KWAZULU-NATAL PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

MATHEMATICAL LITERACY P1

JUNE EXAMINATION

2025

MARKS: 100

TIME: 2 hours

This question paper consists of 10 pages.

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INSTRUCTIONS AND INFORMATION

1. This question paper consists of FOUR questions. Answer ALL the questions.
2. Number the answers correctly according to the numbering system used in this question paper.
3. Start EACH question on a NEW page.
4. You may use an approved calculator (non-programmable and non-graphical), unless stated otherwise.
5. Show ALL calculations clearly.
6. Round off ALL final answers appropriately according to the given context, unless stated otherwise.
7. Indicate units of measurement, where applicable.
8. Diagrams are NOT necessarily drawn to scale, unless stated otherwise.
9. Write neatly and legibly.

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QUESTION 1

1.1 Mr. Magwaza's car was involved in an accident. He obtained several quotations to submit to his insurance provider. Below is an extract of a quotation from one of the panel beaters.

QUOTATION FROM KINGPRICE

Final Calculation	Date of issue: 01/03/2025	Expiry date: 17/03/2025
Parts	R60,728.07	
Sundry Parts (2 %)	R1,214.56	
Total Parts		**R61,942.63**
Labour Time Basis 10		
WU = 1 HR		
Total Cl. 1 12	R9,576.00	
WU X R 0/HR		
Total Fixed Labour Amount	R2,000.00	
Alignment 1	R250.00	
WU		
Total Labour		**R11,826.00**
Paint Work		
	R3,780.00	
Material Co	R13,312.32	
Total Paint		**R17,092.32**
Repair Costs Exclude VAT		**R90,860.95** A
VAT @ 15 %		
Repair Costs Incl VAT		**R104,490.09**
		TBA
Repair After Excess Deductions		**R104,490.09**

[Adapted from www.insurance.kingprice.co.za]

1.1.1 Define the term *Value Added Tax*. (2)

1.1.2 Show how the total labour amount of R11 826,00 was calculated. (2)

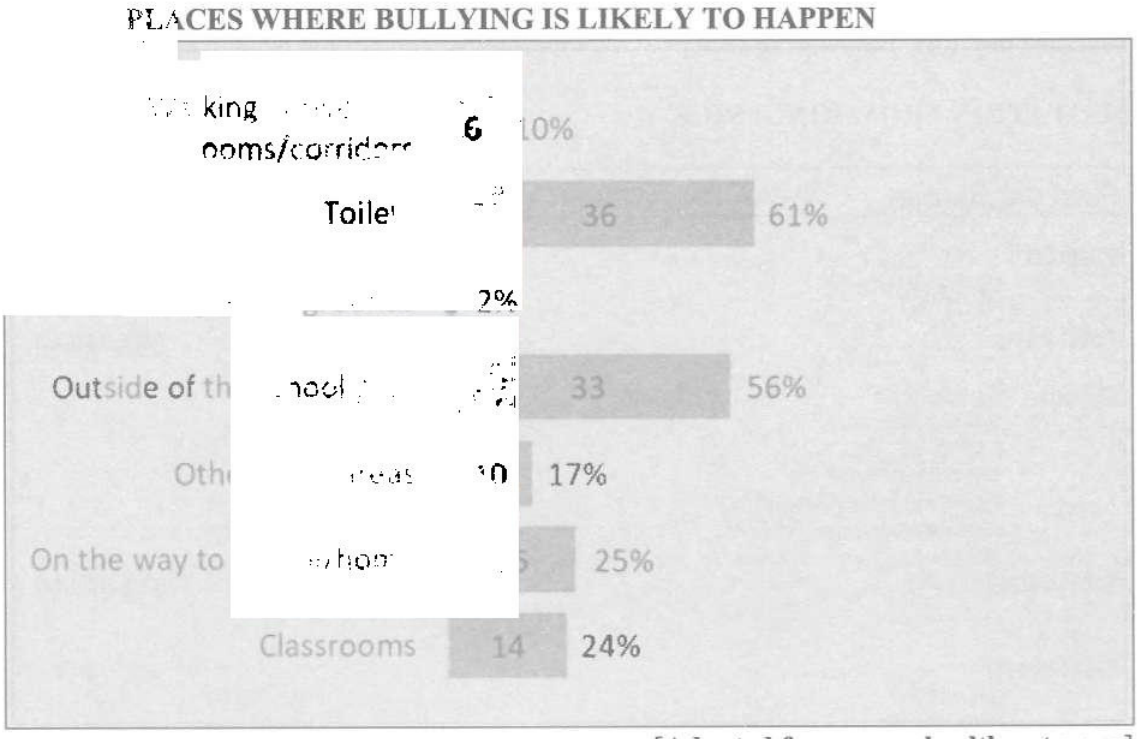
1.1.3 Calculate **A**, the VAT amount. (2)

1.1.4 Determine the number of days the quotation will be valid from the date of issue. (2)

1.1.5 Express the ratio of total fixed labour amount to Paint work labour costs in simplest form. (2)

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1.2 The graph below presents the results of a survey on bullying conducted in Mbombela.



[Adapted from www.health.uct.ac.za]

Use the graph to answer the questions that follow.

1.2.1 Name the type of graph shown above. (2)

1.2.2 Write down the instrument used to collect the above data. (2)

1.2.3 Determine the difference in the percentage of bullying occurring in the toilets and on the play/sport grounds. (2)

1.2.4 Identify the place with the second-highest percentage of bullying. (2)

1.2.5 State ONE factor that could contribute to bullying in classrooms. (2)

[20]

QUESTION 2

2.1 Mrs. Pillay plans to purchase a house in Cape Town for R2 500,000. Her bank has agreed to finance the purchase at an interest rate of 11% per annum over 25 years. She is required to pay a 10% deposit.



[Adapted from www.property24.com]

Use the information above to answer the questions that follow.

2.1.1 Write down the number of bedrooms and bathrooms shown in the house above. (2)

2.1.2 Calculate the loan amount. (3)

2.1.3 Calculate the monthly bond repayment for the loan amount in 2.1.2, using a loan factor of 9.8, based on an annual interest rate of 11% over a 25-year period.

You may use the formula:

Monthly Bond Repayment = Loan Amount × Loan Factor ÷ 1 000 (3)

2.1.4 Mrs Pillay stated that the total amount she will pay for the house at the end of 25 years, excluding transfer duty, is R6 865 000. Use calculations to verify whether her claim is correct.

You may use the formula:

Total Amount = Deposit + (Monthly Bond Repayment × Number of Months) (3)

2.2 Mrs. Pillay used TABLE 1 below to calculate the transfer duty for the property she intends to purchase, which is valued at R2 500 000.

TABLE 1: TRANSFER DUTY

Property (R)	Rate
1 – 1 210 000	0% of the value
1 210 001 – 1 663 800	3% of the value above R1 210 000
1 663 801 – 2 329 300	R13 614 + 6% of the value above R1 663 800
2 329 301 – 2 994 800	R53 544 + 8% of the value above R2 329 300
2 994 801 – 13 310 000	R106 784 + 11% of the value above R2 994 800
13 310 001 and above	R1 145 456 + 13% of the value exceeding R13 310 000

[Adapted from www.sars.gov.za]

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

2.2.1 State ONE reason why Mrs. Pillay is required to pay transfer duty. (2)

2.2.2 Use TABLE 1 above to calculate the transfer duty that Mrs. Pillay will need to pay. (3)

2.2.3 Calculate the transfer duty in 2.2.2 as a percentage of the property's value, rounded to ONE decimal place. (3)

2.3 In 2020, Mrs. Pillay invested R50 000 for 5 years at an interest rate of 7.4% per annum, compounded half-yearly, with the goal of accumulating enough money for the transfer duty. After 4 years, the total amount in her investment was R66 865,19.

She claims that at the end of the first half of the 5th year, the investment had exceeded the amount needed for transfer duty (R67 200) by exactly R2 140.

Use calculations to verify her claim. (6)

2.4 In 2023, a property was valued at R 2 500 000. The annual inflation rate remained constant at 6,5%. The property was sold in 2025 for R 2 700 000.

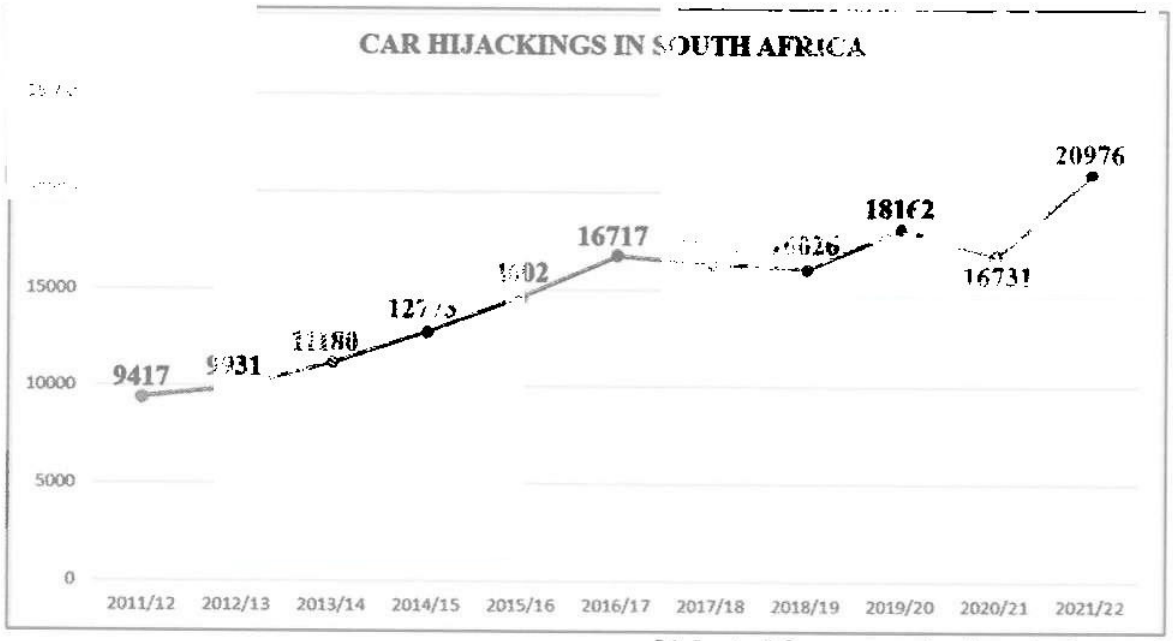
Determine whether the property's value increased at the same rate as inflation over the two-year period. Show all calculations. (5)

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QUESTION 3

3.1 The graph below shows the trend in car hijacking from 2011 to 2022 in South Africa.



[Adapted from www.businesstech.co.za]

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

3.1.1 Write down the period(s) when car hijackings declined. (2)

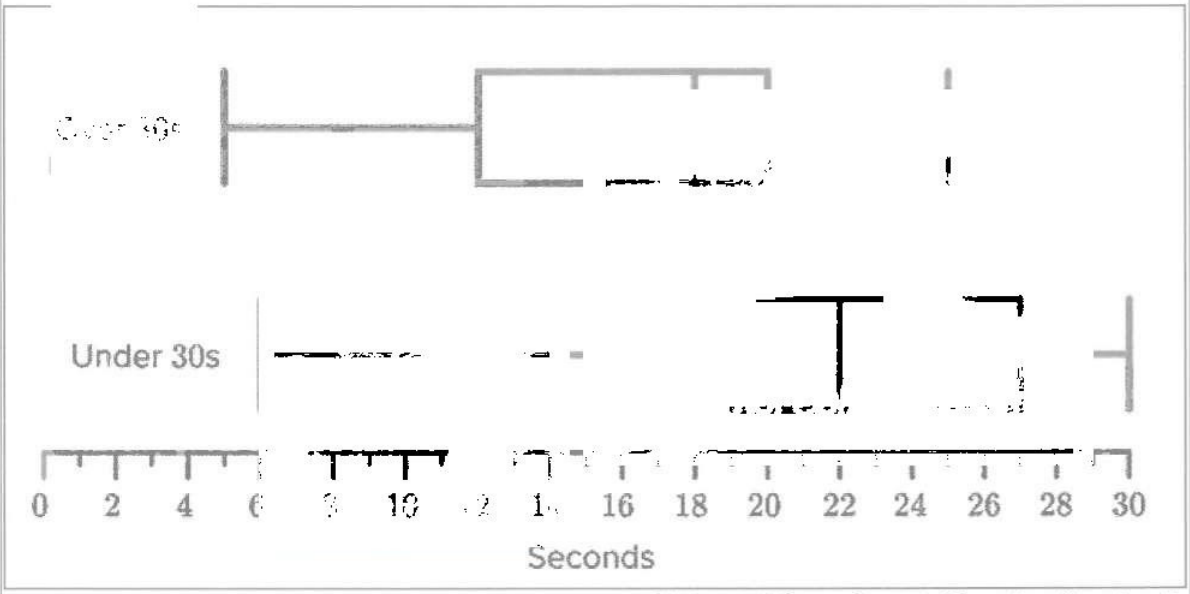
3.1.2 Calculate the mean number of car hijackings. (4)

3.1.3 State ONE reason why the data above is displayed using a broken line graph. (2)

3.1.4 A year is selected at random from the period 2011/12 to 2021/22. Determine, as a percentage, the probability that the number of car hijackings in the selected year was at least 16 000. (4)

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3.2 Smart Cleaning Services categorised its employees into two groups, those over 30 years and those under 30 years. The company recorded the time taken by each age group to complete cleaning tasks on different occasions and represented the data in the diagram below.



[**Adapted from Smart Cleaning Services**]

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

3.2.1 Write down the name of the diagram shown above. (2)

3.2.2 Determine the difference between the longest and shortest times recorded for the over 30 years age group. (2)

3.2.3 One employee stated that the interquartile range for those over 30 years was three quarters of the interquartile range of those under 30 years.

Verify, showing all calculations, whether or not the employee's statement was valid. (9)

[25]

QUESTION 4

4.1 The McDonald's Big Mac, is a 100% beef burger enjoyed by people worldwide. Given below are the 2025 prices of the Big Mac in four different countries, and exchange rates.

TABLE 2: BIG MAC PRICES

COUNTRY	PRICE	EXCHANGE RATES
South Africa	R51,90	R1 = $0,054
USA	$5,69	$1 = R18,43
UK	£4,59	£1 = R23,78
Ireland	€7,00	€1 = R19,90



[Adapted from www.statista.com]

Use the information above to answer the questions that follow.

4.1.1 Show how R1 = $0,054 was determined. (2)

4.1.2 Convert £1 into $1. (3)

4.1.3 Use the exchange rates above to determine which country offers the Big Mac at the lowest price (8)

4.2 [illegible] will attend a five-day conference (Monday to Friday) at the Lakewood Conference [illegible] nesburg. He plans to leave his car at King Shaka Airport and take a 6:00 AM flight [illegible] g (OR Tambo International Airport) on Monday. He will stay at the Birchwood [illegible] 39,5 km from the conference centre. He will rent a car from Rent a Wreck Car [illegible]

[illegible] arking rates for King Shaka International Airport and the car rental tariffs for Rent [illegible] annesburg.

Airport Parking Tariffs

NUMBER OF D[illegible]	
5	R[illegible]30
6	R43[illegible]
7	R50[illegible]

[Adapted from [illegible]]

Rent a Wreck Car Hire Rates

OPTION	PERIOD	TARIFF RATE
1	Daily	R235 including 80 km free. Excess: R1,80 p/km.
2	Daily	R325 including 175 km free. Excess: R1,80 p/km (5+days)
3	Weekly	R1 120 including 280 km free. Excess: R1,60 p/km.

[Adapted from www.rentawreck.co.za]

N.B: The rental car will be delivered to Mr Moodley at the hotel at 8 a.m on Monday.

Use the information above to answer the questions that follow.

4.2.1 Determine the total distance Mr. Moodley will travel, for the round trips from his hotel to the conference venue from Monday to Thursday, assuming he returns directly to the hotel each day without making any other stops. Show that this distance does not exceed the allowed mileage for OPTION 1 and that no excess charges will apply. (5)

4.2.2 On Friday, Mr. Moodley plans to drive 27,8 km from the conference centre to Sandton, during his lunch break to do shopping.

Calculate the total amount he will pay for the car hire from Monday to Friday, using OPTION 1 for the daily car hire tariff rates, and the 5-day parking fee at King Shaka International Airport. (7)

[25]

TOTAL: 100

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