



EXAMINATIONS AND ASSESSMENT CHIEF DIRECTORATE

Home of Examinations and Assessment, Zone 6, Zwelitsha, 5600
REPUBLIC OF SOUTH AFRICA, Website: www.ecdoe.gov.za

2020 NSC CHIEF MARKER'S REPORT

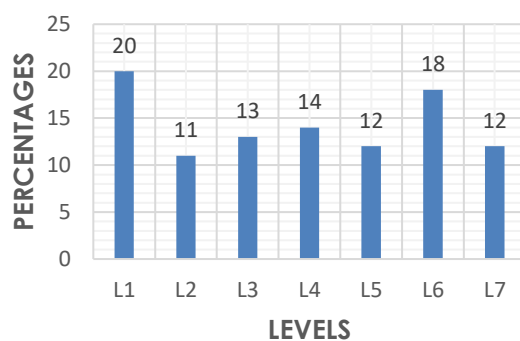
SUBJECT:	MATHEMATICAL LITERACY
PAPER:	1
DURATION OF PAPER:	3 hours

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

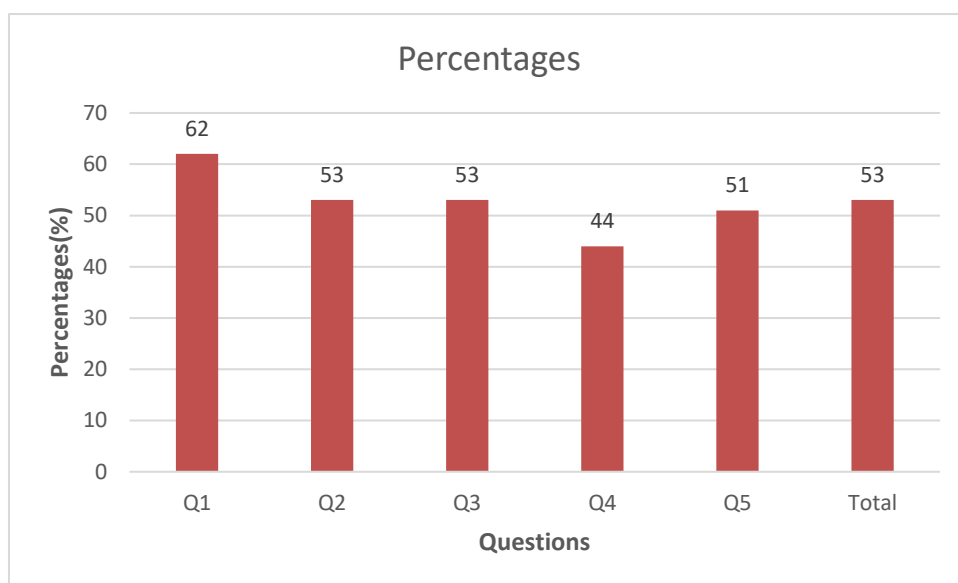
It was a fair paper. 80% of the candidates scored more than Level 1 based on the Rasch sample of 100 scripts. Performance was boosted by better performance in Question 1 which is set at cognitive level 1 and candidates achieved 62%. Other than Question 4 which was the lowest at 44% the rest of Questions 2; 3 and 5 were all slightly above 50% –pass. The highest candidate scored 147 out of 150 and there were 30 candidates that obtained more than level 5 as from the sample. If the sample is a true reflection of the population, then we expect better results in MLIT P1. Most of the questions started on low to medium and then went on to a high cognitive level. This enabled candidates to score reasonable marks in lower cognitive level questions. Language remains a problem every year; however, the omission of definitions cancelled that out. The paper catered for learners who could only answer short questions.

It was observed from the marking and moderating process that MEO and part-time candidates struggled more than their counterparts in the NSC. Many obtained less than 30%. Some learners performed well, and others struggled with analysing and understanding the questions. Taking into account what learners had to endure in 2020, they performed relatively well. The performance indicating levels, in individual questions and subquestions in the sample are summarised in the graphs shown below.

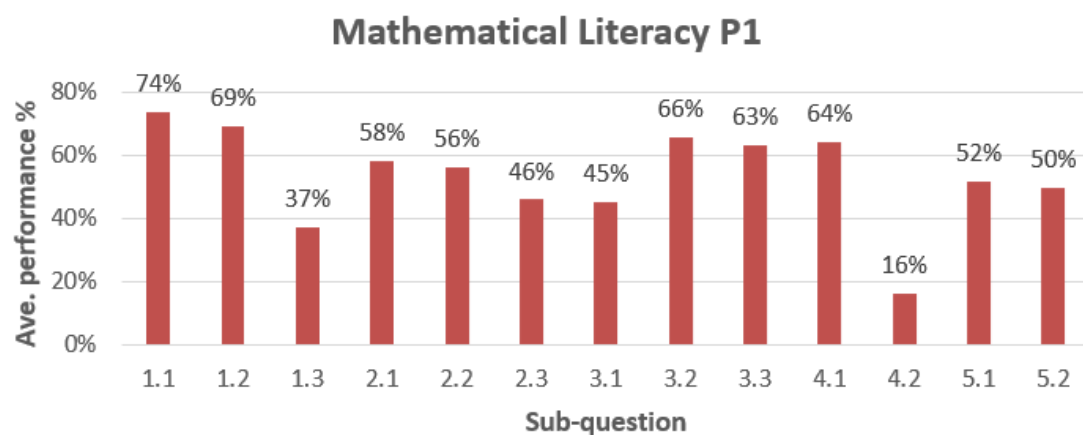
Performance of 100 scripts according to level descriptors



Performance in 100 scripts as per question



Performance in 100 scripts as per subquestion.



SECTION 2:

Comment on candidates' performance in individual questions

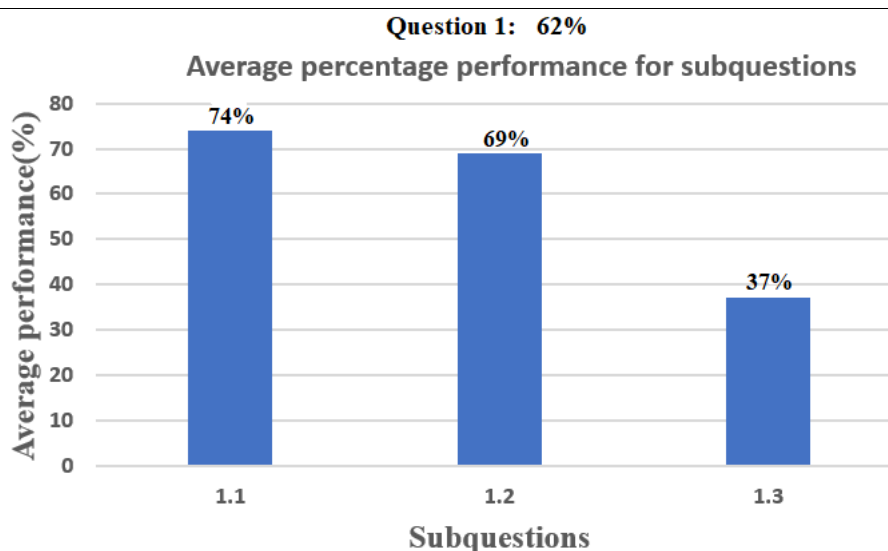
(It is expected that a comment will be provided for each question on a separate sheet.)

QUESTION 1

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

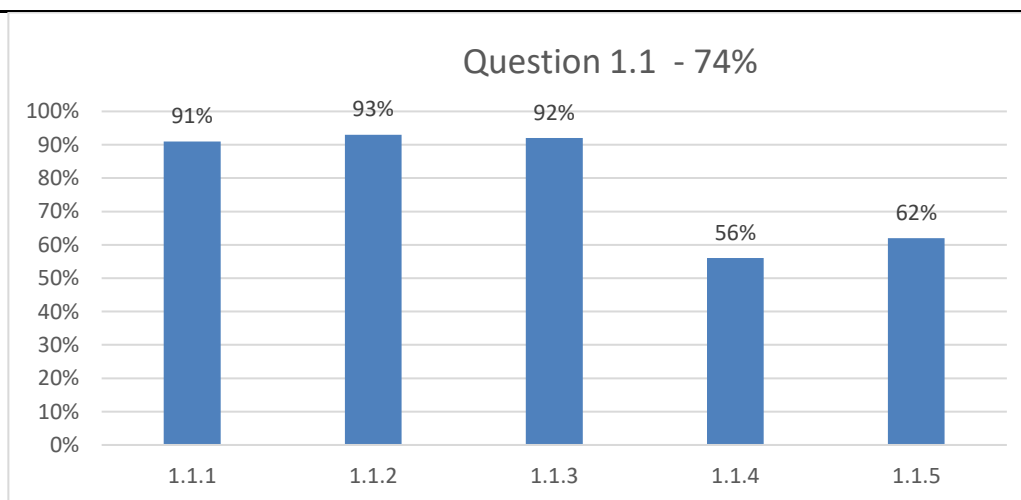
This question was answered fairly well and generally a good number of candidates showed good understanding when reading information from a graph. However, some struggled to understand the combined line graph of petrol and diesel prices as well as the concept of unit ratio. They also could not mention the type of a graph and the different types of maps. The strip map section was the worst answered.

Question 1 was answered by most learners as it is the first question of the paper and set at cognitive level 1, making it accessible to candidates. The sample indicates a 62% pass in the question and the performance in various subsections 1.1; 1.2 and 1.3 are 74%, 69% and 37% respectively. The performance is shown in the graphs below.

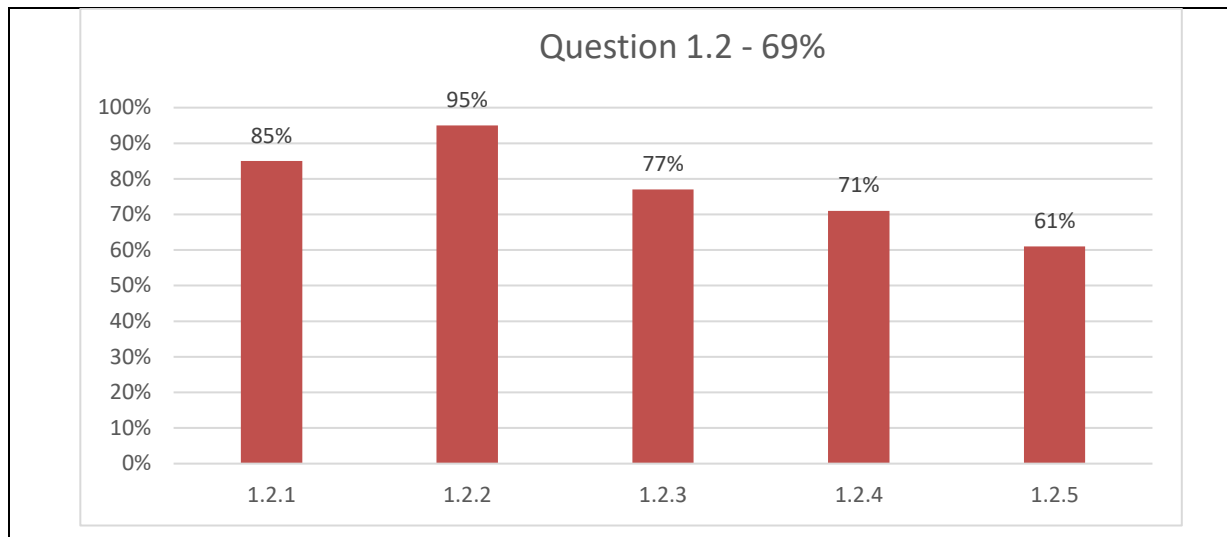


(b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.

- 1.1.1 – Most common wrong answers were histogram or double bar graph or multiple bar graph.
- 1.1.2 – Lack of interpreting questions and finding answers on the graph.
- i.e. They couldn't identify the correct values but they knew the method.
e.g., R110 + R126 etc.
- 1.1.3 - Lack of interpreting the question
– Candidates added instead of subtracting (wrong operation used).
E.g. R141 + R15
Unfamiliar scenario for some candidates. Using a food delivery service which they never heard of in their areas.
- 1.1.4 – Learners don't read with insight, especially the last part of the question, e.g. excluding delivery. What they did is subtracting the totals where the delivery Fee was included. E.g. R141 – R136
- 1.1.5 – Candidates struggled to calculate the increase using a percentage
- They cannot follow simple procedure of just calculating the percentage.
- E.g. they answered it as follows
 $10 + (10 \times 6,32\%) = R10,632$ or $6,32\% \div 100$ which means $6,32 \div 100 \div 100$
- Rounding off money to 3 decimal places instead of 2.
i. Although the question was the best done at 74% the performance was not good in 1.1.4 and 1.1.5 as the graph indicates.



The analysis of performance in 1.2 as from the Rasch sample is summarised in the graph and explanations that follow.



1.2.1 – Question was answered well except for few candidates who were unable to read the graph.

1.2.2 – Candidates struggled to interpret the graph, because it contained 2 lines.

- Many candidates swapped the 2 values around, e.g., R4,31 – R11,04
- Others read the wrong values from the table.
- Use of an incorrect operation. + instead of – or ÷ instead of \times .

1.2.3 – Candidates struggled to identify and write down the proper order of ratios.

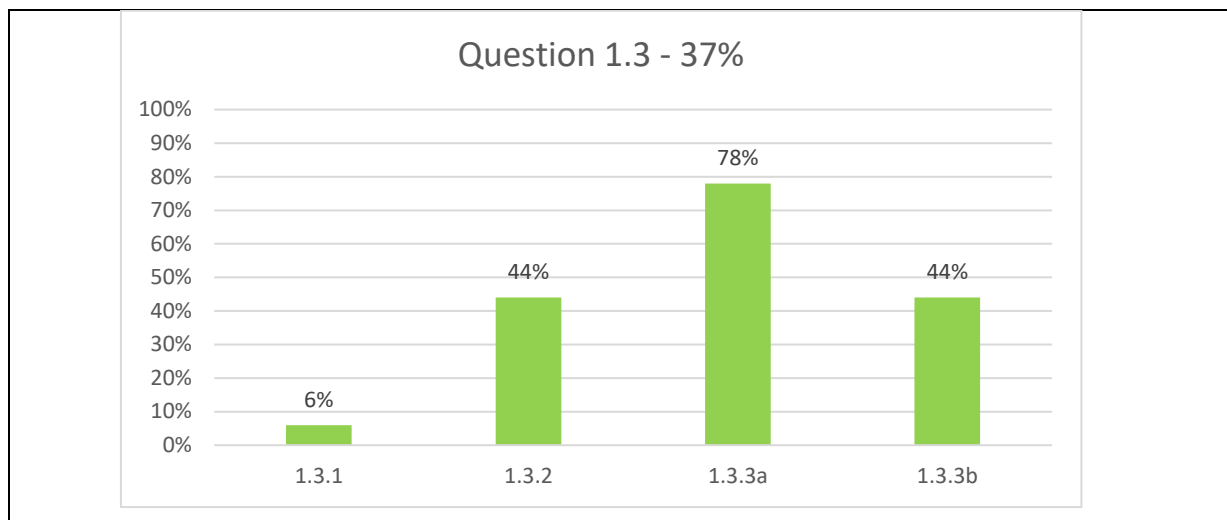
- Some write it as a fraction while other write it with units.
- Others swap the values in the ratio. E.g., 12,48: 5,56

1.2.4 – Candidates did not interpret the key correctly. Some used diesel instead of petrol prices.

- Most candidates were not sure whether to add, subtract, multiply or divide
But they used correct values.
e.g. R13,45 – R4,00

1.2.5. They could not answer it correctly because they did not understand what the question was asking for. They didn't seem to understand that in line graphs the difference is the smallest when the graphs are closest to one another.

The performance in 1.3 was the lowest if compared to 1.1 and 1.2. Further analysis of the sample in subsections of 1.3 reveal the performance was that candidates struggled in almost all the subsection save 1.3.3(a). See the graph below.



1.3.1 – The majority of candidates wrote “Street Map” or “Road Map” or “Town Map”. This question only had a 6% pass rate which means that out of the 100 candidates

Sampled 94 candidates got zero.

1.3.2 – Candidates have difficulty with conversions and also reading correct distances from the map. As a result of that 56 candidates could not answer it correctly.

- Some could not find 779km while others incorrectly convert km to m
e.g., $779 \div 100$ or $7790 \div 10$ or $779 \times 1000\ 000$

1.3.3(a) – Candidates did not use the original starting point.

They named most of the towns that are not even on the route.

They didn't understand the word via or detour.

e.g., they followed N2 to Oudtshoorn.

1.3.3(b) – 56 candidates in the sample obtained zero. Candidates cannot give a definitive answer.

They could follow the correct route as per question, but end up with

Incorrect distances. E.g., $82\text{km} + 45\text{km} + 53\text{km} + 67\text{km}$.

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

Ratio – Revisit the concept of ratio at school.

Rounding – Use more money-based examples to practise rounding to 2 decimal places.

Map interpretation – Emphasis must be made by teachers on distance indicators between towns, as well as the different types of roads, e.g., N-roads and R-roads.

The types of graphs and their respective names should be emphasized by educators to learners with more work sheets on the topic.

The concept of difference which goes with subtracting the smaller number from the bigger number should be highlighted to learners.

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

Educators should pronounce words clearly to learners in class and let learners practise writing words with the correct spelling to avoid, for example, learners writing “Script Map” instead of “Strip Map”.

Educators should train their learners to analyse the given extract or table or graph well so as to use the correct item required by the question to prevent, for example, using value for petrol and diesel interchangeably.

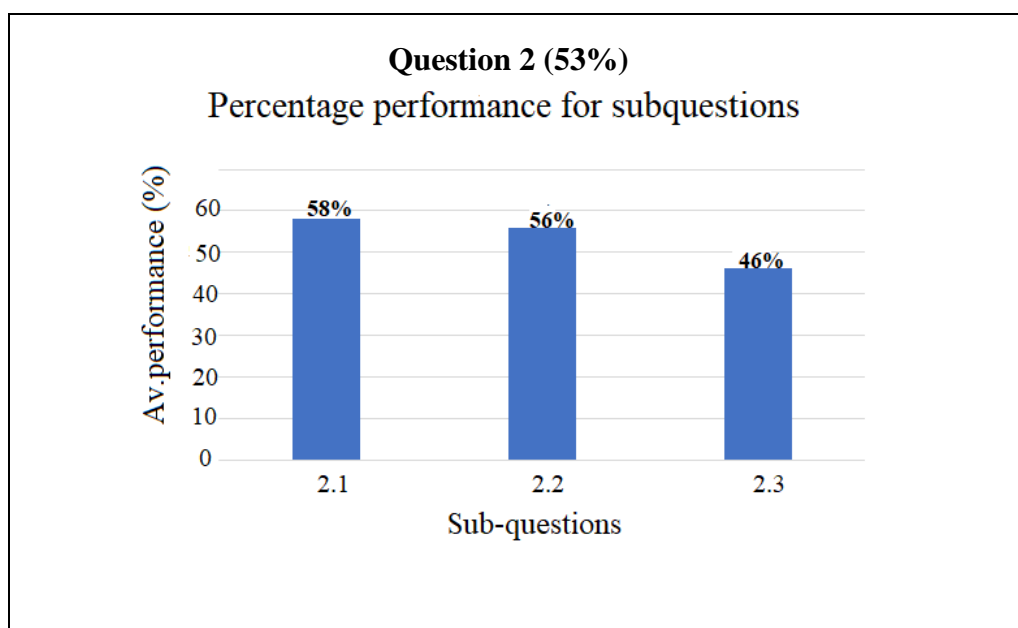
Conversion questions was a challenge. It is therefore advisable that teachers must emphasze the basic concept in different units.

Learners must acquire calculators and be taught how to use the basic scientific functions on them.

QUESTION 2

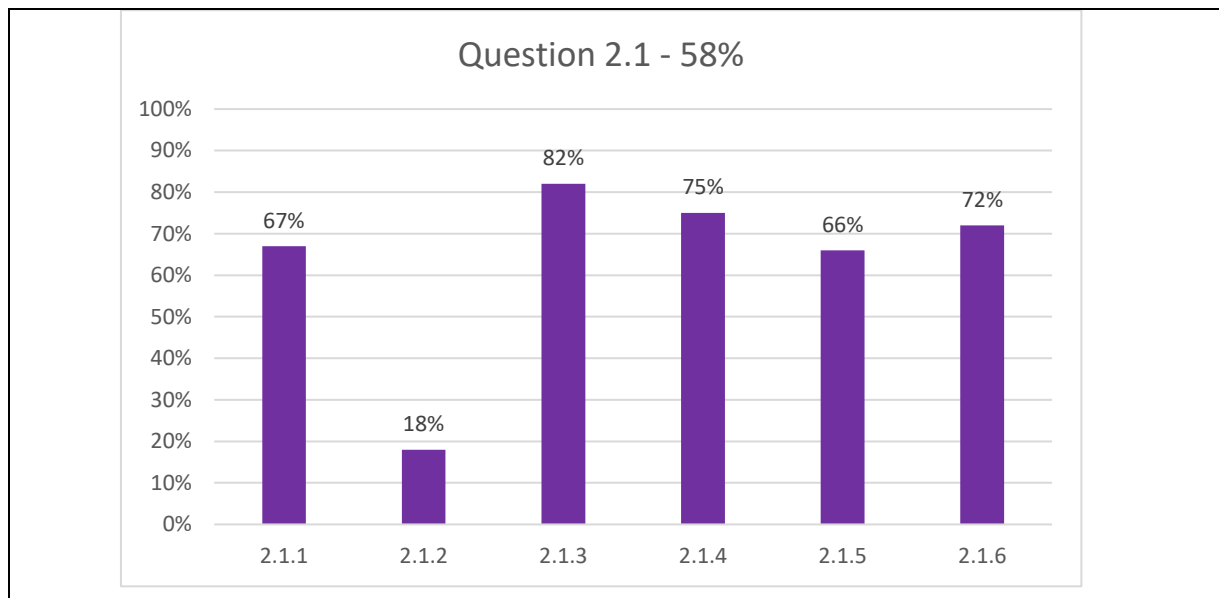
(a) General comment on the performance of learners in the specific question. Was the question well answered or poorly answered?

This was the longest question with a total of 42 marks. There were very few candidates who obtained full marks. Most learners scored between 14 to 25 out of 42 marks. With this question consisting of mostly Level 1-type questions, everyone attempted to answer all of the questions. The biggest problem was taxation which most learners (75%) did not answer correctly. The sample analysis of question 2 sub questions indicates 2.3 performance as the poorest. See the graph below for details.



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

Details of why the question was poorly answered, is better answered by looking at the performance in sections of the subquestions. The summary is given in the graph below for 2.1 and some explanations.



2.1.1 – Some candidates copied all the amounts on Annexure A and added them. Some candidates were unable to understand or differentiate between “write” and “calculate” in the question; instead of writing the total balance, they added all the values.

2.1.2 – The question was poorly answered because candidates were confused by the word “due” as they did not understand its meaning. Some used any date from the statement. 82% from the sample got zero.

Typical answers were “15 Jan”, “First”, “June” and “2020”

2.1.3 – Question was well answered. Many tried to add the values. (R101,99 + R101,99)

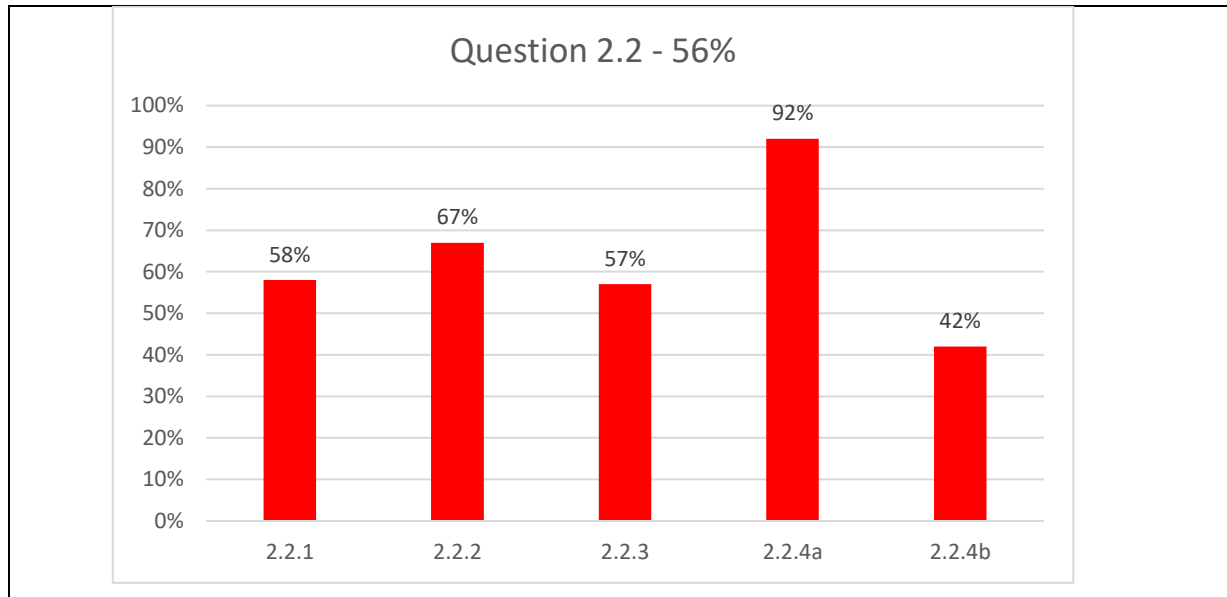
2.1.4 – Question was well answered. Only 25 candidates from the sample couldn’t answer it correctly.

2.1.5 – Many learners tried to add all the values so the question was fairly answered. Some identified one number, but not both. E.g. R101,99 only

2.1.6 – Learners struggled to calculate VAT. Some used 14%. Most common mistake was learners calculating 15% of R4000. Some learners used R3750 as the price. Mostly they obtained 1 out of 3 marks.

Question 2.2

The performance of subsections of 2.2 is shown in the graph below and explanations follow.



2.2.1 – Many did not know what SARS stands for – they wrote South African Reserve Services. Many answered SARB, SASSA, ANC or Minister of Finance.

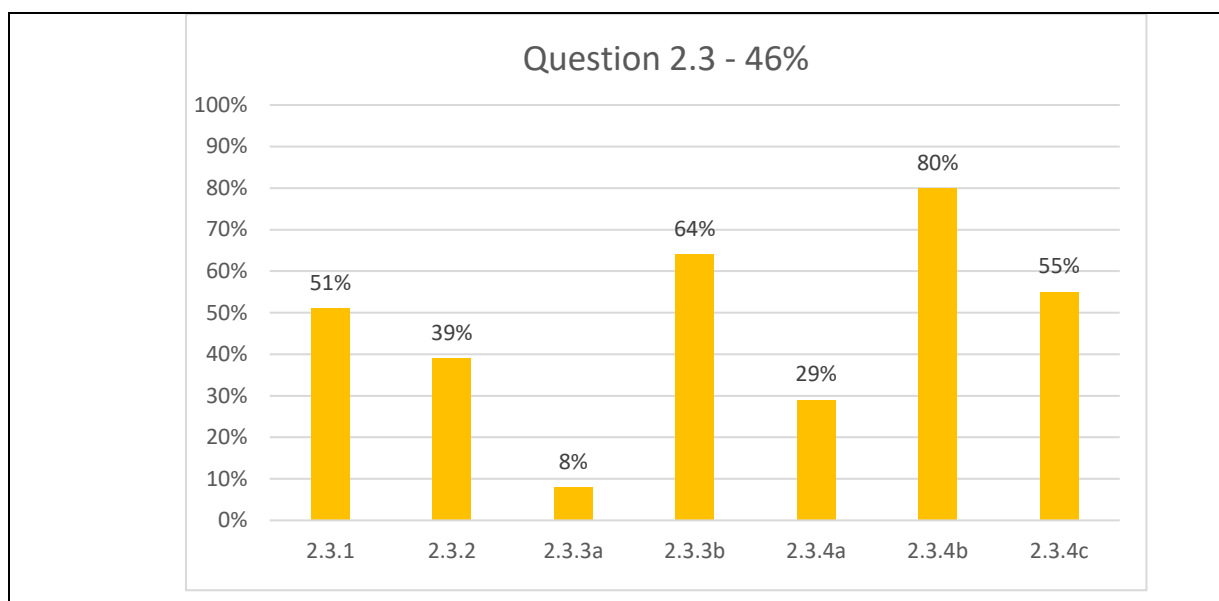
2.2.2 – A very straightforward, simple question. Many said Tax Bracket 3. Confusion was created by not stating whether the amount given was monthly or annually.

2.2.3 – Many could not substitute correctly into the formula and many candidates, if not most, stopped before dividing by 12 to calculate monthly tax. Clearly most candidates have no concept of tax calculations. Some of them even deducted the rebates even though the question clearly stated to do the calculation before any rebates are deducted. Also, BODMAS was a challenge when doing the calculations.

2.2.4(a) – Question was well answered. Some candidates took the amount from the wrong year which is R14 220.

2.2.4(b) – Many candidates said only “Tertiary” or “Tax bracket 3” or “just number 3”
58% scored 0 from this question.

Details of performance in subsections of 2.3 follow below the graph and explanations.



2.3.1 – Almost 50% of the candidates correctly answered the question well. Candidates who got the answer wrong, didn't know how to use the given data in the table to determine the cost of one photo. Candidates divided expenses by income to get the selling price instead of dividing income by the number of photographs. E.g. $1250/500$

2.3.2 – Question answered poorly. Some candidates were unable to determine a formula. Others couldn't explain it. E.g., "R20 x n" only. Or could not explain what "represented.

2.3.3(a) –Very poorly answered. 92% from the sample obtained zero on the question while only 8% got the full marks. A common answer was R20. Very few candidates managed to get R5. They copied the formula as the answer – $1\ 125 + 5 \times \text{number of photos}$

2.3.3(b) – Fairly answered at 64% from the sample.

Some used $1\ 375 + (80 \times 5)$ or $1\ 375 + (80 \times 20)$.

2.3.4(a) – Poorly answered as it was the first time to be asked such a question. Many said "Ella's Photography Business" or only mentioned income. Another common mistake was "Number of Rand and photos".

2.3.4(b) – This question was well answered.

2.3.4c – Candidates did not know where the break-even point was. Almost 50% from the sample couldn't answer it correctly. They wrote x-axis and x-expense and y-expense.

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

Content must be taught using real-life or everyday situations.

More time must be spent on VAT and Taxation.

When introducing a new topic, the teacher must use the correct acronyms and their meanings in class, e.g., VAT, SARS, UIF etc.

Use account statements to ask questions where learners must find relevant information.

Use past exam papers to be better equipped in knowing what kind of questions are asked often.

Revision of Gr.10 work must be done.

Encourage learners to re-read questions to understand and be able to analyse and interpret the question.

Encourage learners to draw graphs, label them and give them headings.

(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 train learners to interpret and analyse the question so that they can understand how to answer correctly, for example 2.1.3 and 2.1.4, learners wrote small amounts that are in the statement and the word “returned” was misunderstood.

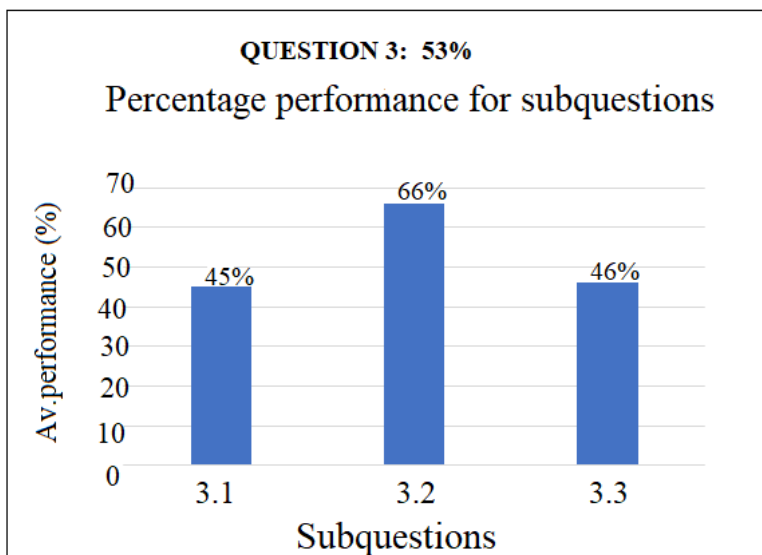
Teachers should also try to use more practical examples so that learners are exposed and made more aware of the fact that Mathematical Literacy is based on real-life situations (both familiar and unfamiliar contexts).

Some responses in some topics indicate that learners need more revision before writing exams for example, VAT, Income Tax and Income and Expenditure statements.

QUESTION 3

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

It was averagely answered at 53%. The details as to per subquestions are illustrated in the graph that follow.

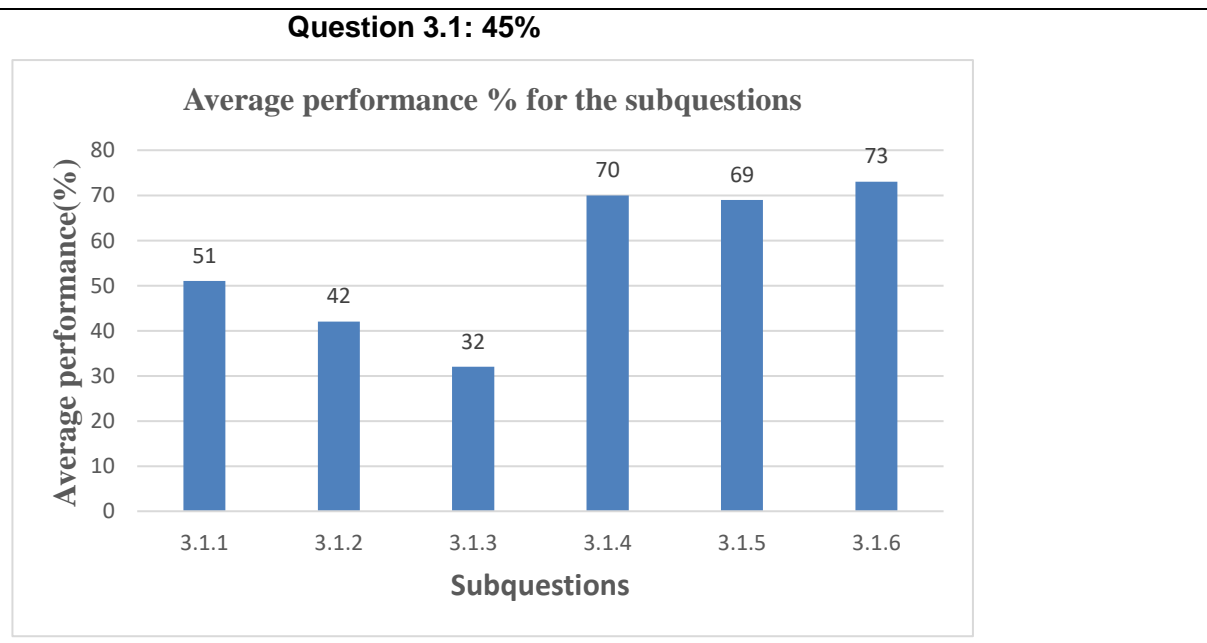


It is clear that 3.1 and 3.3 were the most problematic that brought the percentage down in question 3.

A further investigation in the subsections will highlight the common mistakes candidates made. Look at the graphs and discussions that follow in the next section.

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

The details to the poor performance are shown in that graph below to illustrate which particular subsections and the common mistakes mentioned as observed during the marking and moderating process.



In 3.1.1 A good number of candidates could not perform calculations on simple tasks, like adding the number of legs on rectangular and cubic shaped prism-shaped ottomans even when diagrams were drawn.

e.g., Candidates forgot the second cubic ottoman e.g., $6 + 4 = 10$ legs.

3.1.2 – They could not differentiate between the height and the diameter given in the diagram. They also did not realize that diameter was given, not the radius. Therefore, they multiplied by 2 instead of dividing by 2.

3.1.3 – Candidates have a challenge when it comes to conversion. They do not know that they cannot work with different units in their calculations.

e.g., $120/1000$ or $120/100$ or 120×10

3.1.4 – Candidates in this question lacked understanding of the given objects as the context was unfamiliar to them. Some of them used formulas but it would have been better answered if the formula for TSA was given. Most candidates understand the concept of area, but find it difficult to calculate the TSA. E.g., they failed to acknowledge and recognize that cubic ottomans have 4 faces each and the rectangular ottoman had 4 faces but 2 are squares. E.g., $50 \times 50 = 2500$

$120 \times 50 = 6000$ and then $2500 + 6000 = 8500$

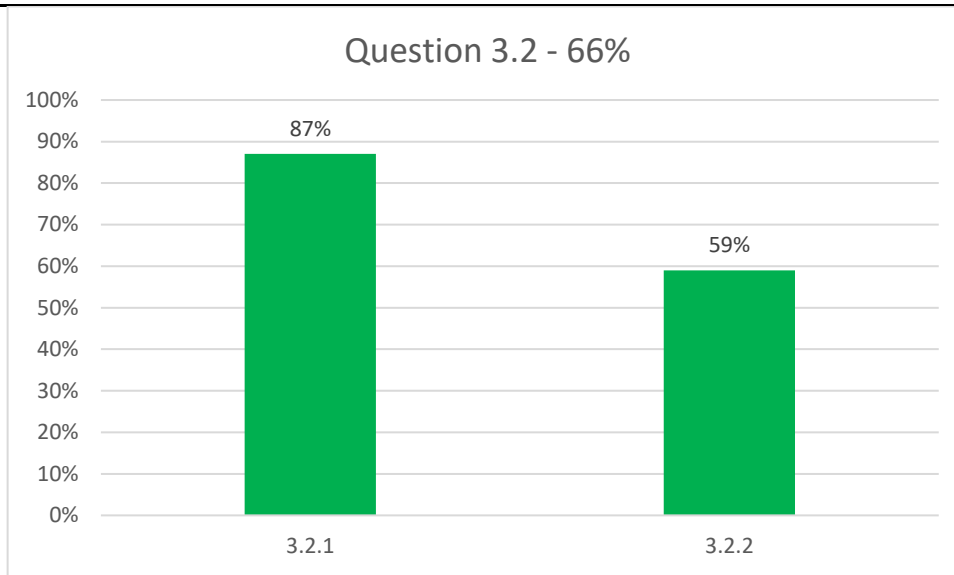
3.1.5 – Although the question was answered fairly well, some showed a lack of understanding in the meaning of spread rate and as a result they did not know what to do with $8\text{m}^2/\text{litre}$. They did not understand that they had to use the answer in 3.1.4 in when calculating in 3.1.5. cm^2 to m^2 and mostly they use conversion from cm to m which is dividing by 100. Some candidates multiplied by the spread rate instead of dividing by it.

Converting from litres to ml was still a problem to some.

3.1.6 – BODMAS is still a challenge as they were getting wrong answers to this question after substituting into the formula. Mostly, they substituted correctly on the formula but they didn't square the radius. The square was left out or they forget to use brackets which leads to them not squaring the radius.

e.g., $1000/3,142 \times 6,5\text{cm}^2 = 48,96\text{cm}$

The question 3.2 was fairly done with better results in 3.2.1

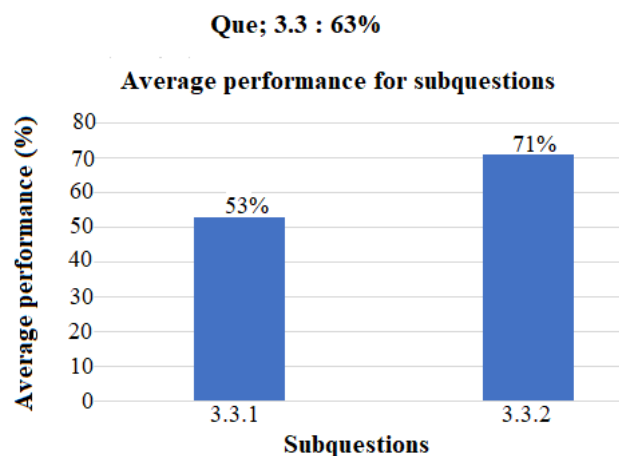


3.2.1 – There is better understanding of probability involving use of tree diagrams. Some candidates were able to read from the tree diagram but didn't look at the numbering and as a result answers were swapped.

E.g., a) SB b) W

3.2.2 – Most candidates answered this question correctly, but those that failed gave their answers as a fraction, decimal and percentage. Educators need to teach learners how to differentiate between the 3 methods. The answer required was to be in simplified form.

Question 3.3 was fairly done at 63%. See details displayed on the graph and explanations that follow.



3.3.1 – Most learners answered this question correctly but others multiplied by 60 instead of dividing.

3.3.2 – Most candidates scored marks for substitution in the given formula but unable to convert m to cm and lost marks.

BODMAS was a problem yet again. Some were multiplying the length by the breadth instead of adding.

$$\begin{aligned}\text{e.g., } & 2(5\text{m} \times 153,6\text{cm}) \\ & = 768\end{aligned}$$

Candidates will also answer it like 3.1.6. Would substitute but couldn't simplify

$$\begin{aligned}\text{e.g. } P &= 2 \times (l \times w) \\ &= 2 \times (500 \times 153,6) \\ &= 2 \times 76\,800 \\ &= 153\,600\text{cm}\end{aligned}$$

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

Teachers must teach according to the CAPS document, not according to the question papers.
Spend time on converting between different units of area and volume.

Tree diagrams must be taught together with theoretical probability.

More hours should be spent on revising Grade 10 and 11 work.

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

Do not always use the same examples when teaching.

Train learners to interpret what they see and be specific when doing calculations.

When it comes to TSA, it is sometimes easier to use practical examples in class. (Shoe boxes and other containers.)

Workshops must be done to iron out these challenges that are almost similar to all these learners and appear every year.

QUESTION 4

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

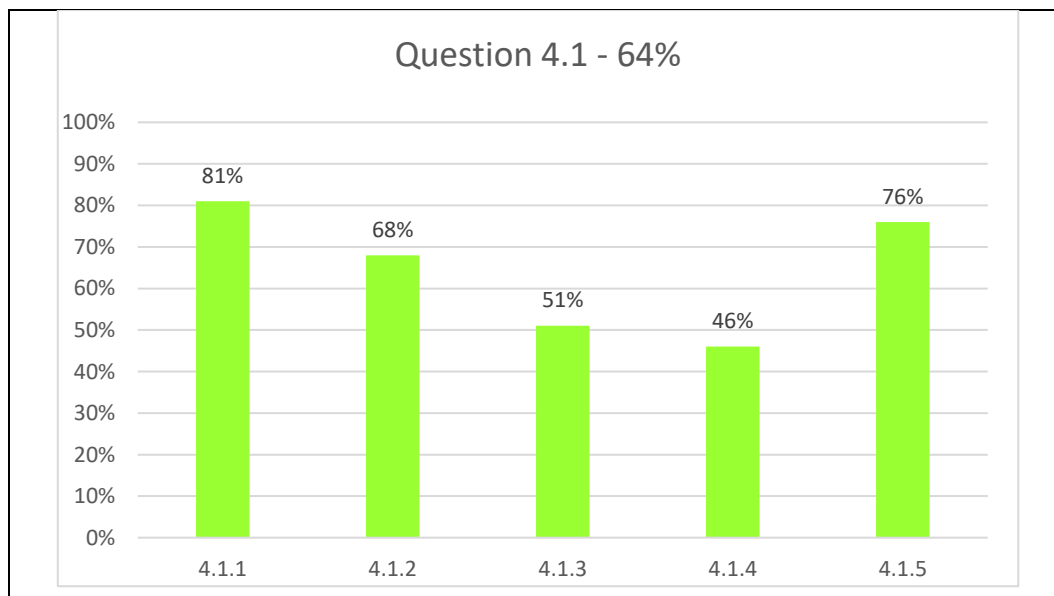
This was the question challenged most candidates. The Rasch sample indicate performance at 44%. It was set on Maps and Representations dealing with cape route 62 in 4.1 and layout plans for the four motorcycles on a trailer in 4.2.

The section that follows shows the graph and explanation as to performance in subsections of the question.

Performance was better in 4.1.1; 4.1.2 and 4.1.5.

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

Candidates struggled in 4.1.3 and 4.1.4 where the performance was at 51% and 46% respectively. The graph gives summary for subquestions of 4.1.



4.1.1 – Writing N1, N46 or R44 were common mistakes. However, question was answered well. Candidates don't understand the meaning of "R".

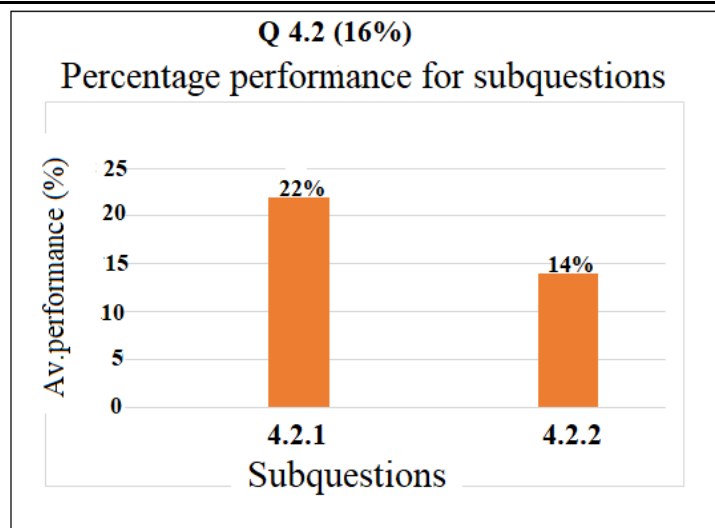
4.1.2 – Candidates gave the scale (1: 2 742 857) instead of naming the type of scale. Some candidates identified the wrong type of scale (Bar Scale / Linear Scale).

4.1.3 – Candidates only wrote "West" or "South", indicating limited knowledge of sub-directions. Some candidates gave mixed the directions, for example they wrote North East.

4.1.4 – Candidates did not subtract from 210km or only subtracted one value, i.e., 210 – 82. Candidates who used the scale to determine A, measured incorrectly.

4.1.5 – Question answered fairly well. The most common mistake was Zoar. Candidates also used "or" which made them lose marks. Many candidates could not follow the given directions.

The most problematic sub question of 4.2 that was responsible for poor results in question 4.



4.2.1 – Question was attempted by most candidates; however, they only wrote (20cm x 4) or (229cm x 2) resulting in one mark allocated. Language could have been an issue, in addition the question 4.2. was pitched at cognitive level 2 and 3.

Some candidates multiplied the values instead of adding. (229cm x 20cm x 20cm x 20cm x 229cm x 20cm).

4.2.2 – Question answered very poorly. Many candidates left it out or attempted it by multiplying the dimensions (229cm x 86cm x 125cm) or just (20cm x 20cm). Some candidates did not divide by 2. Others calculated the volume (Only 28% from the sample managed to get this correct)

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

Educators must spend more time on Map work introducing all types of Maps. Get maps from the Geography department for learners to work with.

Emphasise the difference between National and Regional roads.

Give learners examples of the different types of scales.

Spend time on teaching them the different compass directions and how to determine them. (Consult with Geography teachers)

Identify all topics in the CAPS policy where mathematical equations can be used.

(Measurement, Data, Map work.)

Learners must be taught how to formulate equations in order to solve an unknown value.

Make use of old question papers to help learners with L2 and L3 questions. The more they practice, the easier it will become.

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

Spend time on teaching learners about Map work. It makes for easy marks.

Stress to learners the importance of not writing or using “or”.

Teachers need to attend workshops on the topic of Map work. This must be organised by subject advisors.

As far as possible, teachers must have practical sessions with learners when doing Map work.

Mathematical Literacy teachers should consult with Geography teachers and try and share resources.

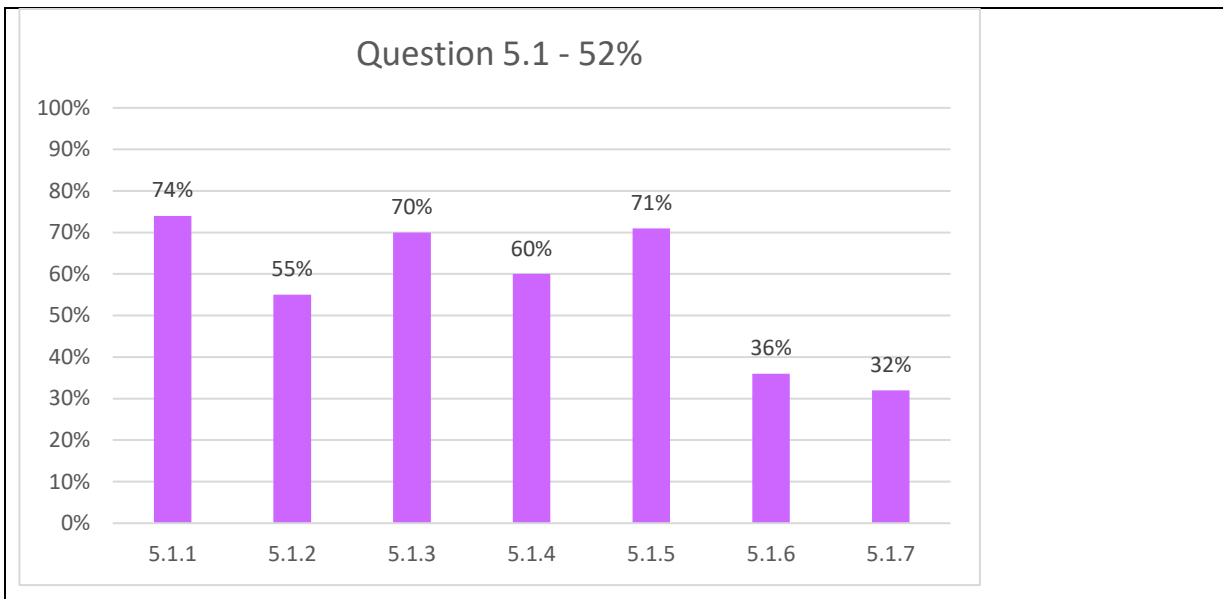
Reports on paper analysis must be submitted to district offices as soon as possible in order for subject advisors to assist schools.

QUESTION 5

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

The candidates answered the question fairly. The total mark was 30 and most candidates obtained at least 15 marks, which shows that candidates could handle data. The only problem was that they could not work with decimals so the commas were ignored completely. The average of the two middle numbers in finding the median was a bit of a disaster, with learners mostly forgetting one or two numbers or scores. Working with formulae was a problem even in 2020. Substitution in APG (5.2.3) was problematic, starting with the wrong readings and not being able to use a calculator.

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



5.1.1 – Misinterpretation with many candidates answering A Boom instead of TGA. A lot of them giving GTC – total 37, 725.

5.1.2 – Incorrect reading of values and inability to work with decimals. Common mistake is to leave out decimal commas, but calculation and concept of range is spot on.

e.g. $9625 - 9100 = 525$ instead of $9,625 - 9100 = 0,525$

5.1.3 – Incorrect use of data (9 instead of 10 values) and missing a value and ignoring decimals. Wrong column used but the calculation of mean is correct.

e.g., Instead of using the bar events values, they use vault events.

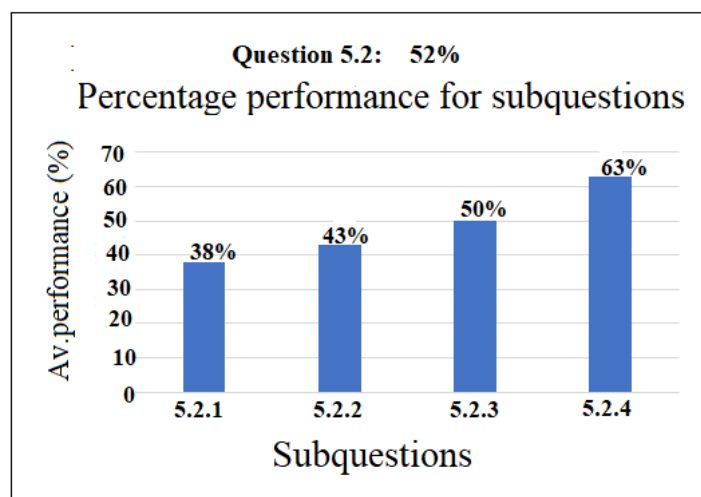
5.1.4 – The candidates don't understand how to find a missing value in a table i.e., adding the individual scores and subtracting from the total. If the Total score was given at the bottom of the column, it could have led to better understanding.

5.1.5 – Candidates were not sure of the difference between measures of central tendencies and tend to confuse mode with median.

5.1.6 – About 53% of the sampled candidates couldn't answer this correctly. About 40% of candidates were unable to change a fraction to a percentage even if the values were incorrect.

5.1.7 – Poorly answered. Steps were missed as they could not arrange the data and they only worked with the given data. Lack of understanding that quartile 2 is the same as the median. Above 50% were zero.

Sub-question 5.2 is discussed below starting with graph.



5.2.1 – Candidates struggled to differentiate between million and billion.

5.2.2 – Rounding to the nearest 10 000 seemed to be a challenge. The word “increase” was interpreted as an addition.

5.2.3 – Candidates used wrong values. Substitution into the given formula seemed to be a problem.

5.2.4 – Candidates were able to plot the graph, but used the wrong column. Concept of population growth given as a percentage was difficult to interpret.

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

The teachers have to expose their learners to information given in the form of a table.

More tables and graphs should be used in familiar and unfamiliar contexts.

Learners should practise plotting graphs to understand the scales used.

When it comes to giving data, it should be emphasized that learners arrange before they start to answer any questions.

They should be trained to substitute into a given formula and calculate the correct answer.

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

Mathematical Literacy teachers should explore new examples or scenarios.

The tendency with learners who have been taught using previous question papers tend to think those are the only ways in which the concepts can be asked.

Learners should be given practical work, for example a project or research on their own.

Learners must be able to estimate the value in a graph. Some didn't even see that in the question they just have to show values in a given graph without even calculating.



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

SENIOR CERTIFICATE/ NATIONAL SENIOR CERTIFICATE

GRADE 12

MATHEMATICAL LITERACY P1

NOVEMBER 2020

MARKS: 150

TIME: 3 hours

**This question paper consists of 14 pages,
1 answer sheet and an addendum with 4 annexures.**



* M L I T E 1 *



INSTRUCTIONS AND INFORMATION

1. This question paper consists of FIVE questions. Answer ALL the questions.
2. 2.1 Use the ANNEXURES in the ADDENDUM to answer the following questions:
 - ANNEXURE A for QUESTION 2.1
 - ANNEXURE B for QUESTION 2.3.4
 - ANNEXURE C for QUESTION 3.2
 - ANNEXURE D for QUESTION 4.1
- 2.2 Answer QUESTION 5.2.4 on the attached ANSWER SHEET.
- 2.3 Write your centre number and examination number in the spaces on the ANSWER SHEET. Hand in the ANSWER SHEET with your ANSWER BOOK.
3. Number the answers correctly according to the numbering system used in this question paper.
4. Start EACH question on a NEW page.
5. You may use an approved calculator (non-programmable and non-graphical), 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. Maps and diagrams are NOT necessarily drawn to scale, unless stated otherwise.
10. Write neatly and legibly.

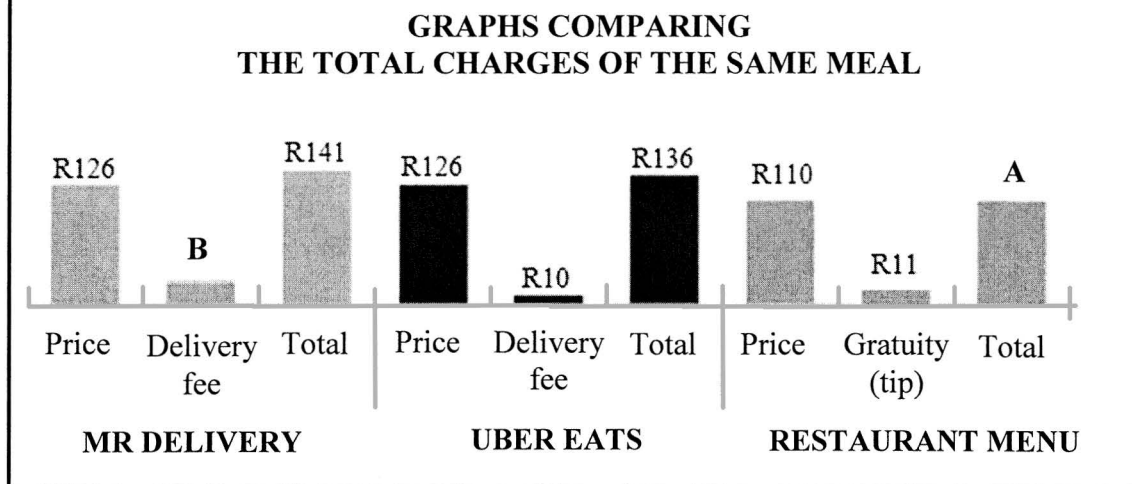


QUESTION 1

1.1

The information below represents three meal options for the same meal.

- Mr Delivery
- Uber Eats
- Restaurant menu

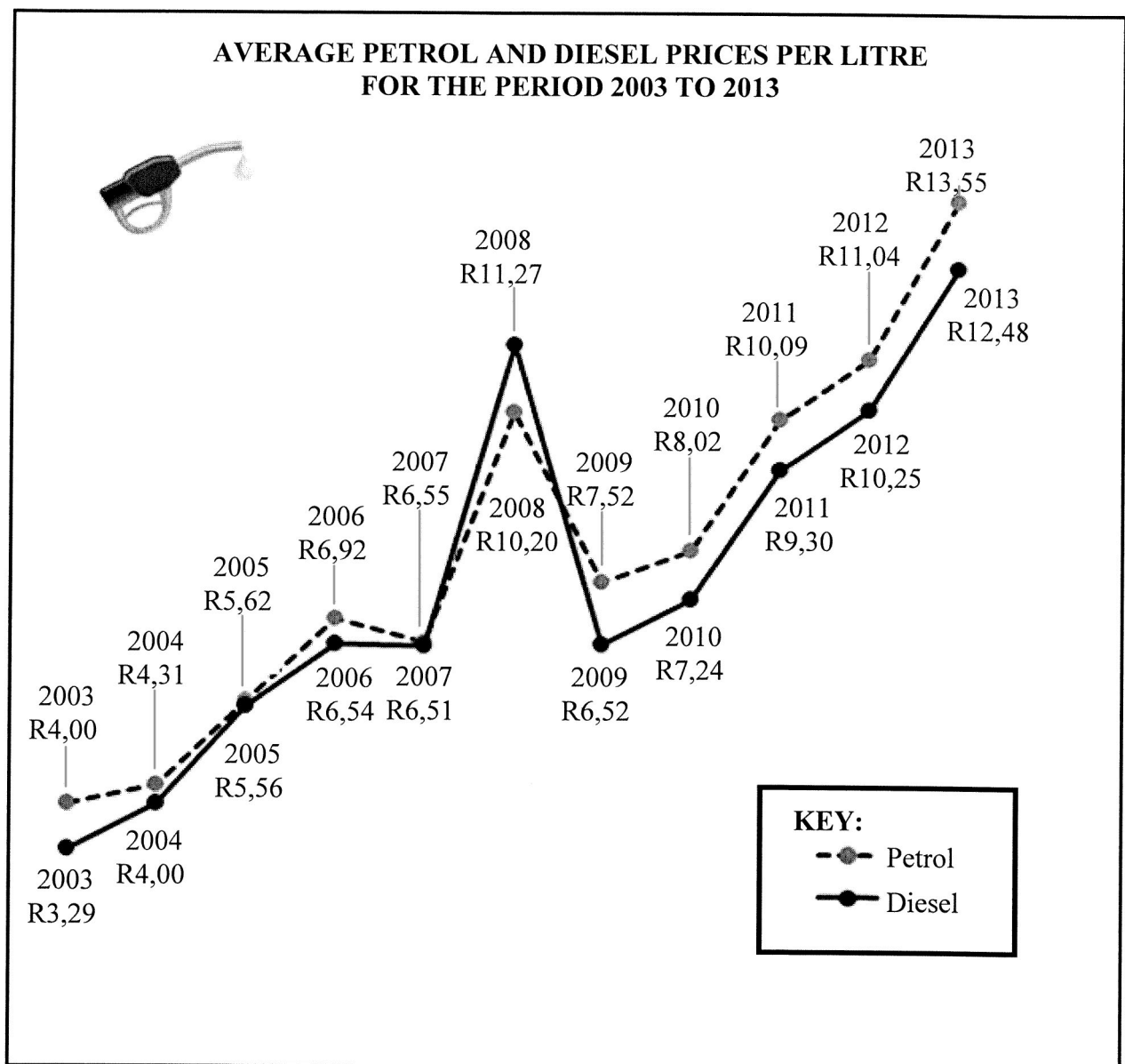


[Adapted from www.graphics24.co.za]

Use the above information to answer the questions that follow.

- 1.1.1 Identify the type of graph used. (2)
- 1.1.2 Calculate **A**, the total for the restaurant menu. (2)
- 1.1.3 Calculate **B**, the delivery fee for Mr Delivery. (2)
- 1.1.4 Write down the difference between the highest price and the lowest price of the meal, excluding delivery/gratuity. (2)
- 1.1.5 If the delivery fee for Uber Eats increases by 6,32%, calculate (in rand) the increase in the delivery fee. (2)

- 1.2 The two line graphs below represent the average petrol and diesel prices per litre for the period 2003 to 2013.



[Adapted from www.cars.co.za]

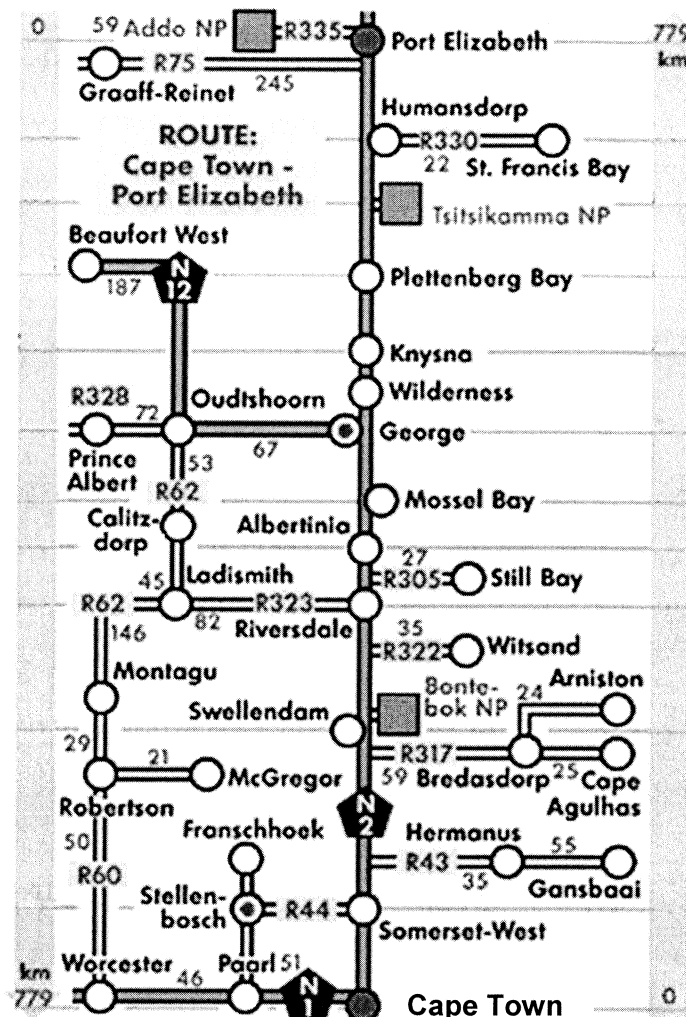
Use the above information to answer the questions that follow.

- 1.2.1 Write down the year in which the diesel price was higher than the petrol price. (2)
- 1.2.2 Calculate the difference between the price of petrol in 2012 and in 2004. (3)
- 1.2.3 Determine, to TWO decimal places, the unit ratio of the diesel price in 2005 to the diesel price in 2013. (3)
- 1.2.4 Calculate the total cost of 13,45 litres of petrol in 2003. (2)
- 1.2.5 Write down the year in which the difference between the petrol price and the diesel price was less than five cents. (2)

1.3

Devashni will be travelling from Cape Town to Port Elizabeth to visit her grandmother. She will use the map below to plan her journey.

MAP FOR A JOURNEY FROM CAPE TOWN TO PORT ELIZABETH



[Source: www.southafrica-travel.net]

Use the above map to answer the questions that follow.

- 1.3.1 Identify the type of map used above. (2)
- 1.3.2 Determine, in metres, the actual distance between Cape Town and Port Elizabeth. (2)
- 1.3.3 Along the route Devashni will visit a friend in Oudtshoorn. At Riversdale she will take a detour via the R323 to Oudtshoorn.
 - (a) Name the towns she will pass when traveling from Riversdale to Oudtshoorn. (2)
 - (b) Calculate the total distance she will travel from Riversdale to Oudtshoorn. (2)

[30]



QUESTION 2

2.1

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.

ANNEXURE A shows Dean's clothing store statement from Markham for a certain period of the year.

Use ANNEXURE A to answer the questions that follow.

- 2.1.1 Write down the total balance owing on Dean's account. (2)
- 2.1.2 Give the full date on which the current installment is due. (2)
- 2.1.3 State the opening balance of the 12-month revolving account option. (2)
- 2.1.4 Write down the price of the item that was returned. (2)
- 2.1.5 Determine the total amount paid using FNB electronic payments. (3)
- 2.1.6 The selling price of an item includes 15% VAT.
Calculate the price of the item purchased on 19 December 2018, excluding VAT. (3)

2.2

Dean, a 25-year-old male, earns a taxable income of R305 174,44. He started his first job on 1 March 2019.

Tax payable by an individual for the tax year 1 March 2019 to 29 February 2020 is indicated in TABLE 1 below.

TABLE 1: INCOME TAX RATES FOR INDIVIDUALS
2019/2020 TAX YEAR (1 MARCH 2019 TO 29 FEBRUARY 2020)

TAX BRACKET	TAXABLE INCOME (R)	TAX RATES (R)
1	0–195 850	18% of taxable income
2	195 851–305 850	35 253 + 26% of taxable income above 195 850
3	305 851–423 300	63 853 + 31% of taxable income above 305 850
4	423 301–555 600	100 263 + 36% of taxable income above 423 300
5	555 601–708 310	147 891 + 39% of taxable income above 555 600
6	708 311–1 500 000	207 448 + 41% of taxable income above 708 310
7	1 500 001 and above	532 041 + 45% of taxable income above 1 500 000

[Adapted from www.treasury.gov.za/Rapport]

NOTE: Dean is not a member of a medical aid.

Use TABLE 1 to answer the questions that follow.

- 2.2.1 Name the government institution responsible for collecting tax return forms. (2)
- 2.2.2 Write down the tax bracket that will be used to calculate Dean's tax payable. (2)
- 2.2.3 Calculate the monthly tax payable by Dean before any rebates are deducted. (5)
- 2.2.4 TABLE 2 below indicates the rebates for the 2018/2019 and 2019/2020 tax years.

TABLE 2: REBATES FOR 2018/2019 AND 2019/2020 TAX YEARS

TAX REBATES	TAX YEAR 2019/2020	TAX YEAR 2018/2019
Primary (age below 65)	R14 067	R14 220
Secondary (age 65 and above)	R7 713	R7 794
Tertiary (age 75 and older)	R2 574	R2 601



[Adapted from www.treasury.gov.za/Rapport]

- (a) Identify the tax rebate(s) that Dean qualifies for in the 2019/2020 tax year. (2)
- (b) State the number of tax rebates a 75-year-old man will qualify for in any tax year. (2)



2.3

Dean's mother, Ella, started her own instant photography business by taking photographs on the beach. She has a camera, but needs to buy a printer, photo paper and ink cartridges for printing.

Canon Selphy CP100 photo printer	Canon photo paper + 3 print cartridges
	
Price = R1 125	

[Adapted from www.takealot.com and www.amazon.com]

TABLE 3 shows Ella's income and expenses for producing and selling up to 200 photographs.

TABLE 3: INCOME AND EXPENSES OF ELLA'S PHOTOGRAPHY BUSINESS

NUMBER OF PHOTOGRAPHS	0	25	50	80	100	125	150	170	200
Income (rand)	0	500	1 000	1 600	2 000	2 500	3 000	...	4 000
Expenses (rand)	1 125	1 250	1 375	A	1 625	1 750	1 875	1 975	2 125

[Adapted from www.computermania.co.za]

Use TABLE 3 above to answer the questions that follow.

2.3.1 Determine the selling price of ONE photograph. (2)

2.3.2 Write down the formula that could be used to calculate the total income received. (2)

2.3.3 The total expenses can be calculated using the following formula:

$$\text{Expenses (in rand)} = 1\,125 + \text{number of photographs} \times 5$$

(a) Write down the variable cost for taking ONE photograph. (2)

(b) Calculate missing value A. (3)

2.3.4 ANNEXURE B shows two graphs, X and Y, which can be used to represent the business.

Use ANNEXURE B to answer the following questions.

(a) Give a suitable heading for the graphs that were drawn. (2)

(b) State which graph (X or Y) represents the income received by the business. (2)

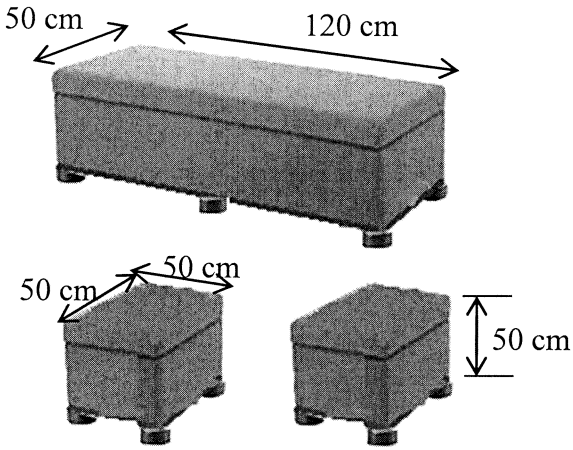
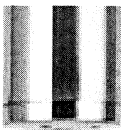
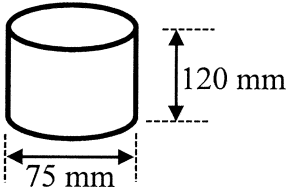
(c) Determine how many photographs must be sold to break even. (2)

[42]

QUESTION 3

3.1

Ten years ago, John bought a rectangular prism-shaped ottoman and two matching cubic-shaped ottomans¹. He wants to refurbish each of them by having the side surfaces (excluding the top and bottom) repainted. He will also employ an upholsterer² to re-cover the top of each ottoman and to attach cylindrical-shaped legs to the base of each ottoman. Each cubic-shaped ottoman will have 4 legs, while the rectangular prism-shaped ottoman will have 6 legs.

RECTANGULAR AND CUBIC SHAPED PRISM-SHAPED OTTOMANS		INFORMATION
		DIMENSIONS: Rectangular ottoman Length = 120 cm Width = 50 cm Height = 50 cm Cubic-shaped ottomans Side = 50 cm
PICTURE OF A LEG	DIAGRAM OF A LEG	DIMENSIONS OF A LEG
		Diameter = 75 mm Total height = 120 mm

[Source: www.takealot.com]

¹Ottoman: a piece of furniture like a large box with a soft top, used as a seat

²Upholsterer: someone whose job it is to cover furniture with material

Use the above information to answer the questions that follow.

- 3.1.1 Determine the total number of legs for the ottomans John has to purchase. (3)
- 3.1.2 Calculate the radius of the ottoman's leg. (2)
- 3.1.3 Calculate, in centimetres, the total height (including the legs) of ONE cubic-shaped ottoman. (2)
- 3.1.4 Calculate, in cm², the total surface area of the side surfaces of all three ottomans that need to be painted.

You may use the following formulae:

Area of a rectangle = length × width

Area of a square = side × side

(5)

- 3.1.5 John bought a one-litre tin of luxurious silk paint to paint the side surfaces. The paint has a spread rate of 8 m^2 per litre.

Calculate, in millilitres, the amount of paint needed to paint ALL the ottomans with TWO coats of paint.



(4)

- 3.1.6 The tin has an inner radius of 6,5 cm.

Calculate the height (in cm) of the paint in the tin, if $1 \text{ litre} = 1\,000 \text{ cm}^3$.

You may use the following formula:

$$\text{Height} = \frac{\text{Volume}}{3,142 \times (\text{radius})^2} \quad (3)$$

3.2

The upholsterer can use the following materials to cover the tops of ALL the ottomans: synthetic leather (S), genuine leather (G) or canvas (C). The materials are available in the following colours: red (R), brown (B) and white (W).

ANNEXURE C shows a tree diagram that represents the choice and colour of the material to be used to cover the ottomans.

Use ANNEXURE C to answer the questions that follow.

- 3.2.1 Write down missing items (a) and (b). (4)

- 3.2.2 Determine (as a fraction in simplest form) the probability of NOT selecting red material. (3)

3.3

John asked the upholsterer to use synthetic leather to cover each of the ottomans. The upholsterer uses large sheets of synthetic leather, which he then cuts into smaller pieces to fit the top of each ottoman. Alibaba.com is an online store that sells the sheets of synthetic leather with a width (W) of 60 inches and a length (L) of 5 m.

<p>Diagram of one sheet of synthetic leather</p>	<p>Sheets of synthetic leather</p>
---	---

[Source: www.hangzhougeyi.cn]

Use the above information to answer the questions that follow.

- 3.3.1 Given that $60 \text{ inches} = 153,6 \text{ cm}$, complete:

1 inch = ... cm (2)

- 3.3.2 Calculate, in cm, the perimeter of one large sheet of synthetic leather.

You may use the following formula: **Perimeter = $2 \times (\text{length} + \text{width})$** (3)

[31]

QUESTION 4

4.1

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 D shows Cape Route 62.

Use ANNEXURE D to answer the questions that follow.

- 4.1.1 Identify the road that must be travelled on between Tulbagh and Ceres. (2)
- 4.1.2 Name the type of scale shown on the map. (2)
- 4.1.3 Write down the general direction from Knysna to Mossel Bay. (2)
- 4.1.4 The total distance from Cape Town to Worcester, via Tulbagh, is 210 km.

TABLE 4 indicates the actual distances between some of the towns on Cape Route 62.

TABLE 4: 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)
- 4.1.5 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.

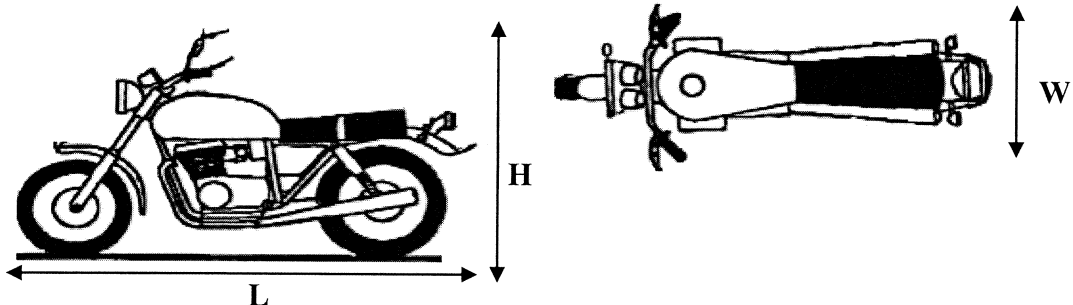
Study the directions and then write down the name of the town where his cousin lives. (2)



4.2

Four more friends will be joining Peet and Roland. They will travel by car and use a trailer to transport their motorcycles. To protect the motorcycles from damage, they need a 20 cm space around all four sides of the motorcycles.

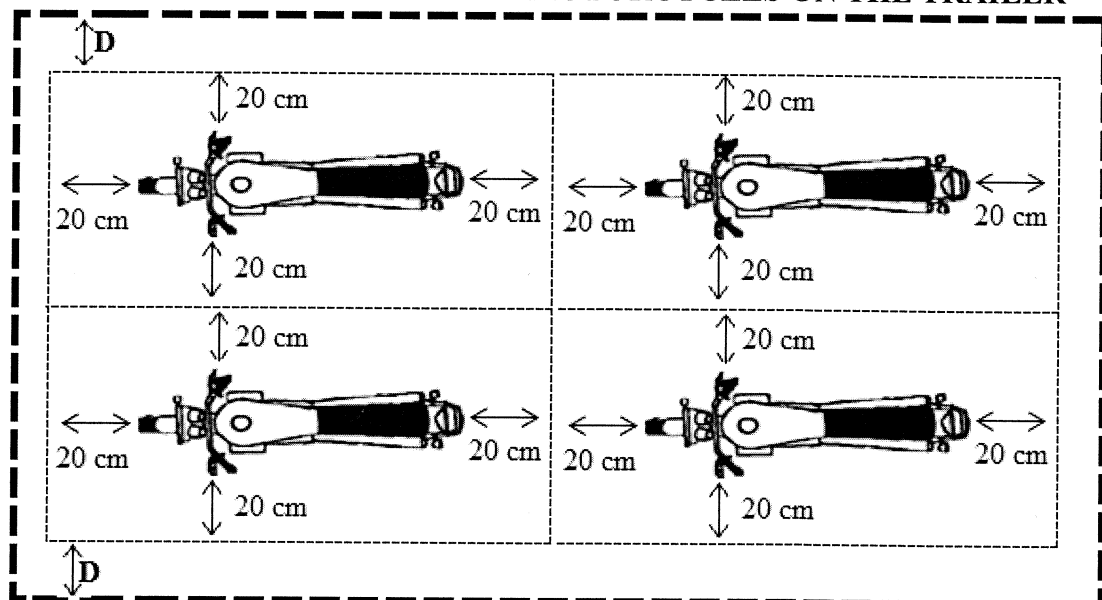
The dimensions of a single motorcycle are given below.



Length (L) = 229 cm, height (H) = 125 cm and width (W) = 86 cm

Below is the layout plan of the four motorcycles placed onto the trailer.

LAYOUT PLAN OF THE FOUR MOTORCYCLES ON THE TRAILER



KEY: --- Outer dimensions of the trailer with a length of 550 cm and a width of 260 cm.

[Adapted from www.covercraft.com]

Use the sketches above to answer the questions that follow.

4.2.1 Calculate the minimum length required to safely place two motorcycles, one behind the other, onto the trailer, taking into account the precautionary measures above. (3)

4.2.2 If the two motorcycles are placed in the centre of the trailer, D will be the equal distance on either side of the width of the trailer, as shown in the diagram.

Calculate (in cm) the value of D .

(4)
[17]

QUESTION 5

5.1

TABLE 5 below shows the results of a recent gymnastics competition held at a school. The table shows the gymnasts' names, teams, divisions and various events with total scores given to three decimal places.

TABLE 5: RESULTS OF A GYMNASTICS COMPETITION

GYMNAST	TEAM	DIV.	EVENTS				TOTAL SCORE
			VAULT	BARS	BEAM	FLOOR	
G Gilliland	GTC	Senior A	9,550	9,100	9,400	9,625	37,675
H Radebe	Olympus	Junior B	9,450	9,250	8,900	9,400	37,000
L Gumede	Olympus	Junior A	9,475	9,300	8,700	9,500	36,975
S Rigby	TGA	Senior A	9,500	8,650	8,925	9,350	36,425
H Khumalo	GTC	Senior A	9,300	9,100	A	9,225	36,425
C Maile	Olympus	Junior A	8,950	9,050	9,025	9,375	36,400
M Stolp	GTC	Senior A	9,400	8,750	8,725	9,500	36,375
M McBride	GTC	Junior A	9,475	9,050	8,700	9,050	36,275
A Boom	TGA	Senior A	9,650	8,300	8,700	9,500	36,150
B Makhatini	Olympus	Junior B	9,350	9,200	9,150	9,350	37,050

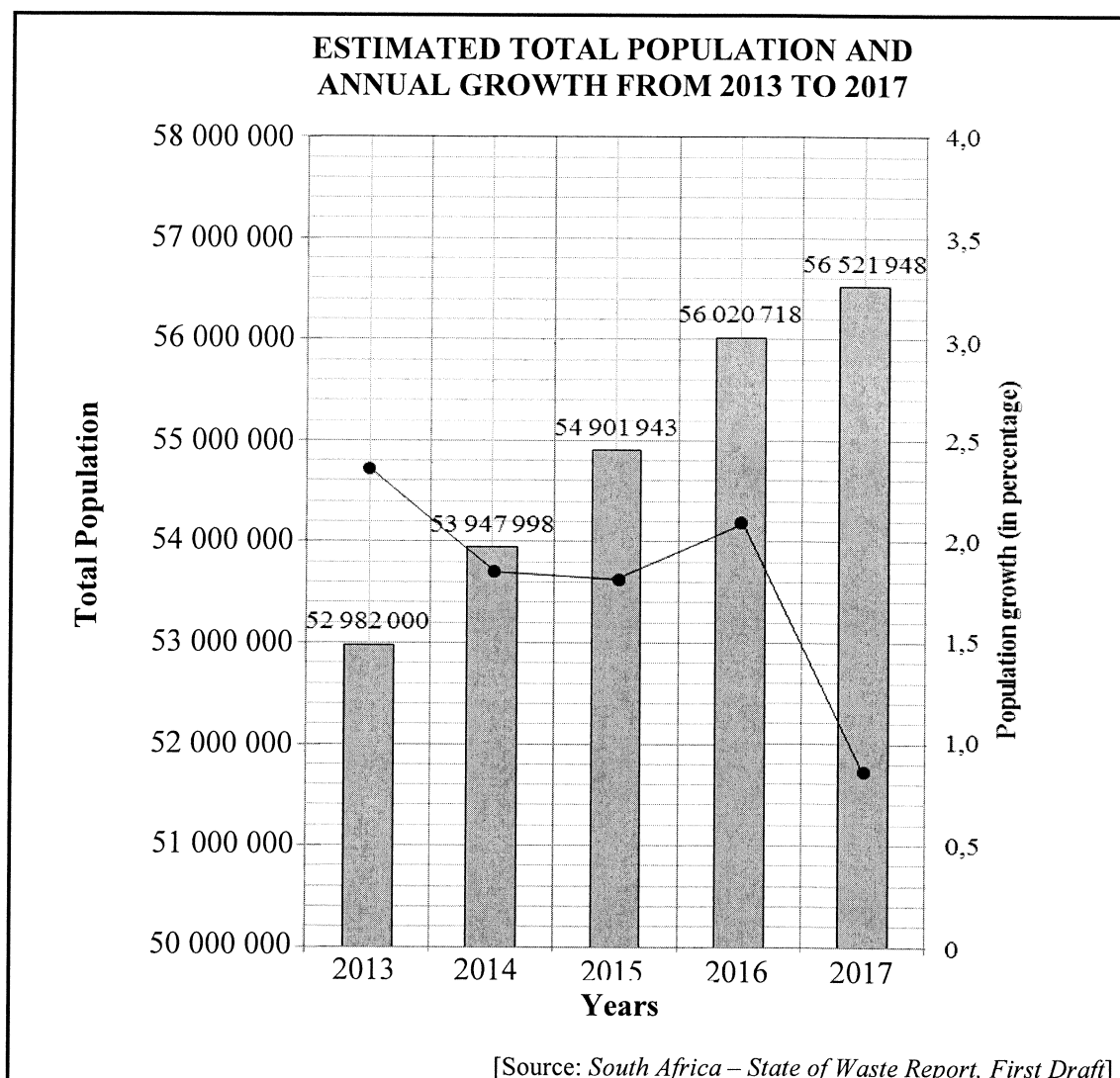
[Adapted from www.meetscoresonline.com]

Use TABLE 5 to answer the questions that follow.

- 5.1.1 Identify the team that achieved the highest score for the vault event. (2)
- 5.1.2 Determine the range of G Gilliland's scores. (2)
- 5.1.3 Calculate the mean score for the bar event. (3)
- 5.1.4 Determine missing value A. (3)
- 5.1.5 Write down the modal score for the total points scored. (2)
- 5.1.6 Determine, as a percentage, the probability of selecting a gymnast in the Junior division with a total score of more than 36,970. (3)
- 5.1.7 Calculate the value of quartile 2 for the floor event. (3)



- 5.2 The graph below shows the estimated total population of South Africa and the annual population growth from 2013 to 2017.



- 5.2.1 Write down in words, and without the use of numbers, the population of South Africa in 2013. (2)
- 5.2.2 Determine, rounded to the nearest 10 000, the population increase from 2015 to 2016. (3)
- 5.2.3 Calculate the annual population growth (APG) for 2015.
Use the following formula:
- $$\text{APG} = \frac{\text{current population} - \text{previous population}}{\text{previous population}} \times 100\%$$
- (3)
- 5.2.4 The ANSWER SHEET shows the bar graph for the estimated total population and annual growth from 2013 to 2017.

If the 2018 population was 57 725 606 and the population growth was 2,13%, complete the graph for 2018 on the ANSWER SHEET.

(4)
[30]

TOTAL: 150

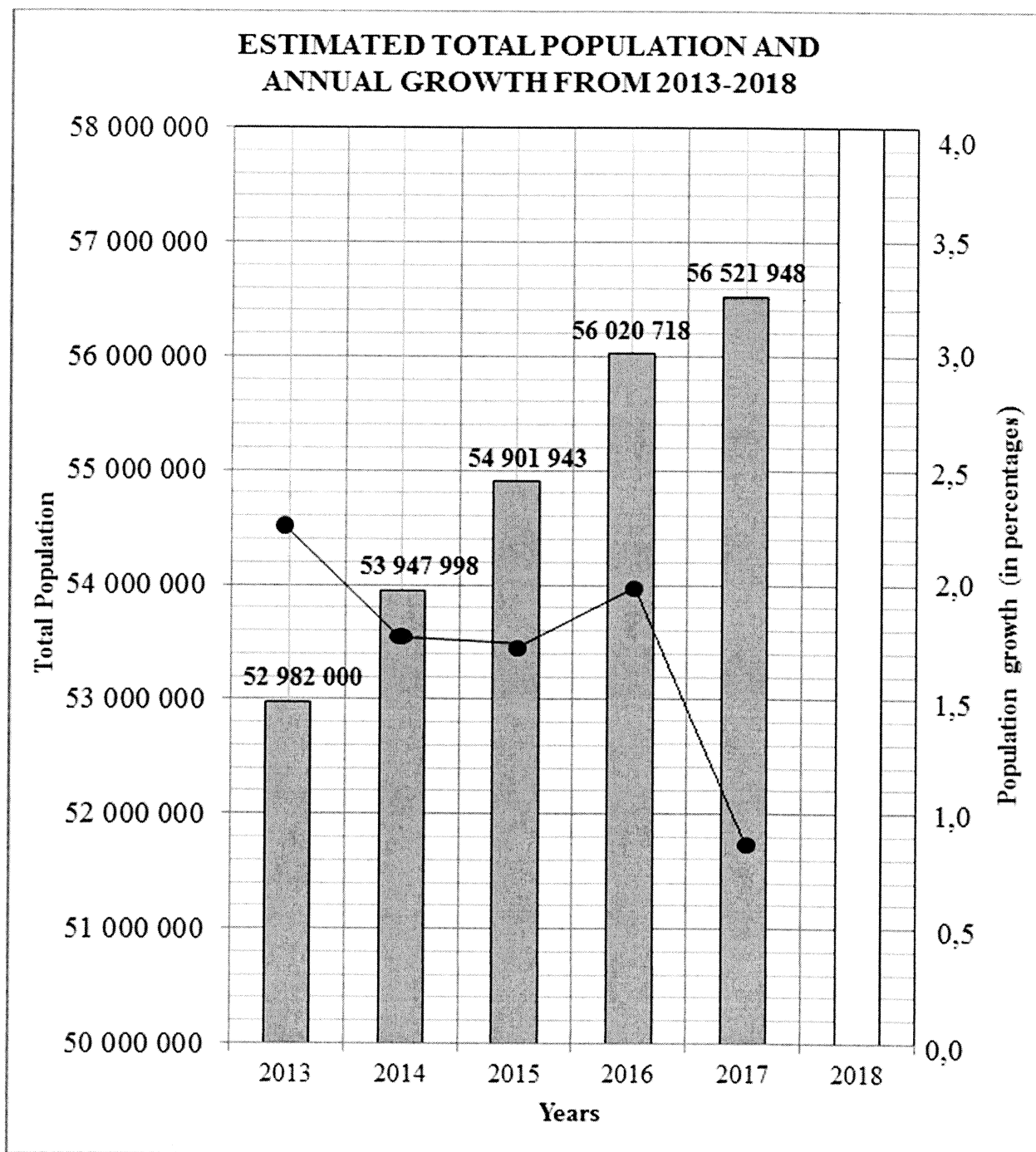


ANSWER SHEET**QUESTION 5.2.4****CENTRE NUMBER:**

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EXAMINATION NUMBER:

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basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

SENIOR CERTIFICATE/ NATIONAL SENIOR CERTIFICATE

GRADE 12

MATHEMATICAL LITERACY P1

ADDENDUM

NOVEMBER 2020

This addendum consists of 5 pages with 4 annexures.



★ M L A D E 1 ★



ANNEXURE A

QUESTION 2.1

MARKHAM ACCOUNT STATEMENT OF D PETERSON

MARKHAMACCOUNT
STATEMENT

STATEMENT DATE: 15 JAN. 2019

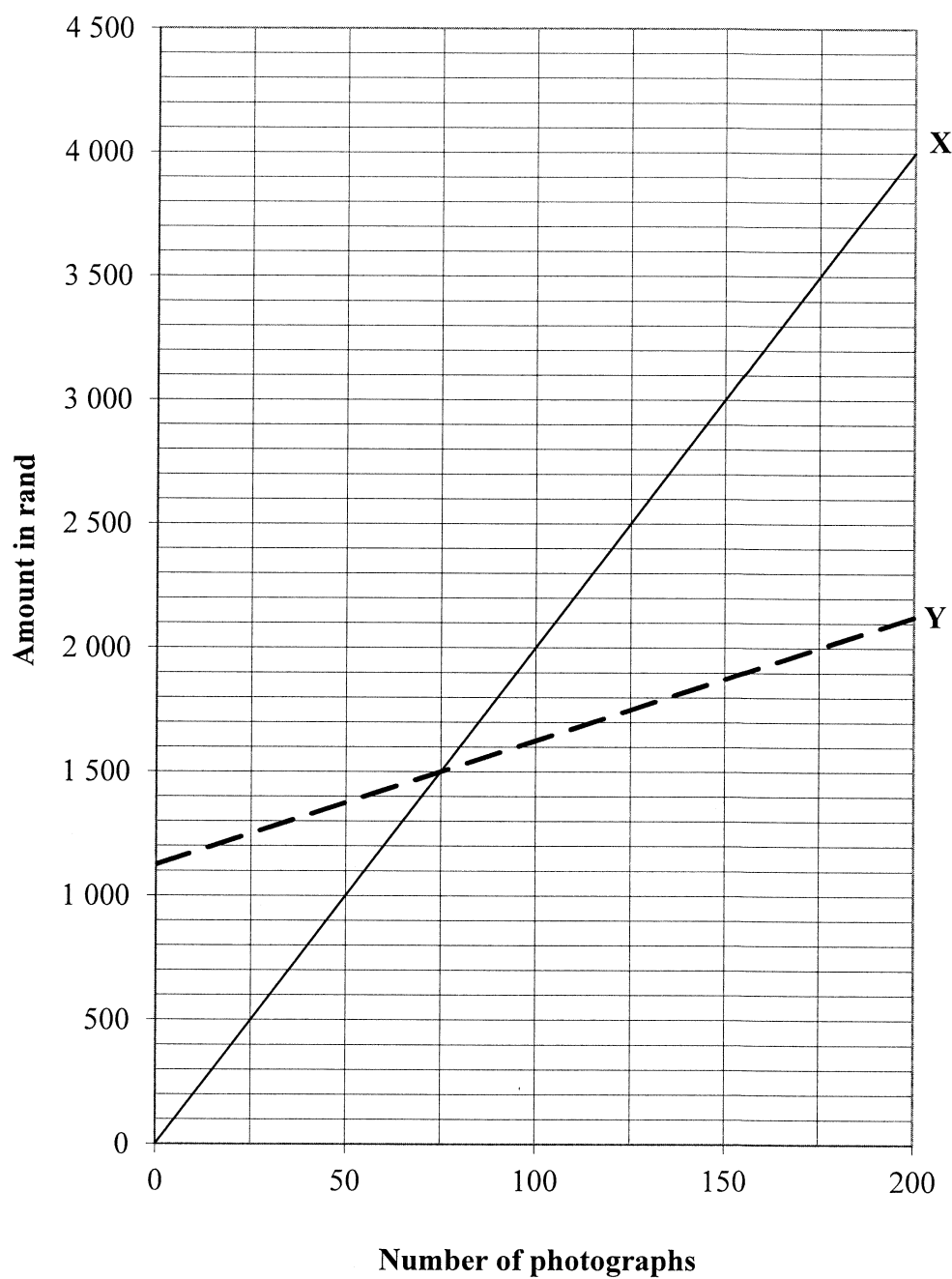
MR D PETERSON
27 SECOND AVENUE
COLRIDGE
VRYBURG
86011 CARD, EXCLUSIVE OFFERS
OVER 20 RETAIL BRANDS
Account customers are automatically
TFG REWARDS members.

DATE	REFERENCE	DESCRIPTION	AMOUNT	
31 DEC.	6 months revolving	Opening balance	101,99	
	HO FNB electronic payment	Payment	101,99	CR
	Installment 0,00 due	Closing balance	0,00	
17 DEC.	12 months revolving	Opening balance	1 215,36	
19 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 1 ST)
38,37	0,00	0,00	0,00	38,37

[Adapted from a Markham's account]

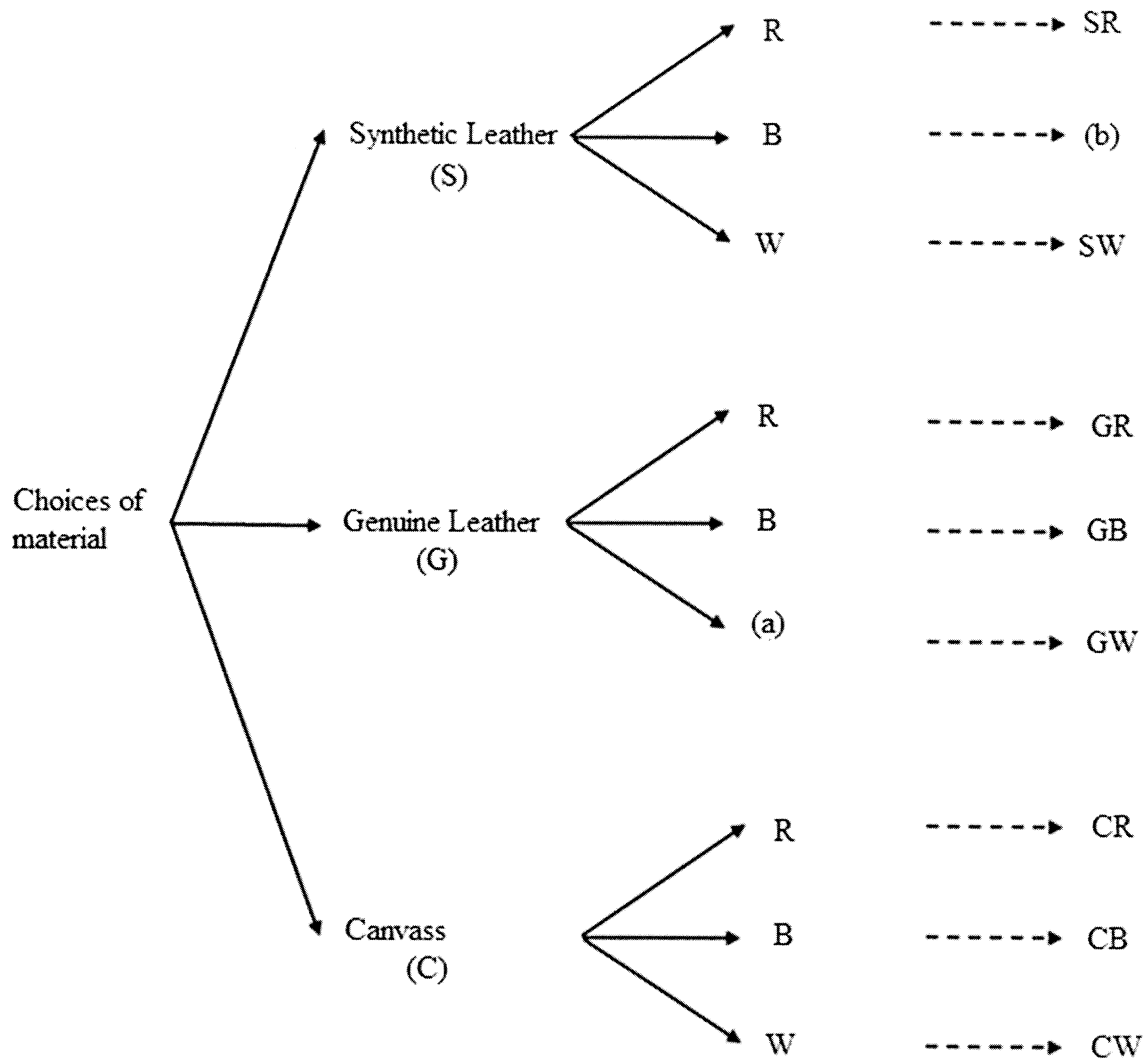


ANNEXURE B**QUESTION 2.3.4**

ANNEXURE C

TREE DIAGRAM OF DIFFERENT MATERIALS AVAILABLE

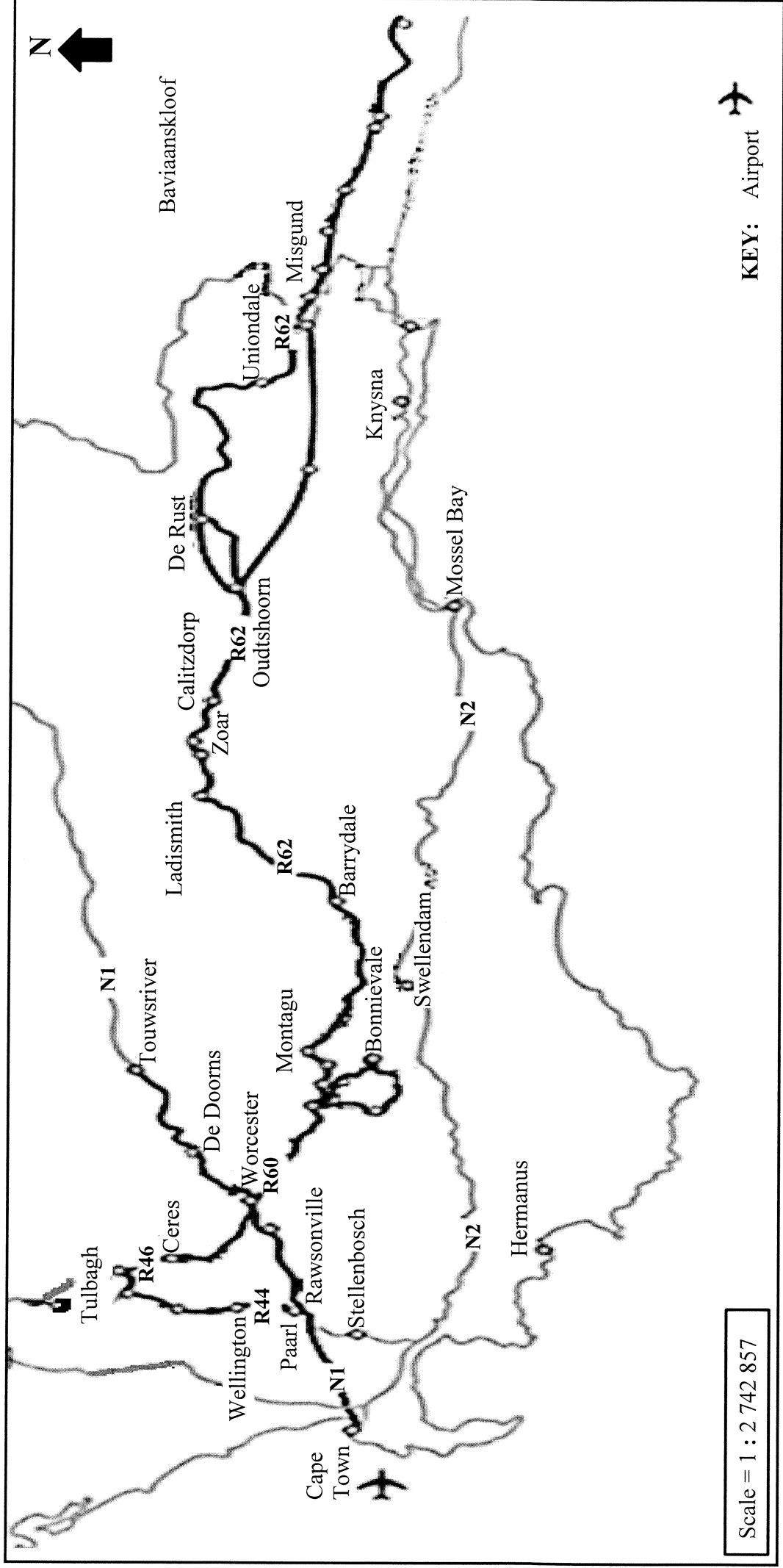
QUESTION 3.2

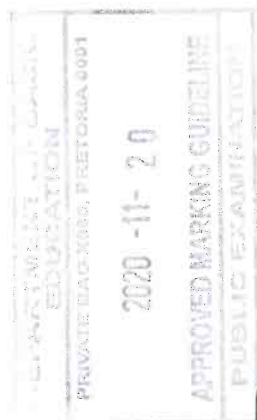


ANNEXURE D

QUESTION 4.1

ROUTE 62 ROAD MAP





basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

SENIOR CERTIFICATE/SENIOR SERTIFIKAAT NATIONAL SENIOR CERTIFICATE/ NASIONALE SENIOR SERTIFIKAAT

GRADE/GRAAD 12

**MATHEMATICAL LITERACY P1/
WISKUNDIGE GELETTERDHEID V1**

NOVEMBER 2020

MARKING GUIDELINES/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 17 pages and 2 pages of notes.

Hierdie nasienriglyne bestaan uit 17 bladsye en 2 bladsye notas.

APPROVED ON 20 November 2020	External Moderators (Question Paper)		Internal Moderator (Question Paper)
	R.I. Singh 	M.M. Tshabalala 	L.R. de Waal

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Please turn over/Blaai om asseblief

UMALUSI
EXT. MODERATOR
R. I. SINGH

UMALUSI
External Moderator: Maths Lit
Martin Tshabalala

NOTE:

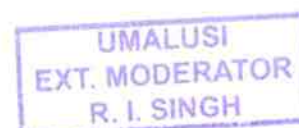
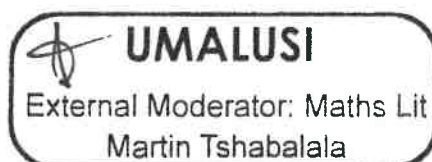
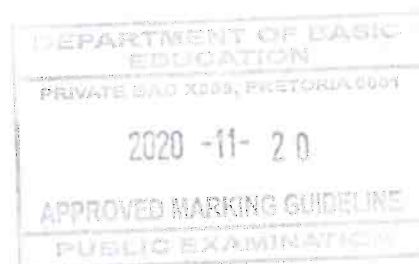
- If a candidate answers a question TWICE, only mark the FIRST attempt.
- If a candidate has crossed out (cancelled) an attempt to a question and NOT redone the solution, mark the crossed out (cancelled) version.
- Consistent accuracy (CA) applies in ALL aspects of the marking guidelines; however it stops at the second calculation error.
- CA marks only apply if at least 1 correct value is used.
- If the candidate presents any extra solution when reading from a graph, table, layout plan and map, then penalise for every extra item presented.

LET WEL:

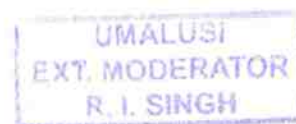
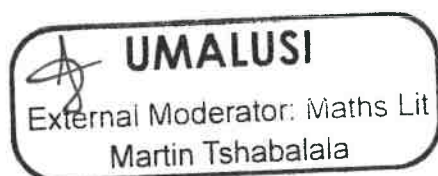
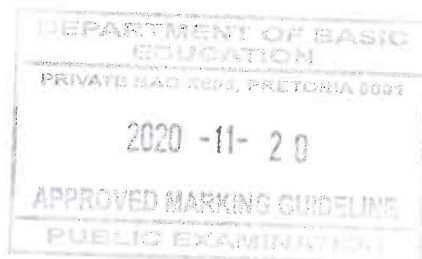
- As 'n kandidaat 'n vraag TWEE KEER beantwoord, sien slegs die EERSTE poging na.
- As 'n kandidaat 'n antwoord van 'n vraag doodtrek (kanselleer) en nie oordoen nie, sien die doodgetrekte (gekanselleerde) poging na.
- Volgehoue akkuraatheid (CA) word in ALLE aspekte van die nasienriglyne toegepas, dit hou op by die tweede berekeningsfout.
- CA geld alleenlik wanneer ten minste 1 korrekte waarde gebruik is.
- Wanneer 'n kandidaat aflesings vanaf 'n grafiek, tabel, uitlegplan en kaart geneem en ekstra antwoorde gee, penaliseer vir elke ekstra item.


QUESTION/VRAAG 1 [30 MARKS/PUNTE] ANSWER ONLY FULL MARKS			
Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
1.1.1	Vertical bar graph/Vertikale staafgrafiek. Bar/Balk/Staaf, Column graph/Kolomgrafiek ✓✓A	2A bar graph (2)	D L1
1.1.2	✓MA $A = R110 + R11$ $= R121$ ✓CA	1MA adding correct values 1CA Simplification (2)	F L1
1.1.3	✓MA $B = R141 - R126$ $= R15$ ✓CA	1MA subtracting correct values 1CA simplification (2)	F L1
1.1.4	Difference/Verskil $R126 - R110$ ✓MA $= R16$ ✓A	1MA subtract lowest from highest 1A simplification (2)	F L1
1.1.5	Increased Delivery fee/Verhoogde afleweringsooi $= R10,00 \times 6,32\%$ ✓MA $= R0,632$ $= R0,63$ ✓A OR/OF $= R10,00 \times \frac{6,32}{100}$ ✓M $= R0,632$ $= R0,63$ ✓A OR/OF	1MA calculating percentage 1A simplification OR/OF	F L1

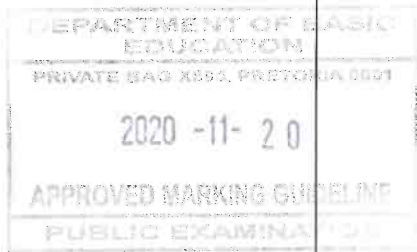
Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
1.1.5	<p>Increased delivery fee/<i>Verhoogde afleweringskoste</i> $= R10 \times 1,0632 \checkmark MA$ $= R10,632$</p> <p>Increase in delivery fee/<i>Verhooging in afleweringskoste</i> $= R10,63 - R10,00$ $= R0,63 \checkmark A$</p>	<p>1MA calculating percentage</p> <p>1A simplification (2)</p>	
1.2.1	2008 $\checkmark \checkmark RT$	2RT reading correct year (2)	D L1
1.2.2	$\checkmark MA \checkmark RT$ Difference/ <i>Verskil</i> $= R11,04 - R4,31$ $= R6,73 \checkmark CA$	1MA subtracting correct values 1RT correct values 1CA simplification (3)	F L1
1.2.3	$\checkmark MA$ $5,56 : 12,48 \checkmark RT$ $1 : 2,24 \text{ OR/OF } 0,45 : 1 \checkmark CA$	1MA concept of ratio in correct order 1RT correct values 1CA simplification (3)	F L1
1.2.4	<p>Total/<i>Totaal</i> $= 13,45 \times R4,00 \checkmark MA$ $= R53,80 \checkmark CA$</p> <p>OR/OF</p> <p>R : ℓ 4 : 1 $\checkmark MA$ 53,80 : 13,45</p> <p>Total cost = R53,80 $\checkmark CA$</p>	<p>1MA multiplying correct values 1CA simplification (2)</p>	F L1
1.2.5	2007 $\checkmark \checkmark RT$	2RT reading correct year (2)	D L1




Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
1.3.1	✓A ✓A Strip Map (Chart)/Strookkaart ✓✓A	2A strip map (chart) (2)	MP L1
1.3.2	Distance in metre/Afstand in meter = $779 \times 1\,000$ ✓MA = 779 000 ✓A	1MA multiplying by 1 000 1A simplifying NPU (2)	M L1
1.3.3 (a)	✓A ✓A Ladismith AND/EN Calitzdorp	1A correct town 1A correct town (2)	MP L1
1.3.3 (b)	The distance from Riversdale to Oudtshoorn/ <i>Afstand vanaf Riversdal na Oudtshoorn</i> = 82 km + 45 km + 53 km ✓MA = 180 km ✓CA	1MA adding correct values 1CA simplification (2)	MP L1
		[30]	



QUESTION/VRAAG 2 [42 MARKS/PUNTE]			
Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
2.1.1	R4 656,71 ✓✓A	2A correct balance (2)	F L1
2.1.2	Full date/Volle datum 1 February/Februarie 2019 ✓✓A 01/02/19 01/02/2019	2A full date (2)	F L1
2.1.3	R1 215,36 ✓✓A	2A correct amount (2)	F L1
2.1.4	R3 750,00 ✓✓A	2A correct amount (2)	F L1
2.1.5	FNB electronic payments/ENB elektroniese betaling ✓RT ✓RT R101,99 + R698,01 = R800,00 ✓A	1RT 1 st value correct 1RT 2 nd value correct 1A simplification AO (3)	F L1
2.1.6	Price excluding VAT/Prys BTW uitgesluit ✓RT = R4 000,00 × $\frac{100}{115}$ ✓MA = R3 478,26 ✓CA OR/OF Price excluding VAT/Prys BTW uitgesluit ✓RT $\frac{R4000}{1,15}$ ✓MA = R3 478,26 ✓CA OR/OF $\text{VAT amount/BTW bedrag} = R4\,000,00 \times \frac{15}{115} \text{ ✓RT ✓MA}$ = R521,74 Price excluding VAT/Prys BTW uitgesluit = R4 000 – R521,74 = R3 478,26 ✓CA	1RT price of item 1MA calculating VAT 1CA price excluding VAT AO  (3)	F L2

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
2.2.1	South African Revenue Services/SARS Revenue Services ✓✓A <i>Suid Afrikaanse Inkomstedienste/SAID</i> <i>Inkomste(belasting)dienste</i>	2A name (2)	F L1
2.2.2	2 / TWO / TWEE ✓✓A OR/OF 7 / SEVEN / SEWE	2A correct bracket (2)	F L1
2.2.3	Annual tax before rebates/ <i>Jaarlikse inkomstebelasting voor belastingkortings</i> = R35 253 + 26% of taxable income above 195 850 = R35 253 + 26% × (R305 174,44 – R195 850) ✓SF = R35 253 + R28 424,35 ✓M = R63 677,35 ✓CA Monthly tax before rebates/ <i>Maandelikse inkomstebelasting voor belastingkortings</i> = R63 677,35 ÷ 12 ✓MCA = R5 306,45 ✓CA OR/OF Annual tax before rebates/ <i>Jaarlikse inkomstebelasting voor belastingkortings</i> = R532 041 + 45% of taxable income above 1 500 000 = R532 041 + 45% × (R3 662 093,28 – R1 500 000) ✓SF = R532 041 + R972 941,98 ✓M = R1 504 982,98 ✓CA Monthly tax before rebates/ <i>Maandelikse inkomstebelasting voor belastingkortings</i> = R1 504 982,98 ÷ 12 ✓MCA = R125 415,25 ✓CA	CA from question 2.2.2 1SF correct substitution 1M adding correct amounts 1CA simplification 1MCA dividing by 12 1CA simplification NPR  (5)	F L3
2.2.4(a)	✓✓RT Primary rebate/Primêre korting OR/OF R14 067,00	2RT reading from the table (2)	F L1
2.2.4(b)	3/THREE/DRIE ✓✓A	2A correct number of rebates (2)	F L1

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EXT. MODERATOR
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Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
2.3.1	<p>Selling price of one photo/<i>Verkoopprys van een foto</i> \checkmarkMA</p> $\frac{R500}{25} \quad \text{OR} \quad \frac{R1000}{50} \quad \text{OR} \quad \frac{R1600}{80} \quad \text{OR} \quad \frac{R2500}{125} \quad \text{OR} \quad \frac{R3000}{150}$ <p>= R20 \checkmarkA</p> <p style="text-align: center;">OR/OF</p> <p>$R4\,000 \div 200 \checkmark$MA = R20 \checkmarkA</p>	<p>1MA dividing</p> <p>1A simplification AO</p> <p style="text-align: right;">(2)</p>	F L1
2.3.2	<p>Total income received/<i>Totale inkomste ontvang:</i> \checkmarkCA \checkmarkA</p> <p>Income = R20,00 \times n, where n = number of photos Income = R20,00 \times number of photos</p> <p><i>Inkomste = R20,00 \times n, waar n = aantal foto's</i> <i>Inkomste = R20,00 \times aantal foto's</i></p>	<p>CA from Question 2.3.1</p> <p>1CA R20,00 1A multiply by unknown</p> <p style="text-align: right;">(2)</p>	F L2
2.3.3 (a)	R5,00 $\checkmark\checkmark$ A	<p>2A variable cost NPU</p> <p style="text-align: right;">(2)</p>	F L1
2.3.3 (b)	<p>A : Expenses = R1 125 + number of photos \times R5,00 A : <i>Uitgawes = R1 125 + aantal foto's \times R5,00</i> \checkmarkSF</p> <p>A = R1 125 + (80 \times R5,00) A = R1 125 + R400 \checkmarkMCA = R1 525 \checkmarkCA</p>	<p>1SF substituting value</p> <p>1MCA adding values 1CA simplification AO</p> <p style="text-align: right;">(3)</p>	F L2
2.3.4 (a)	<p style="text-align: center;">$\checkmark\checkmark$A</p> <p>Income and expenses of Ella's photography business <i>Inkomste en uitgawes van Ella se fotografiebesigheid</i></p>	<p>2A correct heading</p> <p style="text-align: right;">(2)</p>	F L1
2.3.4 (b)	X $\checkmark\checkmark$ A	<p>2A correct graph</p> <p style="text-align: right;">(2)</p>	F L1
2.3.4 (c)	75 photographs/ <i>foto's</i> $\checkmark\checkmark$ A	<p>2A correct number of photographs</p> <p style="text-align: right;">(2)</p>	F L1
		[42]	

DEPARTMENT OF BASIC EDUCATION

PRIVATE BAG 2600, PRETORIA 0001

2020 -11- 20

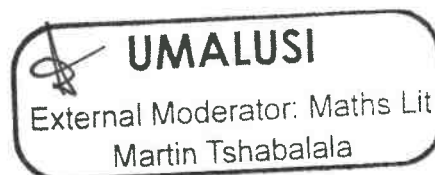
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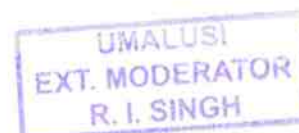
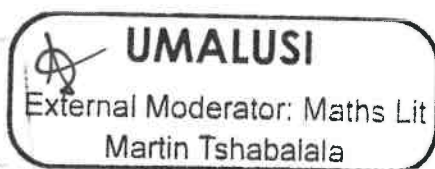
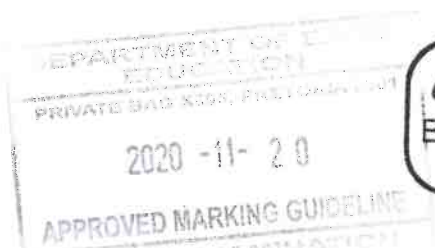
External Moderator: Maths Lit
Martin Tshabalala

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EXT. MODERATOR
R. I. SINGH

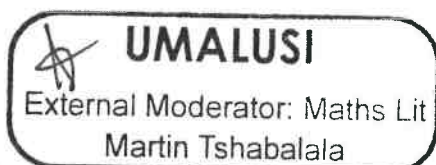
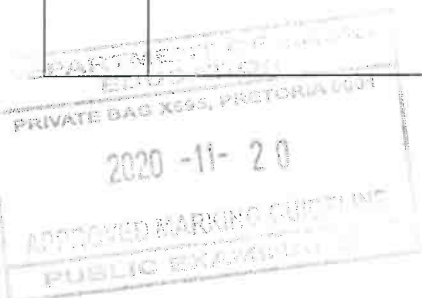
QUESTION/VRAAG 3 [31 MARKS/PUNTE]			
Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
3.1.1	<u>Legs of ottomans/Pote van ottomans:</u> 2 cubic/kubieke ottomans \times 4 legs/pote = 8 legs/pote ✓A 1 retangular/reghoekige ottoman \times 6 legs/pote = 6 legs/pote 8 + 6 ✓MA = 14 legs/pote ✓CA	1A number of legs 1MA adding 6 legs 1CA total number of legs AO (3)	M L1
3.1.2	Radius = $\frac{75 \text{ mm}}{2}$ ✓MA = 37,5 mm / 3,75 cm ✓A	1MA concept of radius 1A simplification AO NPR (2)	M L1
3.1.3	Total height/Totale hoogte: 50 cm + 12 cm ✓C = 62cm ✓A <p style="text-align: center;">OR/OF</p> Total height/Totale hoogte: = 120 mm + 500 mm = 620 mm ✓A = 62 cm ✓C	1C converting to cm 1A finding the height AO (2)	M L1



Q/V	Solution/Opplossing	Explanation/Verduideliking	T&L
M L2	<p>Area/Oppervlakte</p> <p>$\checkmark A$ $(50\text{cm} \times 50\text{cm}) + (120\text{cm} \times 50\text{cm})$ $2\,500\text{ cm}^2 + 6\,000\text{ cm}^2$</p> <p>Total Area/Totale Oppervlakte</p> <p>$(10 \times 2\,500\text{ cm}^2) + (2 \times 6\,000\text{ cm}^2) \checkmark M$ $25\,000\text{ cm}^2 + 12\,000\text{ cm}^2 \checkmark M$ $37\,000\text{ cm}^2 \checkmark CA$</p> <p>OR/OF</p> <p>8 square sides/vierkantige sye $\times (50 \times 50)$ $= 20\,000\text{ cm}^2 \checkmark A$</p> <p>2 rectangular sides/reghoekige sye $\times (120 \times 50)$ $= 12\,000\text{ cm}^2 \checkmark A$</p> <p>2 square sides / vierkantige sye $\times (50 \times 50)$ $= 5\,000\text{ cm}^2 \checkmark A$</p> <p>Total area to be painted/Totale area wat geverf moet word: $= 20\,000\text{ cm}^2 + 12\,000\text{ cm}^2 + 5\,000\text{ cm}^2 \checkmark M$ $= 37\,000\text{ cm}^2 \checkmark MA$</p> <p>OR/OF</p> <p>Total perimeter/Totale Omtrek</p> <p>$\checkmark A \quad \checkmark M$ $= (50+50+50+50+50+50+50+50+120+50+50+120)\text{ cm}$ $= 740\text{ cm} \checkmark A$</p> <p>Total area to be painted/Totale area wat geverf moet word: $= 740\text{ cm} \times 50\text{ cm} \checkmark MA$ $= 37\,000\text{ cm}^2 \checkmark A$</p>	<p>1A area 1A area</p> <p>1M multiplying correct values 1M adding the two areas 1CA simplification</p> <p>OR/OF</p> <p>1A simplification</p> <p>1A simplification</p> <p>1A simplification</p> <p>1M adding all values 1MA finding total area</p> <p>OR/OF</p> <p>1A all correct values 1M adding correct values 1A simplification</p> <p>1MA multiplying correct values 1A simplification</p>	(5)



Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
3.1.5	$37\,000\text{ cm}^2 \div 10\,000 = 3,7\text{ m}^2 \checkmark\text{C}$ Total area to be painted/ <i>Totale area wat geverf moet word</i> $= 3,7\text{ m}^2 \times 2 \checkmark\text{M}$ $= 7,4\text{ m}^2$ Spread rate/ <i>sprydingskoers</i> $\frac{7,4\text{ m}^2}{8\text{ m}^2} \times 1\,000 \checkmark\text{M}$ $= 925\text{ millilitres/milliliter} \checkmark\text{CA}$ <p style="text-align: center;">OR/OF</p> Spread rate/ <i>sprydingskoers</i> $= 8 \times 10\,000\text{ cm}^2/\ell$ $= 80\,000\text{ cm}^2/\ell \checkmark\text{M}$ Amount of paint / <i>aantal verf in ℓ</i> $= \frac{37\,000}{80\,000} \checkmark\text{M}$ $= 0,4625$ Amount of paint for 1 coat / <i>aantal verf vir 1 deklaag in mℓ</i> $= 0,4625 \times 1\,000$ $= 462,5 \checkmark\text{C}$ Amount of paint for 2 coats/ <i>aantal verf vir twee deklae</i> $= 462,5\text{ mℓ} \times 2$ $= 925\text{ mℓ} \checkmark\text{CA}$ <p style="text-align: center;">OR/OF</p> Total area to be painted/ <i>Totale area wat geverf moet word:</i> $= 37\,000\text{ cm}^2 \div (100)^2 = 3,7\text{ m}^2 \checkmark\text{C}$ Amount of paint for 1 coat/ <i>aantal ver vir 1 deklaag in ℓ</i> $= \frac{3,7}{8} \times 1 \checkmark\text{M}$ $= 0,4625\text{ ℓ}$ Total amount of paint/ <i>Totale aantal verfl</i> $= 0,4625 \times 1000 \times 2 \checkmark\text{M}$ $= 925\text{ mℓ} \checkmark\text{CA}$ <p style="text-align: center;">OR/OF</p>	CA Question 3.1.4 1C converting from cm^2 to m^2 1M area for 2 coats 1M divide by spread rate 1CA answer in millilitres <p style="text-align: center;">OR/OF</p> 1M multiplying by 8 1M dividing by 80 000 1C converting 1CA simplification <p style="text-align: center;">OR/OF</p> 1C conversion 1M dividing by 8 1M area of 2 coats 1CA simplification <p style="text-align: center;">OR/OF</p>	M L2

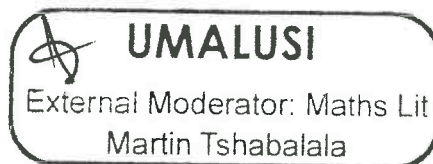
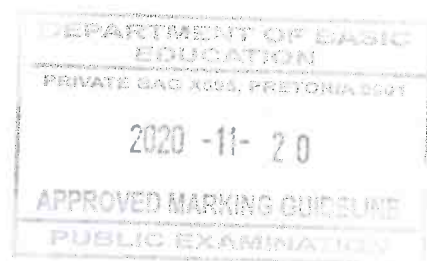


Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
	$8 \text{ m}^2 : 1 \text{ l}$ $80\,000 \text{ cm}^2 : x \quad \checkmark \text{C}$ Amount of paint for 1 coat/ <i>aantal verf vir 1 deklaag</i> $x = \frac{1000 \times 37\,000}{80\,000} \quad \checkmark \text{M}$ $= 462,5 \text{ ml}$ Amount of paint for 2 coats/ <i>aantal verf vir twee deklae</i> $= 462,5 \text{ ml} \times 2 \quad \checkmark \text{M}$ $= 925 \text{ ml} \quad \checkmark \text{CA}$ <p style="text-align: center;">OR/OF</p> Total area to be painted/ <i>Totale area wat geverf moet word</i> $= 37\,000 \div 10\,000 \quad \checkmark \text{C}$ $= 3,7 \text{ m}^2 \times 2 \quad \checkmark \text{M}$ $= 7,4 \text{ m}^2$ Spread rate/ <i>sprydingskoers</i> in ml/ l $1\,000 \div 8 \quad \checkmark \text{M}$ $= 125 \text{ ml/ l}$ Amount of paint/ <i>aantal verf</i> $125 \times 7,4 \text{ m}^2$ $= 925 \text{ ml} \quad \checkmark \text{CA}$	1C conversion 1M dividing by 80 000 1M area of 2 coats 1CA simplification <p style="text-align: center;">OR/OF</p> 1C conversion 1M area of 2 coats 1M dividing by 8 1CA simplification (4)	
3.1.6	Height/Hoogte $= \frac{\text{Volume}}{\pi \times (\text{radius})^2}$ $\checkmark \text{C}$ $= \frac{1\,000 \text{ cm}^3}{3,142 \times (6,5 \text{ cm})^2} \quad \checkmark \text{SF}$ $= 7,53298 \dots \text{ cm} \quad \checkmark \text{CA}$	1C conversion from litres to cm^3 1SF substitution of radius 1CA simplification NPR (3)	M L2
3.2.1	a) W or White/ <i>Wit</i> $\checkmark \checkmark \text{RT}$ b) SB or Synthetic Brown leather/ <i>Sintetiese bruin leer</i> $\checkmark \checkmark \text{RT}$	2RT correct code 2RT correct code (4)	P L1


Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
3.2.2	$P(\text{not selecting red material}) = \frac{6}{9} \checkmark A$ $= \frac{2}{3} \checkmark CA$ <p style="text-align: center;">OR/OF</p> $P(\text{not selecting red material}) = 1 - \frac{3}{9}$ $= \frac{6}{9} \checkmark A$ $= \frac{2}{3} \checkmark CA$	1A numerator 1A denominator 1CA simplification (3)	P L2
3.3.1	$1 \text{ inch} = 153,6 \div 60 \checkmark M$ $= 2,56 \text{ cm} \checkmark A$ <p style="text-align: center;">OR/OF</p> <p>Alternative solution method:</p> $\begin{array}{lcl} \text{inch} & : & \text{cm} \\ 60 & : & 153,6 \checkmark M \\ 1 & : & 2,56 \checkmark A \end{array}$ $1 \text{ inch} = 2,56 \text{ cm}$	1M dividing by 60 1A simplification (2)	M L1
3.3.2	$\text{Perimeter/Omtrek} = 2 \times (5 \text{ m} + 153,6 \text{ cm}) \checkmark RT$ $= 2 \times (500 \text{ cm} + 153,6 \text{ cm}) \checkmark C$ $= 1\,307,2 \text{ cm} \checkmark CA$ <p style="text-align: center;">OR/OF</p> $\text{Perimeter/Omtrek} = 5 \text{ m} + 5 \text{ m} + 153,6 \text{ cm} + 153,6 \text{ cm} \checkmark RT$ $= (500 + 500 + 153,6 + 153,6) \text{ cm} \checkmark C$ $= 1\,307,2 \text{ cm} \checkmark CA$	1RT correct value – 153,6 cm 1C converting from 5 m to cm 1CA simplification <p style="text-align: center;">OR/OF</p> 1RT correct value – 153,6 cm 1C converting from 5 m to cm 1CA simplification (3)	M L2
		[31]	

QUESTION/VRAAG 4 [17 MARKS/PUNTE]			
Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
4.1.1	R46 ✓✓A	2A name of route (2)	MP L1
4.1.2	Number scale OR Numeric scale OR Ratio scale ✓✓ A <i>Nommerskaal OF verhoudingskaal OF Getalskaal OF</i> Numeriese OF Getalle Skaal OF Syferskaal	2A identifying the scale (2)	MP L1
4.1.3	South West OR SW OR West of South West OR WSW ✓✓ A <i>Suidwes OF SW OF Wes van Suidwes OF WSW</i>	2A general direction (2)	MP L1
4.1.4	A = 210 km – (62 km + 13 km + 82 km) ✓MA A = 53 km ✓CA	1MA subtracting correct values 1CA simplification (2)	MP L1
4.1.5	Ladismith ✓✓A	2A correct town (2)	MP L2
4.2.1	Total length /Totale lengte ✓MA ✓MA = 20 cm + 229 cm + 20 cm + 20 cm + 229 cm + 20 cm = 538 cm ✓CA OR/OF Total length /Totale lengte ✓MA ✓MA 2 (20 cm + 229 cm + 20 cm) 2 × 269 cm = 538 cm ✓CA OR/OF Total length/Totale lengte ✓MA ✓MA = (20 cm × 4) + (229 cm × 2) = 80 cm + 458 cm = 538 cm ✓CA	1MA correct values (4×20) 1MA adding values (2×229) 1CA simplification OR/OF 1MA correct values (4×20) 1MA adding values (2×229) 1CA simplification OR / OF 1MA correct values (4×20) 1MA adding values (2×229) 1CA simplification (3)	MP L2

Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
4.2.2	$D + 86 + 80 + 86 + D = 260 \checkmark \text{MA}$ $2D + 252 = 260$ $\checkmark \text{M}$ $2D = 260 - 252$ $2D = 8$ $D = 8 \div 2 \checkmark \text{M}$ $= 4 \text{ cm} \checkmark \text{CA}$ <p style="text-align: center;">OR/OF</p> <p>Length excluding D</p> $= (86 \text{ cm} \times 2) + (20 \text{ cm} \times 4)$ $= 172 \text{ cm} + 80 \text{ cm}$ $= 252 \text{ cm} \checkmark \text{MA}$ $\checkmark \text{M}$ $2D = 260 \text{ cm} - 252 \text{ cm}$ $D = 8 \text{ cm} \checkmark \text{M}$ $= 8 \text{ cm} \div 2$ $= 4 \text{ cm} \checkmark \text{CA}$	<p>1MA adding all values</p> <p>1M subtracting from 260</p> <p>1M dividing by 2</p> <p>1CA simplification</p> <p style="text-align: center;">OR/OF</p> <p>1MA calculating 252</p> <p>1M subtracting from 260</p> <p>1M dividing by 2</p> <p>1CA simplification</p> <p style="text-align: right;">(4)</p>	MP L3
		[17]	

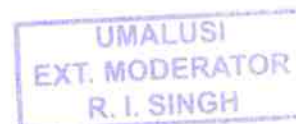
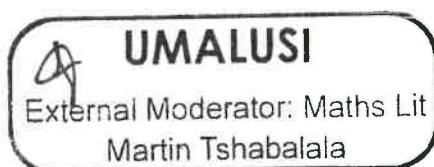
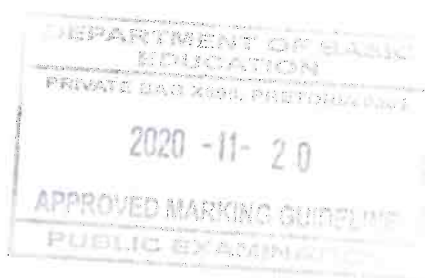


QUESTION/VRAAG 5 [30 MARKS/PUNTE]			
Q/V	Solution/Oplossing	Explanation/Verduideliking	T&L
5.1.1	TGA – team/span ✓✓RT	2RT correct tea (2)	D L1
5.1.2	Range/Omvang = 9,625 – 9,100 ✓RT = 0,525 ✓CA	1RT reading correct values 1CA concept of range (2)	D L1
5.1.3	Mean/Gemiddeld ✓RT = $\frac{9,100 + 9,250 + 9,300 + 8,650 + 9,100 + 9,050 + 8,750 + 9,050 + 8,300 + 9,200}{10}$ ✓M = 8,975 ✓CA	1RT correct values 1M concept of mean 1CA simplification NPR (3)	D L2
5.1.4	✓RT A = 36,425 – (9,300 + 9,100 + 9,225) ✓M = 8,800 ✓A	1RT correct values 1M adding and subtracting 1A simplification (3)	D L1
5.1.5	36,425 ✓✓A	2A correct mode (2)	D L1
5.1.6	✓A $\frac{3}{5} \times 100\%$ ✓A = 60% ✓CA	1A numerator 1A denominator 1CA percentage NPR (3)	P L2
5.1.7	Quartile / Kwartiel 2 ✓RT = $\frac{9,375 + 9,400}{2}$ ✓M = 9,3875 ✓A	1RT arranging or correct values 1M dividing by 2 1A simplification NPR (3)	D L2

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Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
5.2.1	Fifty two million nine hundred and eighty two thousand. ✓✓A <i>Twee en vyftig miljoen negehonderd twee en tagtig duisend.</i>	2A amount in words (2)	D L1
5.2.2	Increase in population/ <i>Toename in bevolking</i> (2015-2016) ✓RT ✓M $56\,020\,718 - 54\,901\,943$ $= 1\,118\,775$ $\approx 1\,120\,000$ ✓R	1RT correct values 1M subtracting 1R correct rounding (3)	D L1
5.2.3	Annual population growth/ <i>Jaarlikse bevolkingstoename</i> (2015) $= \frac{54\,901\,943 - 53\,947\,998}{53\,947\,998} \times 100\%$ ✓SF $= 1,768\%$ $\approx 1,8\%$ ✓CA	1SF substituting 54 901 943 1SF substituting 53 947 998 1CA simplification NPR (3)	D L2



Q/V	Solution/Oplissing	Explanation/Verduideliking	T&L
5.2.4	<p>Estimated total population and annual growth from 2013-2017</p> <p>1A – correctly plotted number of people 1CA – drawing of graph 1A – correctly plotted population growth 1CA – drawing of graph</p> <p>(4)</p> <p>[30]</p> <p>TOTAL/TOTAAL: 150</p>		D L2

NOTES:	
QUESTION 1	
1.1.2	CA only if R110 is used in the calculation. Accept reverse calculation.
1.1.3	CA only if subtracting from R141 is used in the calculation. Accept reverse calculation.
1.1.4	Accept reverse calculation.
1.1.5	If they did not end up with R0,63 they will get 1/2. If they go further only 1/2.
1.2.2	Accept a correct negative value. CA only if one of the two values is correct.
1.2.3	Including unit – loose MA mark (concept of ratio) Unit ratio other way around 2/3. Fraction must be have a numerator of ONE over a denominator 0,45” as it cannot be a decimal value.
1.3.1	Accept Strip route Map (Chart)/ <i>Strook-roetekaart</i> .
1.3.2	779 000 km only 1/2.
1.2.4	CA only if R3,92 is used. Accept R53,8
1.3.3b	Only two values (distances), answer will be a CA.
QUESTION 2	
2.1.2	1 Feb only, candidate will get 1/2. 1 st of any other month AND 2019, 1/2 for 2019.
2.1.6	Calculating 15% of value Breakdown, only 1 mark for R4 000.
2.2.2	If they write taxable income or tax rates = 1/2.
2.2.4(a)	First rebate = 1/2.
2.2.4(b)	If they list the 3 rebates, but did NOT write 3 = 1/2.
2.3.2	Any variable can be used. Variable must be explained.
2.3.3(a)	Number of photos \times R5,00 = 1/2.
2.3.4(a)	Accept Line graphs representing income and expenses.
QUESTION 3	
3.1.2	$\times 2$, breakdown = 0 marks Wrote 38 only = 0 marks
3.2.2	Numerator or denominator must be correct for CA. Denominator must be bigger than the numerator to get the CA mark.

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QUESTION 4	
4.1.4	<p>$A = 210 \text{ km} - 62 \text{ km} - 13 \text{ km} - 82 \text{ km}$ $A = 53 \text{ km}$</p> <p>$210 \text{ km} = 53 \text{ km} + 62 \text{ km} + 13 \text{ km} + 82 \text{ km}$ $A = 53 \text{ km}$</p> <p>Accept an answer where the learner used a measurement and the given scale to calculate the distance.</p>
4.1.5	Accept Ladysmith
4.2.1	<p>Missed the one 20, Answer of 518 2/3 marks. Must have one of the 2 values correct for the CA mark.</p>
4.2.2	$D = 8 \text{ cm}$, 2/4 marks
QUESTION 5	
5.1.1	<p>A Boom, one out of two marks GTC with calculation 1 out of 2 marks</p>
5.1.2	<p>No comma (,) 1/2 marks. CA for the answer. Only penalise for comma once. If total – lower, 1/2 marks. Do not penalise again.</p>
5.1.3	<p>CA only if:</p> <ul style="list-style-type: none"> • dividing by 10 • omitted one value • Incorrect column (but all values correct)
5.1.6	<p>If $\frac{4}{10} = 40\%$, give only 1 mark = CA mark. To get a CA – Numerator or denominator must be correct.</p>
5.2.2	<p>Swopping values – 1 RT mark. One incorrect value – 2/3 marks.</p>
5.2.3	CA two consecutive values used, 2/3, if they use 2015 and 2016 on condition that the denominator is in line with what they are calculating.
5.2.4	<p>CA bar must be higher than 57 000 000. CA dot must be higher than 2%.</p>

