



**education**

Department of  
Education  
FREE STATE PROVINCE

## PREPARATORY EXAMINATION

**GRADE 12**

## MATHEMATICAL LITERACY P1



**TIME: 3 HOURS**



**This question paper consists of 13 pages,  
1 answer sheet and an addendum with 2 annexures.**

## INSTRUCTIONS AND INFORMATION

1. This question paper consists of FIVE questions. Answer ALL the questions.
2. Use the ANNEXURES in the ADDENDUM to answer the following questions:
  - ANNEXURE A for QUESTION 3.1
  - ANNEXURE B for QUESTION 5.1
3. Answer QUESTION 2.1 on the attached ANSWER SHEET.  
Write your name and surname in the spaces provided on the ANSWER SHEET. Hand in the ANSWER SHEET with your ANSWER BOOK
4. Start EACH question on a NEW page.
5. An approved calculator (non-programmable and non-graphical) may be used unless stated otherwise.
6. Show ALL calculations clearly.
7. Round off ALL final answers appropriately according to the given context, unless stated otherwise.
8. Indicate units of measurement, where applicable.
9. Pictures and diagrams are NOT necessarily drawn to scale unless stated otherwise.
10. Write neatly and legibly.



**QUESTION 1**

1.1 In TABLE 1 below is a list of explanations and definitions of concepts used in Mathematical Literacy.

**TABLE 1: EXPLANATIONS AND DEFINITIONS OF CONCEPTS**

A	Annual tax payable before rebates.
B	A special type of diagram is used to determine the outcomes of an event in a game.
C	A numerical description of how likely an event is to occur.
D	Ordinary and necessary costs of running a small business.
E	The financial benefit is realised when money generated from a business exceeds the expenses, costs, and taxes involved in keeping the business.
F	The process of using a research tool to gather information.
G	Chance of a particular outcome in a game of sport.
H	A tax relief is given to a taxpayer.

Use the information above to write down the letter of the explanation or definition (A to H) of EACH of the following:

1.1.1 Survey (2)

1.1.2 Tax rebate (2)

1.1.3 Probability (2)

1.1.4 Profit (2)




1.2

A gas cylinder and outdoor cooker are useful devices to provide an alternative energy source during camping.

Below is a picture of a set consisting of a gas cylinder and an outdoor cooker with different payment options.

**PAYMENT OPTIONS OF A GAS CYLINDER AND OUTDOOR COOKER SET**

<b>CASH PRICE</b>	<b>HIRE-PURCHASE</b>	<b>ONLINE CREDIT</b>
R10 099 (including 15% VAT)		
	<b>Deposit:</b> 10% <b>Instalment:</b> R276,45 p.m. × 36 months <b>Interest rate:</b> 9,5%	<b>Instalment:</b> R942,50 p.m. × 12 months <b>Interest rate:</b> 9,76%

[Source: [walmart.com](http://walmart.com)]

Use the information above to answer the questions that follow.

1.2.1 Name the TWO most costly payment options for this gas cylinder and outdoor cooker set. (2)

1.2.2 Define *hire-purchase* within the given context. (2)

1.2.3 Write down the interest rate if the gas cylinder and outdoor cooker set were bought on hire-purchase. (2)

1.2.4 Calculate the total cost of the gas cylinder and outdoor cooker set, using online credit. (2)

1.2.5 A 10% discount is given on the cash price.

Calculate the amount of discount given if the gas cylinder and outdoor cooker set are purchased for cash. (2)

1.2.6 Choose which ONE of the following **A**, **B** or **C** completes or explains the leading statement below the best.

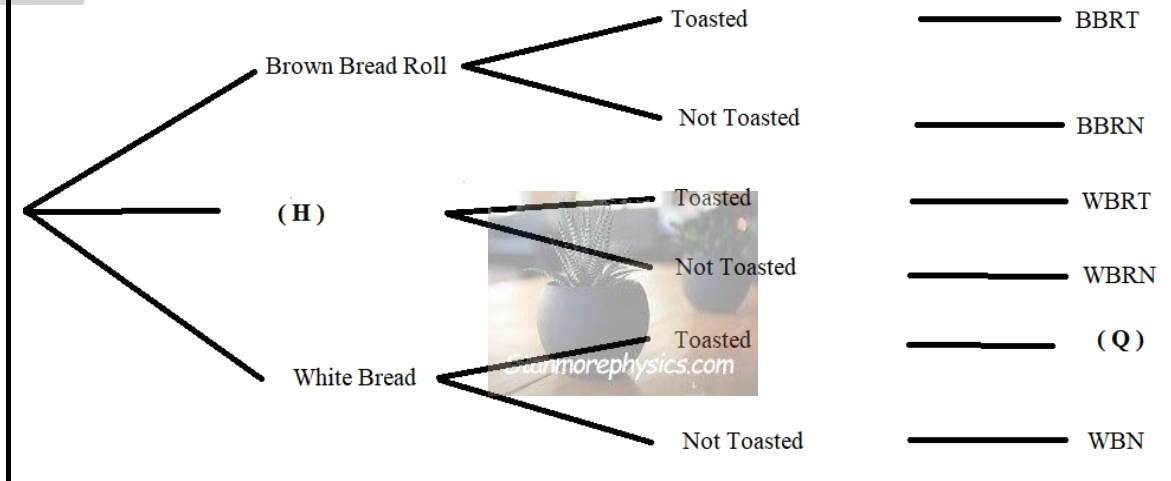
**Statement:** '15% VAT is an indirect form of tax because it is ...'

- A. included in the cash price.
- B. paid straight to the government.
- C. collected by a retail store from the customer who pays the tax included in the price of purchased goods. The store later files a tax return and forwards the tax takings to the government. (2)

1.3

Keitumetse's catering lunch pack has the following bread rolls (either white or brown) and white bread options to choose from:

- White Bread Roll (**WBR**)
- Brown Bread Roll (**BBR**) and
- White Bread (**WB**)
- Where EACH being either Toasted (**T**) or Not Toasted (**N**)



Use the information above to answer the questions that follow.

- 1.3.1 Identify the type of diagram illustrated above. (2)
- 1.3.2 Complete the missing labels (**H**) and (**Q**). (4)
- 1.3.3 Write down the total number of outcomes. (2)
- 1.3.4 Determine the number of bread rolls outcomes. (2)

[30]



## QUESTION 2

2.1 Goitsemodimo is an insurance saleslady and earns a basic salary of R12 000 per month plus a commission. In September 2024 she expects to make R22 000 in commission plus R8 120 bonus.

Her monthly expenses are as follows:

- Rent = R 8 500
- Fuel = R2 500
- Electricity = R800
- Monthly gym membership = R350
- Car payment = R 4 600
- Insurance = R1 975
- Cell phone = R800
- Groceries = R3 000
- Entertainment = R1 700
- Water usage = R400

Use the information above to answer the questions that follow.

2.1.1 Use the provided ANSWER SHEET to construct Goitsemodimo's September 2024 budget. (6)

2.1.2 Express Goitsemodimo's:

(a) ratio of entertainment expenses to rent expenses in the form **1: ...** (2)

(b) variable expenses as a percentage of her basic salary. (4)



- 2.2 Goitsemodimo plans to purchase a FORD RANGER bakkie (light delivery vehicle) from her R1,25 million investment earnings. She received the following price quotation from a car dealer on 28 February 2024:

**EXTRACT OF A PRICE QUOTATION FOR A BAKKIE FROM A DEALER:**

	Rand (R)
Selling price (excluding VAT) without accessories (extras)	480 263,16
Discount	18 420,00
<b>ACCESSORIES (EXTRAS)</b>	<b>PICTURE OF AN ACCESSORY</b>
Towbar	3 550,26
Rollbar	3 500,00
Nudge bar/Bullbar cost and fitting	6 898,25
<b>Transaction fee</b>	1 315,80
<b>SUBTOTAL</b>	<b>477 107,47</b>
VALUE-ADDED TAX	...%
<b>TOTAL DUE</b>	<b>548 673,59</b>

[Source: Group 1 Nissan and The Glen]

Use the information above to answer the questions that follow.

- 2.2.1 Define the word *price quotation* in the context above. (2)
- 2.2.2 Write R1,25 million in full, using numbers only. (2)
- 2.2.3 Calculate (rounded off to TWO decimal places) the percentage discount given on the bakkie's selling price, excluding VAT. (3)
- 2.2.4 Show with calculation how the amount of five hundred and forty-eight thousand six hundred and seventy-three rand and fifty-nine cents was determined. (3)
- 2.2.5 Give ONE reason why customers would prefer to install the accessory **Bullbar** as shown in the quotation. (2)
- 2.2.6 Goitsemodimo invested R1,25 million as follows:
- Thirty-three (33) months investment period.
  - 6,7% interest per annum, compounded annually.

Show whether the **interest earned** on this investment is enough to purchase the bakkie.

(9)  
[33]

### QUESTION 3

- 3.1 Virginia Health and Fitness Centre gives Spinning organised classes by three different instructors, Mpho, Andrea and Eve.

#### PICTURE OF A PERSON ON A SPINNING BICYCLE



[Source: <https://m.media-amazon.com>]

- **Mpho:** The evening group
- **Andrea:** A day group with 20 registered participants and
- **Eve:** The morning group has 8 registered participants.

ANNEXURE A shows the attendance records for the three groups over 18 days, as well as corresponding graphs representing the attendance for Mpho and Andrea's groups.

**Note:** The spinning studio may also be accessed by non-group or any member of the fitness centre beyond organised classes with no instructor leading spinning.

Use ANNEXURE A and the information above to answer the questions that follow.

- 3.1.1 State the best tool to collect respective data for attendance for the spinning groups. (2)
- 3.1.2 Determine the missing value, R, if the mean attendance for Mpho's group is 16. (4)
- 3.1.3 Determine for Andrea's group the:
- (a) Median. (3)
  - (b) Interquartile range (IQR). (3)
- 3.1.4 Give ONE possible reason why Eve's group has full attendance on more days than Andrea's. (2)
- 3.1.5 Give ONE reason why on the box and whisker diagrams the attendance of Andrea's group only shows a lower whisker. (2)



- 3.2 The table below shows the number of children per province (in '000) living in the Republic of South Africa (RSA) in 2020 and 2021. Some values have been omitted.

**TABLE 2: NUMBER OF CHILDREN IN RSA PER PROVINCE, 2020 and 2021**

PROVINCE	Number of children (in thousands)		
	2020	2021	Percentage change
GP	A	4 417	- 4,08
WC	...	2 092	- 2,92
NW	...	1 439	- 0,96
LP	2 492	2 472	- 0,80
EC	2 569	2 554	- 0,58
KZN	4 300	4 302	0,05
NC	437	440	0,69
MP	1 710	1 722	0,70
FS	1 027	1 057	2,92
<b>TOTAL</b>	20 748	20 495	

[Adapted from [www.childrencount.uct.ac.za](http://www.childrencount.uct.ac.za)]

**NOTE**

- The estimated population of RSA in 2021 is 60,14 million and children account for 34%.
- Children: a person under the age of 18.

Use the information above to answer the questions that follow:

- 3.2.1 Write down the province with the third-highest number of children in 2021. (2)
- 3.2.2 State whether the above provinces' percentage change for the number of children is arranged in *descending* or *ascending* order. (2)
- 3.2.3 Show with detailed calculation how the percentage change of 0,69% for NC was determined. (2)
- 3.2.4 Calculate the value of A, the number of children in GP in 2020. (4)
- 3.2.5 Determine, in millions, the difference between the number of children as shown in the table and the estimated population in 2021. (4)

**[30]**

**QUESTION 4**

4.1 Monowe is a 60-year-old nurse who started to work at Pelonomi Hospital on 1 January 1992. She contributed to the Govern Employee Pension Fund (GEPF) from 1 January 1992. She considered retirement on 31 December 2024 when her final salary per year will be R540 333.

She found the information and formula below, which the GEPF uses to calculate retirement pay-out packages.

<b>GEPF NORMAL BENEFITS</b>	
<b>Retiring with LESS THAN 10 YEARS of service</b>	<b>Retiring with MORE THAN 10 YEARS of service</b>
You receive a once-off lump sum (gratuity).	Your benefits consist of two parts: <ul style="list-style-type: none"> <li>• A once-off lump sum (gratuity)</li> <li>• A monthly pension called an annuity</li> </ul>

The gratuity and annuity are calculated using the following formulae:

**Gratuity = 6,72% × final salary per year × years of pensionable service**

**Annuity (per year)**

$$= \left( \frac{1}{55} \times \text{final salary per year} \times \text{years of pensionable service} \right) + 360$$

[Source: GEPF Member Guide 2023]

Use the information above to answer the questions that follow.

4.1.1 State ONE benefit of contributing to GEPF. (2)

4.1.2 Calculate the total difference (rounded off to the nearest rand) of Monowe's gratuity if she extends her employment by another 4 years, it is when her salary will be R613 650. (6)

4.1.3 TABLE 3 below shows the income tax rates for the 2024/2025 tax year.

**TABLE 3: 2024/2025 TAX YEAR RATES**

<b>TAXABLE INCOME (R)</b>	<b>RATES OF TAX (R)</b>
R1–R237 100	18% of each R1 earned
R237 101–R370 500	R42 678 + 26% of the amount above R237 100
R370 50– R512 800	R77 362 + 31% of the amount above R370 500
R512 801–R673 000	R121 475 + 36% of the amount above R512 800

**TAX REBATES 2024/2025**

Primary (below 65)	R17 235
Secondary (65 and older)	R9 444
Tertiary (75 and older)	R3 145

[Source: [www.sars.gov.za](http://www.sars.gov.za)]

Calculate Monowe's monthly annuity after tax if she retires on 31/12/2024. (9)

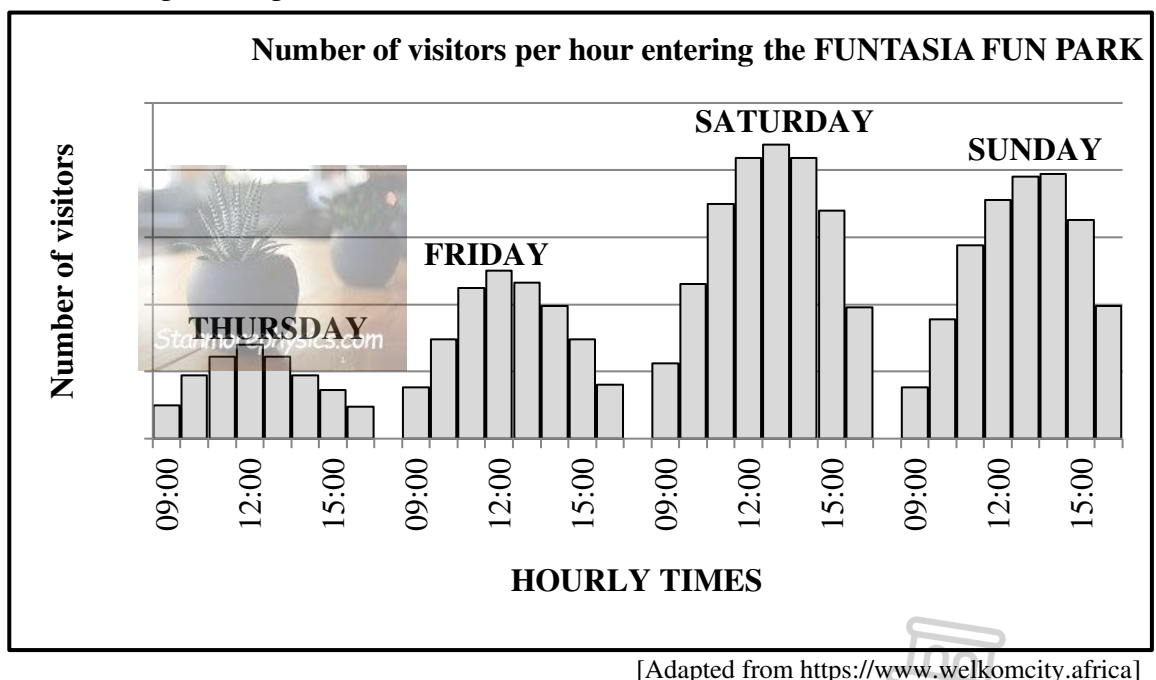
4.2 Monowe lives near FUNTASIA FUN PARK and RESTAURANT (FFPR) open for all ages' entertainment and refreshment.



The bar graphs below show the number of visitors per hour entering the FUNTASIA FUN PARK on four days of the week.

**Note:**

- On Mondays the park is not open.
- The park is open from 09:00 to 19:00.



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

4.2.1 Identify the type of bar graph used to display the data. (2)

4.2.2 Name the items missing on the graph regarding (a) and (b) as directed below.

(a) Days.

(b) Visitors

(4)

4.2.3 Describe a trend that relates to the number of visitors per hour entering the park.

(2)

[25]

**QUESTION 5**

5.1 Table 4 below and the pie charts on ANNEXURE B show the United States of America (USA) light vehicle production and total world vehicle production shares.

**TABLE 4: USA Light Vehicle Production and Total World Vehicle Production Shares, 2017**

MANUFACTURER	SHARE OF USA PRODUCTION	SHARE OF WORLD PRODUCTION
Ford (FOR)	20%	6%
General Motors (GM)	18%	6%
Fiat Chrysler (FCA)	...	7%
Honda (HON)	11%	4%
Toyota (TOY)	11%	10%
Nissan (NIS)	8%	4%
Subaru (SUB)	3%	1%
Hyundai (HYU)	4%	7%
Kia (KIA)	2%	With Hyundai
Volkswagen (VW)	1%	7%
Other	...	48%
<b>Total Production (Million Vehicles)</b>	<b>11,8</b>	<b>90,2</b>

[Source: [www.energy.gov](http://www.energy.gov) / [ward's automotive group](http://ward's.automotive.group)]

Use the information above and ANNEXURE B to answer the questions that follow.

- 5.1.1 Determine the FCA share of United States of America production. (2)
- 5.1.2 Calculate the number of SUB vehicles produced in the USA. (2)
- 5.1.3 It is stated that three manufacturers contribute more than half of USA vehicle production. Verify the statement showing calculations. (3)
- 5.1.4 Identify the modal percentage in the world production share. (2)
- 5.1.5 The average production cost for a Toyota in 2017 was ¥ 1 870 500.

Calculate the rand value of the total world production in 2017.

Use: ¥ 1 = \$0,0069

R1 = \$0,054

(6)

5.2 Dukes owns a fleet of three passenger-type cabs (taxi cars) in the USA that he uses as Uber for transporting people according to the model of car needed.

Transportation is operated using TWO options as shown below.

**Option 1:**

**UPFRONT fare = base fare (call-out fee) + (number of miles × per mile fare)**

**Option 2:**

**POST-TRIP fare = (number of minutes × per minute fare) + (number of miles × per mile fare)**

TABLE 3 below shows the different passenger-type cars and their respective rates in CHICAGO for both UPFRONT and POST-TRIP fare options, including an example of a 10,5-mile trip using the UPFRONT fare option.

**TABLE 3: RATES FOR TRANSPORT CARS BY TYPE IN CHICAGO FOR UPFRONT AND POST-TRIP FARE OPTIONS**

COST	PASSENGER CAR BY TYPE		
	Hatchback	Sedan	SUV
Base fare (call-out fee)	\$0,00	\$ 18,00	\$22,87
Per minute fare	\$1,15	\$ 0,55	\$ 1,60
Per mile fare	\$1,90	\$ 4,05	\$ 7,85
*Minimum fare	\$14,98	\$15,00	\$40,00
Cancellation fee	\$5,00	\$10,00	\$15,00
<b>Total fare (for a 10,5 - mile trip using the UPFRONT option)</b>	<b>\$19,95</b>	<b>\$60,53</b>	<b>UL</b>

[Adapted from [www.rideester.com/uber-rates,2023](http://www.rideester.com/uber-rates,2023)]

\***Minimum fare:** the lowest fare one would be charged per trip.

**Note:** Uber is a transportation company with an APP that enables one to book a cab to get from point A to point B.

Use the information above to answer the questions that follow.

5.2.1 Calculate the missing value **UL**. (3)

5.2.2 Calculate (rounded off to the nearest mile) the maximum distance for which a person can use the Hatchback if you pay the minimum upfront fare. (4)

5.2.3 Explain the importance of a **cancellation fee** for the Uber service provider. (2)

5.2.4 The user travelled a 30-mile distance with Sedan. The post-trip fare option was used, and the trip took 1 hour and 45 minutes to complete.

The user stated that she would have saved more than \$20,00 if she had used the upfront fare option.

Show, with calculations, whether her statement is correct. (8)

[32]

**TOTAL: 150**

SURNAME: .....

NAME: .....

CLASS: .....

**ANSWER SHEET**

**QUESTION 2.1.1**

**Goitsemodimo's budget for September 2024**

INCOME in Rand (R)	
	
<b>TOTAL</b>	= .....

EXPENSES in Rand (R)	
<b>TOTAL</b>	= .....



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**PREPARATORY EXAMINATION**



**MATHEMATICAL LITERACY P1**

**ADDENDUM**

**SEPTEMBER 2024**



**This addendum consists of 3 pages with 2 annexures.**



**ANNEXURE A**

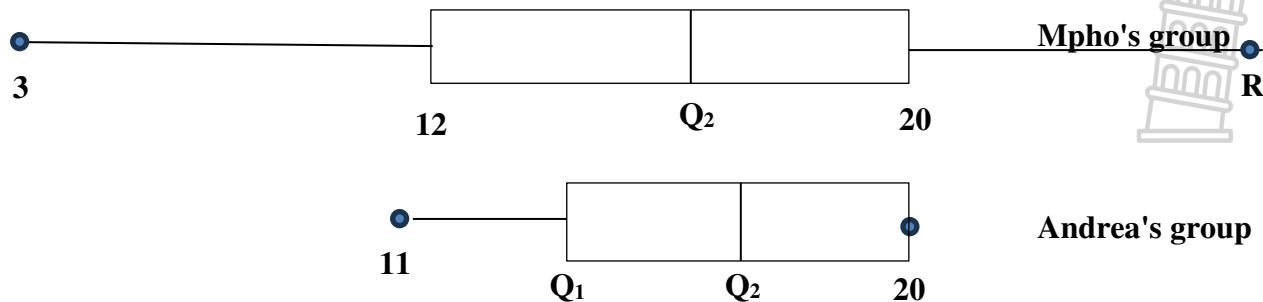
**QUESTION 3.1**

**RECORDS OF ATTENDANCE FOR THREE GROUPS OVER A PERIOD OF 18 DAYS (D1–D18)**

Mpho's group																	
D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18
20	R	9	10	12	3	15	15	14	8	R	17	19	20	17	17	20	R
Andrea's group																	
D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18
12	20	14	20	16	15	19	20	18	20	19	15	20	11	18	12	20	19
Eve's group																	
D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18
7	8	8	6	8	6	7	8	8	6	6	7	8	8	8	8	7	8

[Adapted from [www.emorycommunityswimming.com](http://www.emorycommunityswimming.com)]

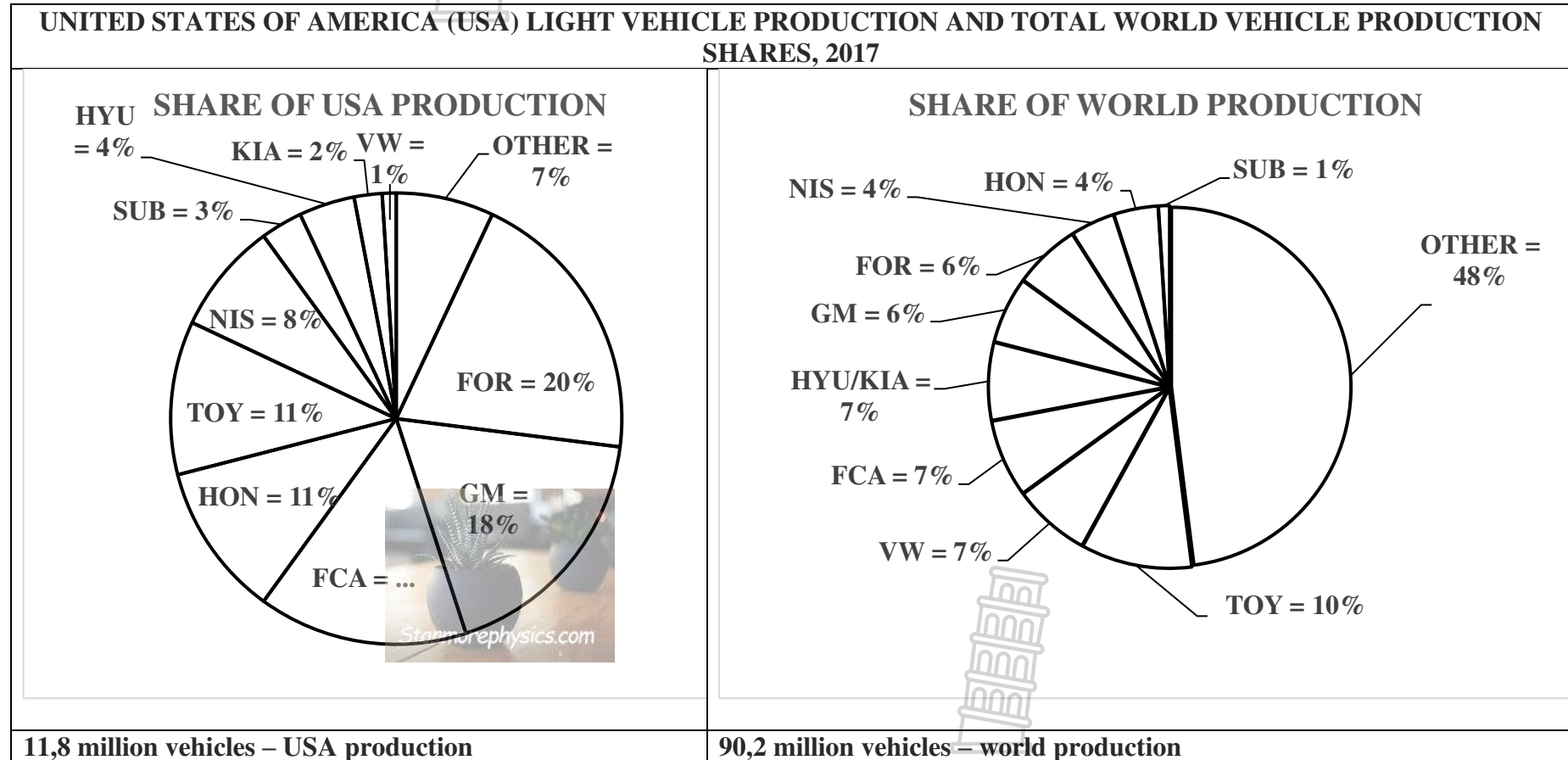
**BOX AND WHISKER DIAGRAMS REPRESENTING ATTENDANCE FOR MPHOTO and ANDREA GROUPS OVER 18 DAYS**





**ANNEXURE B**

**QUESTION 5.1**



**NOTE:**

- Some information is omitted.
- OTHER consist of several different types of vehicles contributing less than 1% each.



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## PREPARATORY EXAMINATION/ VOORBEREIDENDE EKSAMEN

### GRADE/GRAAD 12

## MATHEMATICAL LITERACY P1/ WISKUNDIGE GELETTERDHEID V1

23 SEPTEMBER 2024

MARKING GUIDELINE/  
NASIENRIGLYNE

MARKS/PUNTE: 150

Symbol/Kode	Explanation/Verduideliking
M	Method/Metode
MA	Method with accuracy/Metode met akkuraatheid
CA	Consistent accuracy/Volgehoue akkuraatheid
A	Accuracy/Akkuraatheid
C	Conversion/Herleiding
S	Simplification/Vereenvoudiging
RT	Reading from a table/graph/document/diagram/Lees vanaf tabel/grafiek/dokument/diagram
SF	Correct substitution in a formula/Korrekte vervanging in 'n formule
O	Opinion/Explanation/Opinie/Verduideliking
P	Penalty, e.g. for no units, incorrect rounding off, etc./Penalisasie, bv. vir geen eenhede, verkeerde afronding, ens.
R	Rounding off/Afronding
NPR	No penalty for rounding/Geen penalisasie vir afronding nie
AO	Answer only/Slegs antwoord
MCA	Method with consistent accuracy/Metode met volgehoue akkuraatheid
RCA	Rounding consistent with accuracy/Afronding met volgehoue akkuraatheid

This marking guideline consists of 21 pages/  
Hierdie nasienriglyne bestaan uit 21 bladsye.

**NOTE:**

- If a candidate answers a question TWICE, only mark the FIRST attempt.
- If a candidate has crossed out (cancelled) an attempt to a question and NOT redone the solution, mark the crossed out (cancelled) version.
- Consistent accuracy (CA) applies in ALL aspects of the marking guidelines; however, it stops at the second calculation error.
- Note: Consistent accuracy (CA) does NOT apply in cases of a breakdown.
- If the candidate presents any extra solution when reading from a graph, table, layout plan and map, then penalise for every extra item presented.
- As a general marking principle, if a candidate has incurred one mistake and there is evidence of sound mathematics thereafter, then that candidate should lose ONE mark only.


**LET WEL:**

- *As 'n kandidaat 'n vraag TWEE KEER beantwoord, sien slegs die EERSTE poging na.*
- *As 'n kandidaat 'n antwoord van 'n vraag doodtrek (kanselleer) en nie oordoen nie, sien die doodgetrekte (gekanselleerde) poging na.*
- *Volgehoue akkuraatheid (CA) word in ALLE aspekte van die nasienriglyne toegepas, dit hou op by die tweede berekeningsfout.*
- *Let wel: Volgehoue akkuraatheid (CA) geld NIE in die geval van 'n afbreuk NIE.*
- *Wanneer 'n kandidaat aflesings vanaf 'n grafiek, tabel, uitlegplan en kaart geneem het en ekstra antwoorde gee, penaliseer vir elke ekstra item.*
- *'n Algemene nasienbeginsel is dat, indien 'n kandidaat een fout maak en daarna voortgaan met korrekte wiskunde, die kandidaat slegs EEN punt verloor.*

**QUESTION PAPER SHOULD BE MARKED OUT OF 142**

•



QUESTION/VRAAG 1		[30 MARKS/PUNTE]	
Q/V	Solution/Oplissing	Explanation/Verduideliking	T/L
1.1.1	F ✓✓ A <b>Accept:</b> The process of using a research tool to gather information. ✓✓ A	2A correct answer (2)	D L1 E
1.1.2	H ✓✓ A <b>Accept:</b> A tax relief given to a taxpayer. ✓✓ A	2A correct answer (2)	F L1 E
1.1.3	C ✓✓ A <b>Accept:</b> A numerical description of how likely an event is to occur. ✓✓ A	2A correct answer (2)	P L1 E
1.1.4	E ✓✓ A <b>Accept:</b> The financial benefit realised when money generated from a business exceeds the expenses, costs, and taxes involved in keeping the business. ✓✓ A	2A correct answer (2)	F L1 E
1.2.1	✓A Hire-purchase/Huurkoop ✓A AND/EN Online credit/Aanlyn krediet.	1A first method / HP 1A second method / on-line (2)	F L1 E
1.2.2	✓✓A You pay for the gas set using a monthly instalment. Only after your final instalment, you own the gas set./Jy betaal vir die gasstel met 'n maandelikse paaieiment. Eers ná jou finale paaieiment besit jy die gasstel  <b>OR/OF</b> ✓✓A A payment option is where the store charges a deposit and then goes into a contract with the buyer to pay monthly instalments while using the product./'n Betaalopsie is waar die winkel 'n deposito hef en dan 'n kontrak met die koper sluit om maandelikse paaieimente te betaal terwyl die produk gebruik word  <b>Accept:</b> ✓✓A • Paying for the gas set while is already in your possession/using it.	2A correct explanation    (2)	F L1 E

Q/V	Solution/Oplossing	Explanation/Verduideliking	T/L
1.2.3	9,5% ✓✓RT	2RT correct percentage NPU (2)	F L1 E
1.2.4	Total cost/ <i>Totale koste</i> ✓RT = R942,50 × 12 = R11 310,00 ✓A	1RT using R942,50 1A correct answer (2)	F L1 E
1.2.5	Discount/ <i>Afslag</i>  = R10 099 × $\frac{10}{100}$ ✓MA  = R1 009,90 ✓A	1MA calculating 10%  1A discount amount  [accept R1 009,9/R1 010] (2)	F L1 E
1.2.6	C ✓✓A  <b>Accept:</b> ✓✓A Collected by a retail store from the customer who pays the tax included in the price of purchased goods. The store later files a tax return and forwards the tax takings to the government.	2A correct choice (2)	F L1 M
1.3.1	✓✓ A Tree diagram/ <i>Boomdiagram</i>	2A correct name (2)	P L1 E
1.3.2	✓✓A H = White Bread Roll / <i>Witbroodrolletjie</i> / WBR  ✓✓A Q = White Bread Toasted/ <i>Witbrood Gerooster</i> /WBT	2A correct label  2A correct label (4)	P L1 E/M
1.3.3	Six/ <i>Ses</i> /6 ✓✓A  <b>Listing all 6 correct outcomes ( ½ )</b>	2A total number of outcomes (2)	P L1 E
1.3.4	Four/ <i>vier</i> /4  <b>Listing all 4 correct outcomes ( ½ )</b>	2A correct number of outcomes (2)	P L1 M

QUESTION/VRAAG 2		[33 MARKS/PUNTE]		T/L																																					
Q/V	Solution/Oplossing	Explanation/Verduideliking																																							
2.1.1	Goitsemodimo's budget for September 2024			F L2 E																																					
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Q/V	Solution/Oplissing	Explanation/Verduideliking	T/L
2.1.2 (a)	$\checkmark$ MA $\checkmark$ A $1\ 700 : 8\ 500$ $1 : 5$	1MA correct amounts in the correct order 1CA simplification <b>AO</b> (2)	F L2 E
2.1.2 (b)	Variable expenses' sum/ <i>Veranderlike uitgawes se som</i> Fuel/ <i>Brandstof</i> = R2 500 Electricity/ <i>elektrisiteit</i> = R800 cellphone / <i>Selfoon</i> = R800 Groceries/ <i>kruideniers</i> = R3 000 Entertainment/ <i>Vermaak</i> = R1 700 Water usage/ <i>water gebruik</i> = R400 Total variable expenses = R9 200 $\frac{9\ 200}{12\ 000} \times 100 = 76,67\%$ $\checkmark$ A $\checkmark$ M $\checkmark$ A $\checkmark$ CA If Cell phone is regarded as a fixed cost: Accept as below: $\frac{8\ 400}{12\ 000} \times 100\% = 70\%$ $\checkmark$ A $\checkmark$ M $\checkmark$ A $\checkmark$ CA	1A numerator 1A denominator 1M percentage 1CA answer <b>AO NPR</b> (4)	F L2 M

Q/V	Solution/Oplissing	Explanation/Verduideliking	T/L
2.2.1	<p style="text-align: right;">✓✓A</p> <p>A price quotation is a document stating ALL <b>expected</b> financial costs of the Ford bakkie./'n Pryskwotasie is 'n gedrukte dokument wat ALLE verwagte finansiële koste van die Ford-bakkie aandui</p> <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: right;">✓✓A</p> <p>Price Quotation is a type of document that provides a <b>expected</b> fixed/unchanged price or cost for purchasing a bakkie./Pryskwotasie is 'n tipe dokument wat 'n verwagte vaste/onveranderde prys of koste verskaf vir die aankoop van 'n bakkie</p> <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: right;">✓✓A</p> <p>Price quotation is a detailed statement showing various items and their expected costs amounting to a particular amount for buying a bakkie./Dit is 'n gedetailleerde staat wat verskeie items en hul verwagte koste toon wat 'n bepaalde bedrag vir die aankoop van 'n bakkie behoop</p> <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: right;">✓✓A</p> <p>Price quotation is a type of document that provides an <b>expected</b> fixed price or cost for buying the bakkie./Pryskwotasie: 'n tipe dokument wat 'n verwagte vaste prys of koste verskaf vir die aankoop van die bakkie.</p> <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: right;">✓✓A</p> <p>Price quotation is a document enlisting available Ford bakkie items and their <b>expected</b> costs.</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>A documented commitment from the seller to the buyer offering the bakkie and accessories at a fixed price.</p>	<p>2A correct wording.</p>	<p>F L1 E</p>



(2)



Q/V	Solution/Oplissing	Explanation/Verduideliking	T/L
2.2.2	$\checkmark\checkmark$ A R1 250 000 <b>OR/OF</b> 1 250 000	2A correct number  (2)	F L1 E
2.2.3	Discount percentage/ <i>Afslag persentasie</i> $= \frac{R18\,420,00}{R480\,263,16} \times 100\%$ $= 3,835397243$ $= 3,84\% \checkmark R$	 1RT numerator 1RT denominator 1R rounding % to two decimal places. <b>AO</b> (3)	F L2 M
2.2.4	VAT/ <i>BTW</i> $= \frac{15}{100} \times R477\,107,47$ $= R71\,566,1205$ Total due/ <i>Bedrag verskuldig</i> $= R477\,107,47 + R71\,566,12$ $= R548\,673,59$ <p style="text-align: center;"><b>OR/OF</b></p> $\text{Total due} = \frac{115}{100} \times R477\,107,47$ $= R548\,673,59$	1RT reading R477 107,47 1A VAT amount 1MA adding correct values 1RT reading R477 107,47 1MA increased % (115) 1MA using 115% (3)	F L2 E

Q/V	Solution/Oplissing	Explanation/Verduideliking	TL
2.2.5	<p style="text-align: center;">✓✓ O</p> <p>To protect the front of the bakkie/<i>om die voorkant van die bakkie te beskerm</i></p> <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: center;">✓✓ O</p> <p>Protects the vehicle's radiator/grille/surrounding area./<i>Beskerm die voertuig se verkoeler/rooster/omringende area</i></p> <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: center;">✓✓ O</p> <p>Protection of body – avoiding any nasty scratches or dents to the body front/ <i>Beskerming van raamwerk - vermy enige nare skrape of duike aan die voorkant van die raamwerk</i></p> <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: center;">✓✓ O</p> <p>Keep the engine bay safe./<i>Beskerm die enjinkompartement</i></p> <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: center;">✓✓ O</p> <p>Enhance the vehicle's look/<i>Bevorder die voertuig se aansig</i></p> <p style="text-align: center;">✓✓ O <b>OR/OF</b></p> <p>Provide a bakkie with a sleeker/richer finish or look./<i>Voorsien 'n bakkie van 'n belynde/beter afwerking of voorkoms</i></p> <p style="text-align: center;">✓✓ O <b>OR/OF</b></p> <p>For safety reasons/as a safety feature/<i>Vir veiligheidsredes/as 'n veiligheidskenmerk</i></p> <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: center;">✓✓ O</p> <p>Beautification of the bakkie./<i>Verfraaiing van die bakkie</i></p> <p style="text-align: center;">✓✓ O <b>OR/OF</b></p> <p>Durability/longer lasting/general protection./<i>Duursaamheid/langduriger/algemene beskerming</i></p>	<p>20 protection of front parts</p> <p>20 protection</p> <p>20 security reason</p> <p>20 security reason</p> <p>20 beauty</p> <p>20 beauty reason</p> <p>20 safety reason</p> <p>20 beauty looking reason.</p> <p>20 durability reason</p>	<p>F L4 E</p> <p style="text-align: right;">(2)</p>

Q/V	Solution/Oplissing	Explanation/Verduideliking	TL
2.2.6	<p>33 months/maande                      = 2 yrs 9 mnths ✓ C</p> <p><b>Interest 1<sup>st</sup> year/Rente 1<sup>ste</sup> jaar:</b></p> <p><math>= \frac{6,7}{100} \times R\ 1\ 250\ 000</math> ✓ MA</p> <p>= R 83 750 ✓ CA</p> <p><b>Year 1 total</b></p> <p>= R1 250 000 + 83 750</p> <p>= R1 333 750 ✓ CA</p> <p><b>Interest 2<sup>nd</sup> year/ Rente 2<sup>de</sup> jaar:</b></p> <p><math>= \frac{6,7}{100} \times R1\ 333\ 750</math></p> <p>= R 89 361,25</p> <p><b>Year 2 total/Jaar 2 totaal</b></p> <p>= R1 333 750 + R 89 361,25</p> <p>= R1 423 111,25 ✓ CA</p> <p><b>Interest for 9 months/ rente vir 9 maande</b></p> <p><math>\frac{6,7}{100} \times \frac{9}{12} \times R1\ 423\ 111,25</math> ✓ M</p> <p>= R71 511,34 ✓ CA</p> <p>Total interest earned/Totale rente verdien</p> <p>= R 83 750 + R 89 361,25 + R71 511,34</p> <p>= R244 622,59 ✓ CA</p> <p><b>OR/OF</b></p>	<p><b>CA 1,25 million from 2.2.2</b></p> <p>1C conversion to years and months</p> <p>1MA calc. interest for year 1                      1CA 1<sup>st</sup> year interest</p> <p>1CA total for year 1</p> <p>1CA total year 2</p> <p>1M calc. % for 9 months                      1CA interest for 9 months</p> <p>1CA total interest</p>	<p>F L4 D</p>

Q/V	Solution/Oplissing	Explanation/Verduideliking	T/L
	<p><b>Interest for 9 months/ rente vir 9 maande</b></p> $\frac{6,7}{100} \times \frac{9}{12} \times R1\,423\,111,25$ <p>= R71 511,34 ✓ CA</p> <p><b>9 months total/9 maande totaal</b></p> $= R1\,423\,111,25 + R71\,511,34$ $= R1\,494\,622,59$ <p>Total interest earned/Totale rente verdien</p> $= R1\,494\,622,59 - R1\,250\,000$ $= R244\,622,59 \checkmark \text{ CA}$ <p style="text-align: center;">✓ O</p> <p>∴ Interest is not enough/sufficient./is less than R480 263,16/less than the selling price of a bakkie./Rente is nie genoeg/voldoende nie./is minder as R480 263,16/minder as die verkoopprys van 'n bakkie.</p> <p><b>OR/OF</b></p>	<p>1M calc. % for 9 months</p> <p>1CA interest for 9 months</p> <p>1CA total interest</p> <p>1O conclusion</p>	<p>(9)</p>



<p>33 months/maande                  = 2 yrs 9 mnths ✓ C</p> <p><b>Interest 1<sup>st</sup> year/Rente 1<sup>ste</sup> jaar:</b></p> <p><math display="block">= \frac{6,7}{100} \times R1,25 \text{ million} \quad \checkmark \text{ MA}</math></p> <p>= R0,08375 million ✓ CA</p> <p><b>Year 1 total</b></p> <p>= R1,25 + R0,08375</p> <p>= R1,33375 million ✓ CA</p> <p><b>Interest 2<sup>nd</sup> year/ Rente 2<sup>de</sup> jaar:</b></p> <p><math display="block">= \frac{6,7}{100} \times R1\,333\,75</math></p> <p>= R0,08936125 million</p> <p><b>Year 2 total/Jaar 2 totaal</b></p> <p>= R1,33375 + R0,08936125</p> <p>= R1,42311125 ✓ CA</p> <p><b>Interest for 9 months/ rente vir 9 maande</b></p> <p><math display="block">\frac{6,7}{100} \times \frac{9}{12} \times R1,42311125 \quad \checkmark \text{ M}</math></p> <p>= R0,07151134031 million ✓ CA</p> <p><b>Total interest earned/Totale rente verdien</b></p> <p>= R0,08375 + R0,08936125 + R0,07151134031</p> <p>= R0,2446225903 ≈ R0,244 million ✓ CA</p> <p><b>OR/OF</b></p>	<p>1C conversion to years and months</p> <p>1MA calc. interest for year 1</p> <p>1CA 1<sup>st</sup> year interest</p> <p>1CA total for year 1</p> <p>1CA total year 2</p> <p>1M calc. % for 9 months</p> <p>1CA interest for 9 months</p> <p>1CA total interest</p>
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<p><b>Interest for 9 months/ rente vir 9 maande</b></p> $\frac{6,7}{100} \times \frac{9}{12} \times R1,42311125$ <p style="text-align: right;">✓ CA = R0,071 51134031 million</p> <p><b>9 months total/9 maande totaal</b></p> <p>= R1,42311125 + R0,07151134031</p> <p>= R1,49462259 million</p> <p>Total interest earned/Totale rente verdien</p> <p>= R1,49462259 – R1,25</p> <p>= R0,2446225903 ≈ R0,244 million</p> <p style="text-align: center;">✓ O</p> <p>∴ Interest is not enough/sufficient./is less than R480 263,16/less than the selling price of a bakkie./Rente is nie genoeg/voldoende nie./is minder as R480 263,16/minder as die verkoopprys van 'n bakkie.</p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Value of the interest after 2 years and 9 months/Waarde van die rente na 2 jaar en 9 maande:</p> $= R1\ 250\ 000 \times 1,067 \times 1,067 \times 1,05025 - R1\ 250\ 000$ <p style="text-align: right;">✓✓ MA ✓MA ✓✓ MA ✓ CA</p> $= R1\ 494\ 622,59 - R1\ 250\ 000$ <p style="text-align: right;">✓ MCA = R244 622,59 ✓ CA</p> <p style="text-align: center;">✓ O</p> <p>It is not enough/It is insufficient/It is less the selling price/Dit is nie genoeg nie/Dit is onvoldoende/Dit is minder die verkoopprys.</p>	<p>1M calc. % for 9 months</p> <p>1CA interest for 9 months</p> <p>1CA total interest</p> <p>1O conclusion</p>	
<b>1 mark penalty for omitting millions</b>		
		(9)
	<p>Note: <math>\frac{6,7}{100} \times \frac{9}{12} = 0,05025</math></p>	(9)
<b>[33]</b>		

QUESTION/VRAAG 3		[30 MARKS/PUNTE]	
Q/V	Solution/Oplossing	Explanation/Verduideliking	T/L
3.1.1	✓✓ A Observation/Waarneming	2A correct tool (2)	D L1 E
3.1.2	Value of R/ Waarde van R = $16 = \frac{216 + 3R}{18}$ $16 \times 18 = 216 + 3R$ $288 - 216 = 3R$ $72 = 3R$ $R = 24$	✓ MA ✓ M 1MA adding value 1M concept of mean 1M changing subject 1CA value of R AO (4)	D L2 M
3.1.3 (a)	$11 \ 12 \ 12 \ 14 \ 15 \ 15 \ 16 \ 18 \ 18 \ 19 \ 19 \ 19 \ 20 \ 20 \ 20 \ 20 \ 20 \ 20$ $\text{Median/mediaan} = \frac{18+19}{2}$ $= 18,5$	✓ M 1MA arranging values 1M adding middle values and dividing by 2 1CA simplification <div style="border: 1px solid black; padding: 5px; width: fit-content;">                         Unarranged data                          ✓ M  <math display="block">\frac{18 + 20}{2} = 19</math> </div> (3)	D L2 M
3.1.3 (b)	$Q_1 = 15$ $\text{IQR} = Q_3 - Q_1$ $= 20 - 15$ $= 5$	CA from 3.1.3 (a) 1A value of Q1 1A IQR concept (Formula) 1CA IQR value (3)	D L3 M
		<div style="border: 1px solid black; padding: 5px;">                         Unarranged data                          Q1 = 16 ✓                          IQR = Q3 - Q1 ✓                          = 20 - 16                          = 4 ✓ (3/3)                          If                          IQR = 11 - 16                          = -5 (0 marks, break down =&gt; stop marking)                     </div>	

Q/V	Solution/Oplissing	Explanation/Verduideliking	T/L
3.1.4	<p style="text-align: center;">✓✓○</p> <p>Small groups of participants ensure a feeling of togetherness/<i>Klein groepe deelnemers verseker 'n gevoel van samehorigheid.</i></p> <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: center;">✓✓○</p> <p>Participants are able do morning classes before they go to work/<i>Deelnemers is afgetrede senior burgers of doen nie dagwerk nie en het geen oggendtakies of verpligtinge nie</i></p> <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: center;">✓✓○</p> <p>It's part of starting the day./<i>Dit is deel van die begin van die dag.</i></p> <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: center;">✓✓○</p> <p>During the day people may be committed due to planned or unplanned reasons/ <i>Gedurende die dag kan mense toegewyd wees weens beplande of onbeplande redes</i></p> <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: center;">✓✓○</p> <p>Some people may only come when they have a day off./<i>Sommige mense sal dalk net kom wanneer hulle 'n dag af het.</i></p> <p style="text-align: center;"><b>OR/OF</b></p> <p>Any reason making sense./<i>Enige sinvolle argument.</i></p>	<p>20 reason</p> <p style="text-align: right;">(2)</p>	<p>D L4 E</p>
3.1.5	<p style="text-align: center;">✓✓○</p> <p>The maximum value is the same as quartile 3./<i>Die maksimum waarde is dieselfde as kwartiel 3.</i></p> <p style="text-align: center;"><b>OR/OF</b></p> <p style="text-align: center;">✓✓○</p> <p>Attendance remained the same from the 75<sup>th</sup> percentile./<i>Bywoning het dieselfde gebly vanaf die 75ste persentiel</i></p>	<p>20 reason</p> <p style="text-align: right;">(2)</p>	<p>D L4 M</p>



Q/V	Solution/Oplossing	Explanation/Verduideliking	T/L
3.2.1	EC/Eastern Cape/Oos-Kaap ✓✓ A	2A correct province (2)	D L1 M
3.2.2	Ascending/Stygend. ✓✓ A	2A ascending. (2)	D L1 M
3.2.3	Percentage Change/Persentasie verandering $= \frac{440 - 437}{437} \times 100\% \checkmark \text{MA}$ $= 0,69\%$	1A numerator and denominator 1MA percentage calculation (2)	D L2 E
3.2.4	$100\% - 4,08\% = 95,92\% \checkmark \text{MA}$ $A = \frac{100\% \checkmark A}{95,92\%} \times 4\,417 \checkmark \text{RT}$ $= 4\,604,879066$ $= 4\,604 \text{ or } 4\,605 \checkmark \text{CA}$	1MA calculating 95,92% 1A numerator and denominator 1RT correct value (4 417) 1CA simplification (4)	D L3 M
3.2.5	Estimated/geskatte $= \frac{34}{100} \times 60,14 \text{ million} \checkmark \text{MA}$ $= 20,4476 \text{ million/miljoen} \checkmark A$ Number in table/ Aantal in tabel $= \frac{20\,495}{1\,000}$ $= 20,495 \checkmark C$ Difference/verskil $= 20,495 \text{ million/mil} - 20,4476 \text{ million/mil}$ $= 0,0474 \text{ million/miljoen} \checkmark \text{CA}$	1MA calculating 34% 1A simplification 1C converting table value 1CA difference (4)	D L3 M
		<b>[30]</b>	

QUESTION/VRAAG 4		[25 MARKS/PUNTE]	
Q/V	Solution/Oplossing	Explanation/Verd	T/L
4.1.1	<p style="text-align: center;">✓✓A</p> <p>To put aside or accumulate money that one will receive at his retirement age.</p>	<p>2A correct answer</p> <p style="text-align: right;">(2)</p>	<p>F</p> <p>L1</p> <p>E</p>
4.1.2	<p><b>Pensionable service period/Pensioendraende dienstydperk:</b></p> <p>2024 – 1992 = 33 yrs ✓A</p> <p>Gratuity/Gratifikasie</p> <p>= 6,72% × final salary per year × years of pensionable service/<i>finale salaris per jaar × jaar pensioendraende diens</i></p> <p>= <math>\frac{6,72}{100} \times R540\,333 \times 33</math> ✓SF</p> <p>= R1 198 242,08 ✓CA</p> <p>4 years later/4 jaar later</p> <p>= 37 yrs</p> <p>Gratuity/Gratifikasie</p> <p>= 6,72% × R613 650 × 37 ✓MCA</p> <p>= R1 525 779,36</p> <p>Difference/<i>verskil</i></p> <p>= R1 525 779,36 – R1 198 242,08</p> <p>= R327 537,28 ✓CA</p> <p>≈ R327 537 ✓R</p>	<p>1A number of years</p> <p>1SF correct values in correct formula</p> <p>1CA simplification</p> <p>1MCA new gratuity</p> <p>1CA difference</p> <p>1R correct rounding</p> <p style="text-align: right;">(6)</p>	<p>F</p> <p>L3</p> <p>M</p>

If learners work with 32 and 36 (allocate 5/6)

**Pensionable service period/Pensioendraende dienstydpark:**

$$2024 - 1992 = 32 \text{ yrs.}$$

Gratuity/Gratifikasie

= 6,72% × final salary per year × years of pensionable service/  
*finale salaris per jaar × jaar pensioendraende diens*

$$= 6,72\% \times R540\,333 \times 32 \checkmark \text{SF}$$

$$= R1\,161\,932,0832 \checkmark \text{S}$$

4 years later/4 jaar later

$$= 36 \text{ yrs}$$

Gratuity/Gratifikasie

✓ MCA

$$= 6,72\% \times R613\,650 \times 36$$

$$= R1\,484\,542,08$$

Difference/verskil

$$= R1\,161\,932,10 - R1\,484\,542,08$$

$$= R322\,609,98 \checkmark \text{CA}$$

$$\approx R322\,610 \checkmark \text{R}$$



Q/V	Solution/Oplissing	Explanation/Verdui	T/ L
4.1.3	<p><b>Annuity (p.a.)/Annuïteit (p.j.)</b></p> $= \left(\frac{1}{55} \times \text{final salary} \times \text{years of pensionable service}\right) + 360$ $= \left(\frac{1}{55} \times R540\,333 \times 33\right) + 360 \quad \checkmark \text{SF}$ $= R324\,559,80 \quad \checkmark \text{CA}$ <p><b>Tax payable per annum/Belasting betaalbaar p.j.</b></p> $= R42\,678 + 26\% \times (R324\,559,80 - R237\,100) \quad \checkmark \text{MA} \quad \checkmark \text{SF}$ $= R42\,678 + R22\,739,55$ $= R65\,417,55 \quad \checkmark \text{CA}$ $= R65\,417,55 - R17\,235$ $= R48\,182,55 \quad \checkmark \text{CA}$ <p><b>Annuity after tax/ Annuïteit na belasting</b></p> $= R324\,559,80 - R48\,182,55$ $= R276\,377,25 \quad \checkmark \text{CA}$ <p><b>Monthly annuity Maandelikse annuïteit</b></p> $= R276\,377,25 \div 12 \quad \checkmark \text{MA}$ $= R23\,031,44 \quad \checkmark \text{CA}$	<p><b>CA from 4.1.2</b></p> <p>1SF substituting correct values</p> <p>1CA simplification</p> <p>1MA correct tax bracket 1SF correct substitution</p> <p>1CA tax before rebate</p> <p>1CA tax after rebate</p> <p>1CA simplification</p> <p>1MA divided by 12</p> <p>1CA monthly income after tax</p> <p>(9)</p>	F L3 D

<p><b>If learners work with 32 years (9/9)</b></p> <p><b>Annuity (p.a.)/Annuïteit (p.j.)</b>  <math display="block">= \left(\frac{1}{55} \times \text{final salary} \times \text{years of pensionable service}\right) + 360</math> <math display="block">= \left(\frac{1}{55} \times R540\,333 \times 32\right) + 360</math> <math display="block">= R314\,735,5636 \approx R314\,735,56</math></p> <p><b>Tax payable per annum/Belasting betaalbaar p.j.</b>  <math display="block">= R42\,678 + 26\% \times (R314\,755,56 - R237\,100)</math> <math display="block">= R42\,678 + R20\,190,45</math> <math display="block">= R62\,868,45</math> <math display="block">= R62\,868,45 - R17\,235</math> <math display="block">= R45\,633,45</math></p> <p><b>Annuity after tax/ Annuïteit na belasting</b>  <math display="block">= R314\,735,56 - R45\,633,45</math> <math display="block">= R269\,102,11</math></p> <p><b>Monthly annuity/Maandelikse annuïteit</b>  <math display="block">= R269\,102,11 \div 12</math> <math display="block">= R22\,425,18</math></p>	<p>1SF substituting correct values                  1CA simplification</p> <p>1MA correct tax bracket                  1SF correct substitution</p> <p>1CA tax before rebate</p> <p>1CA tax after rebate</p> <p>1CA simplification</p> <p>1MA divided by 12                  1CA monthly income after tax</p>	
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Q/V	Solution/Oplissing	Explanation/Verdui	T/L
4.2.1	✓✓A Compound/ Multiple bar/saamgestelde/ Meervoudige	2A compound/multiple (2)	D L1 E
4.2.2	✓✓A (a) No Data for Tuesday and Wednesday/ <i>Geen data vir Dinsdag en Woensdag nie</i> ✓✓A (b) no stats reflected the number of visitors in a park from/ <i>geen statistieke weerspieël die aantal besoekers in 'n park vanaf nie 17:00–19:00</i>  <ul style="list-style-type: none"> <li>No numbers on the vertical axis/ <i>Geen getalle op die vertikale as nie</i></li> </ul> <p style="text-align: center;"><b>OR/OF</b></p> <ul style="list-style-type: none"> <li>No bars from 17:00–19:00/ <i>Geen stawe vir 17:00–19:00</i></li> </ul>	2A two days left out.  2A hours not having visitors' stats.  (4)	D L4  M
4.2.3	✓O The number of visitors increases to about 12:00. on weekdays and then decrease again till 16:00. ✓O <i>Die aantal besoekers neem toe tot ongeveer 12:00. op weksdae en verminder dan weer tot 16:00.</i>  <p style="text-align: center;"><b>OR/OF</b></p> ✓O The number of visitors increases to about 13:00 on weekends and then decreases again till 16:00. ✓O <i>Die aantal besoekers neem toe tot ongeveer 13:00 oor naweke en neem dan weer af tot 16:00.</i>	1O increase and time period  1O decrease and time period  (2)	D L4 D
		<b>[25]</b>	



QUESTION/VRAAG 5		[32 MARKS/PUNTE]	
Q/V	Solution/Oplissing	Explanation/Verduidelik	T/L
5.1.1	<p>FCA share of USA production/FCA-aandeel van VSA-produksie:</p> $= 100\% - (11 + 11 + 8 + 3 + 4 + 2 + 1 + 7 + 20 + 18) \%$ $= 100\% - 85\% \checkmark \text{ MA}$ $= 15\% \checkmark \text{ A}$	<p>1MA subtracting correct values from 100%</p> <p>1A percentage</p> <p><b>AO NPU</b> (2)</p>	D L2 E
5.1.2	$\text{SUV} = \frac{3}{100} \times 11\,800\,000 \checkmark \text{ MA}$ $= 354\,000 \checkmark \text{ CA}$ <p><b>OR/OF</b></p> $\text{SUV} = \frac{3}{100} \times 11,8 \text{ million} \checkmark \text{ MA}$ $= 0,354 \text{ million} \checkmark \text{ CA}$	<p>1MA calculating 3%</p> <p>1CA total vehicles</p> <p><b>AO NPU</b> (2)</p>	D L2 E
5.1.3	<p>Contribution/Bydrae</p> $= 20\% + 18\% + 15\% \checkmark \text{ MA}$ $= 53\% \checkmark \text{ A}$ <p style="text-align: right;"><math>\checkmark \text{ O}</math></p> <p>The statement is VALID/Vervolgens is die stelling WAAR.</p>	<p><b>MCA from 5.1.1</b></p> <p>1MA adding correct percent</p> <p>1A simplification</p> <p>1O conclusion</p> <p>(3)</p>	D L4 M
5.1.4	<p>7% <math>\checkmark \checkmark \text{ A}</math></p>	<p>2A correct value</p> <p><b>NPU</b> (2)</p>	D L2 E

Q/V	Solution/Oplossing	Explanation/Verduideliking	T/L
5.1.5	<p>Number of toyota vehicles</p> $= \frac{10}{100} \times 90,2 \text{ million/milj}$ $= 9,02 \text{ million/milj} \checkmark \text{ A}$ <p>Amount in Japanese Yen (¥)</p> $= 9,02 \times \text{¥}1\,870\,500$ $= \text{¥}16\,871\,910 \text{ million/milj} \checkmark \text{ CA}$ <p>Amount in dollars (\$)</p> $\text{¥}1 = \$0,0069$ $= 16\,871\,910 \times 0,0069 \checkmark \text{ C}$ $= \$116\,416,179 \text{ million/milj} \checkmark \text{ CA}$ <p>Amount in rands (R)</p> $\text{R}1 = \$0,054$ $= \frac{\$116\,416,179}{0,054} \checkmark \text{ C}$ $= \text{R}2\,155\,855 \text{ million/milj} \checkmark \text{ CA}$ <p style="text-align: center;"><b>OR/OF</b></p>	<p>1A number of vehicles</p> <p>1CA amount in Yen</p> <p>1C converting to \$</p> <p>1CA amount in \$</p> <p>1C convert to rand.</p> <p>1CA amount in rands</p>	<p>F L 3 D</p>



<p>For 1 vehicle</p> <p>¥1 = \$0,0069</p> <p>Amount in dollars (\$)</p> <p><math>1\,870\,500 \times 0,0069 \checkmark C</math></p> <p>= \$12 906,45 <math>\checkmark CA</math></p> <p>Amount in rands (R)</p> <p>R1 = \$0,059</p> <p>= <math>\frac{12\,906,45}{0,054} \checkmark C</math></p> <p>= R239 008,33 <math>\checkmark CA</math></p> <p>Number of toyota vehicles</p> <p>= <math>\frac{10}{100} \times 90,2 \text{ million/milj}</math></p> <p>= 9,02 million/milj <math>\checkmark A</math></p> <p>Total amount</p> <p>= 9,02 <math>\times</math> R239 008,33</p> <p>= R2 155 855,14 million <math>\checkmark CA</math></p>	<p>1C convert to \$</p> <p>1CA amount in \$</p> <p>1C convert to rand</p> <p>1CA amount in rands</p> <p>1A number of vehicles</p> <p>1CA simplification</p>	<p>(6)</p>
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Q/V	Solution/Oplossing	Explanation/Verduideliking	T/L
5.2.1	$UL = \text{Base fare} + 10,5 \times \text{Cost per mile/}$ $\text{Basistarief} + 10,5 \times \text{Koste per myl}$ $= \$22,87 + (10,5 \times \$7,85)$ $= \$105,295$ $\approx \$105,30$	<p>1RT using correct values.                      1MA multiplying and adding.                      1CA value of UL  <b>AO NPU</b> (3)</p>	F L2 M
5.2.2	<p>UPFRONT fare = base fare (call-out fee) + (number of miles <math>\times</math> per mile fare)</p> $\$14,98 = 00 + (n \times \$1,90) \quad \text{where } n = \text{number of miles}$ $n = \frac{14,98}{1,90}$ $= 7,88421052631$ $\approx 8$	<p>1SF correct substitution                       1MA changing subject of the formula                       1CA simplification                       1R rounding                      (4)</p>	F L2 M



Q/V	Solution/Oplissing	Explanation/Verduideliking	T/L
5.2.3	<p>To cover the cost for wasted time/ idle when a vehicle could have been used to assist someone when you cancel the booking./Om die koste te dek vir ledige/Vermorste tyd wanneer 'n voertuig gebruik kon word om iemand by te staan wanneer jy die bespreking kanselleer.</p> <p style="text-align: center;">✓✓ O      <b>OR/OF</b></p> <p>Penalty/Fine for booking made if one does not finally use the vehicle (or time wasting)./Boete/boete vir bespreking gemaak as mens nie uiteindelik die voertuig gebruik nie (of tyd mors)</p> <p style="text-align: center;">✓✓ O      <b>OR/OF</b></p> <p>Prevent Prank/HOAX/fraudster calls./ Voorkom HOAX/bedrieër-oproepe</p> <p style="text-align: center;">✓✓ O      <b>OR/OF</b></p> <p>Cover petrol and wear and tear of the vehicle./Vir petrol en slytasie van die voertuig</p> <p style="text-align: center;">✓✓ O      <b>OR/OF</b></p> <p>Recovering company costs or company make a profit/and loss./Vir die verhaal van maatskappykoste of maatskappy maak 'n wins/en verlies</p>	<p>20 reason</p> <p style="text-align: right;">(2)</p>	<p>F L4 E</p>



Q/V	Solution/Oplissing	Explanation/Verduideliking	T/L
5.2.4	<p>Time in minutes</p> <p>1 hr 45 min = 60 min + 45 min = 105 min <sup>✓ C</sup></p> <p>Post-trip cost/Na-reiskoste:</p> <p><sup>✓ SF</sup></p> <p>= (105 min × \$0,55 per min) + (30 miles × \$4,05)</p> <p>= \$57,75 + \$121,5 <sup>✓ MA</sup></p> <p>= \$179,25 <sup>✓ CA</sup></p> <p>Upfront cost/Vooraf koste:</p> <p>= \$18 + (30 miles × \$4,05 per mile) <sup>✓ SF</sup></p> <p>= \$139,50 <sup>✓ CA</sup></p> <p>Difference/verskil</p> <p>= \$179,25 – \$139,50</p> <p>= \$39,75 <sup>✓ CA</sup></p> <p>The statement is correct/Die stelling is korrek <sup>✓ O</sup></p>	<p>1C converting to minutes.</p> <p>1SF correct substitution</p> <p>1MA adding values</p> <p>1CA post trip cost</p> <p>1SF correct substitution</p> <p>1CA upfront trip cost</p> <p>1CA difference</p> <p>1O conclusion</p>	<p>F</p> <p>L4</p> <p>D</p> <p>(8)</p> <p>[32]</p>
		<b>TOTAL/TOTAAL: 150</b>	

### Scaling the whole paper

$$\frac{\text{Learner total}}{142} \times 150$$

