# Province of the EASTERN CAPE EDUCATION

Iphondo leMpuma Kapa: Isebe leMfundo
Provinsie van die Oos Kaap: Department van Onderwys
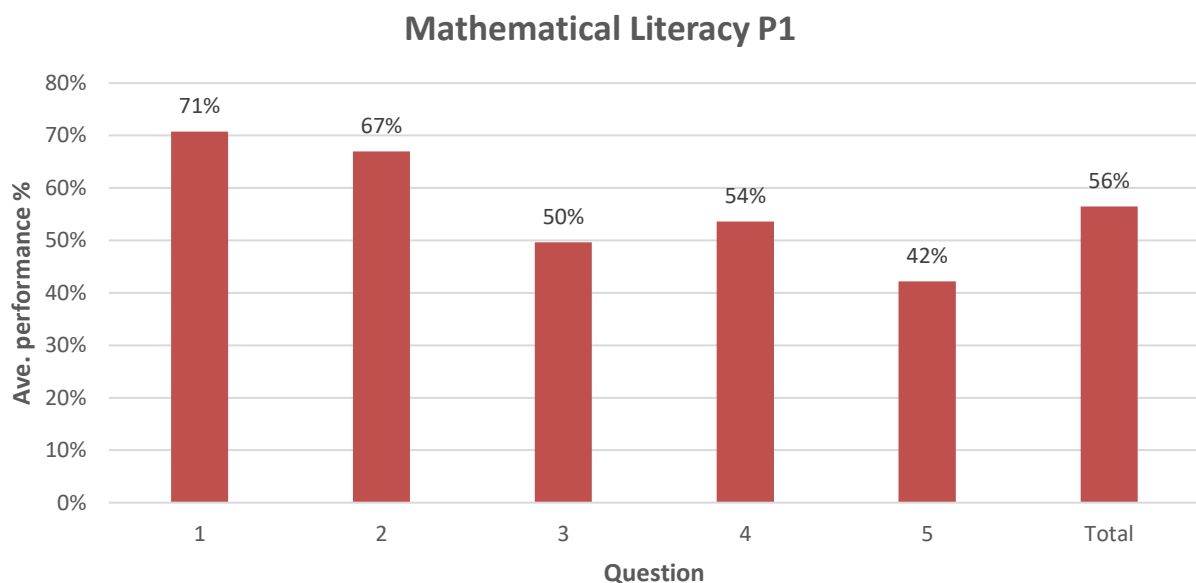Porafensie Ya Kapa Botjhabela: Lefapha la Thuto

## EXAMINATIONS AND ASSESSMENT CHIEF DIRECTORATE
**Home of Examinations and Assessment, Zone 6, Zwelitsha, 5600**
**REPUBLIC OF SOUTH AFRICA, Website: www.ecdoe.gov.za**

## 2024 NSC CHIEF MARKER'S REPORT

| SUBJECT | Mathematical Literacy | | |
|---|---|---|---|
| QUESTION PAPER | 1 | | |
| DURATION OF QUESTION PAPER | 3 hours | | |
| PROVINCE | EASTERN CAPE | | |
| NAME OF THE INTERNAL MODERATOR | N. Tyulu | | |
| NAME OF THE CHIEF MARKER | P.E Mtyekwana | | |
| DATES OF MARKING | 1 – 11 December 2024 | | |
| HEAD OF EXAMINATION: | MR E MABONA | | |

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**SECTION 1: (General overview of Learners Performance in the question paper as a whole)**

### Mathematical Literacy P1

| Question | 1 | 2 | 3 | 4 | 5 | Total |
|---|---|---|---|---|---|---|
| Ave. performance % | 71% | 67% | 50% | 54% | 42% | 56% |

| Question | Topic | Ave. performance % |
|---|---|---|

| | | | |
|---|---|---|---|
| 1 | Probability, Data Handling & Finance | | 71% |
| 2 | Finance | | 67% |
| 3 | Data Handling and Probability | | 50% |
| 4 | Data Handling and Finance | | 54% |
| 5 | Finance and Data Handling | | 42% |
| **Total** | | | **56%** |

## SECTION 2: Comment on candidates' performance in individual questions

### Mathematical Literacy P1
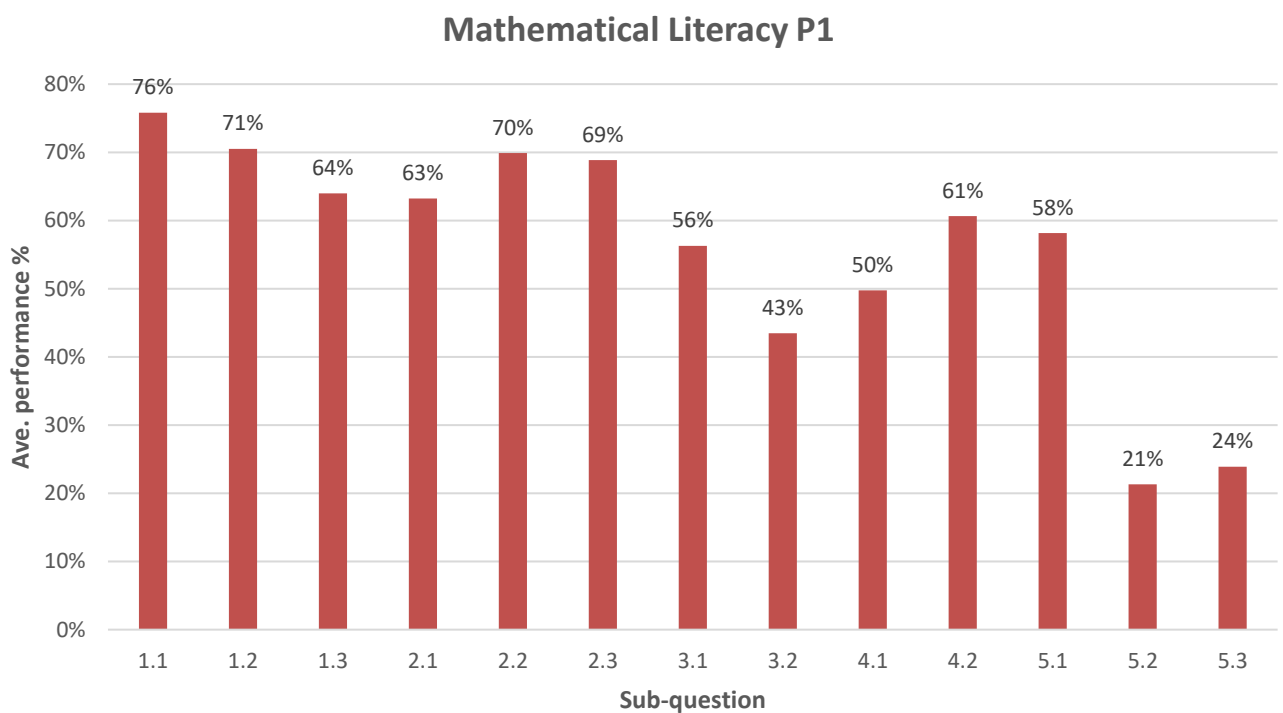


| Sub-question | Topic | Ave. performance % |
|---|---|---|
| 1.1 | Data Handling, Probability | 76% |
| 1.2 | Finance | 71% |
| 1.3 | Finance, Data Handling | 64% |
| 2.1 | Finance | 63% |
| 2.2 | Finance | 70% |
| 2.3 | Finance | 69% |
| 3.1 | Data Handling, Probability | 56% |
| 3.2 | Data Handling | 43% |
| 4.1 | Finance, Data Handling | 50% |
| 4.2 | Data Handling, Probability | 61% |
| 5.1 | Data Handling, Finance | 58% |
| 5.2 | Finance | 21% |
| 5.3 | Data Handling, Finance | 24% |

**QUESTION 1**

**(a) General comment on the performance of learners in the specific question. Was the question well answered or poorly answered?**

Question was well answered. Questions were straight forward.

**(b) Provide suggestions for improvement in relation to Teaching and Learning**

Learners struggled in 1.2.3 seeing as they could not convert from 1,5 dozen to a dozen. Educators should focus on basic skills of conversion, terminology for example dozen = 12.

In 1.2.4, learners were able to identify the two values to be written in ratio form. However, they struggled to write it as a unit ratio. Some learners struggle to differentiate between ratio and fractions.

Grade 12 educators should try and incorporate ratio into their lessons.

At the beginning of each topic, educators should focus on the definitions to be used in that topic first. A glossary must be available in each learner's book.

**QUESTION 2 (Summary)**

**(a) General comment on the performance of Candidates in the specific question. Was the question well answered or poorly answered?**

Question 2 was fairly answered. Some learners performed well in this question, but there were also learners who struggled.

**(b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.**

2.1.2 – Learners still struggle to differentiate between VAT inclusive and VAT exclusive. Most common mistake is learners just multiply with 15%, regardless of the amount.

2.1.3 – Learners struggled to determine the amount of kWh in Block 2. Many learners could determine the amount for Block 2, but then they subtracted it from R1 300 instead of R1 130, 43.

2.2.3 – Many learners did not know how to determine the amount of months in 7 years. "Rent to own" is an unfamiliar context to learners.

2.3.1 – Most common mistake in this question, was the learners not multiplying with 12 to convert to annual taxable income.

2.3.2 – Substituting into the tax bracket is still a problem. Some learners used the tax threshold in their calculations as well, just because it was given. They did not know what to do with it. Medical credits were also subtracted. Some learners added the rebate, instead of subtracting it. Some learners did not apply BODMAS when using the tax bracket. A common mistake in the answer was learners not rounding off to 2 decimal places.

**(c) Provide suggestions for improvement in relation to Teaching and Learning.**

When doing Tariffs, teachers should not only focus on calculating the cost, but also spend time on determining the usage/units

Teachers should expose learners more to Level 3 questions, as they struggle to unpack questions with a lot of information.

Teachers must create a mind map on how to calculate tax.

Terminology in Taxation is very important to explain beforehand. Not much focus on Tax Threshold.

Focus on substituting values correctly into a formula. Learners should be able to identify between monthly and annual tax, as well as gross income and taxable income.

**(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.**

Focus on teaching learners' backward calculations using VAT and Tariffs

**QUESTION 3**

**(a) General comment on the performance of candidates in the specific question. Was the question well answered or poorly answered?**

Question 3 was poorly answered.

**(b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.**

3.1.1 – The most common error was that learners wrote 2005

3.1.2 – Many learners only calculated the 95,39%, but did not add it to 2 204. Learners struggled to analyse the graph, and they lacked the skill to round according to the given context.

3.1.3 – Many learners subtracted the values instead of dividing them. This indicates that they don't know how to determine average.

3.1.4 – Many learners used the wrong values. They did not understand the context of the question. Some of the learners struggled to convert from a fraction to a percentage.

3.2.1 – Learners did not know the meaning of sample and population. Question was therefore not answered well.

3.2.3 – Question poorly answered. Most learners wrote definition of 'maximum value'. This indicates that "outlier" is not frequently used in the classroom during Data Handling.

3.2.4(a) – Context barrier – learners were able to determine the Q3 value, but then they continued to round it off, which was incorrect.

3.2.4(b) – Learners cannot differentiate between Range and Interquartile Range. Many learners used the answer from 3.2.4(a) to determine IQR.

## (c) Provide suggestions for improvement in relation to Teaching and Learning

Teachers should provide learners with the definitions and then they must supply the correct term for each definition.

Teachers should spend time on revising percentages.

A deeper practice is needed from teachers regarding Level 4 questions, which requires verification. Teachers must constantly ask their learners to verify their answers during classroom sessions. For example, in 3.1.3, learners were supposed to understand there is a comparison needed between Shoprite and PnP.

Teach learners to identify key words when reading through scenarios. For example, in 3.2.4(b), the word "IQR" was the keyword.

## (d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.

Teachers should spend time on definitions of terms when starting Data Handling. They must also focus on the Level 3 types of questions involving data, such as calculating a missing value using the mean or range.

## QUESTION 4

## (a) General comment on the performance of candidates in the specific question. Was the question well answered or poorly answered?

Question 4 was fairly answered well.

## (b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.

4.1.1(a) – Most learners did not know how to formulate the 'after 5 hours' part of the equation.

4.1.1(b) – Answered well. Learners were able to identify the pattern in the table, even if they got the equation wrong.

4.1.2(a) – Answered very poorly. Almost no learner could identify the type of graph

4.1.2(b) – Many learners used the table to draw the graph, so very few started at (0;4000), and instead started at (1;4000). Learners who did not know how to draw the correct graph, just joined the dots on the graphs already on the annexure. **The question and the marking guideline did not match. Therefore,**

**learners responded according to the question paper, thus losing 1 mark for not starting at (0;4000). Suggestion - Possible upscaling in Question 4.**

4.1.3 – Learners were unable to calculate the number of hours. They also did not understand the "part thereof" part of the cost for DJ 5-Star. Many learners only calculated the cost of the DJ, or they only added the other costs, excluding the DJ.

4.1.4 – Question was poorly answered. Most common answer was that he is expensive or cheap, without further explanation. More context should have been given.

4.2.1 – Some learners calculated the years separately. If learners got the fraction wrong, they could still convert that to a decimal. Some learners wrote it as a ratio instead of a fraction.

4.2.2 – Most common mistake was not arranging in ascending order before determining the median. Some learners calculated mean instead of median or used the wrong year.

4.2.3 – Question was well answered. Most learners got full marks. Few learners calculated mean instead of range.

**(c) Provide suggestions for improvement in relation to Teaching and Learning.**

Teach terminology along with the different calculations

Teachers must teach all types of graphs according to CAPS document – identify, draw and read from.

**(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.**

Teachers should remind their learners that graphs should always start at 0. Revisit the different types of relationships and their graphs and formulas.

**QUESTION 5**

**(a) General comment on the performance of candidates in the specific question. Was the question well answered or poorly answered?**

Question 5 was answered very poorly.

**(b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.**

The concept of lakh and crores is a foreign concept for the learners and teachers.

Question 5.1.1 – 5.1.4 was answered well by most learners.

5.1.5 – Learners were able to calculate the 20% and round off correctly. However, they could not convert, and they did not calculate the difference. The conclusion was difficult to make, as the learners have no idea what 600 000 rupees are worth.

5.2.1 – Poorly answered. Learners were not able to convert from billions to millions – too many zeros.

5.2.2 – Conversion was very challenging from rupees to lakh crores, as the conversions given was only for lakh and crores, not a combination of the two. Some learners were able to use the wrong Rand amount from 5.2.1 and convert it to rupees. But they were not able to then convert to lakh crores.

5.3.1 – Question was answered fairly. Most common mistake was table given in descending years. Many learners identified the inflation rate as 5% instead of 0,5%. Many learners could define inflation, but not connecting it to the context

5.3.2 – Poorly answered. Learners were not able to work inflation backwards. Some learners did work backwards, but they used the wrong percentages.

**(c) Provide suggestions for improvement in relation to Teaching and Learning**

Spend time on teaching conversions of big values and different currencies.

Teachers should focus on doing reverse calculations of percentages, specifically inflation.

**(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.**

Revisit the correct way of writing a percentage

Spend time on converting between millions and billions, both in number format and using the words, e.g. R302,4 billion to million

Backward calculations regarding inflation rates