



JENN

Training and Consultancy

The path to enlightened education

SUBJECT: MATHEMATICAL LITERACY

GRADE 12

2023 SPRING CLASSES

TEACHER AND LEARNER CONTENT MANUAL

TOPIC: EXCHANGE RATES

MATHEMATICAL LITERACY PROGRAMME FOR 2023 SPRING CLASSES

STRUCTURE OF EXAMINATION			
PAPER	TOPICS	TOTAL MARKS	WEIGHTING
PAPER 1: (FINANCE & DATA HANDLING)	Finance	±90	± 60 %
	Data Handling	±53	± 35 %
	Probability	7	5%
TOTAL		± 4	± 32%
PAPER 2: (MEASUREMENT, MAPS, PLANS & SCALES)	Measurement	± 83	± 55%
	Maps, Plans and Scale	± 60	± 40%
	Probability	7	5%
TOTAL		150	±100%
Pre-test and Post-test to be administered since it's a revision of Term 1 & 2.			

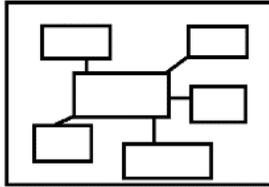
**SECTION 1: Exchange Rates**

- Examination guideline and outcomes
- Important terms and definitions
- Worked examples.
- Activities

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ICON DESCRIPTION

MIND MAP



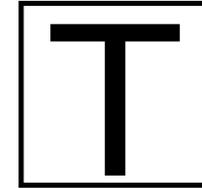
EXAMINATION GUIDELINE



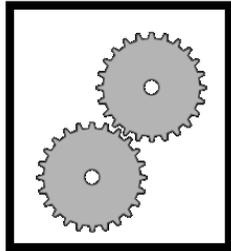
BIBLIOGRAPHY



TERMINOLOGY



WORKED EXAMPLES



STEPS



CONTENTS



ACTIVITIES



DATA HANDLING: EXAMINATION GUIDELINES



TOPIC: FINANCE

Section	Level 1: Knowing	Level 2: Applying routine procedures	Level 3: Applying multi-step procedures in a variety of contexts	Level 4: Reasoning and reflecting
Exchange Rates	Identify the exchange rate between two currencies from a given table or rate board.	Use a given exchange rate to determine the value of one currency for a specific quantity of another currency.	Perform currency conversion. calculations, considering currency. exchange fees charged by banks and other financial institutions.	Explain how the Big Mac Index provides a tool for determining the worth of one currency in relation to another currency. Explain why it is not necessarily accurate when a South African tourist in America exclaims that a can of cool drink those costs \$2,00 (R14,00) is much cheaper in South Africa.

LESSON OBJECTIVES

EXCHANGE RATES:

Learners must be able to:

- Explain terminology associated with exchange rates section.
- Differentiating between “STRONG” and “WEAKER” currency.
- Compare the currency from different countries.
- Use the given exchange rate to calculate from the value of one currency to another.

IMPORTANT TERMS AND DEFINITIONS/TERMINOLOGY

EXCHANGE RATES

Exchange Rate	The value of one currency relative to the value of another currency.
Currency	A medium of exchange for goods and services.
Strong currency	A currency is classified as strong when it is worth more than another country's currency.
Weak currency	A weak currency refers to a nation's money that has seen its value decrease in comparison to other currencies.
Foreign Investment	Capital flows from one country to another, granting the foreign investors extensive ownership stakes in domestic companies and assets.
Import	Bring (goods or services) into a country from abroad for sale.
Export	Send (goods or services) to another country for sale.

Worked Example

Exchange Rate

Note the following:

1. Compare the value of different currencies to each other.
2. If we were to compare the value of the Rand to Dollar, we would see that **R1** could buy **\$0,0625** or **R1 = \$0,0625**.
3. To put it another way; **\$1 = R16,00**.
4. Take note that the exchange rates will use up to four decimal places being quotes.
5. When converting use the “left” to “right” rule Left Right, **multiply** Right Left, **divide**.
6. Exchange rates are determined based on the supply and demand basis.
7. If there is more demand for a currency and people want the products manufactured by that country or want to invest in the country.
8. The price of that currency will increase relative to the other currencies.
9. If the demand is less (or bigger supply) the price of that currency will decrease relative to the other currencies. This usually happens when foreign investors pull out of a country, or a currency needs to start importing most of their products.

Example 1:

We want to convert **\$75** to Rands.

Using: = R1= \$0,0625 \longrightarrow $\$75 \div 0,0625 = \text{R1 } 200,00$

Using: = \$1= R16,00 \longrightarrow $\$75 \times 16 = \text{R1 } 200,00$

Important:

In real life there would be a small difference between your results depending on which rate you chose to use. This is due to a rounding error caused by the rates being rounded to four decimal places.

Question 1 Exchange Rates

1.1 Mr Gwabeni intends to visit his friend in the United States. He has R30 000 to spend while he is there. The exchange rate on that date is 1 dollar (\$) = R13,97

1.1.1 Explain the term exchange rates within the context above. (2)

1.1.2 State whether the rand is stronger or weaker than the dollar (2)

1.1.3 Calculate how much his spending money is worth in dollars. (2)

1.2 TABLE 1 below indicates the exchange rate between South Africa (SA) and some other high-ranking countries.

Exchange rate of SA and other Countries October 02, 2017 09:00		
CURRENCY	UNITS PER ZAR	ZAR PER UNIT
US Dollar	0,073482	13,608770
European Euro	0,062562	15,984219
British Pound	0,055187	18,120130
Indian Rupee	4,811223	0,207847
Australian Dollar	0,094072	10,630196
Canadian Dollar	0,091895	10,881951

[Source: w.w.w.x-rates.com]

1.2.1 On which date was the exchange rate recorded? (2)

1.2.2 Determine the amount of South African rands (ZAR) that are equivalent to 1US Dollar. (2)

1.2.3 Name the currency used in Australia. (2)

1.2.4 Express 10,881951 as a whole number. (2)

1.3

Sipho decides to buy a pair of sneakers online. The sneakers cost \$178,57 in New York (USA) and the same pair of sneakers costs £156,49 in London (UK). The table below shows the exchange rate for the US dollar and the UK pound.

\$1	ZAR 14,52
£1	ZAR 18,71

Pearson Navigation pack

- 1.3.1 Determine the cost of the sneakers in both cities in ZAR and calculate how much Sipho would save if he buys the sneakers from the cheapest city. (6)
- 1.3.2 Sipho sees the same pair of sneakers advertised for R3 000 in the local newspaper. The price of the sneakers includes an inflation rate of 5,9%. Determine the price of the sneakers before inflation. (3)
- 1.3.3 The main engine crankshaft of a Volvo FX 380 HP truck was not available in South Africa, so he had to import the part from Sweden. The price of the part as shown on the internet is 40 329,21 Kr (Swedish Krona). Calculate the total cost in rands to get the part to South Africa if import tax and postage cost amount to R1 250 and must still be added. (3)

Question 2 Exchange Rates

- 2.1 During the Covid-19 crisis in 2020 the South African Rand (ZAR) declined to a record low level compared to some other currencies. Below is a table indicating the exchange rates as on 20 May 2020.

May 20, 2020		
Currency	Units per ZAR	ZAR per unit
US Dollar	0,055124	18,141002
Euro	0,050319	19,873189
British Pound	0,405000	22,222255
Indian Rupee	4,176797	0,239418
Australian Dollar	0,084102	11,890347
Japanese Yen	5,933915	0,168523

Use TABLE 1 and the information above to answer the questions that follow.

- 2.1.1 On what date were the exchange rates recorded? (2)
- 2.1.2 How many South African rands (ZAR) are equivalent to 1 British Pound? (2)
- 2.1.3 What is the name of the currency used in Japan? (2)

2.2

Anelle's brother, Tony, who lives in the United States of America, decided to send her money to buy the vegetable slicer using Payment Option 1.

TABLE 7 below shows the exchange rate of South Africa in relation to the currencies of other countries.

May-June 2021

TABLE 7: EXCHANGE RATES TABLE ON 6 FEBRUARY 2020

1 ZAR = 0,067251 US dollars (\$)	US dollar (\$) = ZAR14,86966737
1 ZAR = 0,061147 euros (€)	Euro (€) = ZAR16,35403209
1 ZAR = 0,051856 pounds (£)	Pound (£) = ZAR19,28417155
1 ZAR = 7,386276 yen (¥)	Yen (¥) = ZAR0,1352362217

[Adapted from www.x-rates.com/table]

Use the information and TABLE 7 above to answer the questions that follow.

2.2.1 Identify the currency that is weaker than the rand. (2)

2.2.2 Tony sent Anelle US\$130,00.
Determine, rounded to the nearest rand, the amount Anelle received from Tony. (3)

2.3

Mandla's younger sister studies medicine in Britain. Mandla sent her R34 152,69 to travel back home.

2.3.1 How many pounds did he send to his sister if £0,048373 = 1ZAR? (2)