account?

c) Use the tariffs below to calculate how much interest Johnty will earn on his closing balance for October 2013. Calculate the closing balance on Johnty's account after adding interest.

Minimum balance	Interest earned on closing balance
R 1 – R 1 499	0.5 %
R 1 500 – R 4 499	1 %
R 4500 – R 9 999	2.2 %
R 10 000+	5.5 %

d) Calculate the balance on Johnty's account after 3 months, if he deposits R 2 400 every month. Remember to take interest into account; he does not withdraw any money in that time.

e) Johnty tells his friend Gary about his great savings account so Gary decides to open a savings account and put R 6 000 into it. He lets his money gather interest for 6 months without withdrawing any funds from his account. Will Gary be able to buy a new TV that costs R 7 500 with the money in his savings account?

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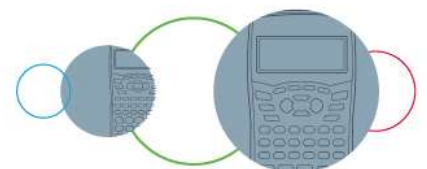
2. The till slip on the right represents the purchase that Johnty made on 10/10/2013. Use the information given on the till slip to answer the questions that follow.

a) What does the asterix next to the price of some products represent?

b) Explain what you mean by your answer for a) and give a reason why it would be done?

c) Calculate the value of taxable products that Johnty bought from the shop.

d) Calculate how much more VAT Johnty would have paid on his shopping if the zero-rated products had been taxed at 14 %.

e) If Johnty had paid cash instead of doing an electronic payment, calculate the change he would have received for R 500.00.

f) What is the total amount that Johnty spent on fruit on the 10th of October 2013?

g) Calculate the percentage discount Johnty received using the coupon to purchase the OVENBAKE STRT-CUT. (Round off to 1 decimal place)

Checkers

Brackenhurst City, Brackenhurst
Tel No 011 439-1100
Tax Invoice VAT NO. 4420106777

COKE ZERO 2L	R15.49
COKE ZERO 2L	R15.49
GOVERNMT BAG 24L	R0.46
GOVERNMT BAG 24L	R0.46
H/BURGER ROLL 1S	R2.60
H/BURGER ROLL 1S	R15.60
OVENBKE STRT-CUT	R19.99 *
ALBANY WHITE SL	R12.49
VEGGIE ROAST 1KG	R22.99 *
9 BALANCE DUE	**R105.57**
Coupons	R2.50
9 BALANCE DUE	**R103.07**
CHSE GOUD +-300G	R25.86
GOVERNMT BAG 24L	R0.46
GOVERNMT BAG 24L	R0.46
FRZ MIX VEG 1KG	R19.99 *
APPLES G/D 1.5KG	R19.99 *
PROC BERG CHEESE	R17.65
YOGH SMP 6X100	R12.69
YOGH CRRY6X100G	R12.69
YOGH SMTH 6X100G	R12.49
I&J FLAMEGRILLS	R25.99
PZZA SPINACI390G	R29.99
FISH CAKES KIN	.99
CHICKERONS-STYLE	R25.99

C0034 30124 13 : 08 : 11 10/10/2013

Please keep your till slip as proof of purchase

WATERMELUN LARGE	R39.99 *
26 BALANCE DUE	**R444.27**
Elect Payment	R444.27

Rate	Vat	TOTAL
14.00%	39.77	323.82
* 0.00%	0.00	122.95

C0034 #0124 13:08:11 071213 S002492 R07
Please keep your till slip
as proof of purchase
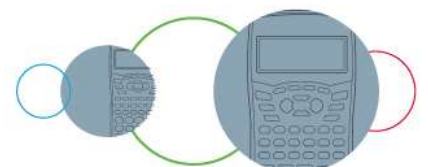
3. Mrs Aplon received the following account for her telephone bill. Answer the questions that follow.

Telkom invoice for MRS C APLON 0477140418

27093/03

MRS APLON
145 KESSEL STREET
FAIRLAND
JOHANNESBURG
2170

This is a tax invoice

Summary of your account

Previous invoice	Balance brought forward	R2,372.79
Opening balance	Amount overdue	R2,372.79
This invoice		R214.44

Enquiries
For account enquiries, fault reporting and to order a new product, see page 4 for contact details.

This invoice (Jun 2012)

Rental		R155.26
Subtotal		**R155.26**
VAT	14%	R21.74
Interest		R 37.45
Total (this invoice)		

We'll need this information

Account no	259900887796
Service ref	0477140418
Invoice no	206A1017262d
Invoice date	4 Jun 2012
Due date	26 Jun 2012
Your VAT reg no	
Group no	77960
Payment code	2011
Control code	088

Payment remittance advice

Please pay as follows:

| Previous invoice | Overdue, please pay immediately | R2,372.75 |
| This invoice | Please pay on or before 26 Jun 2012 | |

Amount now payable

| Coins discontinued | Carried forward to next invoice | R0.03 |
| Closing balance | Amount due | |

**Your main Telkom office**
120 Ontdekkers Road
Roodepoort

This full page must accompany payments at a counter
Telkom SA Ltd, Reg no 1991/005476/06, VAT no 4680101146

Mail Payment slip
(See "By mail" on page 2)

Date issued	Office	Service ref	Cycle		Amount you are paying
4 Jun 2012	Roodepoort	0477140418	A		R
Group no	System no	Payment code	Control code	Amount payable	
77960	9259900885	2011	088	R2,587.20	

<<<<< 9 2021 7796 2599 0088 28 >>>>>

a) How much did Mrs Aplon owe Telkom before she received her monthly statement in June 2012?

b) Calculate the total amount that Mrs Aplon owes for June 2012.

c) Calculate the amount now payable.

d) Mrs Aplon forgets to pay her account and she is charged 6.5% interest on her amount now payable. What is the amount she must pay to clear all her debt?
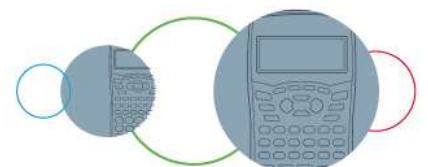
e) Calculate approximately how many months in arrears the account is in if Mrs Aplon spends approximately R 214 a month and incurs 6.5% interest on her account each month.

f) What is Mrs Aplons telephone number? What does Telkom refer to this number as?

4. Paula has a bank account with Beep Bank, below is the Tariff schedule for 2012 as well as the transaction statement for her account for July 2012. Use this information to answer the questions that follow.

Tariff schedule for 2012

TRANSACTION	FEE
MONTHLY FEES	
Monthly administration fee	R 6.00
Internet banking fee	FREE
Cell phone Banking	FREE
DEPOSITS	
Cash (at Beep Bank/ATM)	R 2.00
Cheque (at Beep Bank/ATM)	R 3.00
CASH WITHDRAWALS	
At Beep Bank	R 4.00
Beep Bank ATM	First 2 FREE, thereafter R 1.00 each
Another bank's ATM	R 5.00
Till point	FREE
ACCOUNT PAYMENT AND PURCHASES	
Electronic transfers between accounts	FREE
Electronic account payments	R 0.50
Debit card purchase	First 10 FREE, thereafter R 1.15 each
Debit Order	R 3.00
BALANCE ENQUIRIES	
Beep Bank ATM	FREE
Other ATM	R 3.00
OTHER	
SMS Notification	R 0.85
Statement in branch	R 3.50
Change recurring payments in branch	R 2.50
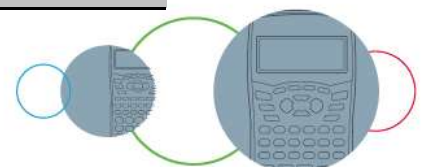
a) Calculate how much Paula was charged for SMS notifications in July?

b) What was the total amount of cash that Paula withdrew from her account in July 2012?

c) Calculate the total cost of the bank fees Paula was charged for ATM and cashier withdrawals in July 2012.

d) Calculate how many debit card purchases were made by Paula in July 2012 if the bank charges her R 3.45 for debit card purchases.

e) Calculate the total bank charges on Paula's account for July 2012.

f) The bank calculates interest on a credit balance at 0.75% per month. How much interest would Paula have earned after bank fees for July have been deducted from her account?

g) What is Paula's opening bank balance in August 2012?

h) Beep Bank offers Paula an account that has fixed bank fees of R 150 per month, should she take this account instead? Why?

Beep Bank Transaction Analysis
Account number: 458 741 2267
1/07/2012 to 31/07/2012

Funds Received/Credits
R 8504.63   (2)

Funds Used/Debits
R 6418.12   (24)

Direct deposit of salary	(1)
R 8004.63	
Cash withdrawals at Beep Bank ATM	(3)
R 1140.00	
Cash withdrawals at other bank ATM	(1)
R 250.00	
Cash withdrawals at cashier	(2)
R 320.00	
SMS Notifications	(14)
?	
Cheques deposited	(1)
R 500.00	
Debit/Stop Orders	(4)
R 3050.00	
Debit card purchases	(?)
R 1422.66	
Electronic transfer to savings account	(1)
R 235.46	

5. Jack and Jill are best friends and their birthdays are one day apart so they decide to host their 18th birthday party together. They get two quotes for the catering for the party and they want to compare the quotes to decide which option is more cost effective.

OPTION 1 – R 135.00 per head for catering, which includes the cost of the venue, but excludes the VAT.

OPTION 2 – R 6000.00 for the hire of the venue and R 90 per head for catering, which includes VAT.
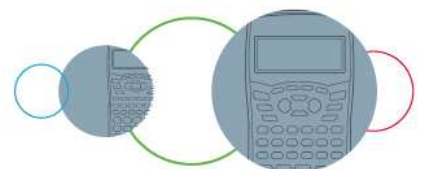
a) Calculate the total cost of each option, assuming they invite 120 guests to the party. Based on your calculations, which catering option should Jack and Jill choose?

b) Jack and Jill choose Option 2 and then they decide to invite another 40 people to their party, the catering company has said that they will offer a 15% discount on the total cost of their party if the total exceeds R 18 500. Do they qualify for this discount? If so, what is the total amount that they pay for the party?

6. Godfrey began a new job at B & G Attorneys on 1 January 2010. He earned a net income of R165 000 per annum. He decided to set aside R 12 000 per month for monthly expenses and then he saved 75% of what remained from his salary so that he could buy a car. Use the information that has been given to answer the questions that follow.

Godfrey's monthly expenses

EXPENSES	MONTHLY EXPENDITURE
Rent	R 5000
Water & Electricity	R 1200
Groceries	R 1600
Insurance	R 500
Phone	R380
Public transport	R 600
Clothing	R 700
Entertainment	R 700
Other	R 450
TOTAL	**R 11 130**

a) Calculate Godfrey's net monthly income.

b) Calculate how much Godfrey saves every month.

c) After 6 months Godfrey decides to invest the money he has saved for a car, the bank offers him 9.4% interest per annum on his money for 2 years. Calculate the future value of his investment using the following formula: $FV = PV \, (1 + i)^n$
Where PV is the amount he invests and i is the interest rate% divided by 100 and n is the number of years.

d) Godfrey gets a 9.2% increase on his salary on the 1st of Jan 2011. Calculate his new net salary.

e) Godfrey works out that he needs to spend R 850 on fuel, R 600 on insurance and R 400 on maintenance each month as well as spending R 2100 on car repayments, calculate his new total monthly expenditure.
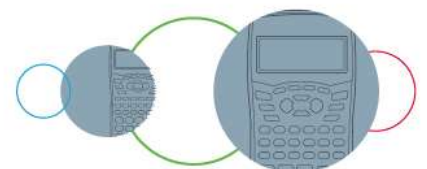
f)   Godfrey decides to save all the money he has left over after expense, calculate how much he is able to save each month.

7.   Sofia wants to buy a new car and is offered a very low monthly repayment by the bank. She discovers the reason for this is that they have included a residual/balloon payment of 35%. Answer the questions that follow.

   a)   What is a residual or balloon payment?

   b)   Calculate the residual amount if Sofia's car costs R 227 500.

   c)   The bank offers Sofia a rate of 8% per year over 60 months with a 35% residual on her new car. Calculate the total amount she will end up paying for her car. (Assume she will not have to refinance the residual.) Use the formula $FV = PV (1 + i)^n$.

   d)   Calculate the monthly repayments that Sofia will have to make on her new car.

   e)   If Sofia's car depreciates at a rate of 21% per year, calculate the value of her car after 60 months.

   f)   Will Sofia be able to completely pay off her balloon payment by trading in her car?