Western Cape Government

Western Cape Education Department

Directorate: Curriculum FET

MATHEMATICAL LITERACY

REVISION BOOKLET
2026 TERM 2

Grade 11

This revision program is designed to assist you in revising the critical content and skills covered during the 2nd term. The purpose is to prepare you to understand the key concepts and to provide you with an opportunity to establish the required standard and the application of the knowledge necessary to succeed in the NCS examination.

FINANCE

TAXATION: VAT

VAT EXCL to VAT INCL	**X 1,15**
VAT INCL to VAT EXCL	÷1,15
VAT AMOUNT	VAT INCL – VAT EXCL
VAT AMOUNT	VAT EXCL X 15%

QUESTION 1

The Kolbe family is planning on going to visit the Two Oceans Aquarium when they are visiting Cape Town.
The family consists of Mr and Ms Kolbe and three children aged 3, 12 and 16.
The ticket prices are shown below:

	One day ticket (excl 15 %VAT)
Adults	R204
SA Pensioners	R152
SA Students	R152
Children (14-17 years)	R152
Children (4-13 years)	R96
Children (3 and under)	FREE

Use the information above to answer the questions tha follow.

1.1 Calculate the total cost of the family's visit to the Aquarium including VAT.

QUESTION 2

Aimee wants to explain to her cousin how VAT works and uses the till slip below

FOOD LOVER'S MARKET

PAROW
SHOP 33
VATNO: 4620215469
TAX INVOICE

Bananas 0,762 Kg @24,99/Kg	19,04*
Blueberries PP 125g	10,00*
Clover Milk	23,99*
Plastic Bag	1,50
Chia-seeds	89,99
Strawberries 2 @ 14,50	29,00*
TOTAL	173,52
EFT	173,52
CHANGE	0,00

VAT SUMMARY

DESCRIPTION	NET	VAT	TOTAL
*No VAT	82,03	0,00	82,03
VAT	79,55	11,94	91,49
TOTAL	161,58	11,94	173,52

5.1) How are the zero rated items indicated on the slip?

5.2) Explain how the final amount the client must pay ('balance due') was calculated.

5.3) Determine the total of the zero-rated goods.

5.4) Show through calculation that the total of the goods that include VAT is R91,49.

5.5) Calculate the VAT-exclusive amount by using the VAT-inclusive amount.

5.6) What is the VAT amount indicated on the slip.

FINANCE

Exchange Rates

QUESTION 1

Exchange rates show the currency of one country in relation to another currency

	USD	GBP	EUR	ZAR	DZD	EGP	NGN
1 USD	1	0.741	0.855	16.557	132.563	52.56	1352.31
1 GBP	1.35	1	1.154	22.358	179.01	70.976	1826.136
1 EUR	1.17	0.866	1	19.368	155.072	61.485	1581.93
1 ZAR	0.06	0.045	0.052	1	8.007	3.175	81.677
1 DZD	0.008	0.006	0.006	0.125	1	0.396	10.201
1 EGP	0.019	0.014	0.016	0.315	2.522	1	25.729
1 NGN	0.001	0.001	0.001	0.012	0.098	0.039	1

Use the information above to answer the questions that follow:

1.1 Identify from the table all currencies weaker than the Rand.

1.2 Identify the strongest currency in this table.

1.3 Ben is planning to visit South Africa. He saved GBP 400 in England.

Calculate how much money he has in Rand.

1.4 A pair of Ray Ban's cost R 1 700 in South Africa,or imported from Egypt for EGP 5 700.

Julia stated that it would be cheaper to import it from Egypt. Verify, showing all calculations whether her statement is valid.

FINANCE

Financial Documents

QUESTION 1

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 below.

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)

Use the information above to answer the following questions:

1.1 Write down the name of the account holder.

1.2 Determine the total number of TRANSACTIONS made on this account.

1.3 Calculate the total amount of IB transactions made on this account.

1.4 The account holder owed the bank a certain amount on a particular day. Identify the amount that the account holder owed the bank.

1.5 Calculate the total amount deposited into this account during the period of the statement.

1.6 What percentage of the total amount deposited into this account was paid towards TSD BANK BOND?

1.7 Calculate the Pre-Paid Electricity fee on 16/09/2017.

QUESTION 2

Dean Peterson has a clothing account at Markham clothing store. At Markham a customer can choose either a 6-month or a 12-month revolving (ongoing) payment option.
Dean's clothing store statement from Markham for a certain period of the year is shown below.

MARKHAM ACCOUNT STATEMENT OF D PETERSON

MARKHAM

ACCOUNT STATEMENT

STATEMENT DATE: 15 JAN. 2019

MR D PETERSON
27 SECOND AVENUE
COLRIDGE
VRYBURG
8601

TFG REWARDS MORE FOR YOU

1 CARD, EXCLUSIVE OFFERS
OVER 20 RETAIL BRANDS
Account customers are automatically TFG **REWARDS** members.

DATE	REFERENCE	DESCRIPTION	AMOUNT	
	6 months revolving	Opening balance	101,99	
31 DEC.	HO FNB electronic payment	Payment	101,99	CR
	Installment 0,00 due	Closing balance	0,00	
	12 months revolving	Opening balance	1 215,36	
17 DEC.	ASJ Zevenwacht Mall	Purchase	3 750,00	
19 DEC.	ASJ Zevenwacht Mall	Purchase	4 000,00	
19 DEC.	ASJ Zevenwacht Mall	Purchase returned	3 750,00	CR
31 DEC.	HO FNB electronic payment	Payment	698,01	CR
12 JAN.		My kitchen	26,70	
12 JAN.		Kids only	20,00	
12 JAN.		Interest	92,66	
	Installment 440,00 Due 38,37	Closing balance	4 656,71	

My current credit allocation	What can I spend?	What is my installment?	By how much am I in arrears?	What is my balance?
8 800,00	**4 143,29**	**440,00**	**0,00**	**4 656,71**
CURRENT	30 DAYS	60 DAYS	90 DAYS	TOTAL DUE (BY 1ST)
38,37	**0,00**	**0,00**	**0,00**	**38,37**

[Adapted from a Markham's account]

Use the information above to answer the following questions:

2.1 Write down the total balance owing on Dean's account.

2.2 Give the full date on which the current instalment is due.

2.3 State the opening balance of the 12-month revolving account option.

2.4 Write down the price of the item that was returned.

2.5 Determine the total amount paid using FNB electronic payments.

MAPS PLANS AND OTHER REPRESENTATIONS

What is a map/plan?

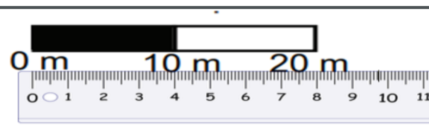
- Maps/ Plans are visual representation of areas/items/features.
- When drawn to scale it has reduced or enlarged the object by the scale factor.
- We often use maps and plans to show us the general location of features and the layout of certain items.

What types of Maps and Plans can I encounter in Mathematical Literacy?

- seating plan and/or layout of a classroom
- layout of the buildings and/or sports fields at a school
- layout of the stores in a shopping centre
- seating plans for cinemas and a sports stadium
- street maps with and without a grid reference system
- national and provincial road and rail maps
- strip charts showing distances on a portion of road
- elevation maps (e.g. the Comrades Marathon route)
- residential or housing estate maps.

In this revision book we will not be able to go through examples of ALL the types of maps and plans. Please make sure that you can work with each one.

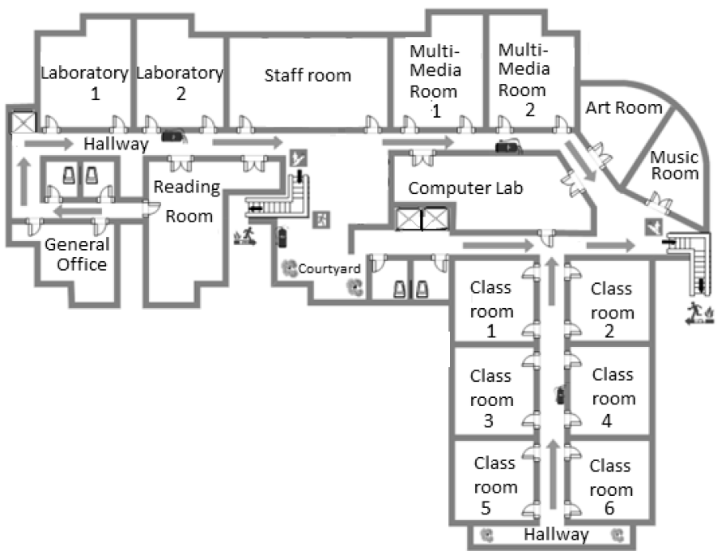
SCALE:

Number/ Ratio Scale	**Bar Scale**
1 : 50 000 (note: no units)	
We do NOT need to measure the scale.	We must first measure the scale (using a ruler)
This means ONE unit on the map/plan represents 50 000 units in real life.	In this case: 8 cm on the map/plan represents 20m in real life.
Advantage: No units needed.	Advantage: When a map/plan is resized it remains accurate
Disadvantage: When a map/plan is resized it is inaccurate.	Disadvantage: Must first measure scale

QUESTION 1

Anda is a teacher in Zambia. A detailed layout plan of the school building where he teaches is shown below.

LAYOUT PLAN OF THE SCHOOL BUILDING



KEY	
EXPLANATION	**SYMBOL**
Door, single	
Door, double	
Exit to use in case of fire	
Stairs	
Fire extinguisher	
Hallway direction to follow in case of evacuation	

[Source: www.edrawsoft.com/template-school-layout.html]

Use the information above to answer the questions that follow.

1.1 Write down, in simplified form, the ratio of the number of single doors to the number of double doors on the school layout plan.

1.2 Name the rooms that have TWO double doors and ONE single door.

1.3 State ONE feature that indicates that the school has more than one level.

1.4 During an evacuation drill, Anda took the following route:

- Exited the room and turned left into the hallway
- Went straight past three single doors on the left and a fire extinguisher on the right
- Turned right at the end of that hallway
- Passed two rooms each having a double door
- Then used the 'Exit to use in case of fire'

Determine the room from which Anda exited during the evacuation drill.

QUESTION 2

Peet and his friend, Roland, plan a camping trip using their motorcycles along Cape Route 62. This is a popular tourist route passing through the Western Cape and Eastern Cape provinces. The map on ANNEXURE B shows Cape Route 62.

Use ANNEXURE B to answer the questions that follow.

2.1 Identify the road that must be travelled on between Tulbagh and Ceres.

2.2 Name the type of scale shown on the map.

2.3 Write down the general direction from Knysna to Mossel Bay.

2.4 The total distance from Cape Town to Worcester, via Tulbagh, is 210 km.

TABLE 1 indicates the actual distances between some of the towns on Cape Route 62.

TABLE 1: ACTUAL DISTANCES BETWEEN TOWNS

Cape Town to Paarl	62 km
Paarl to Wellington	13 km
Wellington to Tulbagh	**A**
Tulbagh to Worcester	82 km

[Adapted from www.route62.co.za]

Determine missing value **A**.

2.5 Peet wants to visit his cousin, who lives along Cape Route 62.

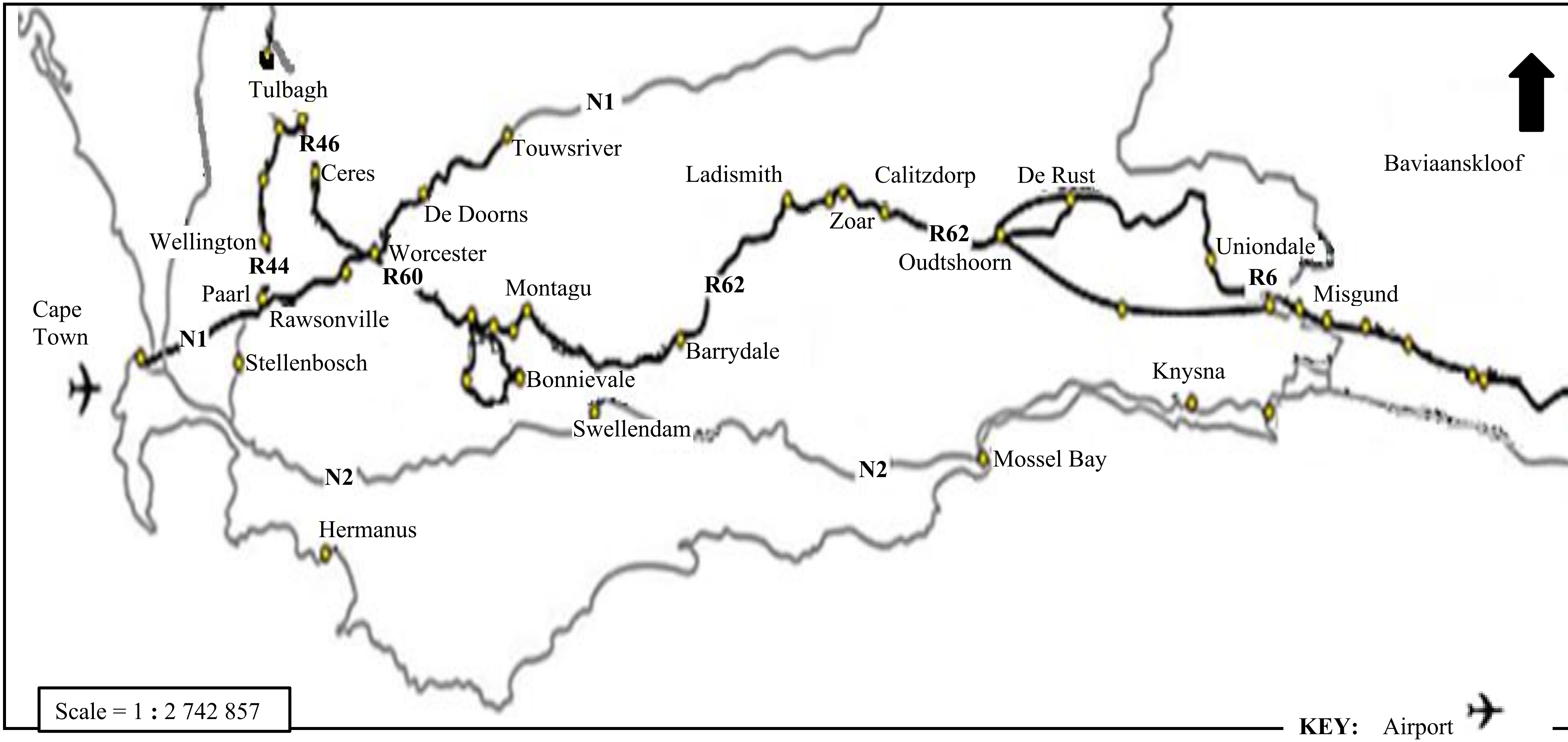
He uses the following directions to his cousin's home:

- Peet takes the R60 from Worcester to Montagu.
- From Montagu he proceeds to Barrydale.
- From Barrydale he takes the R62 to the next town where his cousin lives.

Study the directions and then write down the name of the town where his cousin lives.

ANNEXURE B

ROUTE 62 ROAD MAP



QUESTION 3

Welkom is a town in the Free State. ANNEXURE C is a road map showing part of the streets in Welkom. The town is known for having many traffic circles.

Use the information in ANNEXURE C to answer the questions that follow.

3.1 Write down the general direction of the Concor circle from the Shell circle.

3.2 A railway line passes through Milner Road, Othello, Arrarat and Koppie Alleen Streets.

Explain how it is shown on the map that the road is actually situated above the railway line.

3.3 Name the traffic circle that connects FIVE roads.

3.4 Describe the route that will be taken by a car entering the town on Stateway from the industrial area if it will be heading to the point in Dagbreek, marked **X**, passing by the city council building on the left.

3.5 The actual distance from exiting the Alfa circle to entering the Engen circle is 500 m. The actual distance from exiting circle 13 to entering circle 14 in Stateway is 1,4 km.

Determine, by measurement, whether the map is drawn to scale.

3.6 Samuel stated that it took him 5 minutes to cover a distance of 4 km in Welkom.

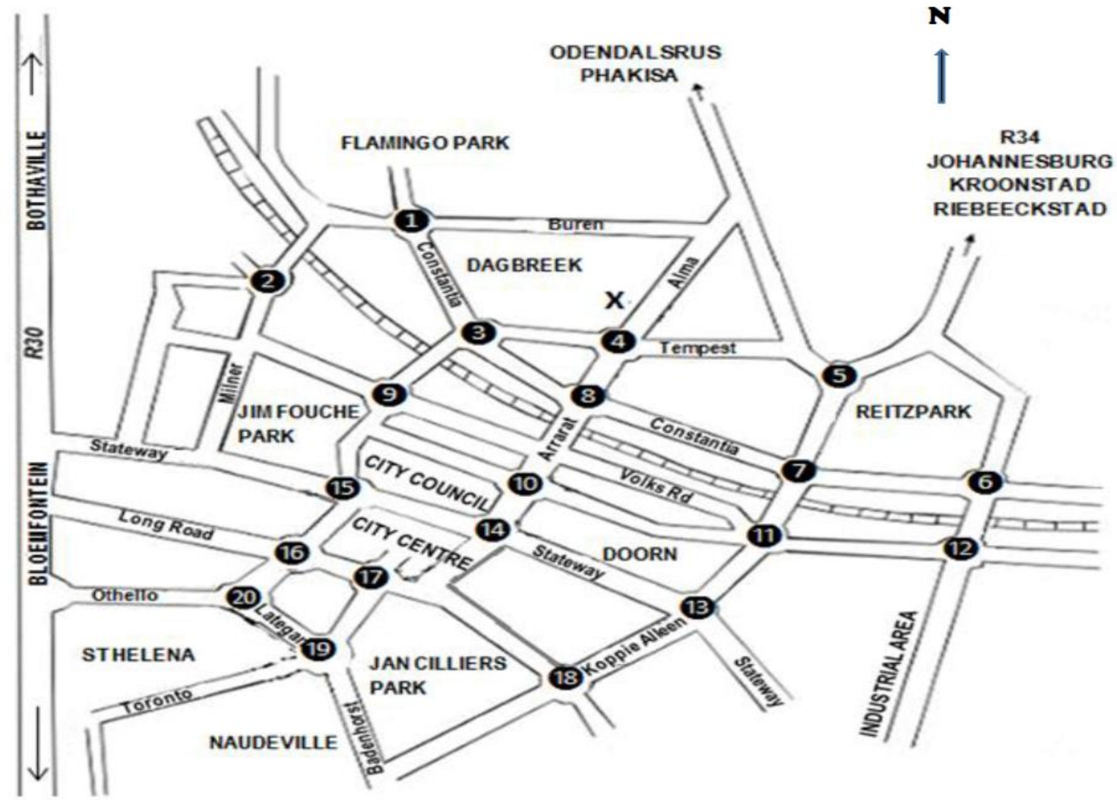
Verify, with calculation, whether the car was travelling within the speed limit.

You may use the formula:

Distance = Speed × Time

ANNEXURE C

ADAPTED ROAD MAP OF WELKOM



[Adapted from www.sleeping-out.co.za]

NOTE: The speed limit on public roads in an urban area is 60 km/h.

KEY:

Symbol	Description
(rail symbol)	Rail
R	Provincial road
20	Circles with names

1	Buren
2	Milner
3	Shell
4	Engen
5	OFM
6	Langa
7	CTM
8	Alfa
9	Delta
10	Bingo
11	Toyota
12	Industry
13	Bonny
14	Smith
15	Concor
16	Langman
17	Civic
18	Park
19	Toronto
20	Hospital

PROBABILITY

QUESTION 1

Rafique is a soccer fan and he wants to use his knowledge of Mathematical Literacy to understand the possible outcomes of a game.
The possible outcomes of a soccer game are WIN (W), DRAW (D) or LOSE (L).
The team that Rafique supports still has to play two games.

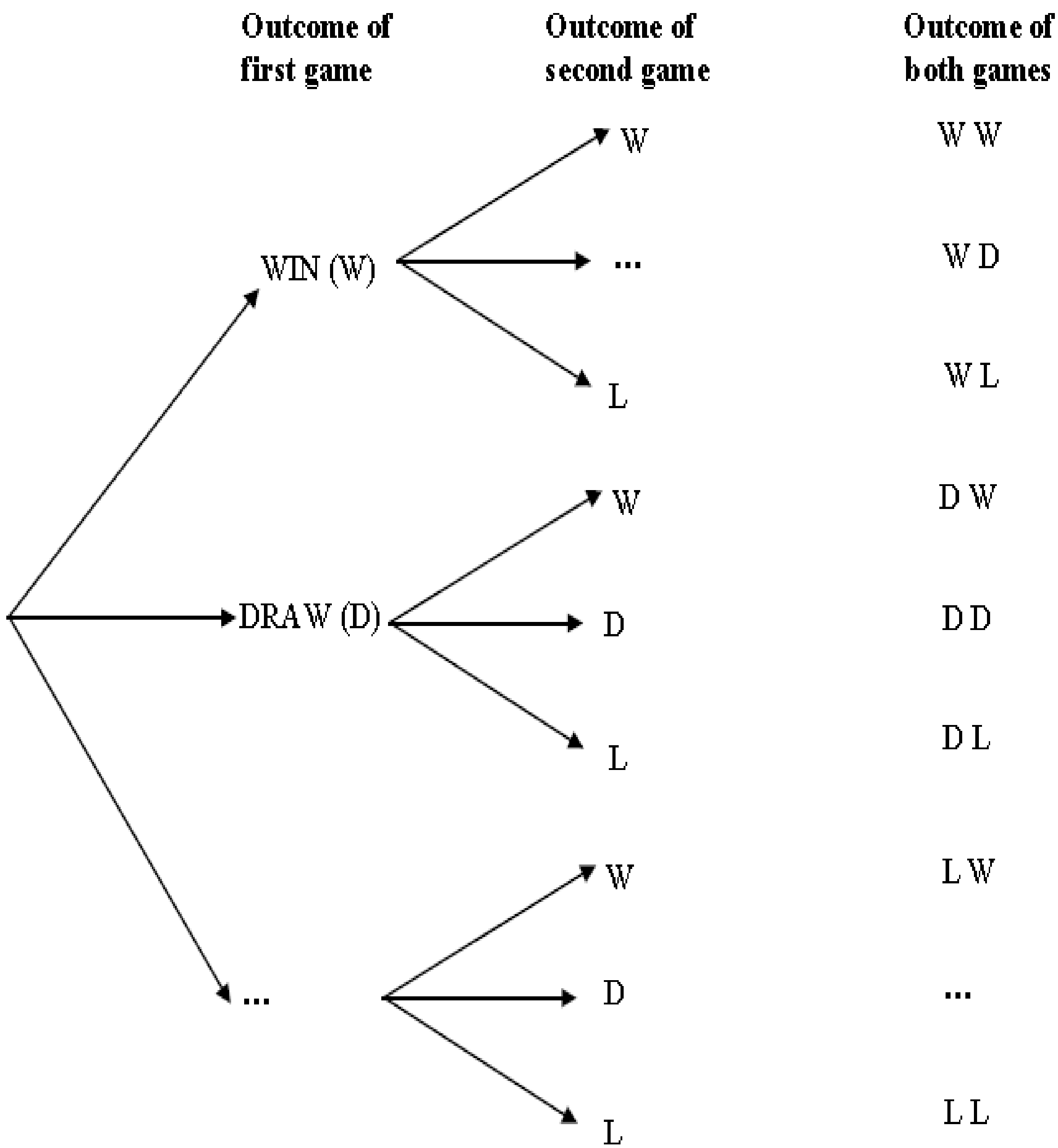
1.1 An incomplete tree diagram on ANSWER SHEET 2 shows the possible outcomes of the two games that still have to be played.
Write down the missing information in the spaces provided on ANSWER SHEET 2.

1.2 The probability of Rafique's team losing both games is $\frac{1}{9}$.

Which ONE of the following statements (A, B or C) best describes this probability?

A There is no chance of the team losing both games.
B There is a certainty of the team losing both games.
C There is a possibility of the team losing both games.

1.3 The tree diagram on ANSWER SHEET 2 shows the possible outcomes of the last two games.
Use this tree diagram to determine the probability that the team will win at least one of the two games that still have to be played.


Outcome of first game
Outcome of second game
Outcome of both games
WIN (W)
DRAW (D)
...
W
...
L
W
D
L
W
D
L
W W
W D
W L
D W
D D
D L
L W
...
L L