NORTHERN CAPE DEPARTMENT OF EDUCATION

MATHEMATICAL

LITERACY

LEARNER NOTES

with MEMO at the END

TERM 1

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~ FINANCE ~

1. FINANCIAL DOCUMENTS

You need to be able to find information from a variety of documents (till slips, account statements and bills, etc.). You also need to understand and check the calculations.

1. Read the financial document with comprehension – look for names, dates, balances etc.
2. Read the question carefully.
3. Read the financial document again.
4. Answer the questions.

HOME LOAN STATEMENT

1. A loan agreement between two parties.
2. The lender gives money to the borrower, with the expectation that the money will be repaid, together with interest within a fixed period of time.
3. The interest on the loan is calculated using either a fixed or variable interest rate.
4. The fixed time period of the loan is often referred to as the term of the loan and is usually stated in months.

EXAMPLE

ANNEXURE A shows a home loan statement and transaction history for the period 1 March 2017 to 28 February 2018.

PLEASE NOTE:
- The loan period is 20 years.

1. Give the name of the borrower.
   Mr J.J.B. du Toit (2)

2. What is the loan amount?
   R900 000,00 (2)

3. What does the term *debit* mean in the context of the question?
   It is the amount of money that the borrower owes the bank/loan organisation. (2)

4. Determine **A**, the initial fee.
   R5 250 × 1,14
   = R5 985,00

   OR

   $R5\ 250 + (\frac{14}{100} \times R5\ 250)$
   = R5 250 + R735
   = R5 985,00

   OR

R905 985,00 – R900 000,00
= R5 985,00 (3)

1.5 The interest rate decreases on 1 March 2018 by 0,25%. Determine the interest rate that is used from 1 March 2018.

9,52% - 0,25%
= 9,27% (2)

1.6 Calculate the total interest that was charged for the tax year ending 28 February 2018. (2)

R5 434,92 + R6 596,06
= R12 030,98 (2)

1.7 VAT increased on 1 April 2018 from 14% to 15%. If the initial fee were to be calculated on 1 April 2018, how much more would the borrower had to pay as a result of the increased VAT?

New initial fee = R5 250 × 1,15
= R6 037,50

Difference in VAT = R6 037,50 – R5 985,00
= R52,50 (3)

1.8 Calculate the amount interest owed on 31 March 2018 that will be shown on the next statement.

You may use the following formula:

$$\textbf{Interest} = \frac{\mathbf{B} \times \mathbf{n} \times \mathbf{r}}{\mathbf{365}} \text{ where,}$$

B = closing balance on last day of previous month
n = number of days in month
r = interest rate

$$\text{Interest} = \frac{\text{R909 488,57} \times 31 \times 9{,}27\%}{365}$$
= R7 160,54 (3)

[19]

ANNEXURE A - HOME LOAN STATEMENT

MR J.J.B. DU TOIT P.O. Box 354 UPINGTON 8800	**Date**	2018-02-28
	Statement period	2017-03-01 to 2018-02-28
Account number: 5439823498		

Name of branch	Thibault Square		
Approved loan amount	R900 000,00	**Monthy payment**	R8 527,41
Current interest rate	9,52%	**Pay date**	2018/04/03
		Payment frequency	Monthly

Date of transaction	Transaction	Debit	Credit	Balance
2018-01-09	BROUGHT FORWARD	900 000,00		900 000,00
2018-01-09	Initial fee*	**A**		905 985,00
2018-01-31	Interest	5 434,92		911 419,92
2018-02-02	Debit order		8 527,41	902 892,51
2018-02-28	Interest	6 596,06		909 488,57

* Total cost: R5 250 (VAT excluded) + VAT ... = **A**

The VAT on all fees and cost on you loan account shall increase from 14% to 15% with effect of 1 April 2018. All costs on our statements on which VAT is charged is indicated by an asterisk (*).

QUESTION 1

MONTHLY MEDICAL AID STATEMENT

Mrs Chan, a teacher from Brakpan, received a monthly statement from GEMS (Government Employee Medical Scheme), as shown in ANNEXURE B. Mrs Chan has one dependent, her son Lee, on her medical aid.

Use ANNEXURE B to answer the questions that follow.

1.1 Which month is covered by this statement? (2)

1.2 State why the member had to pay R445,10 to the supplier. (2)

1.3 Write down the name of the general practitioner visited. (2)

1.4 Calculate the new price of the acute medication (under the tariff code) if the price increased by 6,3%. (3)

1.5 Calculate the total amount of tax claimable in the previous statements if the tax claimable is the amount paid by the member directly to the supplier. (2)

1.6 Define the term *debit* within the context of the statement. (2)

1.7 Show how the total amount of R479,75 was calculated. (2)

[15]

ANNEXURE B

GEMS	**MEMBER: 3526178** **MRS CHAN**				**STATEMENT REFERENCE: A356748** **DOCUMENT REFERENCE: 5109725**							**DATE 15/12/17** **STATEMENT 187992**	
Transaction information					**Payment information**								
Date treated	Patient	Tariff code	Amount claimed	Benefit approved	Scheme paid supplier	Scheme paid member	Member owes scheme	Member paid/owes supplier	See below		Amount paid in hospital benefit	Amount paid from other limits	Tax claimable amount
DIS-CHEM PHARMACY 098 234 (Chemist)													
08/12/17	Lee	Acute	736,90						9505				
08/12/17	Lee	Chronic	173,03	173,03	173,03							173,03	
08/12/17	Lee	Chronic	117,44	117,44	117,44							117,44	
08/12/17	Lee	Chronic	61,50	61,50	61,50							61,50	
08/12/17	Lee	Chronic	80,98	80,98	80,98							80,98	
08/12/17	Lee	Chronic	46,80	46,80	46,80							46,80	
Dhlamini M DR 1627805 (General Practitioner)													
08/12/17	Lee	0192	343,00					343,00	870				343,00
09/12/17	Lee	0132	102,10					102,10	870				102,10
Totals:			**1 661,75**	**479,75**				**445,10**					**445,10**

Summary of Financial Information	
Payable to Member (Credit)	0,00
Less owed to Scheme (Debit)	0,00
Member to pay Supplier(s) (Debit)	445,10
Tax claimable to date	5 326,66

Summary of codes	
870	Overall Limit Exceeded
9505	Pre authorisation required

QUESTION 2

TAX CERTIFICATE

Ulwazi received his employee tax certificate (IRP5) (ANNEXURE C) for the financial year ending 28 February 2013. Some of the information has been omitted.

Use ANNEXURE C to answer the following questions.

2.1 Briefly explain the difference between an *employee* and an *employer*. (2)

2.2 What does the abbreviation *UIF* stand for? (2)

2.3 Write down the taxable amount that Ulwazi received as an annual payment. (2)

2.4 Did Ulwazi receive a non-taxable reimbursive travel allowance? Give a valid reason for your answer. (2)

2.5 Calculate the average monthly medical scheme fees tax credit. (2)

2.6 Calculate the missing amount **A**. (2)

2.7 Indicate how the gross non-retirement funding income was calculated. (2)

2.8 From 1 March 2012 to 31 July 2012 Ulwazi contributed a total of R4 975,25 to his pension fund.
Determine the average monthly contribution for the remainder of the financial year. (5)

[19]

ANNEXURE C

EMPLOYEE TAX CERTIFICATE

Transaction year: 2013 | Year of Assessment: 2013 | Period of reconciliation: 2012/2013

TYPE OF CERTIFICATE: IRP5

EMPLOYEE INFORMATION

Surname:	Ramile	Date of birth:	19750616
First name:	Ulwazi	Income tax number:	0804858209

EMPLOYER INFORMATION

Trading or other name: **Department of Education**

INCOME RECEIVED			INCOME RECEIVED CONTINUED …			TAX CREDITS, CONTRIBUTIONS		
	AMOUNT	SOURCE CODE		AMOUNT	SOURCE CODE		AMOUNT	SOURCE CODE
R	185 463	**3601**	GROSS RETIREMENT FUNDING INCOME			PAY-AS-YOU-EARN		
R	15 521	**3605**	R	185 463	**3697**	R	30 075,79	**4102**
R	26 188	**3713**	GROSS NON-RETIREMENT FUNDING INCOME			TOTAL TAX AND UIF		
R	8 640	**3810**	R	50 349	**3697**	R	30 075,79	**4149**
						MEDICAL SCHEME CONTRIBUTIONS TAX CREDIT		
			DEDUCTIONS/CONTRIBUTIONS			R	2 760,00	**4116**
			R	13 909	**4001**			
			R	20 013	**4005**			
			R	8 640	**4474**			
			TOTAL DEDUCTIONS/CONTRIBUTIONS					
			R	**A**	**4497**			

SOME SOURCE CODES

3601	INCOME – TAXABLE	**3713**	OTHER ALLOWANCES – TAXABLE	**4005**	MEDICAL AID CONTRIBUTIONS
3605	ANNUAL PAYMENT – TAXABLE	**3810**	MEDICAL AID CONTRIBUTIONS PAID ON BEHALF OF EMPLOYEE	**4474**	EMPLOYER'S MEDICAL AID CONTRIBUTIONS
3703	REIMBURSIVE TRAVEL ALLOWANCES – NON-TAXABLE	**4001**	CURRENT PENSION FUND CONTRIBUTIONS	**4497**	TOTAL DEDUCTIONS/CONTRIBUTIONS

BANK STATEMENT

A bank statement is usually sent to the account holder monthly.

Bank statements show the following for each transaction:
- the date of the transaction
- a description of the transaction, showing the type of transaction
- the amount of the transaction, indicating whether it is a debit or credit (often in different columns)
- a column for the balance after each transaction.

Account holder: The person whose name the account is in.
Transaction: Any event where money moves into or out of an account.
Debit transaction: Amount of money paid out of an account.
Credit transaction: Amount of money deposited into an account.
Opening Balance: The amount in the account at the beginning of the period.
Closing balance: The final amount at the end of the period.

Banks offer different types of accounts and services:
- Savings account: A bank account that earns interest. You can use a savings account for short – term savings.

- Cheque or current account: A bank account that is used to deposit and withdraw money by visiting the bank branch, using an ATM or Internet banking or by writing a cheque. These are usually available to people who earn a regular income.

- Fixed deposit account: This account is aimed at those who have a lump sum they want to invest over a fixed period of time (i.e. a medium or long term saving). Interest is also earned on the investment.

- Credit account (with credit card): An account either with a store or bank, that allows the account holder to purchase items now and pay for them later.

- Debit account (with debit card): Debit cards can be used to pay for purchases. When it's swiped, money is deducted from the account. Credit is not available on this account.

QUESTION 3

Bank account holders are allowed to request periodical (i.e. either for weekly, monthly, six months period, etc.) statements on their accounts.

A TSD Bank Prestige Plus Current account statement for the period 09/09/2017 to 16/09/2017 is shown on ANNEXURE D.

Use ANNEXURE D to answer the questions that follow.

3.1 Write down the name of the account holder. (2)

3.2 Determine the total number of TRANSACTIONS made on this account. (2)

3.3 Determine the probability of choosing a transaction made on 15/09/2017. (2)

3.4 Calculate the total amount of IB transactions made on this account. (3)

3.5 The account holder owed the bank a certain amount on a particular day. Identify the amount that the account holder owed the bank. (2)

3.6 Calculate the total amount deposited into this account during the period of the statement. (2)

3.7 What percentage of the total amount deposited into this account was paid towards TSD BANK BOND? (3)

3.8 Calculate the Pre-Paid Electricity fee on 16/09/2017. (2)

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ANNEXURE D

Prestige Plus Current Account Statement

TSD Bank
Cornerstone Building
Marshalltown
Gauteng 2107

From: 09/09/2017
To: 16/09/2017

Account Number: 47 962 1719

Miss T Diale
1145 Leslie Street
Vereeniging 1930

Details	Debit (R)	Credit (R)	Date	Balance (R)
Balance Brought Forward				54,31
IB Payment to Tuff Lady	20,00		09/09/2017	34,31
Purchase	63,98		13/09/2017	29,67-
Salary 9282		382,14	14/09/2017	352,47
Salary 9004		22 695,98	15/09/2017	23 048,45
Salary 9234		191,07	15/09/2017	23 239,52
IB Transfer to Teboho	2 400,00		15/09/2017	20 839,52
IB Payment to Mike	1 000,00		15/09/2017	19 839,52
IB Payment to Ntsiki	600,00		15/09/2017	19 239,52
Credit Card	2 361,52		15/09/2017	16 878,00
Insurance 9847	500,00		15/09/2017	16 378,00
Insurance 9140	532,75		15/09/2017	15 845,25
STD Bank Bond	5 569,75		15/09/2017	10 275,50
Insurance 9303	801,23		15/09/2017	9 474,27
Pre-Paid Electricity	100,00		16/09/2017	9 374,27
Vehicle repayment	3 168,79		16/09/2017	6 205,48
##Pre-Paid Electricity Fee	…		16/09/2017	6 204,38
Ladies Fitness	289,00		16/09/2017	5 915,38

End

NB: Transaction means any debits or credits on the account.

IB > Internet Banking Transactions
These fees are inclusive of VAT at 14% (Statement prior to increase in VAT)

TILL SLIP

A till slip is a receipt which serves as a proof of payment for goods and services. Every time you buy an item from a shop, you should receive a till slip.

By law, South African till slips must include:
• the name of the shop
• the address of the shop
• the VAT number of the shop
• the words "Tax Invoice"
• the shop's invoice number
• the date and time of the sale
• a description of the items or services bought
• the amount of VAT charged (15%)
• the total amount payable.

VAT is not charged on some essential groceries in South Africa. These include : paraffin; brown bread; maize meal; samp; mealie rice; dried mealies; dried beans; lentils; tinned sardines; milk powder; milk; rice; vegetables; fruit; vegetable oil and eggs.

RESTAURANT BILL (TILL SLIP)

QUESTION 4

TABLE 1: MEALS ORDERED BY THE FOUR FRIENDS AT 'MEET & EAT' RESTAURANT.

Sibahle	Kananelo	Collen	Aanadi
2 Sodas Green salad Garlic loaf Steak and chips	Fruit cocktail juice Chicken & Avo salad	Green salad Vegetarian pizza Chocolate milk shake	Nachos Ribs 2 Grape juices Ice cream & chocolate sauce

TABLE 2: COMBINED BILL FOR MEALS ORDERED BY THE FOUR FRIENDS FROM MEET & EAT RESTAURANT

BILL **Meet & Eat Restaurant** 19 December 2016 Table: 7 Waiter: Mark	
1 Soda	R 12.50
1 Fruit Cocktail Juice	R 14.50
1 Chocolate Milkshake	R 15.50
2 Grape juices	R 29.00
2 Green Salads	R 46.00
1 Chicken & Avo Salad	R 48.00
1 Garlic Loaf	R 28.00
1 Nachos (Hot)	R 42.00
1 Steak & Chips	RI05.00
1 Vegetable Pizza	R 65.00
1 Ribs (Special)	R 92.00
1 Soda	R 12.50
1 Ice cream & Choc Sauce	R 24.00
Sub-total:	**R534.00**
Gratuity (Tip):	.....
Total Amount:	.....

KEY: Gratuity(tip) is an amount of money given to the waiter by a customer in return for service.

4.1 Write down the name of the waiter who served the FOUR friends at the Meet and Eat restaurant. (2)

4.2 The total amount for all the drinks (liquids) is R84,00 according to the bill. Verify this amount. (2)

4.3 Calculate the price of one Grape Juice. (2)

4.4 The minimum gratuity amount is 10% of the Sub-total amount. Determine the minimum gratuity (tip) the FOUR friends should pay to the waiter. (2)

4.5 Calculate the total amount of the bill. (2)

4.6 The FOUR friends decided to divide the total amount of the bill equally amongs themselves. Calculate the amount each person must pay. (2)

[12]

MUNICIPAL BILLS

A bill send to you for services used by your household, such as electricity and water.
Tariff is the rate charged per unit for the services.

QUESTION 5

ANNEXURE E shows an extract from Mr Daniels' monthly municipal statement including the residential water and sewer tariff tables.

5.1 Write down the market value in words. (2)

5.2 Write down the unit of measurement that was used for the meter readings. (2)

5.3 Determine the value of **A**. (2)
[6]

ANNEXURE E

EXTRACT FROM MR DANIELS' MONTHLY MUNICIPAL STATEMENT

Mr KJ Daniels 14 Sirkoon Street Kruger Park 2738	Date: 2019/03/12 Statement for: March 2019

STAND SIZE	NUMBER OF DWELLINGS	DATE OF VALUATION	PORTION	MUNICIPAL VALUATION	REGION
463 m^2	1	2018/07/01	R1	Market value R944 630,00	WARD C

ACCOUNT NUMBER: 345 678 8900 60			
		SUBTOTAL (R)	TOTAL AMOUNT (R)
Water and sewer			
Reading period	2019/01/16 to 2019/02/12		
Meter reading	Start: 795 000 End: 807 000		
Water usage	12 kℓ (kilolitres)		
Daily average consumption	0,429 kℓ		
Charges for 12 kℓ are based on a sliding scale for a 28-day period			
Total water charge (excluding VAT)		B	
Water demand management levy		22,64	
Monthly sewer charge based on stand size (excluding VAT)		A	
VAT: 15%		73,75	

PAYMENT DUE		XXX
DUE DATE		2019/03/27

STEPPED RESIDENTIAL WATER TARIFF	
KILOLITRES PER CONNECTION PER MONTH	2018/19 TARIFF (R/kℓ) EXCLUDING 15% VAT
from 0 to 6	8,28
above 6 to 10	8,79
above 10 to 15	15,00
above 15 to 20	21,83

SEWER MONTHLY CHARGE BASED ON STAND SIZE	
STAND SIZE (m^2)	2018/19 TOTAL CHARGE (IN RAND) EXCLUDING 15% VAT
Up to and including 300 m^2	194,67
Larger than 300 m^2 to 1 000 m^2	378,95
Larger than 1 000 m^2 to 2 000 m^2	573,29
Larger than 2 000 m^2	836,02

[Adapted from www.joburgwater.co.za and www.jotariffs.co.za]

ACCOUNT STATEMENTS

At some clothing and food stores, it is possible to open an account, buy goods on credit and pay off what you owe the store on a monthly basis.

Send to clients normally once a month e.g. Edgars statement.

It usually includes:

- purchases
- interest
- payments made on account
- amount due
- due date

Debit on the statement refers to money that is owed by the client.
Credit on the statement refers to an amount paid on the account (by the client).

2. TARIFF SYSTEMS

A tariff is the amount at which a single unit for a service is charged e.g.
Cell phone – per minute or per second
Electricity - per kilowatt-hours
Water – per kilolitre

EXAMPLE

The graphs below show the water tariffs for Cape Town and Johannesburg.
Study the graphs below and answer the questions which follow.

CAPE TOWN Kilolitres (kℓ) used per month		**Price**	**Increase (%)**
Step 1	0–6	Free R4,56	New
Step 2	6–10,5	R16,54 R17,75	7,3%
Step 3	10,5–20	R23,54 R25,97	10,3%
Step 4	20–35	R40,96 R43,69	6,6%
Step 5	35–50	R66,41 R113,99	71,6%
Step 6	> 50	R200,10 R302,24	51%

JOHANNESBURG Kilolitres (kℓ) used per month		**Price**	**Increase (%)**
Step 1	0–6	Free R7,14	New
Step 2	6–10	R7,14 R7,58	6,2%
Step 3	10–15	R12,07 R13,17	9,1%
Step 4	15–20	R17,65 R19,63	11,2%
Step 5	20–30	R24,03 R26,96	12,2%
Step 6	30–40	R25,81 R29,22	13,2%
Step 7	40–50	R32,27 R37,11	18%
Step 8	> 50	New R38,72	20%
		Key: 2016/17 2017/18	

1. Identify the step that indicates the largest increase (in rand) in Cape Town's water tariff from 2016/17 to 2017/18.
   Step 6 (2)

2. Determine in which ONE of the two cities water is more expensive.
   Cape Town (2)

3. Calculate the cost of 3,5 kℓ of water in Johannesburg during 2017/18.
   Cost = 3,5 kℓ × R7,14 = R24,99 (2)

[6]

QUESTION 1

The table below shows the Emfuleni Local Municipality domestic electricity tariffs during a low season period.

TABLE 2: EMFULENI LOCAL MUNICIPALITY DOMESTIC ELECTRICITY TARIFFS (R) FOR 2016/17

	Household All tariffs are 14% VAT exclusive	
Block 1	0–50kWh	R0,9015 per kWh
Block 2	51–350kWh	R1,0161 per kWh
Block 3	351–600kWh	R1,3594 per kWh
Block 4	above 600 kWh	R1,6314 per kWh

[Source: www.emfueni.gov.za]

1.1 Show with calculations, the amount paid for using 400 kWh of electricity. (4)

1.2 Calculate the amount (to two decimal places) for a customer who used 183,9745 kWh of electricity in Block 3. (3)

[7]

QUESTION 2

Below is an extract from Mr Daniels' monthly municipal statement including the residential water and sewer tariff tables.

2.1 Use the stepped residential water tariff table to calculate the value of **B**, the total amount for water usage. (4)
[4]

ACCOUNT NUMBER: 345 678 8900 60			
		SUBTOTAL (R)	TOTAL AMOUNT (R)
Water and sewer			
Reading period	2019/01/16 to 2019/02/12		
Meter reading	Start: 795 000 End: 807 000		
Water usage	12 kℓ (kilolitres)		
Daily average consumption	0,429 kℓ		
Charges for 12 kℓ are based on a sliding scale for a 28-day period			
Total water charge (excluding VAT)		B	
Water demand management levy		22,64	
Monthly sewer charge based on stand size (excluding VAT)		A	
VAT: 15%		73,75	

PAYMENT DUE		XXX
DUE DATE		2019/03/27

STEPPED RESIDENTIAL WATER TARIFF	
KILOLITRES PER CONNECTION PER MONTH	2018/19 TARIFF (R/kℓ) EXCLUDING 15% VAT
from 0 to 6	8,28
above 6 to 10	8,79
above 10 to 15	15,00
above 15 to 20	21,83

SEWER MONTHLY CHARGE BASED ON STAND SIZE	
STAND SIZE (m^2)	2018/19 TOTAL CHARGE (IN RAND) EXCLUDING 15% VAT
Up to and including 300 m^2	194,67
Larger than 300 m^2 to 1 000 m^2	378,95
Larger than 1 000 m^2 to 2 000 m^2	573,29
Larger than 2 000 m^2	836,02

[Adapted from www.joburgwater.co.za and www.jotariffs.co.za]

3. INCOME, EXPENDITURE, INCOME AND EXPENDITURE STATEMENT AND BUDGET

A **INCOME AND EXPENDITURE STATEMENT** is a list of actual income and expenditure.

A **BUDGET** is a plan for using income to cover expenses. It is a list of expected (estimated) income and expenditure.

INCOME
- Salary – monthly earnings from an employer
- Wages – weekly earnings from an employer
- Commission – money earned for selling
- Profit – extra money gained on sales of goods and services
- Gifts
- Financial assistance
- Rental income for a property

EXPENSES
- Living expenses
- Accounts
- Telephone
- Insurance
- Personal taxes
- Loan repayments
- Savings
- Salaries and wages
- Business running expenses

Types of Income or Expenses:
- Fixed means it does not change with time. Constant rand value per month.
- Variable means it changes over time, according to the situation. Rand value differs every month.
- Occasional means it occurs from time to time. Not always received or paid.

QUESTION 1

Ulwazi and Ami are engaged and plan to get married. They are planning their wedding reception. They plan to invite 67 couples and 16 single persons as the only guests to the reception.

The table below is an extract from the budget for the wedding reception.

TABLE 1: EXTRACT FROM THE BUDGET FOR THE WEDDING RECEPTION

Reception costs	
Venue	R22 100
Catering	R34 200
Drinks	R7 650
Wedding cake	R2 500
Subtotal	**R66 450**
Other expenses	
Flowers and decorations	**…**
…	**…**
Subtotal	**…**
TOTAL BUDGETED AMOUNT	**R125 000**

[www.coinmill.com. Accessed on 3 November 2014.]

Currency: 1 rand = 0,32253 Ghanaian cedi (GHC)

Use the table above to answer the following questions.

1.1 Determine the total number of guests they plan to invite to their wedding reception. (2)

1.2 Show how the catering cost was determined if the cost per person is R225,00. (2)

1.3 Express the total reception cost as a percentage of the total budgeted amount. (2)

1.4 Calculate the cost of the flowers and decorations if it is 1,8% of the total budgeted amount. (2)

1.5 Identify ONE expense, other than flowers and décor that could be included in the budget and briefly explain this expense. (2)

[10]

QUESTION 2 - NATIONAL BUDGET

During the last budget speech on 28 February 2017, Minister Pravin Gordon released the National Budget for South Africa for the 2017/2018 budget year. Study TABLE 2 and answer the questions that follow.

TABLE 2: GOVERNMENT EXPENDITURE BY FUNCTION

R (in million)	**2016/2017 Estimate**	**2017/2018 Estimate**	**2018/2019 Estimate**	**2019/2020 Estimate**
Basic Education	**226 643**	**242 968**	**261 292**	**280 139**
Health	**170 888**	**187 483**	**201 377**	**217 131**
Defence, Public Order and Safety	**190 036**	**198 702**	**210 814**	**224 956**
Post-school Education and Training	**68 952**	**77 550**	**80 856**	**89 839**
Economic Affairs	**201 658**	**215 047**	**227 995**	**244 003**
Municipal Infrastructures	**179 834**	**195 751**	**210 170**	**226 402**
Total General Public Services consisting of:	**69 977**	**70 695**	**72 462**	**75 616**
• Executive and legislative organs	12 976	14 340	15 202	16 089
• General public administration	45 185	43 943	44 584	46 775
• External affairs and foreign aid	11 816	12 412	12 677	12 752
Agriculture, Land Reform	**25 998**	**26 534**	**27 923**	**29 826**
Social Protection	**164 936**	**180 046**	**193 548**	**209 088**
Allocated by function	**1 298 923**	**1 394 776**	**1 486 437**	**1 597 001**

[Source: www.statssa.gov.za]

2.1 Which function was allocated the most money in this budget? (2)

2.2 Write down the ratio of funds allocated for Basic education to funds allocated for Post School Education and Training for 2016/2017 in the form 1 : .... (2)

2.3 Show how the projected expenditure of R70 695 million for General Public Services was calculated for the 2017/2018 budget year. (2)

2.4 Calculate the percentage of the expenditures that was allocated to Economic Affairs in the 2016/2017 budget year. (3)

2.5 Calculate the increase (in Rand) for the estimated expenditures of Basic Education from the 2017/2018 budget year to the 2019/2020 budget year. (3)

[12]

4. COST PRICE AND SELLING PRICE, PROFIT / LOSS, BREAK-EVEN ANALYSIS

Cost price: The price at which goods are or have been bought by a merchant or retailer. It is the total amount of money that it costs a manufacturer to produce a given product or provide a given service.

The cost price consist of:

- Production cost – cost in manufacturing the product e.g. labour, raw materials
- Operating costs – cost involved in the daily running of the business e.g. rent, water, Stationary

Selling Price: The price at which goods or services are sold by the seller to the buyer. The market value of the product.

Profit: A financial gain, especially the difference between the selling price (income) and the cost price (expenses). Income is bigger than the expenses.
Income > Expenses

Loss: When the expenses are more than the income.
Income < Expenses

Break-even point: Income = Expenses, no profit or loss is made. Where the income and expenses graphs intercept.

QUESTION 1

Tebogo decided to remove garden waste on Saturdays.

She hires a bakkie and a trailer at R400 a day. She asked her friend James to help her. She pays James R300 per day.

Tebogo receives R20 per drum she removes.

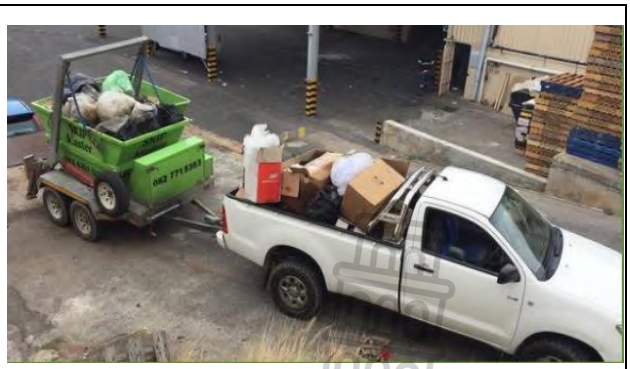


PHOTO 1: Hired trailer and bakkie

Use the above information and answer the questions that follow:

1.1 Calculate Tebogo's daily fixed expenses. (2)

1.2 Tebogo has removed 80 drums and her variable expenses are R240. Calculate the variable expenses per drum. (2)

1.3 TABLE 1 below shows the ratio between the number of drums (with waste) and the total expenses.

TABLE 1: EXPENSES OF REMOVAL OF WASTE DRUMS

Number of drums (*n*)	0	10	20	30	40	50	80
Expenses (C) in Rand	700	730	760	**A**	820	850	940

1.3.1 Write down a formula in the form **Expenses (C) = ...** to determine the expenses (C) if a number of drums (*n*) are removed. (2)

1.3.2 Hence determine the value of **A**. (2)

1.3.3 Determine the number of drums that were removed for R1 000. (2)

1.4 Tebogo receives R20 to remove 1 drum. On a certain day, she received R1 600. Calculate the number of drums she removed on that specific day. (2)

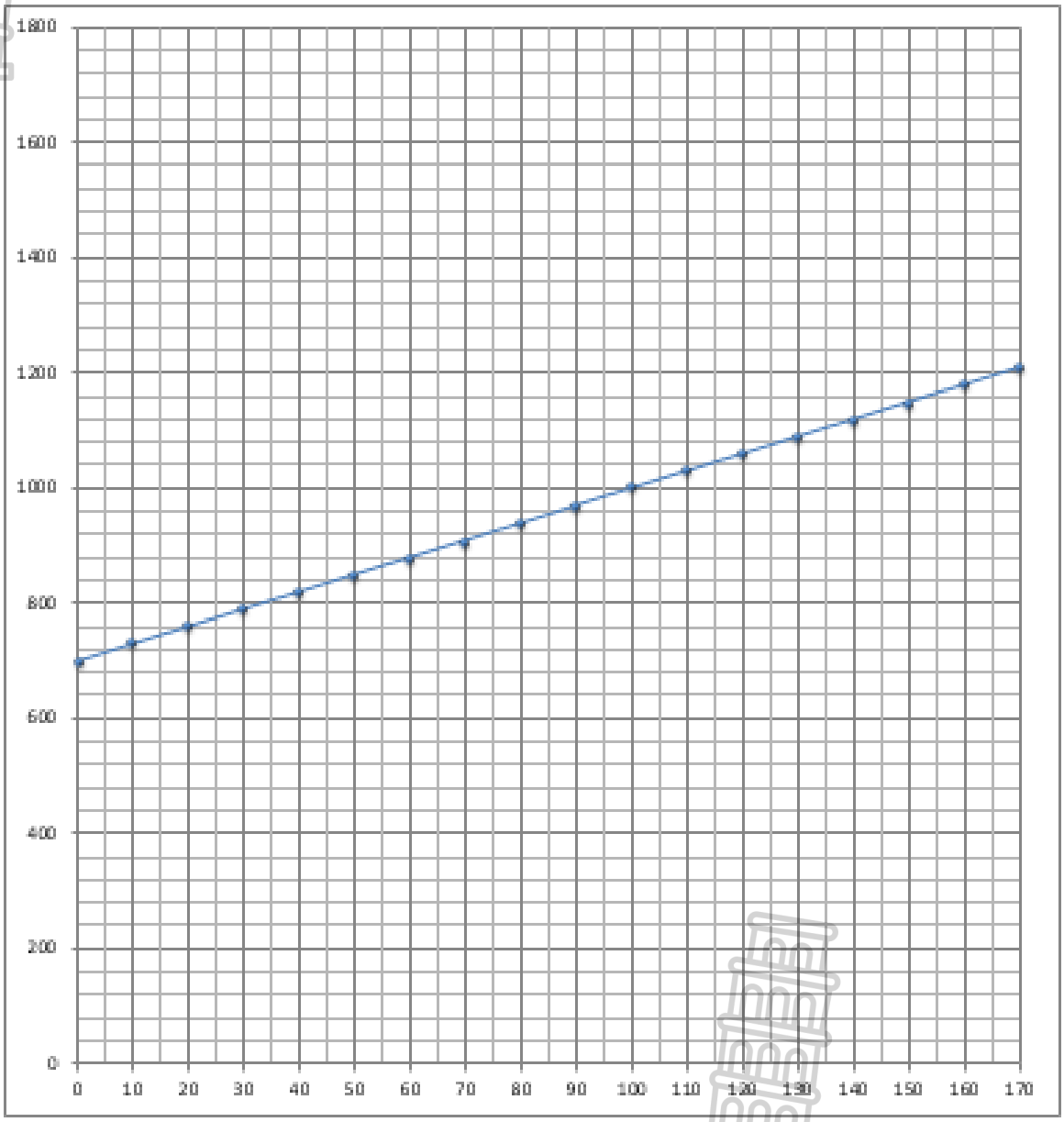
1.5 The graph of Tebogo's expenses is drawn on the ANSWER SHEET provided. Now draw the graph of Tebogo's income on the same set of axes and **name the axes and the graph appropriately.** (6)

1.6 Use the following formula and determine the number of drums that should be removed to break even.

$$\text{Number of drums} = \frac{\text{Fixed expenses}}{\text{Income per unit} - \text{variable cost per unit}}$$ (3)

[21]

ANSWER SHEET: QUESTION 1
NAME: _____ GRADE 12: _____

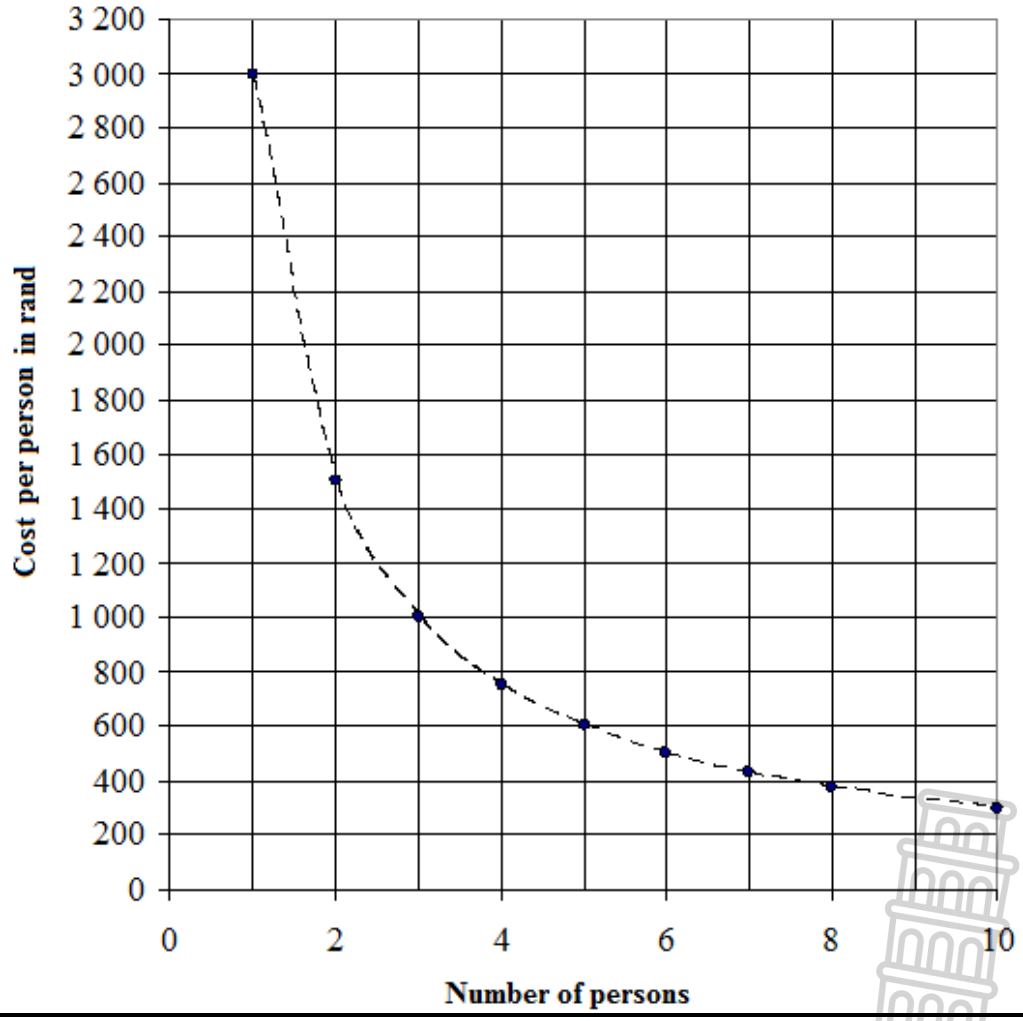


QUESTION 2

Josh owns a specially designed refuse removal truck. He hires out this truck at a daily rate of R3 000, excluding fuel. A group of friends decided to use the truck for the day to carry their refuse to the nearby dumping ground.

The graph below indicates the amount each person will pay depending on the number of friends.

COST OF HIRING THE TRUCK



Use the graph above to answer the questions that follow.

2.1 State the type of proportion represented in the graph above. (2)

2.2 Write down the number of friends in the group if each paid R500. (2)

2.3 Calculate the amount each person will pay if 7 friends hired the truck. (3)

[7]

5. INTEREST

NOTES

Money paid regularly at a particular rate for the use or loan of money. It can be paid by a financial organisation or bank to you (in the case of savings), or it may be payable by you to a financial organisation on money you borrowed from the organisation.

Interest rate	is the percentage used to calculate the amount of interest that is either earned or charged.
Principal amount	is the original amount of money initially invested or borrowed, i.e. the starting amount.
Accumulated / total amount	of the investment or loan is the final amount which is made up of the principal amount plus interest.
Time	Time period of the investment or loan is the length of time that the money is invested or borrowed for.
Simple interest	Interest charged on the original amount due, resulting in the same fee every time. Interest is calculated only on the principal amount of money that is invested / borrowed.
Compound interest	Interest charged on an amount due, but including interest charges to date. Interest is calculated on the accumulated / total amount of money i.e. on the principal amount plus on any interest accrued (i.e. interest on interest.

EXAMPLES

A wall unit is advertised. The cash price of the wall unit is R6 499,99.
Alternatively you could choose to buy it on hire purchase and pay for it in instalments over 3 years.
If you choose to pay it off in instalments, you would pay interest every month on the wall unit.

1. Calculate what the wall unit will cost if you pay a cash deposit of R650,00 and 36 monthly instalments of R449,00 each.
   The total = cash deposit + 36 monthly instalments

2. Calculate how much interest you will pay in total (in Rand) if you pay off the wall unit in instalments.
   Interest amount = total payments – cash price

3. Calculate the interest rate.
   Interest rate = (Interest ÷ money owed) × 100

4. Do you think it is better to save up and buy the wall unit at the cash price, or pay it off in 3 years?
   Explain your answer.

Solutions:

1. The total = cash deposit + 36 monthly instalments
   The total = R650,00 + (R449,00 × 36)
   The total = R650,00 + R16 164,00
   = R16 814,00

2. Interest amount = total payments – cash price
   Interest amount = R16 814,00 – R6 499,00
   = R10 314,01

3. You owe R6 499,99 – R650,00 = R5 849,99
   Interest rate = (R10 314,01 ÷ R5 849,99) × 100
   = 176,3% over 3 years
   ∴ 58,8% per annum

4. It is much cheaper to save up and buy the wall unit at the cash price. Over the three years, the total amount you would pay in instalments is almost three times the cash price.

QUESTION 1

Jacob decides to buy a dishwasher based upon the advertisement below.

COME TO BEST BUY FOR THE BET DEALS IN TOWN

Best Buy Dealers: Dish Washer

Cost Price : R2 699.00

OR

Only 10% Deposit

plus 24 equal monthly installments of **R 177,53**

1.1 Calculate the total cost of the dishwasher if Jacob decides to buy the dishwasher using the installment option (3)

1.2 Jacob wants to take a loan from ABC Bank for the full cash price of the dishwasher. The bank will charge him interest of 18 % p.a. compounded yearly if he is to repay the loan over two years in equal monthly installments. Is it advisable for him to use this option? Justify your answer with calculation and give a reason. (6)
[9]

QUESTION 2

The following advertisement was found in a local newspaper.

Use the information above to answer the questions that follow.

2.1 Does the advertisement indicate the percentage of interest that will be charged if the TV is not paid for in cash? (2)

2.2 What will the balance be once the deposit has been paid? (4)

2.3 How much will you have to pay for the TV in total?
You may use the following formula:
Total to be paid = Deposit + (Instalment × number of instalments) (6)

2.4 How much interest (in Rand) will you have paid once you have completed paying off the TV?
You may use the following formula:
Interest = Total paid – cash price (3)

2.5 Calculate the simple interest rate per annum you will be paying on the outstanding balance. (4)
[19]

QUESTION 3

Mr Moloke has two options for borrowing money.

1) His uncle has offered to lend him R16 000,00 for 3 years at 18% per annum, simple interest.
2) His personal bank will lend him R16 000,00 for 3 years 16% interest compounded per annum.

3.1 Determine the cost of option 1. (4)

3.2 Determine the cost of option 2. (5)

3.3 Recommend which one would be best for Mr. Moloke. (2)

[11]

QUESTION 4

4.1 Japie borrowed R35 000 from an uncle to complete the building of his garage. The terms for the loan were to repay the full amount including simple interest at a rate of 8% per annum after 7 months.

Calculate how much he must pay back 7 months after the loan was granted. (3)

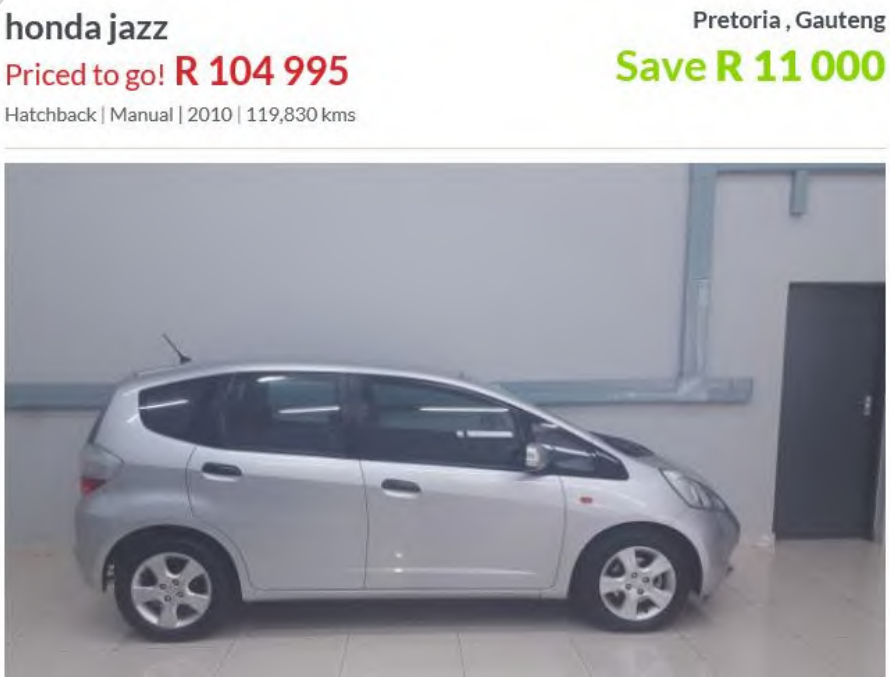
4.2 Domila bought the house below in November 2015. He is currently living in the house with his family and has been paying his bond every month.

	Bond Costs R6 381 per month Interest rate 10.2 Period: 20 years

4.2.1 How much in total will Domila pay for the house in 20 years, if the interest rates were to stay the same? (3)

4.2.2 If the house cost R949 796,33 , how much interest would Domila pay for the house over the 20 years period? (3)

4.3 Mrs April wants to buy a car. She saw the following advertisement in a local newspaper and is interested in the car advertised.



OPTION 1	**OPTION 2**
Deposit: R10 500	No Deposit required
Term: 5 years	Term: 5 years
Interest: 10,5% compounded bi-annually	Interest: 12% compounded annually
Admin fee: R1 010	Admin fee: R1 010
Registration/Licence: R788	Registration/Licence: R788

Use the information above to answer the following questions:

4.3.1 Write down the name of the car in the advertisement. (2)

4.3.2 What was the original price of the car before the 'Priced to go' price? (2)

4.3.3 Mrs April decides to buy the car using Option 1.

a) What percentage of the purchase price is the deposit? (3)

b) How much will Mrs April still need after paying all the initial costs? (3)

4.3.4 Name ONE advantage of choosing Option 2. (2)

[21]

QUESTION 5

Josh saved R500,00 each month since his business earned its first profit. He has now accumulated an amount of R17 000,00.

TABLE 1 below shows the simple interest rates that would be earned over fixed time periods for amounts ranging from R10 000,00 to R99 999,00.

TABLE 1: SIMPLE INTEREST RATES FOR FIXED TIME PERIODS

TERM (MONTHS)	R10 000–R24 999	R25 000–R99 999
	INTEREST RATE PER YEAR	INTEREST RATE PER YEAR
6	7,12%	7,23%
12	7,76%	8,08%
18	7,87%	8,41%
24	8,08%	8,57%
36	8,30%	8,84%
48	8,46%	9,00%

[Adapted from www.capitecbank.co.za]

Use TABLE 1 above to answer the questions that follow.

5.1 Determine (in months) how long he took to save R17 000,00. (2)

5.2 Write down the interest rate he will get if he invests his money for 3 years. (2)

5.3 Determine (rounded to the nearest R100) the amount of interest Josh will earn if he invests his accumulated savings for 3 years. (3)

5.4 Sifiso wants to invest R24 000,00 for 48 months instead of 12 months.

Calculate the difference in percentage points for the interest rate. (2)

5.5 Write down the minimum number of years and months a person must invest R25 000,00 to earn an interest rate of 8,41%. (3)

[12]

6. BANKING, LOANS AND INVESTMENTS (BANKING)

QUESTION 1

Student accounts are generally offered to young adults between the ages 18 and 25 who are studying towards a three year degree or diploma.

TABLE 1 below outlines the basic requirements and bank charges of student accounts at various financial institutions.

TABLE 1: BASIC REQUIREMENTS AND BANK CHARGES OF STUDENT ACCOUNTS AT VARIOUS FINANCIAL INSTITUTIONS

Financial Institution	**FNB**	**ABSA**	**Standard Bank**	**Nedbank**	**Investec**
Age	18 to 25	18 to 27	16 to 24	16 to 24	Under 25
Monthly fee	R10,00	R26,00	R26,00	Free	Free
Withdrawal	R1,60	Free	R2,00	Amounts below R3 000 free R1,00 per R100 more than R3 000	1,2% of value
Deposit	Amount below R3 000 free R0,95 per R100 more than R3 000	Free	R18,00	Free	Free
Debit orders	Free	Free	R4,50	Free	Free
Statement	Free	Free	Free	Free	Free
Prepaid purchases	Free	R1,50	R1,20	R1,00	Free

[Adapted from https://www.businesstech.co.za]

Use TABLE 1 to answer the questions that follow.

1.1 Tshepi is 17 years old. At which financial institution(s) would she qualify for a student account? (2)

1.6 Which financial institution(s) do(es) not charge a fee for withdrawals? (2)

1.3 Explain what a *Debit order* is. (2)

1.4 Tshepi will be 18 years old in July 2019. Calculate Tshepi's age (in months) on her 18th birthday. (2)

1.5 John has a bank account at Investec. Calculate the withdrawal fee, if he withdraws R500,00 from his account. (2)

[10]

QUESTION 2

TABLE 2 below indicates an extract of the 2016 pricing guide for BBC Bank.

TABLE 2: 2016 PRICING GUIDE FOR BBC BANK

Cash withdrawals	
	Fee applicable
At bank ATM	R4,00 + 1,20% of value
At POS	R5,00
At another bank's ATM	R6,50 + R4,00 + 1,20% of the withdrawal amount
Payments/Deposits/Transfers	
	Fee applicable
At bank ATM	R1,10
At other bank's ATM	R6,70 + R1,10
Electronic inter-account transfers	R3,90
Electronic account payments	R5,20
Debit card purchase and cash fee	R5,00
Debit order * Internal * External	 R4,20 R13,10

POS = Point of sale
ATM = Automated teller machine of cash machine

Use TABLE 2 to answer the questions that follow.

2.1 Calculate the cash withdrawal fee for an amount of R5 490,00 that was withdrawn at an ATM of another bank. (4)

2.2 State whether the debit order made on 15 February 2016 was internal or external. (2)
[6]

7. INFLATION

That prices increase over time; that the value of money decreases over time.
Inflation is a measure of change in the purchasing power of money over time.
∴ Inflation represents the average increase in the prices of goods and services over a period of time.
It is usually calculated from a particular month in one year to the same month in the following year.
∴ Inflation rate is the percentage change (normally increase) in the cost of goods from one year (or month) to the next.
Inflation represents compound interest.

$$\text{Inflation rate} = \frac{\text{price difference}}{\text{original price}} \times 100$$

EXAMPLES

1. A liter of milk cost R9,11. The expected inflation rate will be 6,5%.
   What will the price of the milk be the following year?

2. The price of Nike shoes in 2014 was R650,95. What was the price of Nike shoes in 2013, if the inflation rate for 2013 was 6,4%

3. A box of cookies increased in price from R17,99 to R19,99.
   Calculate the inflation rate for this period.
   You may use the following formula:

   Inflation rate = $\frac{\text{price difference}}{\text{original price}} \times 100$

Solutions:

1. New price will be = R9,11 + (6,5% × R9,11)
   = R9,11 + ($\frac{6,5}{100}$ × R9,11)
   = R9,11 + R0,60
   = R9,71

2. Inflation value = R650,95 × $\frac{6,4}{106,4}$
   = R39,15
   Therefore, Previous price
   = R650,95 – R39,15
   = R611,80

   OR

   Previous price + 6,4% = R650,95
   Prev. price + (prev. price × 0,064)
   = R650,95

Prev. price (1+ 0,064) = R650,95
Prev. price = R650,95 ÷ 1,064
= R611,80

3. Inflation rate = $\frac{\text{R19,99} - \text{R17,99}}{\text{R17,99}} \times 100$
= 11,1%

QUESTION 1

1.1 A bar of soap currently cost R8,51 in 2018. The expected inflation rate for 2019 will be 6,3%.
What will the price of the soap be in 2019? (2)

1.2 The price of a dress is R1 300,95 in 2018. What was the price of the dress in 2017, if the inflation rate for 2017 was 6,5%? (4)

1.3 A set of chairs increases in price from R17 355,75 to R19 943,99.
Calculate the inflation rate for this period.

You may use the following formula:

Inflation rate = $\frac{\text{price difference}}{\text{original price}} \times 100$

(4)

1.4 In November 2009 Statistics SA announced that the annual inflation rate was 5,8%.
Determine the price of a bicycle in November 2008 if it cost R1 586,95 in November 2009. (4)

1.5 If 200 g of nuts cost R14,20 in January 2014 and the inflation rate for January 2015 was -5,3%, calculate the cost of 200 g of nuts in January 2015. (4)

[18]

QUESTION 2

The company ABC Ltd. is offering their mechanics a salary increase of 9,7% p.a. The union of mechanics disagrees, and proposes a salary increase of 12,4% p.a. The average annual salary of a mechanic working at ABC Ltd. is R165 000,00 p.a.

2.1 What is the difference in salary per month, between what the company is offering and the union is proposing? (9)

2.2 Determine the annual salary of a mechanic, if the company and union negotiations resulted in an increase that met both parties half-way. (7)

[16]

QUESTION 3

Mrs. April is concerned about the impact that the projected inflation rate and increase in municipal rates and fees will have on her disposable income. TABLE 1 below shows projected tariffs for 2017.

TABLE 1: INCREASE IN TARIFFS FOR 2017

Rates and services charged	2016	% increase	2017
Refuse removal	R140,00	**A**	R157,50
Sanitation	R179,39	13%	R202,71
Water consumption	R170,86	10,5%	R188,80
Electricity consumption (non-prepaid)	R584,79	14,3%	R668,41
Property rates	R380,98	15%	R438,13
Subtotal excluding VAT	**B**		R1 655,55
VAT on services	R203,84		R231,78
Total	**R1 668,86**		

Use the information above to answer the questions that follow.

3.1 Determine the value of **A**, the percentage increase for refuse removal. Use the formula:

$$\textbf{Percentage increase} = \frac{\textbf{New amount - Old amount}}{\textbf{Old amount}} \times \textbf{100 \%}$$

(3)

3.2 Determine the value of **B**. (2)

3.3 Calculate the additional amount per month for which Mrs April will have to budget, on her municipal account for 2017. (4)

[9]

8. TAX

Tax
A compulsory levy imposed on citizen's earnings or purchases to fund the activities of government.

Taxable
A service, purchase or item or earning that has tax applied to it.

Tax invoice
Printed record of what was bought, what it cost, what was taxable, the tax amount, method of payment, amount tendered, and change due, if any.

Indirect tax
Tax which is levied on the income or profits of the person who pays it e.g. income tax

Direct tax
Tax which is levied on goods or services e.g. VAT

VALUE ADDED TAX (VAT)

1. **Value Added Tax (VAT)** is a tax that is levied at **15%** (currently in South Africa) on most goods and services, as well as on the importation of goods and services into South Africa.
   The Minister of Finance announced during the Budget Speech in February 2018 that VAT will increase from 14% to 15% in the 2018/2019 financial year.

   VAT is not charged on some essential groceries in South Africa. These include: paraffin; brown bread; maize meal; samp; mielie rice; dried mielies; dried beans; lentils; tinned sardines; milk powder; milk; rice; vegetables; fruit; vegetable oil and eggs.

2. **VAT exclusive price** is the price before **VAT** is added.
   VAT exclusive price = VAT inclusive price ÷ 1,15

3. **VAT inclusive price** is the price after **VAT** is added.
   VAT inclusive price = VAT exclusive price × 1,15

4. **VAT** = VAT inclusive price - VAT exclusive price

EXAMPLES

Tyron makes a gift basket containing the following items

ITEMS (per unit)	SELLING PRICE
Bar-One	R10,04
Peppermint Crisp	R8,70
Kit Kat	R20,66
Cadbury 80 g chocolate slab	R6,73
Empty basket	R29,99

(5)

1. Determine the price of each item excluding VAT.

2. Determine the total cost price of a gift basket, excluding VAT. (2)

3. Determine the total amount of VAT on a gift basket. (3)

Solutions:

1. $\frac{R10,04}{1,15}$ = R8,73

   $\frac{R8,70}{1,15}$ = R7,57

   $\frac{R20,66}{1,15}$ = R17,97

   $\frac{R6,73}{1,15}$ = R5,58

   $\frac{R29,99}{1,15}$ = R26,08

2. R8,73 + R7,57 + R17,97 + R5,85 + R26,08
   = R66,20

3. R76,12 – R66,20
   = R9,92

QUESTION 1

The price list given below shows the price for different types of clocks. Study the price list and answer the questions that follow.

CLOCK A Including VAT: R3 350,00 	**CLOCK B** Excluding VAT: R220,00 
CLOCK C Excluding VAT: R2 100,00 	**CLOCK D** Including VAT: R5 950,00 

[Adapted from www.pricecheck.co.za]

1.1 What does the acronym VAT stand for? (2)

1.2 At what percentage (%) is VAT levied (charged)? (2)

1.3 Calculate the cost price of **CLOCK A and D**, excluding VAT. (4)

1.4 Calculate the selling price of **CLOCK B and C**, including VAT. (4)

1.5 Determine the amount of VAT that will be paid on each clock? (4)

[16]

QUESTION 2

VAT in South Africa increased to 15% with effect from 1 April 2018.

The following shows how a car dealer calculated the new increased VAT incorrectly:

The selling price of the car is R160 087,72

Selling price, including 14% VAT = R160 087,72 + 14% of R160 087,72
= R160 087,72 + R22 412,28
= R182 500

VAT increased with 1%.

New selling price, including 15% VAT = R182 500 + R182 500 × 1%
= R182 500 + R1 825
= R184 325

Identify the mistake the dealer has made in calculating the new selling price. Hence, calculate the new selling price, including 15% VAT (excluding accessories and other charges). (4)

[4]

TAX – INCOME TAX

PAYE on a payslip stands for "pay as you earn". This is the income tax that is deducted directly from your salary every month. PAYE is compulsory for all employees. It is calculated according to a set percentage based on your gross annual income. Tax is collected by the South African Revenue Service (SARS).

Income Tax	Tax paid on certain kinds of income such as wages and interest on savings.
PAYE tax	Pay as you earn income tax. Employers deduct this income tax from employees' gross wage or salary every week or month, and pay it directly to SARS on behalf of employees.
Tax threshold	The income level at which someone has to start paying income tax.
Tax year	The total amount of income tax a taxpayer must pay is calculated for each **year**. A tax year starts on 1 March and ends on 28/29 February. The tax rates, rebates, deductions and so on that apply to taxpayers may change from one tax year to the next.
Taxable allowances	Employers may pay back some work-related travel or accommodation expenses for employees. These allowances are really extra income employees receive and they may have to pay tax on these allowances. Some allowances are tax-free. The rule for tax-free allowances can changes each tax year.
Taxable income	The part of gross income on which tax must be paid. **Taxable income = Gross income – Tax-deductible deductions**

Gross income	This is the amount of money earned before any deductions such as medical aid, pension contributions, UIF, and PAYE are done.
Tax-deductible deductions	Some amounts of money can be deducted from gross income before income tax is calculated. Such deductions can include UIF, pension and some subsistence allowance (such as cost for food and accommodation).
Net salary	Also known as 'take home pay'. This is the amount that is deposited into an employee's bank account. **Net salary = Gross Salary – Deductions**
UIF	Unemployment Insurance Fund: A government-run insurance fund which employers and employees contribute to, so that when employees are retrenched they can collect some earnings (a portion). It serves as a form of insurance, so that if you lose your job, you may apply for UIF which is a small monthly pay out from the government. Employers must pay 2% of each employee's monthly pay towards UIF. The employees and the employer each contribute 1%.
Exempt income (exemptions)	Types of income on which tax is not paid such as a birthday present of cash and certain business allowances.
Fringe benefits	Extra goods or income an employee receives (such as free or subsidised housing and a company car) are taxable. The amount of tax depends on the cash value of these benefits.
IRP5 form	The tax return form that employers complete for employees. These forms are sent directly to SARS.
Provisional tax	People who are self-employed do not have PAYE from their income. They pay provisional tax directly to SARS.
Tax bracket	The category of taxable income in which a taxpayer's income belongs.
Tax deduction tables	Tax to deduct for people who earn different amounts of money. The calculations have already been done, and the employer can look up the amount in the table.
Tax rate	The percentage of gross income that a taxpayer must pay as income tax, for example if the rate is 13%, the tax payer must pay 13% of gross income to SARS.
Tax rate tables	Each tax year, the tax rates change for people in different tax brackets. The tax rate table set out the percentage that apply to each tax bracket. You can use these tables to calculate how much tax you must pay.

EXAMPLES

Mr Piedt earns an monthly taxable income of R45 174,73 .

TABLE 1 below is a tax table that shows how much personal income tax he needs to pay.

TABLE 1: INCOME TAX RATES FOR INDIVIDUALS
2017 TAX YEAR (1 MARCH 2016–28 FEBRUARY 2017)

TAX BRACKET	TAXABLE INCOME (R)	TAX RATES (R)
1	0–188 000	18% of taxable income
2	188 001–293 600	33 840 + 26% of taxable income above 188 000
3	293 601–406 400	61 296 + 31% of taxable income above 293 600
4	406 401–550 100	96 264 + 36% of taxable income above 406 400
5	550 101–701 300	147 996 + 39% of taxable income above 550 100
6	701 301 and above	206 964 + 41% of taxable income above 701 300

[Adapted fromwww.SARS.gov.za]

1. What does the acronym *SARS* stand for? (2)

2. Write down the minimum tax payable for tax bracket 3. (2)

3. Calculate Mr Piedt's annual taxable income. (2)

4. Identify the tax bracket applicable to Mr Piedt's taxable income. (2)

Solutions:

1. South African Revenue Service.

2. R61 269,00

3. R45 174,73 × 12
   = R542 096,76

4. Tax bracket 4
   OR
   406 401 – 550 100
   OR
   96 264 + 36% of taxable income above 406 400

Mrs Nhlapo is a 56 year old HOD at Mahlenga Secondary school situated in Sokhulumi.
She is earning a monthly salary of R27 876,80 plus a bonus that is equivalent to her monthly salary.
She is contributing 7,5% of her basic salary toward GEPF.
She is also contributing towards the medical aid and has two dependants.

1. Calculate Mrs Nhlapo's non-taxable income.
   Non-taxable income: pension fund 7,5%; donations; Child support payments.

   $(R27\ 876{,}80 \times 12) \times \frac{7{,}5}{100}$ ⟶ Calculate annual salary without bonus. (you do not pay pension on your bonus)

   $R334\ 521{,}60 \times \frac{7{,}5}{100}$ ⟶ Calculate 7,5% GEPF. GEPF: Government Employee Pension Fund

   = R25 089,12

2. Calculate Mrs Nhlapo's taxable income.
   Annual income – non-taxable income.

   (R27 876,80 × 12) + R27 876,80
   = R362 398,40 ⟶ Annual income [(monthly × 12) + bonus]

   R362 398,40 – R25 089,12
   = R337 309,28

3. Calculate her medical credits.

   [(R286,00 × 2) + R192,00] ⟶ Main member, first dependant, additional dependant

   R764,00 × 12 ⟶ Calculate yearly amount
   R9 168,00

TABLE 2: INCOME TAX RATES FOR INDIVIDUALS
2017 TAX YEAR (1 MARCH 2016–28 FEBRUARY 2017)

TAX BRACKET	TAXABLE INCOME (R)	TAX RATES (R)
1	0–188 000	18% of taxable income
2	188 001–293 600	33 840 + 26% of taxable income above 188 000
3	293 601–406 400	61 296 + 31% of taxable income above 293 600
4	406 401–550 100	96 264 + 36% of taxable income above 406 400
5	550 101–701 300	147 996 + 39% of taxable income above 550 100
6	701 301 and above	206 964 + 41% of taxable income above 701 300

Tax Rebate	
	2016
Primary	R13 500
Secondary (65 and older)	R7 407
Tertiary (75 and older)	R2 466

*Medical Tax Credit Rates	
Per month (R)	**2016**
For the taxpayer who paid the medical scheme contributions – main member	R286
For the first dependant	R286
For each additional dependant(s)	R192

Note:*Medical Tax credits are only deducted after tax was calculated.

4.	Mrs Nhlapo claimed that the monthly income tax she has to pay is less than R5 000,00. Verify her claim.	
	Taxable income = R337 309,28 [1] R61 296 + 31% of taxable income above R293 600 [3] R61 296 + 31% (R337 309,28 – R293 600,00) R61 296 + $(\frac{31}{100} \times$ R43 709,28) R61 296,00 + R13 549,88 = R74 845,88 [4] R74 845,88 – R13 500,00 – R9 168,00 [5] = R52 177,88 $\frac{R52177,88}{12}$ = R4 348,16 Yes Mrs Nhlapo is correct, since R4 348,16 is less than R5 000,00.	If you have the ANNUAL TAXABLE INCOME follow the following steps: 1. Annual taxable income (yearly amount) 2. Tax table 3. Identified tax bracket 4. Calculate income tax 5. Subtract rebate (s) and medical credits (if any). Verify: - confirm through calculation - validate and justify

QUESTION 1

One of the major sources of revenue for the government is personal income tax.
The tax table for 2017/2018 is given below.

Landy, a 57-year-old lady, received an average monthly taxable income of R46 308,50 for the 2017/2018 tax year and she is not a member of a medical aid scheme.

Determine how much tax Landy has to pay every month. (7)

ANNUAL RATES OF TAX FOR INDIVIDUALS

2017/2018 tax year (1 March 2017 to 28 February 2018)

TAXABLE INCOME (R)	RATES OF TAX (R)
0–189 880	18% of taxable income
189 881–296 540	34 178 + 26% of taxable income above 189 880
296 541–410 460	61 910 + 31% of taxable income above 296 540
410 461–555 600	97 225 + 36% of taxable income above 410 460
555 601–708 310	149 475 + 39% of taxable income above 555 600
708 311–1 500 000	209 032 + 41% of taxable income above 708 310
1 500 001 and above	533 625 + 45% of taxable income above 1 500 000

TAX REBATES

TAX REBATE	TAX YEAR
	2017/2018
Primary	R13 500
Secondary (65 and older)	R7 407
Tertiary (75 and older)	R2 466

[Source: SARS Last Updated: 30/06/2017 12:47]

QUESTION 2

Mrs Zwele is a 55 year old deputy principal who earns a monthly taxable income of R33 375,00. She is not a member of a medical aid scheme.

Mrs Zwele does not receive a 13th cheque or bonus.

TABLE 3 below is a tax table that shows how much personal income tax she needs to pay.

TABLE 3: INCOME TAX RATES FOR INDIVIDUALS
2016/2017 TAX YEAR (1 MARCH 2016 - 28 FEBRUARY 2017)

TAX BRACKET	TAXABLE INCOME (R)	RATES OF TAX (R)
1	0 – 188 000	18% of taxable income
2	188 001 – 293 600	33 840 + 26% of taxable income above 188 000
3	293 601 – 406 400	61 296 + 31% of taxable income above 293 600
4	406 401 – 550 100	96 264 + 36% of taxable income above 406 400
5	550 101 – 701 300	147 996 + 39% of taxable income above 550 100
6	701 301 and above	206 964 + 41% of taxable income above 701 300

[Adapted from www.SARS.gov.za]

TAX REBATES:

Primary	R13 500
Secondary (65 and older)	R7 407
Tertiary (75 and older)	R2 466

Use TABLE 3 and the information above to answer the questions that follow.

2.1 What does the acronym SARS stand for? (2)

2.2 Determine the number of months the tax table is valid for. (2)

2.3 Determine Mrs Zwele's annual taxable income. (2)

2.4 Identify the tax bracket applicable to Mrs Zwele's taxable income. (2)

2.5 Mrs Zwele states that she should pay less that R6 500,00 tax per month if she was 10 years older.
Verify showing all calculations if she is correct. (8)
[16]

QUESTION 3

James is a 25 year old teacher, employed by his School's Governing Body (SGB). He is currently busy doing his taxes.

TABLE 4 and TABLE 5 below shows the rates of taxes for individuals for the 2017/18 and 2018/19 tax year.

TABLE 4: 2017/18 TAX YEAR (1 MARCH 2017 – 28 FEBRUARY 2018)

Taxable income (R)	Rates of tax (R)
0 – 189 880	18% of taxable income
189 881 – 296 540	34 178 + 26% of taxable income above 189 880
296 541 – 410 460	61 910 + 31% of taxable income above 296 540
410 461 – 555 600	97 225 + 36% of taxable income above 410 460
555 601 – 708 310	149 475 + 39% of taxable income above 555 600
708 311 – 1 500 000	209 032 + 41% of taxable income above 708 310
1 500 001 and above	533 625 + 45% of taxable income above 1 500 000

Primary rebate: R13 365,00

TABLE 5: 2018/19 TAX YEAR (1 MARCH 2018 – 28 FEBRUARY 2019)

Taxable income (R)	Rates of tax (R)
0 – 195 850	18% of taxable income
195 851 – 305 850	35 235 + 26% of taxable income above 195 850
305 851 – 423 300	63 853 + 31% of taxable income above 305 850
423 301 – 555 600	100 263 + 36% of taxable income above 423 300
555 601 – 708 310	147 891 + 39% of taxable income above 555 600
708 311 – 1 500 000	207 448 + 41% of taxable income above 708 310
1 500 001 and above	532 041 + 45% of taxable income above 1 500 000

Primary rebate: R14 067,00

[Adapted from www.sars.gov.za]

Use TABLE 4 and TABLE 5 to answer the questions that follow.

3.1 James's taxable income for 2018/19 is R17 500,00 per month.

Identify the income tax bracket into which James falls based on his annual income. (2)

3.2 Calculates James's monthly income tax for the 2017/18 financial year, if his taxable income was R198 245,00.

PLEASE NOTE:
No medical credits are considered. (6)
[8]

9. EXCANGE RATE

1. The value of one currency relative to the value of another currency.
2. A **strong currency** means that the currency has a **higher value** or **greater worth** than another currency.
3. A **weak currency** has a **lower value** or a **lesser worth** than another currency.
4. An exchange rate is used when countries trade; as it specifies how much one currency is worth in terms of the other.

EXAMPLES

John told his friend Errol, who lives in Botswana, about the profit he made when he sold ultra-thin mouse (UTM) for computers.

Errol decided to join John as a business partner.

John and Errol then decided to share their profit in the ratio 3 **:** 2.

TABLE 1 below shows the currency conversion factors for a few of the currencies in terms of the South African currency on 7 January 2018.

TABLE 1: CURRENCY CONVERSION FACTORS

CURRENCY	UNITS PER ZAR	ZAR PER UNIT
Algerian dinar	9,546785	0,104747
Botswana pula(BWP)	0,797782	1,253475
Brazilian real	0,262231	3,813432
British pound	0,059861	16,705357
Mauritian rupee	2,726789	0,366732
Japanese yen	9,111043	0,109757

[Source: www.x-rates.com]

Use the table and the information above to answer the questions that follow.

1. Write down the exchange rate between the Botswana pula (BWP) and the South African rand (ZAR). (2)

2. List the currencies which are weaker than the ZAR. (3)

3. Each mouse costs R13,00 and is sold for BWP48.

   (a) Convert R13,00 into BWP (2)

   (b) Calculate the total number of UTMs sold if a total profit of BWP7526 was made. (4)

4. Calculate the amount (in ZAR) that Errol will receive if a total profit of BWP7526 was made. (5)

5. Show how the Algerian dinar of 0,104747 ZAR per unit was obtained. (2)

Solutions:

1. Exchange rate
   R1 = 0,797782 Botswana pula

   OR

   1BWP = R1,253475 (2)

2. Rupee, Dinar, Yen. (3)

3. a) Cost price = ZAR 13 × 0,797782
   = BWP 10,37

   OR

   Cost price = 13 ZAR ÷ 1,253475
   = BWP 10,37 (2)

   b) Profit = (SP – CP) × number sold
   7 526 = (48 – 10,37) × number sold

   Number sold × 37,63 = 7 526

   $$\text{Number sold} = \frac{7\,526}{37,63}$$
   = 200 (4)

4. Number of shares 3+2 =5

   Errol's share of the profit

   $$= \frac{2}{5} \times \text{BWP } 7\,526$$
   = BWP 3 010,40

   $$\frac{\text{BWP}3010,40}{\text{BWP}0,797782} \times \text{R1}$$
   = R3 773,46 (5)

5. $$\text{Algerian dinar} = \frac{1}{9,546785}$$
   = 0,104747 (2)

QUESTION 1

TABLE 2 below shows the net worth, annual income and endorsements of 2 well known soccer players.

An endorsement is the money or product received from sponsors.

TABLE 2: INCOME OF TWO WELL KNOWN SOCCER PLAYERS

PLAYER A	PLAYER B
Net worth $400 million	Net worth $350 million
Annual salary 2017 $45 million	Annual salary 2017 €36 million
Annual salary 2018 €30 million	Annual salary 2018 €40 million
Endorsements $93 million	Endorsements $50 million

[Adapted from www.wikipidia.com]
[Adapted from www.totalsporttek.com]

TABLE 3 below shows the currency conversion factors for a few of the currencies in terms of the US Dollar ($) on 28 July 2018.

TABLE 3: CURRENCY CONVERSION FACTORS

$1 = €0,857667	€ = Euro
$1 = R13,1757	R = Rand
$1 = £0,762620	£ = Pound

[Adapted from https://xe.com/currencyconverter]

Use TABLE 2, TABLE 3 and the information above, to answer the questions that follow.

1.1 Write down the exchange rate between the US Dollar ($) and the South African rand (R). (2)

1.2 Calculate the net worth of PLAYER A in South African rand. (3)

1.3 Players A states that his annual salary is less in South African rand in 2017, than that of player B in the same year.
State whether he is correct. Show ALL calculations. (6)
[11]

QUESTION 2

One of the ways to compare the purchasing power of one country's currency to another country's currency is to compare the local price of common items that are available in all the countries.

The average local price of a Big Mac burger and a 2 ℓ cola as well as the exchange rates are given in TABLE 4.

TABLE 4: AVERAGE LOCAL PRICE OF A BIG MAC BURGER AND A 2-LITRE COLA WITH EXCHANGE RATES AS ON 30 APRIL 2016

COUNTRY	EXCHANGE RATES (AS ON 30/04/2016)	2 ℓ COLA	BIG MAC BURGER	BIG MAC BURGER PRICE IN RAND (R)
South Africa		R16	R50	R50
Brazil	1 Brazilian real equals 4,14 South African rand	R$ 5,81	R$ 23	R95,22
China	1 South African rand equals 0,46 Chinese yuan	¥ 7	¥ 32	R69,57
Egypt	1 Egyptian pound equals 1,60 South African rand	E£ 8	E£ 39	R62,40
India	**B**	Rs 74	Rs 267	R56,07
Germany	1 euro equals 16,28 South African rand	€ 1,68	**A**	R113,96
New Zealand	1 New Zealand dollar equals 9,93 South African rand	NZ$ 3,40	NZ$10	R99,30
Singapore	1 South African rand equals 0,095 Singaporean dollar	SGD $ 2,50	SGD $ 8,00	R84,21
United Arab Emirates	1 United Arab Emirates dirham equals 3,87 rand	Dh 4,82	Dh 24	R92,88
United Kingdom	1 South African rand equals 0,048 British pound	£ 1,80	£ 5,70	R118,75
United States of America	1 South African rand equals 0,070 US dollar	$ 1,94	$ 6,69	R95,57

[Source: www.expatistan.com> cost of living]

Use TABLE 4 to answer the questions that follow.

2.1 Identify the country that has the strongest currency in comparison to the rand. (2)

2.2 Calculate the price in rand that you will pay for a 2 ℓ cola in the United States of America. (2)

2.3 Determine the missing values:

2.3.1 **A** (2)

2.3.2 **B**, the value of ONE Indian rupee in rand. (2)

2.4 Determine the simplified ratio of the Singapore price of a Big Mac Burger to a 2 ℓ cola. (3)

2.5 Identify the TWO countries that have almost similar purchasing power. (2)
[13]

~ DATA HANDLING ~

Data is raw information that has been collected, without any organization of analysis. It is unprocessed.
Data Handling refers to the process of collecting, organizing, summarising, representing and analyzing information. It means gathering and recording information and then presenting it in a way that is meaningful to others.

1. DEVELOPING QUESTIONS

The first step in the statistical process is to develop or pose questions.
When developing/posing the question, you must first identify the main question, followed by sub-questions.

EXAMPLE
Main question - what is the average monthly income of people in your community?
Sub-questions
In which age category do you fall?
In which sector/industry do you work?
What is your job title?
How long have you been working in this job?

QUESTION 1
Formulate 3 sub-questions for the main question below that will enable meaningful data collection:
Are the expenses incurred for a Matric dance justified?

QUESTION 2
Formulate 3 sub-questions for the main question below that will enable meaningful data collection:
How can your school's matric pass rate be improved?

2. COLLECTING DATA

Methods of collecting data:

1. Observation – e.g. counting the number of people entering a store. This is the method of collecting data by watching and recording the results. The advantage of this method is that you don't interact with people to get the response.
2. Interview – e.g. asking your fellow learners their opinion of the design for your matric jacket. The interviewer asks the interviewee questions and records the response. The advantage of this method is that the interviewer may ask further questions if the response is vague.
3. Survey – e.g. leaners complete a questioner on cool drink perverseness for the tuck shop. A questionnaire is a tool used to conduct a survey and can be completed online, in person, by telephone etc. Questions should not be long and must be clear. Answer must also be concise. Questionnaires must be anonymous and confidential. Questionnaires should be short and simple and not bias. This is a list of questions used

to collect data from the respondents. Participants do not have to identify themselves. The advantage of using this method is that you get the information directly from the participants.

Population – the entire group of interest e.g. all the leaners at school.
Sample – a representative part of the population e.g. randomly selects a number of people per grade. A sample must be representative, randomly chosen, large enough and free from bias.

QUESTION 1
Susan will be managing the new tuck shop at your school, so she decided to hand out questionnaires to the learners in order to do market research.
Draw up a questionnaire Susan can use in order to gather the information she requires.

QUESTION 2
A researcher is interested in the effect on a high sugar snack on the energy levels of primary school learners. A group of 250 primary school learners were selected. Half are tested while consuming the high sugar snack and the other half are tested without consuming the snack.
2.1 Identify the population
2.2 Identify the sample

3. CLASSIFYING DATA
Organising data is taking information and arranging it into some kind of order (such as ascending or descending order).

Classifying data means organising it in groups or classes, based on some common feature.

NUMERICAL DATA:

- refers to data consisting of quantities or numerical values.
- examples include: measurements e.g. length, height, area, volume, mass, etc.
- numerical data can be further classified as discrete data or continuous data.
- Continuous data is data that you measure, e.g.
    - The height of a learner
    - The time taken to run a race
- Discrete data is a set of values that can be counted, e.g.
    - The number of children in a family
    - The number of cars in a parking lot.

CATEGORICAL DATA:

- is generally descriptive in nature, as data is classified and organised into categories.
- data is usually observed, but not measured.
- examples: textures, smells, tastes, gender, eye color and country of birth.
- categorical data can exist of "yes" and "no" answers.

MATHEMATICAL

LITERACY

TEACHER NOTES

TERM 1

INDEX:

PLEASE NOTE:

These are additional notes to assist the learners to improve the results.

This resource pack MUST be used to assist learners in answering questions as set out in the question paper.

Questions MUST be evident in all learners' books.

Content must still be thoroughly taught in class (according to the ATP and CAPS document)

The following must be evident in the leaners' books:

1. **Topic e.g. Finance**
2. **Sub-topic e.g. Financial documents – Bank Statement**
3. **Date**
4. **Source and page number**
5. **Definitions on sub-topic busy with**
6. **Example**
7. **Class work**
8. **Homework**
9. **Questions (Exercises) marked**
10. **Corrections**

1. FINANCIAL DOCUMENTS / FINANSIËLE DOKUMENTE

Minimum of 6 questions

QUESTION / VRAAG 1

1.1 December / Desember

OR / OF

The twelfth month of the year/Twaalfde maand van die jaar

OR / OF

The last month of the year/Laaste maand van die jaar (2)

1.2 The overall limit exceeded
Die algehele limiet oorskry (2)

1.3 Dr Dhlamini (2)

1.4 Increased amount / Verhoogde waarde = $R736,90 \times \frac{6,3}{100} = R46,42$

New price / Nuwe prys = R46,42 + R736,90
= R783,32 (3)

1.5 Tax claimable / Belasting eisbaar = R5 326,66 – R445,10
= R4 881,56 (2)

1.6 Money the member must pay to the suppliers.
Geld wat die lid aan die verskaffers moet betaal. (2)

1.7 Total amount / Totale bedrag
=R173,03 + R117,44 + R61,50 +R80,98 + R46,80
= R479,75

OR / OF

Total amount / Totale bedrag
= R1 661,75 – R736,90 – R445,10
= R479,75 (2)
[15]

QUESTION / VRAAG 2

2.1 **Employee** works and receives money for the work done.
Employer is a person or institution that hires workers and pays wages/salary for work done.

Werknemer werk en ontvang geld vir werk gedoen.
Werkgewer is 'n persoon of instansie wat werkers huur en lone/salarisse betaal vir werk gedoen (2)

2.2 Unemployment Insurance Fund
Werkloosheidsversekeringsfonds (2)

2.3 R15 521 (2)

2.4 No / Nee
No amount allocated
Geen bedrag toegeken nie (2)

2.5 Monthly tax credit = R2 760 ÷ 12
= R230 (2)

2.6 A = R13 909 + R20 013 + R8 640
= R42 562 (2)

2.7 Gross non-retirement funding income / Bruto niepensioenfondsinkomste
= R15 521 + R26 188 + R8 640
= R50 349

OR / OF

Adding the amounts with source codes 3605, 3713 and 3810

OR / OF

Adding the annual payment other allowances and medical aid contributions
Tel die jaarlikse betaling, ander toelaes en mediesefondsbydraes bymekaar (2)

2.8 Remaining monthly contributions / Oorblywende maandelikse bydraes

= R13 909 – R4 975,25
= R8 933,75

Average monthly contribution = R8 933,75 ÷ 7
= R1 276,25 (5)
[19]

QUESTION / VRAAG 3

3.1 T Diale (2)

3.2 17 (2)

3.3 $\frac{10}{17}$ (2)

3.4 IB = R20 + R2 400 + R1 000 + R600
= R4 020 (3)

3.5 R29,67 (2)

3.6 Amount = R 382,14 + 22 695,98 + 191,07
= R 23 269,19 (2)

3.7 % dep to TSD $= \frac{5\,569,75}{23\,269,19} \times 100$
= 23,9% (3)

3.8 PP fee = R 6 205,48 – 6 204,38
= R1,10 (2)
[18]

QUESTION / VRAAG 4

4.1 Mark (2)

4.2 R12,50 + R14,50 + R15,50 + R29,00 + R12,50
= R84,00 (2)

4.3 $\frac{R29,00}{2}$
= R14,50 (2)

4.4 $\frac{10}{100} \times$ R534,00
= R53,40 (2)

4.5 R534,00 + R53,40
= R587,40 (2)

4.6 *R*587,404 ÷ 4
= R146,85 (2)
[12]

QUESTION / VRAAG 5

5.1 Market value/*Markwaarde*
= R944 630,00
Nine hundred and forty four thousand six hundred and thirty rand.
Negehonderd vier en veertig duisend ses honderd en dertig rand. (2)

5.2 Litres/*liter* **OR/*OF*** ℓ (2)

5.3 Monthly sewer charge/*Maandelikse rioolverwyderingskoste*
A = R378,95 (2)
[6]

2. TARIFF SYSTEMS / TARIEFSTELSELS
Minimum of 4 questions

QUESTION / VRAAG 1

1.1 R0,9015 × 50 = R45,075
R1,0161 × 300 = R304,83
R1,3594 × 50 = R67,97
Total = R417,875 × 1,14
= R476,38 (4)

1.2 Cost / Koste = 183,9745 kWh × R1,3594 per kWh
= R250,0949353
≈ R250,10 (3)
[7]

QUESTION / VRAAG 2

Total water charge/*Totale water koste*

B = (6 × R8,28) + (4 × R8,79) + (2 × R15,00)
= R49,68 + R35,16 + R30,00
= R114,84 (4)
[4]

3. INCOME, EXPENDITURE, INCOME AND EXPENDITURE STATEMENT AND BUDGET / INKOMSTE, UITGAWES, INKOMSTE EN UITGAWE STATE EN BEGROTINGS

Minimum of 6 questions

QUESTION / VRAAG 1

1.1 $67 \times 2 + 16$
$= 150$ (2)

1.2 Cost = R225,00 $\times$ 152 = R34 200

OR

Number of persons = R34 200÷ R225 = 152
(150 guests + bridal couple)

OR

Cost per person = R34 200 ÷ 152 = R225 (2)

1.3 $\%\ \text{Reception costs} = \frac{\text{R66 450}}{\text{R125 000}} \times 100\%$
$= 53{,}16\%$ (2)

1.4 Flowers and decor = 1,8% × R125 000
= R2 250 (2)

1.7
- Photographer (video) to create memories of the wedding day
- Wedding attire – usually special wedding attire are required
- Wedding contract to pay for the lawyer's fees for drawing up the contract
- Gifts as a token for members who serve
- DJ to provide for the music at the reception

(2)

[10]

QUESTION / VRAAG 2

2.1 Basic Education/Basiese Onderwys (2)

2.2 226 643 million : 68 952 million
1 : 0,3 (2)

2.3 14 340 million + 43 943 million + 12 412 million
= 70 695 million (2)

2.4 $\frac{201\ 658}{1\ 298\ 923} \times 100$

= 15,53% (3)

2.5 Increase / Verhoging = R280 139 million – R242 968 million
= R37 171 million (3)
[12]

4. COST PRICE AND SELLING PRICE, PROFIT / LOSS, BREAK-EVEN ANALYSIS / KOSPRYS EN VERKOOPSPRYS, WINS / VERLIES, GELYKBREEK-ANALISE

Minimum of 4 questions

QUESTION / VRAAG 1

1.1 Fixed cost = R400 + R300
= R700 (2)

1.2 Cost per drum = $\frac{R240}{80}$
= R3 per drum (2)

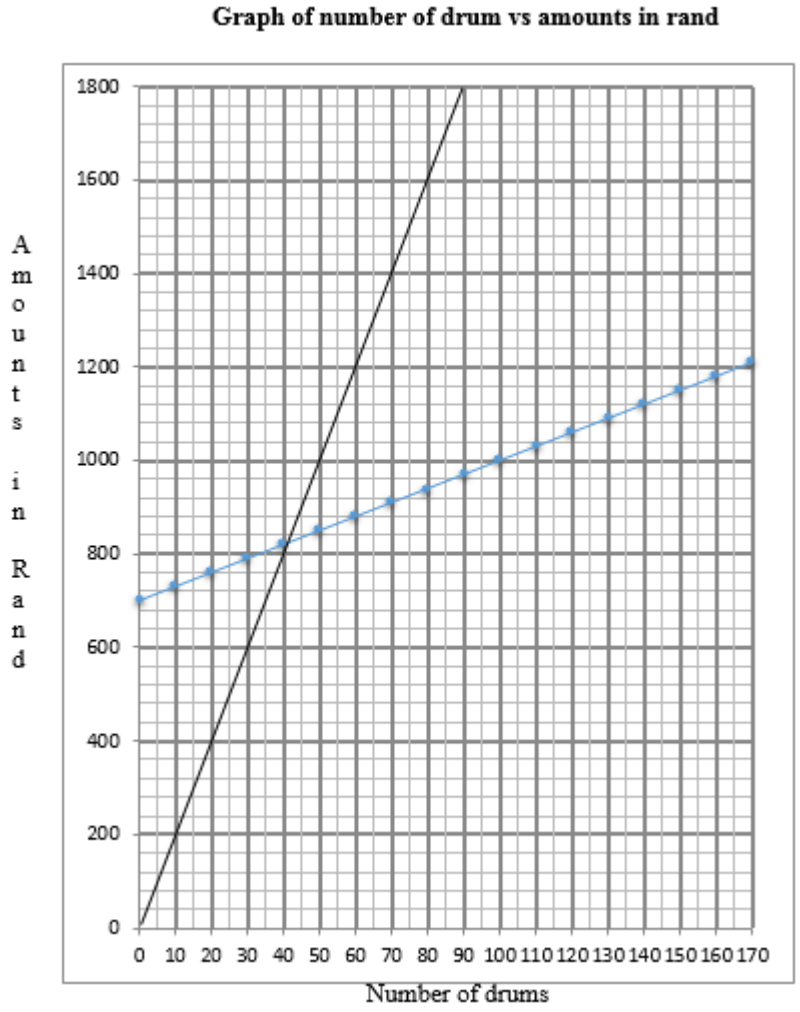
1.3 1.3.1 Expenses (C) = 700 + 3n, where n represent number of drums (2)

1.3.2 Expenses (C) = 700 + 3n
= 700 + 3 × 30
= 790 (2)

1.3.3 1000 = 700 + 3n
3n = 300
n = 100 (2)

1.4 Number of drums = $\frac{R1\ 600}{R20}$
= 80 (2)

1.5



(6)

1.6

$$\text{Number of drums} = \frac{700}{20 - 3}$$

$$= 41{,}18$$

$$= 42 \text{ drums}$$

(3)

[21]

QUESTION / VRAAG 2

2.1 Inverse proportion/Omgekeerde eweredigheid

OR/*OF*

Indirect proportion /*Indirekte eweredigheid* (2)

2.2 6 (2)

2.2 Amount per person/*Bedrag per persoon*

$= \frac{R3\,000,00}{7}$

= R428,57 (3)

[7]

5. INTEREST / RENTE

QUESTION / VRAAG 1

1.1 Deposit / Deposito
× R 2699,02 = R269,90
Instalments / Paaiemente
24 × R 177,53 = R 4260,72

Total cost/Totale koste
R 269,90 + R 4260.72 = R 4 530,62 (3)

1.2 Year / Jaar 1 $= R\ 2699,00 + (\frac{18}{100}) \times 2699,00$

$= R\ 2699,00 + R\ 485.82$

$= R\ 3184,82$

Year / Jaar 2 $= R\ 3184,82 + (\frac{18}{100}) \times R\ 3184,82$

$= R\ 3184,82 + R\ 573,27$

Total paid = R 3758,09

Yes, the repayments on the loan are R772,53 cheaper.

Ja, die terugbetaling van die lening is R772,53 goedkoper. (6)

[9]

QUESTION / VRAAG 2

2.1 No it does not.
Nee dit doen nie. (2)

2.2 Balance = Cash price - Deposit
Saldo = Kontantprys – Deposito

= R15 600 – R1 560 3
= R14 040 (4)

2.3 R1 560 + [R356,24 × (12 × 5)] = R1 560 + R21 374,40
= R22 934,40 (6)

2.4 R22 934,40 – R15 600
= R7 334,40 (3)

2.5 R7 334,40 ÷ R14 040 × 100% = 52,24%
5 years / jaar = 10,45% p.a. / p.j. (4)
[19]

QUESTION /VRAAG 3

3.1 Simple interest / Enkelvoudige rente
R16 000 × × 3 = R8 640

Total amount / Totale bedrag
R8 640 + R16 000 = R24 640 (4)

3.2 Compound interest / *Saamgestelde rente*

1st = R16 000 × $\frac{16}{100}$ = R2 560

= R2 560 + R16 000 = R18 560

2nd = R18 560 × $\frac{16}{100}$ = R2 969,60

R2 969,60 + R18 560 = R21 529,60

3rd = R21 529,60 × $\frac{16}{100}$ = R3 444,74

= R3 444,74 + R21 529,60
= R24 974,34 (5)

3.3 The personal loan is the cheaper and better option.
Dus is die persoonlike lening die goedkoper en beter opsie. (2)
[11]

QUESTION / VRAAG 4

4.1 SI = Principal amount × interest rate × time in years

Enkelvoudige rente = Hoofsom × rentekoers × tyd in jaar

= R35 000 × 8% × $\frac{7}{12}$

= R1 633,33

Total to be paid back/*Totale terugbetaling*

= R35 000 + R1 633,33

= R36 633,33 (3)

4.2

4.2.1 Total repayment/Totale terugbetaling
= R6 381 x 12 x 20
= R1 531 440

OR / OF

Total repayment / Totale terugbetaling
= 6381 x 12
= R76 572
R76 572 ×20
= R1 531 440 (3)

4.2.2 Interest paid = total repayment – cost of the house
Rente betaal = totale terugbetaling – koste van die huis
= R1 531 440 - R949 796,33
= R581 643,67 (3)

4.3.1 Honda Jazz (2)

4.3.2 Price = R104 995 + R11 000
= R115 995 (2)

4.3.3

a) Percentage Deposit

$$= \frac{\text{R10 500}}{\text{R104 995}} \times 100\%$$

= 10,0004… %
≈10% (3)

b) Amount still to pay
= R104 995 – R10 500
= R94 495,00 (3)

4.3.4 No deposit required (2)

[21]

QUESTION /VRAAG 5

5.1 $\frac{R17\,000,00}{R500,00}$

= 34 months/*maande* (3)

5.2 Interest rate/*Rentekoers*

= 8,30% (2)

5.3 Interest for 1 year/*Rente vir 1 jaar*

= R17 000,00 × $\frac{8,30}{100}$

Interest for 3 years/*Rente vir 3 jaar*

= R1 411,00 × 3

= R4 233,00

= R4 200,00

OR/*OF*

Interest earned for 3 years /*Rente verdien vir 3 jaar*

R17 000,00 × $\frac{8,30}{100}$ × 3

= R4 233,00

= R4 200,00 (3)

5.4 Percentage point difference/*Persentasiepunte verskil*

8,46% − 7,76%

= 0,7% (2)

5.5 18 months/*maande*

= 1 year and 6 months/*1 jaar en 6 maande* (3)

[12]

6. BANKING, LOANS AND INVESTMENTS (BANKING) / BANK, LENINGS EN BELEGGINGS

Minimum of 6 questions

QUESTION / VRAAG 1

1.1 Standard Bank, Nedbank, Investec (2)

1.2 ABSA (2)

1.3 Debit orders are a way for a third party, that you have given permission, to collect money from your bank account/ (2)
Debietorders is 'n manier waarop 'n derde party, wat jy toestemming gegee het,
geld van jou bankrekening kan kollekteer

1.4 18 ×12
= 216 months/*maande* (2)

1.5

$$\frac{1,2}{100} \times R500,00$$
= R6,00

OR/*OF*

0,012 × R500,00
= R6,00 (2)

[10]

QUESTION / VRAAG 2

2.1 R6,70 + R4,00 + 1,20% of R5 490,00

$$R10,70 + \frac{1,20}{100} \times R5\ 490,00$$
= R10,70 + R65,88
R76,58 (4)

2.2 External / Ekstern (R13,10) (2)

[6]

7. INFLATION / INFLASIE

Minimum of 5 questions

QUESTION / VRAAG 1

1.1 R8,51 × 106,3% = R9,05

OR / OF

R8,51 3 + (R8,51 × 6,3 ÷ 100)
= R8,51 + R0,54
= R9,05 (2)

1.2 R1 300,95 × 6,5 ÷ 106,5 = R79,40
= R1 300,95 – R79,40
= R1 221,55

OR / OF

R1 300,95 ÷ 1,065
= R1 221,55 3 (4)

1.3 (R19 943,99 – R17 355,75) ÷ R17 355,75 × 100
= (R2 588,24 ÷ R17 355,75) × 100%
= 14,91% (4)

1.4 Price of bicycle / Fiets se prys × 105,8% = R1 586,95
= R1 586,95 ÷ 105,8%
= R1 586,95 ÷ 1,058
= R1 499,95 (4)

1.5 Decrease / Verlaging

$\frac{5,3}{100} \times$ R14,20

= R0,75

R14,20 – R0,75

=R13,45 (4)

[18]

QUESTION / VRAAG 2

2.1 Monthly salary / Maandelikse salaris

= R13 750,00

Company / Maatskappy

$R13\,750 \times \frac{109,7}{100}$

= R15 083,75

Union / Unie

$R13\,750 \times \frac{112,4}{100}$

= R15 455,00

R15 455,00 – R15 083,75
= R371,25 (9)

2.2 $\frac{9,7+12,4}{2} = 11,05\%$

$R165\,000,00 \times \frac{111,05}{100}$

= R183 232,50

OR / OF

$\frac{9,7+12,4}{2} = 11,05\%$

$R165\,000,00 \times \frac{11,05}{100}$

= R18 232,50

R165 000,00 + R18 232,50

= R183 232,50 (7)

[16]

QUESTION / VRAAG 3

3.1 $$\textbf{Percentage increase} = \frac{\textbf{New amount - Old amount}}{\textbf{Old amount}} \times \textbf{100 \%}$$

$$\text{Percentage increase} = \frac{\text{R157,50 - R140,00}}{\text{R140,00}} \times 100\,\%$$

= 12,5% (3)

3.2 B = R140,00 + R179,39 + R170,86 + R584,79 + R380,98
= R1 465,02 (2)

3.3 Total 2017:
R1 655,55 + R231,78
= R1 887,33
Additional amount to budget
= R1 887,33 – R1668,86
= R218,47 (4)
[9]

8. TAX / BELASTING

VAT - Minimum of 5 questions
INCOME TAX - Minimum of 5 questions

QUESTION / VRAAG 1

1.1 Value Added Tax
Belasting op Toegevoegde Waarde (2)

1.2 15% (2)

1.3 $\frac{\text{R3350,00}}{1,15}$

= R2 913,04

$\frac{\text{R5950,00}}{1,15}$

= R5 173,91 (4)

1.4 R220,00 × 1,15
= R253,00

R2 100,00 × 1,15
= R2 415,00 (4)

1.5 A: R3 350,00 – R2 913,04
= R436,96

B: R253,00 – R220,00
= R33,00

C: R2 415,00 – R2 100,00
= R315,00

D: R5 950,00 – R5 173,91
= R776,09 (4)

[16]

QUESTION / VRAAG 2

Mistake: calc. 14% on original price AND an extra 1% on accumulated price
Fout: bereken 14% op die oorspronklike EN tel 'n ekstra 1% by die totaal.

Correct calculation should be 15% on original price
Korrekte berekening sou wees om 15% by oorspronklike prys te tel

Amount/*Bedrag* = 1,15 × R160 087,72
= R184 100,88

OR/*OF*

The dealer added 1% on the VAT inclusive price of R182 500
Die handelaar het 1% by die BTW insluitende prys van R182 500 getel

He should have calculated the 15% directly on the original selling price excluding VAT.
Hy moet die 15% direk op die oorspronklike verkoopsprys sonder BTW tel

New selling price inl. VAT/ *Verkoopsprys BTW ingesluit*

= 115% × R160 087,72
= R184 100,88 (4)

[4]

QUESTION / VRAAG 1

= 12 × R46 308,50 = R555 702

= R149 475 + 39% (R555 702 – R555 600)

= R149 475 + 39% (R102)

= R149 514,78

= R149 514,78 – R13 500

= R136 014,78

= R136 014,78 ÷ 12

= R11 334,565 ≈ R11 334,57 (7)

[7]

QUESTION / VRAAG 2

2.1 South African Revenue Services
Suid-Afrikaanse Inkomstediens (2)

2.2 12 months / maande. (2)

2.3 R33 375,00 × 12 (2)
= R400 500

2.4 Tax bracket / Belastinghakkie 3

OR / OF

293 601 – 406 400

OR / OF

61 296 + 31% of taxable income above / belasbare inkomste bo 293 600 (2)

2.5 Age / ouderdom = 55 years + 10 years

= 65 years / jaar

61 296 + 31% of taxable income above 293 600

61 296 + 31% (R400 500,00 - R293 600,00)

$61\,296 + \left(\frac{31}{100} \times R106\,900,00\right)$

R61 296,00 + R33 139,00

= R94 435,00

R94 435,00 – R13 500,00

= R80 935,00 – R7 407,00

= R73 528,00

$\frac{R73\,528,00}{12}$

= R6 127,34

Yes she is correct/Ja sy is korrek. (8)

[16]

QUESTION / VRAAG 3

3.1 R17 500 × 12
= R210 000,00

R35 235 + 26% of taxable income above R195 850 (2)

3.2 R34 178 + 26% of taxable income above R189 880

R34 178 + 26% (R198 245,00 – R189 880,00)

$R34\,178 + \frac{26}{100} \times R8\,365,00$

R34 178,00 + R2 174,90

= R36 352,90 – R13 365,00

$= \frac{R22\,987,90}{12}$

= R1 915,66 (6)

[8]

9. EXCANGE RATE / WISSELKOERS

Minimum of 6 questions

QUESTION / VRAAG 1

1.1 $1 = R13,1757 (2)

1.2 $1 = R13,1757
$400 million / miljoen
$400 000 000 × R13,1757
= R5 270 280 000,00 (3)

1.3 Player/Speler A
Annual salary/Jaarlikse salaris 2017
= $45 million/miljoen
$45 000 000 × 13,1757
= R592 906 500

Player/Speler B
Annual salary/Jaarlikse salaris 2017
= €36 million/miljoen

= $41 974 332,7
$41 974 332,70 × 13,1757
= R553 041 215,30

Player A is not correct. His annual salary is more than that of player B /
Speler A is nie korrek nie. Sy jaarlikse salaris is meer as die van speler B. (6)
[11]

QUESTION / VRAAG 2

2.1 United Kingdom OR Britain (2)
Verenigde Koninkryk OF Brittanje

2.2 1 South African rand = 0,070 US dollar

1 Suid-Afrikaanse rand = 0,070 VS dollar

$$\therefore \$1{,}94 = R\frac{1{,}94}{0{,}07}$$

= R27,71

OR / OF

R95,57 ÷ $6,69 = 14,2855…

$ 1,94 × 14,28855….

= R27,71 (2)

2.3

2.3.1 $A = \frac{113,96}{16,28}$ euro

$= 7$ euro (2)

2.3.2 $B = \frac{56,07}{267}$

$= 0,21$

1 Indian Rupee equals 0,21 South African rand

1 Indiese Roepee is gelyk aan 0,21 Suid-Afrikaanse rand (2)

2.4 SGD $ 8,00 : SGD $ 2,50

= 16 : 5 (3)

2.5 United States of America and Brazil (2)
Verenigde State van Amerika en Brasilië

[13]

1. DEVELOPING QUESTIONS
Minimum of 2 questions

Help the learners to formulate sub questions that will lead to meaningful data collection.

2. COLLECTING DATA
Minimum of 2 questions

Assist learners in drawing up a questionnaire and identifying the population and sample.

3. CLASSIFYING AND ORGANISING DATA
Minimum of 4 questions

Revision of the frequency table is important.