Downloaded from SEE academy: www.seeacademy.co.za

Province of the EASTERN CAPE EDUCATION

NATIONAL SENIOR CERTIFICATE

GRADE 11

NOVEMBER 2024

MATHEMATICAL LITERACY P1

MARKS: 100

TIME: 2 hours

SEE ACADEMY

IMLIT1

This question paper consists of 10 pages including an answer sheet.

Downloaded from SEE academy: www.seeacademy.co.za

INSTRUCTIONS AND INFORMATION

1. This question paper consists of FOUR questions.
2. Answer ALL questions.
3. Use the ANSWER SHEET provided to answer QUESTION 4.1.3 and 4.1.4.
4. Start EACH question on a NEW page.
5. Number the answers correctly according to the numbering system used in this question paper.
6. Leave ONE line between two sub-questions, for example between QUESTION 2.1 and QUESTION 2.2.
7. You may use a non-programmable calculator.
8. You may use appropriate mathematical instruments.
9. Show ALL formulae and substitutions in ALL calculations.
10. Round off ALL final answers TWO decimal places, unless stated otherwise.
11. Write neatly and legibly.

SEE ACADEMY

Downloaded from SEE academy: www.seeacademy.co.za

QUESTION 1

1.1 Mrs Link ordered clothing items and received the invoice below.

The invoice for purchasing of clothes.

CANVA ©

INVOICE

BILLED TO:
Ave Link
093 753 8800
6 Prince Road

Invoice No: 2468
16 February 2024

ITEM	UNIT PRICE	QUANTITY	PRICE
White camisole top	$123	1	$123
Cuban collar shirt	$127	4	**A**
Floral cotton dress	$123	**B**	$369
Subtotal			$1 000
Tax (0%)			$0
TOTAL			$1 000

Thank you

PAYMENT INFORMATION
Briand Bank
Account number:123-456-8900
Pay by: 5 March 2024
ST 32110

Samira Hadid
331 Anywhere St. Any City

Use the above information to answer the questions that follow.

1.1.1 Write down the name of the service provider. (2)

1.1.2 Calculate the value of **A**. (2)

1.1.3 Define the term *invoice*. (2)

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

1.1.5 Write down the due date? (2)

1.1.6 Convert the total amount in dollars to rand, if **R1,00 = $0,053**. (2)

SEE ACADEMY

Copyright reserved

Downloaded from SEE academy: www.seeacademy.co.za

1.2 Metro church members are planning to have a church service at a resort for a weekend. They received quotes from two different resorts, both which accommodate a maximum of 10 people per resort.

Mt View Resort costs R1 200 per night including breakfast.
Forest Resort costs R950 per night.

The above costs are shown in the table below.

TABLE 1: COSTS FOR BOTH RESORTS

Number of people	0	1	**C**	4	8	10
Cost for Mt View Resort	1 200	1 200	1 200	1 200	1 200	1 200
Cost for Forest Resort	950	950	950	950	950	**D**

Use the above information to answer the questions that follow.

1.2.1 Identify the type of relationship illustrated in the table above. (2)

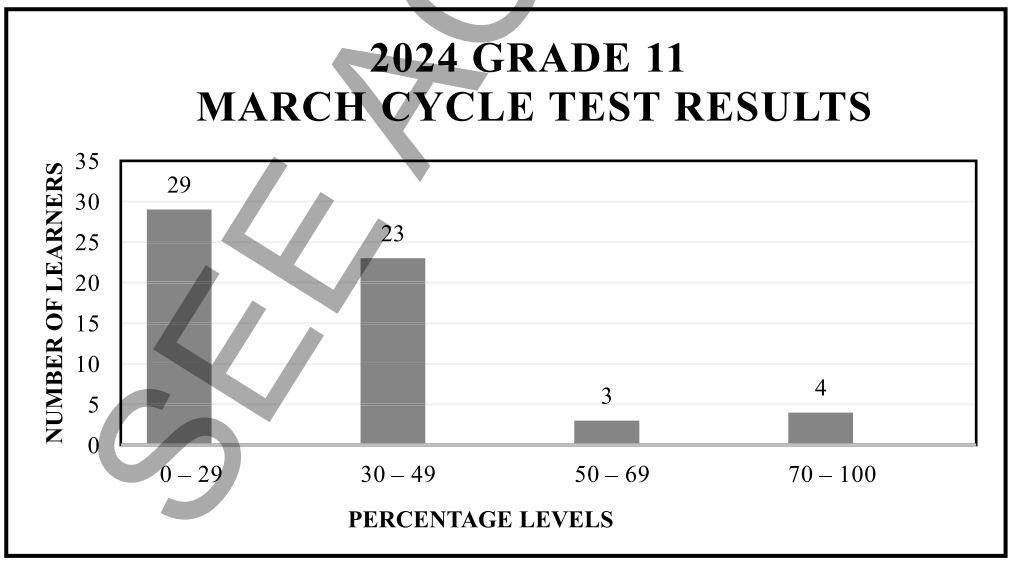
1.2.2 Calculate how much the church members will pay if only five members attend the service at Mt View Resort. (2)

1.2.3 Determine the following missing values in the table:

(a) **C** (2)

(b) **D** (2)

1.3 A Grade 11 Mathematical Literacy class wrote a March cycle test. The results of the cycle test are shown in the graph below.



1.3.1 Determine the number of learners that wrote the cycle test. (2)

1.3.2 Calculate the percentage of learners who failed the cycle test. (2)

1.3.3 Write down the modal class percentage levels. (2)

[26]

SEE ACADEMY

Copyright reserved

Downloaded from SEE academy: www.seeacademy.co.za

QUESTION 2

2.1 Study the Eastern Cape Provincial Budget 2024/2025 framework and its focus areas on sectors. The summary of payment and estimates per sector is shown in the table below. Some information has been omitted.

TABLE 2: EASTERN CAPE PROVINCIAL BUDGET 2024/2025

SECTORS	2024/2025 (in Rand)	2025/2026 (in Rand)
Education	42 441 422	44 104 248
Health	30 106 843	31 029 965
Social Development	2 972 172	3 100 547
Sports, Recreation, Arts and Culture	1 043 363	1 074 493
Community Safety	144 840	150 179
Total	76 708 640	79 459 432

[Adapted from *People's guide to the budget*]

2.1.1 Explain the meaning of the term *budget.* (2)

2.1.2 Write down the amount allocated for health in 2025/2026 in words. (2)

2.1.3 Calculate the percentage increase of the Education sector for the 2024/2025 and 2025/2026 financial year. Give your answer to the nearest percentage.

You may use the following formula:

$$\text{Percentage increase} = \frac{\text{New value} - \text{Original value}}{\text{Original value}} \times \quad \%$$ (4)

2.2 Mr Paul is a businessman. He wants to attend a meeting and searched a meter taxi online. He found the prices of two companies: Daniel's company and Jerry's company.

Daniel's company charges the following for a single trip:

- A minimum call-out fee of R50 per trip and the first three kilometres are free
- Thereafter, R12,00 for each additional kilometre or part thereof

Jerry's company charges a flat rate of R14,50 per kilometre.

Use the above information to answer the questions that follow.

2.2.1 Write down the formula for calculating the cost for Daniel's company in the form of:

Cost = (2)

2.2.2 The distance for a single trip to the meeting is 80 km. Mr Paul makes the statement that Jerry's taxi company will be the cheapest. Verify, showing ALL calculations, that his statement is correct. (6)

2.2.3 Mr Paul had another trip. He paid Daniel R1 214 for a single trip. Determine the distance travelled during this trip. (4)

SEE ACADEMY

Copyright reserved

Downloaded from SEE academy: www.seeacademy.co.za

2.3 Mr Mnotho and his wife both secured new jobs overseas. They applied at a Boys High School for their two sons. The first son will be doing Grade 10 and the second son will be doing Grade 8. They will be staying at the hostel. Mr Mnotho received the following information regarding the school fees.

TABLE 3: SCHOOL FEE STRUCTURE FOR 2024

SCHOOL FEES	R48 800,00
HOSTEL FEES	R66 800,00
TOTAL	R115 600,00

School fees must be paid before end of January.
Hostel fees must be paid at the beginning of each year.

Discount for siblings is offered as follows:

- Second child gets 10% discount on school fees and 5% discount on hostel fees
- Third child gets 15% discount on school fees and 10% discount on hostel fees

Calculate the total discount amount that Mr Mnotho and his wife will get from the school. (6)
[26]

SEE ACADEMY

Copyright reserved

Downloaded from SEE academy: www.seeacademy.co.za

QUESTION 3

Study **TABLE 4** below showing crypto ownership of the top 13 countries in 2023 and answer the questions that follow.

TABLE 4: TOP 13 COUNTRIES WITH CRYPTO CURRENCY

No.	COUNTRY	VALUES	PERCENTAGES (%)
1.	Indonesia	12 615 365	4,55
2.	Colombia	2 505 605	4,81
3.	Morocco	1 854 162	4,90
4.	Kenya	2 713 117	4,92
5.	Turkey	4 684 727	5,54
6.	United Kingdom	3 740 280	5,52
7.	Argentina	2 544 102	5,56
8.	Nigeria	12 862 740	5,75
9.	Russia	8 485 749	5,87
10.	Pakistan	15 400 547	6,40
11.	Brazil	15 400 547	6,40
12.	India	103 317 638	7,23
13.	Thailand	6 692 796	9,32
	TOTAL		

[Source: za.pinterest.com]

3.1 Write down the country with the highest value of crypto currency. (2)

3.2 Arrange the values owned by the countries in descending order. (2)

3.3 Calculate the difference between the maximum value and the minimum value. (2)

3.4 Determine the number of countries with a percentage between 5% and 6%. (2)

3.5 Determine the median country of the top 13 countries. (2)

3.6 Name the type of graph that would best display the above information. (2)

3.7 Calculate the probability, as a decimal, of randomly selecting a percentage between 3% and 6%. (3)

3.8 Write down the number of countries from the list of top 13 countries with crypto currency that are found in Africa. (2)

[17]

SEE ACADEMY

Copyright reserved

Downloaded from SEE academy: www.seeacademy.co.za

QUESTION 4

4.1 The learners of the Student Christian Association (SCA) of South Africa are planning to celebrate the 128th year of existence of the organisation in October 2024. The Student Christian Association (SCA) was founded in 1869 through missionary work in Stellenbosch. Celebrations will take place in the Eastern Cape. The Eastern Cape region of SCA learners, as the hosting province, are planning to have a fundraising event. They intend to use one of the biggest stadiums in the province as the venue.

Their planning is as follows:

- Stadium R50,00 per learner
- Decorations R2 400,00

The table below shows the cost of using the stadium.

TABLE 5: COST OF USING THE STADIUM

Number of learners	0	10	20	40	50	100
Cost in Rand	2 400	2 900	3 400	4 400	4 900	7 400

After calculating all the expenses, they decided to fundraise by selling t-shirts that will be worn during the celebrations, at R150,00 each.

The table below shows the income from selling the t-shirts.

TABLE 6: INCOME FROM SELLING T-SHIRTS

Number of learners	0	10	20	40	50	100
Costs in Rand	0	1 500	3 000	6 000	7 500	15 000

Use TABLE 5 and 6 and the information above to answer the questions that follow.

4.1.1 The cost of using the stadium is expected to increase in 2025. Write down the term used to explain the yearly general increase of goods or services. (2)

4.1.2 Show how the total cost of using the stadium when 100 learners booked to attend the session, is calculated. (3)

4.1.3 Use TABLE 6 to draw a line graph of the income from selling t-shirts, on the axis provided on the ANSWER SHEET. (3)

4.1.4 Indicate on the graph with a letter **B,** a point that will determine the number of t-shirts the SCA learners must sell to break even. (2)

4.1.5 After the fundraiser the learners made a profit of R7 500 and they deposited it in an investment account, earning interest of 10,5% p.a. compounded annually. The student body claims that after 3 years they will have more than R10 000 in the account. Verify, showing ALL calculations, whether the statement is valid. (5)

SEE ACADEMY

Copyright reserved

Downloaded from SEE academy: www.seeacademy.co.za

4.2 The 2023 Grade 11 Mathematical Literacy class of Zulu High School wrote an examination marked out of 100 marks. The results are shown in the table below.

43	32	86	39	30	26	62	39	40	41	50
21	18	38	26	33	69	17	22	51	21	37
24	12	24	41	54	41	**E**	14	15	55	49
64	60	49	15	40	44	53	31	13	23	26

Use the information above to answer the questions that follow.

4.2.1 Is the above data continuous or discreet? (2)

4.2.2 The mean of the above data is equal to 37. Calculate the value of **E.** (5)

4.2.3 The Mathematical Literacy teacher, Mrs Lee, states that the results shown in the table above are more clustered together. Verify, with the necessary calculations, whether her statement is correct. (4)

4.2.4 Determine the number of learners who achieved 30% or more. (2)

4.2.5 Write down the probability of selecting learners who achieved more than 80% as a decimal. (Correct your answer to 3 decimals places.) (3)

[31]

TOTAL: 100

SEE ACADEMY

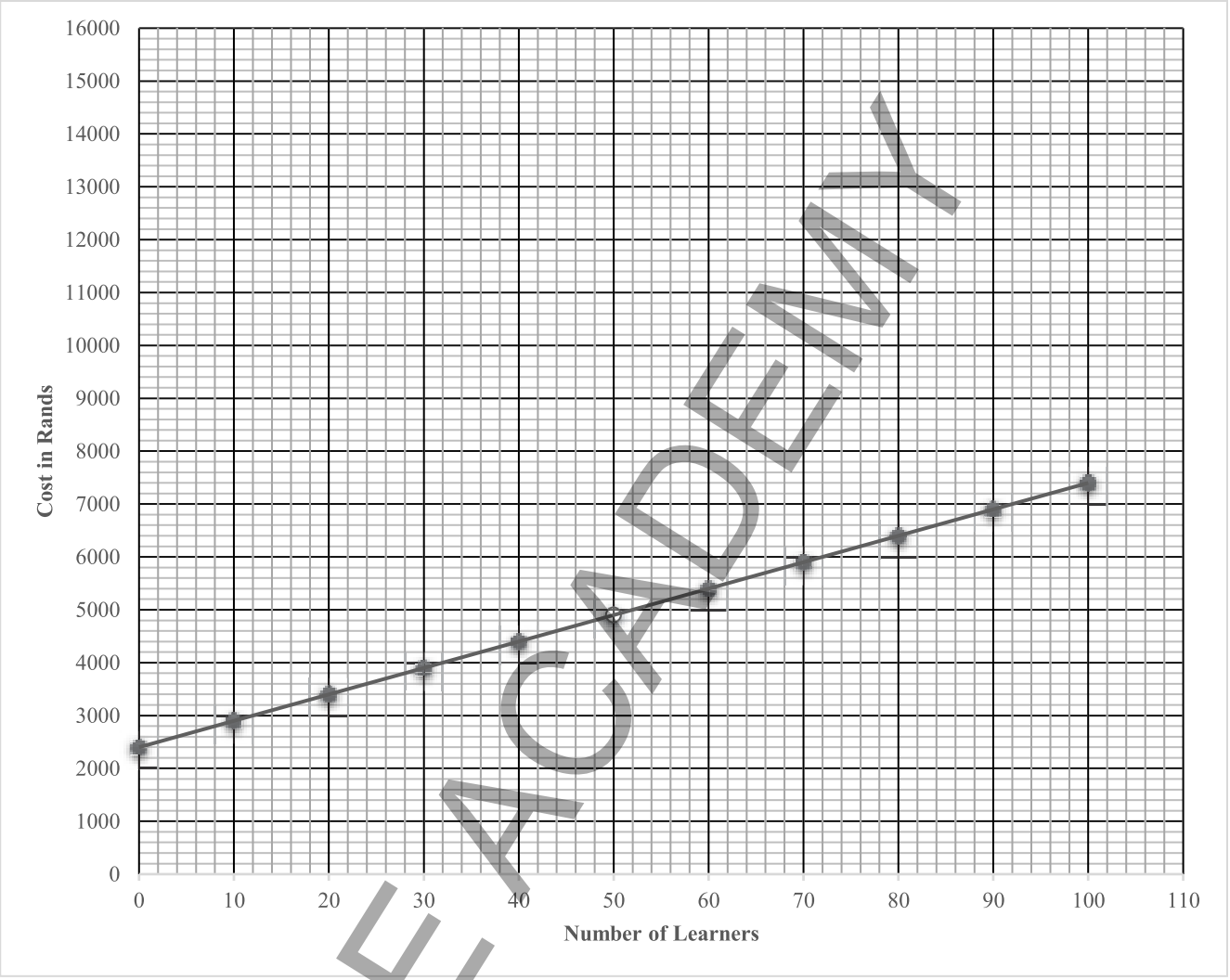
Copyright reserved

Downloaded from SEE academy: www.seeacademy.co.za

ANSWER SHEET

QUESTION 4.1.3 and 4.1.4

NAME OF LEARNER: …….



SEE ACADEMY

Copyright reserved