

EXAMINATIONS COUNCIL OF ESWATINI

EPC

EXAMINATION REPORT

FOR

MATHEMATICS (212)

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Table of Contents

Subject	Component	Page No:
Mathematics	P1	3-14
	P2	15-22

Paper (212/01)**GENERAL COMMENTS**

Word problems seem to be a persistent challenge for the candidates as they do not read the questions with understanding. When they see numbers, they just choose any operation instead of reading the question then deciding on the suitable operation to use. Unit conversions were also a challenge for most candidates. Multiplying or dividing by 100 was common regardless of what the conversion required.

SECTION A: MULTIPLE CHOICE (40 MARKS)

The use of the answer grid seems to be an ongoing issue for some centres. Some candidates still circled their answers, left the grid blank and made patterns using crosses. Candidates were not reading the questions with understanding and therefore failing to identify key words. As a result, distracters were commonly chosen as answers. Some candidates were not doing any calculation in this section which means they were guessing the answers.

Question 1

The mass of a truck is 3 tonnes.

Which is the correct mass of the truck in kilograms?

Instead of multiplying by 1000, some candidates multiplied by 100.

Answer: B

Question 2

The time is quarter to seven in the evening.

What is the time on a 24-hour clock?

Most candidates after seeing 'seven' and 'quarter to' chose 1945 hours as their answer. Others did not pay attention to the evening and chose 0645 hours.

Answer: D

Question 3

What is the best instrument that can be used to measure the distance around a school?

Candidates seemed to be familiar with instruments for measuring short distances. Tape measure and metre ruler were common answers.

Answer: D

Question 4

*Thabile has 1 litre bottle of sanitiser.
She uses 650 ml to sanitise her house.
How much sanitiser is left in the bottle?*

Most candidates could not convert litres to millilitres in order to subtract the 650 ml.

Answer: B

Question 5

*A child's skipping rope is 200 cm long.
How many skipping ropes can be cut from a 1 000 cm long rope?
Most learners were able to divide 1000 cm by 200 cm.*

Answer: B

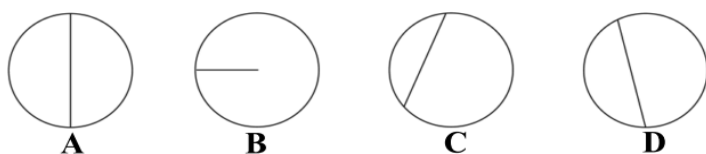
Question 6

*What is the appropriate standard unit of measuring sugar when baking a loaf of bread?
Instead of standard unit, candidates went for instrument. Hence, cup and tablespoon options were common.*

Answer: B

Question 7

Choose the figure that shows a diameter.



Most candidates were able to identify the correct figure. Only those who had no clear understanding of what a diameter is chose either **B** or **D**.

Answer: A

Question 8

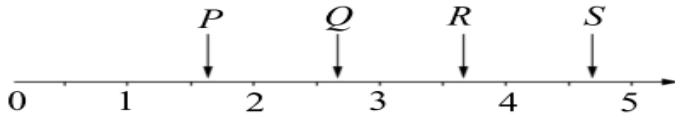
*Two angles of a triangle measure 65° and 85° .
What is the size of the third angle?*

Most candidates simply added the two angles, 65° and 85° , to get 150° . Instead of subtracting 150° from 180° , some candidates used 360° to get 210° .

Answer: B

Question 9

Which arrow shows the position of $\frac{11}{3}$ on the number line below?



Some candidates had a challenge with changing the top heavy fraction to a mixed number.

Answer: C

Question 10

A table has a length of 2 m and a width of 1 m.

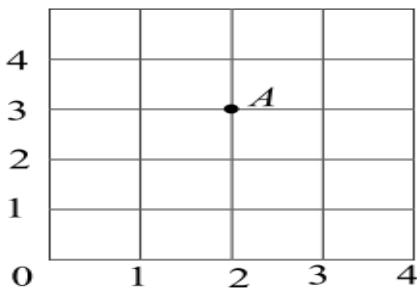
What is the area of the table in cm^2 ?

Most candidates could not convert metres to centimetres correctly.

Answer: D

Question 11

The diagram below shows point A.



Candidates were able to correctly identify the coordinates of point A except a few who mixed up the first and second numbers.

Answer: A

Question 12

What is the name of a number that has only two factors?

A majority of candidates showed to be familiar with the definition of a prime number. Some candidates saw the 'two' in the question and chose C (even number) as their answer.

Answer: B

Question 13

Brandon has E700.00 in a savings account that earns 5% simple interest per year.

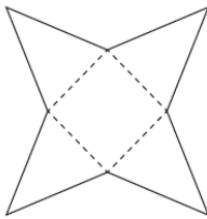
How much interest will he earn in one year?

Most candidates were able to calculate the simple interest.

Answer: A

Question 14

Which solid shape would the net below make?

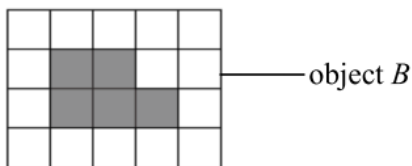


Most candidates seemed not to be familiar with nets of pyramids such that the most common answer was C.

Answer: D

Question 15

The figure below shows an object B before it is rotated.



Which image shows a clockwise quarter turn rotation of object B?

A few candidates confused clockwise and anticlockwise.

Answer: B

Question 16

A school has 3 328 books.

They buy 981 more books.

How many books does the school have now?

Only a few candidates could not align the numbers correctly.

Answer: A

Question 17

Two numbers have a sum of 15 and a product of 36.

Choose the two numbers.

Candidates who knew the meaning of sum and product did not have a challenge with this question.

Answer: A

Question 18

What is the place value of 9 in 3.798?

Some candidates confused hundreds and hundredths. Others ignored the decimal point and chose tens as their answer.

Answer: D

Question 19

Which of the following is equivalent to $\frac{7}{9}$?

Most candidates proved to know about equivalent fractions.

Answer: C

Question 20

Vuyo has four E20 notes, two E10 notes and seven E5 coins in his pocket.

How much money does Vuyo have in total?

Some candidates did not read the question with understanding. They simply added the E20, E10 and E5 to get E35.

Answer: D

SECTION B: SHORT ANSWERS (60 MARKS)

The marks allocated to most of the questions in this section were distributed between the working or method and the accuracy of the answer. It was observed that some candidates used a pencil for the working and erased the working after finding the answer. Some candidates were giving correct answers without showing any working leaving one wondering how the answer was obtained.

Question 21

Work out the following:

(a) $0.6 - 0.32$

Some candidates failed to align the decimals correctly. Those who did, could not regroup correctly as a result, 0.32 was a common incorrect answer. A few subtracted 0.6 from 0.32.

Answer: 0.28

(b) $4703 \div 1000$

Most candidates were able to divide correctly. Common wrong answers were 4.7 and 4.73. Some candidates used long division and incorrect answers were observed from those who could not complete the necessary steps.

Answer: 4.703

(c) $120 \times \frac{2}{3}$

Some learners left $\frac{240}{3}$ as the answer or simply wrote 240. Others were multiplying 120 by the reciprocal $\frac{3}{2}$. Another common answer was $\frac{140}{3}$.

Answer: 80

(d) *Find the number of years in two centuries and three decades.*

A majority of candidates did not seem to be familiar with these kinds of units of time. Some were confusing centuries or decades with millennium.

**Answer: $(2 \times 100) + (3 \times 10)$
= 230**

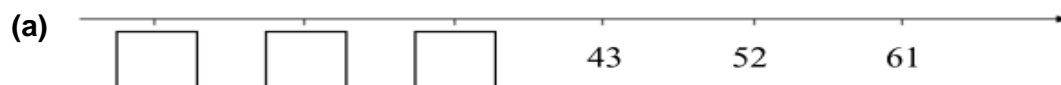
- (c) Write 567 306 in words.

Common wrong answers included five hundred thousand and sixty-seven thousand and three hundred and six; five hundred and sixty seven thousand three hundred six. Wrong spellings were observed.

Answer: Five hundred and sixty-seven thousand, three hundred and six

Question 22

Complete the following number lines:



Most candidates were able to identify 9 as the common difference; wrong answers resulted from incorrect subtraction.

Answer: 16, 25, 34

- (b)



Some candidates could not identify $\frac{3}{5}$ as the common difference. Some of those who did had a challenge with adding the fractions. Answers such as $1\frac{5}{5}$ and $1\frac{8}{5}$ were common.

Answer: 2, $2\frac{3}{5}$, $3\frac{1}{5}$

Question 23

The table below shows the cost of sending letters and parcels in Eswatini.

Mass of mail	Cost
Up to 20 g	E1.35
21 g to 50 g	E1.70
51 g to 100 g	E2.05
101 g to 250 g	E3.65
251 g to 500 g	E6.90

Find the cost of sending a:

- (a) 15 g letter

Most learners were able to answer this question correctly. Some candidates failed to interpret the table and could not identify where 15g belonged.

Answer: E1.35

- (b) 428 g parcel and 34 g letter

Instead of identifying the cost for 428g and 34g, majority of candidates added the two masses to get 462 g hence giving E6.90 as the answer.

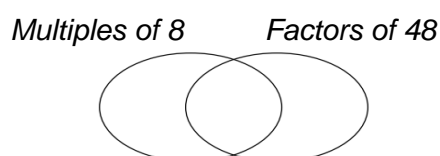
Answer: E6.90 + E1.70 = E8.60

Question 24

- (a) Below is a set of numbers.

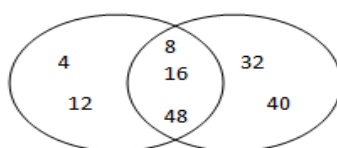
4 8 12 16 32 40 48

Write each number in its correct place on the set diagram.



Most candidates could not figure out that the region in the middle was meant for numbers that are both multiples of 8 and factors of 48. Some candidates were not using the given list.

Answer:



- (b) Given the numbers below

13 562 13 479 12 499 13 657

State

- (i) the greatest number,

Candidates were able to identify the greatest number from the given list.

Answer: 13 657

- (ii) the number that gives 13 000 when rounded off to the nearest 1000.

Some candidates did not read the question with understanding. They were rounding off the 13 000 to the nearest 1 000, hence 13 000 was given as the answer.

Answer: 13 479

Question 25

- (a) Mrs Mdluli bought a blanket for E150.00.
She sold it making a profit of E75.00.
Calculate the selling price of the blanket.

The candidates who read the question with understanding were able to calculate the correct answer. Some were just simply subtracting E75 from E150 probably thinking that they are calculating profit.

Answer: E150 + E75 = E225

- (b) Sammy finds a pile of 24 identical books on a table.
He takes 75% of the books.
Find the number of books remaining on the table.

Most candidates were able to find 75% of 24 which is 18 but they would not subtract the 18 from 24. Some candidates wrote $\frac{24}{100} \times 75$ which would give the expected answer (multiplication is commutative) but the method was incorrect.

Answer: $\frac{75}{100} \times 24 = 18$ OR $100 - 75 = 25$
 $24 - 18 = 6$ $\frac{25}{100} \times 24 = 6$

- (c) Use the symbols $>$, $<$ or $=$ to make the following statement correct.

$$0.6 \quad \square \quad \frac{2}{3}$$

Some candidates would convert $\frac{2}{3}$ to a decimal, 0.6, and then put an equal sign.

Answer: $<$

Question 26

The table below shows the ticket prices for entering a stadium.

	Monday to Friday	Saturday and Sunday
Adult	E18.50	E21.00
Child	E12.50	E14.00

A family of 2 adults and 1 child is planning to go to the stadium.

Calculate the cost of going on:

(a) Tuesday,

Most candidates were able to interpret the table. There were those few who did not pay attention to the fact that there are two adults and one child. They added E18.50 and E12.50 to get E31.00.

$$\text{Answer: } 2 \times \text{E18.50} + \text{E12.50} \\ = \text{E49.50}$$

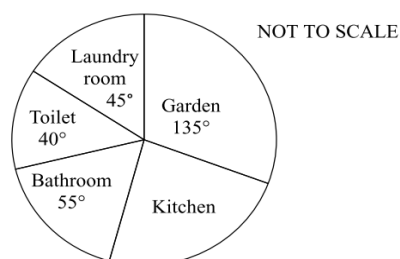
(b) Saturday.

Candidates were able to calculate the correct amount except those who did not pay attention to detail.

$$\text{Answer: } 2 \times \text{E21.00} + \text{E14.00} \\ = \text{E56.00}$$

Question 27

The pie chart below shows the amount of water used for different activities in a particular household.



(a) Calculate the sector angle for water used in the kitchen.

Most candidates were able to add the angles to get 275°. Some would leave the 275° as the final answer. Some subtracted it from 360° but would give 95° as the answer. There are those candidates who decided to measure the sector angle instead of calculating as per the question.

$$\text{Answer: } 135^\circ + 45^\circ + 40^\circ + 55^\circ = 275^\circ \\ 360^\circ - 275^\circ = 85^\circ$$

(b) State the activity that used the least amount of water.

Candidates who did not know the meaning of least were giving bathroom or garden as the answer.

Answer: Toilet

(c) The total amount of water used in the household is 1 400 cm³.

Find the amount of water used for watering.

Most candidates could not figure out on what to do in this question.

Answer: $\frac{135}{360} \times 1\,400 = 525 \text{ cm}^3$

Question 28

- (a) State the name of the answer that comes from subtracting two numbers.
Common responses given by candidates include; quotient, sum, multiply, product, different, minus and remainder.

Answer: Difference

- (b) Find the number of weeks in 3 months.

Most candidates were able to find the number of weeks. Some would even add the number of days in any three months then divide by 7. A few candidates multiplied 3 months by 7 days to get 21 weeks.

Answer: 12 weeks or 13 weeks

- (c) Write the number below in numerals.

Thirteen thousand two hundred and four

Candidates were able to give the expected response. A few were omitting the zero (1324) while others were writing two zeroes (132 004). Some candidates confused thirteen with thirty, giving 30 204.

Answer: 13 204

The diameter of a circle is 11 cm.

Calculate the circumference of the circle.

Most candidates were able to calculate the circumference but some were not showing their working.

The most common incorrect response was 22 cm from multiplying the 11 cm by 2. Others assumed that the 11cm was a radius and multiplied by 2 first and eventually getting 66 cm as the answer.

Answer: $11 \text{ cm} \times 3 = 33 \text{ cm}$

- (d) *Five lollipops cost the same as three chocolate bars.
One chocolate bar costs 85 cents.
Calculate the cost of one lollipop.*

Most candidates were able to get 255 from multiplying 85 by 3 but failed to continue. Others would multiply or divide 85 by 5, showing no understanding of what was expected by the question.

Answer: $85 \times 3 = 255$

$255 \div 5 = 51 \text{ cents}$

- (f) *Success Primary School starts at 8.15 am and ends at 1.30 pm.*

Calculate the time pupils spend at the school.

Most candidates were subtracting 1.30 from 8.15 (not changing to 24 hour time) to get either 6 hours 45 minutes or 6 hours 75 minutes.

Answer: 5 hours 15 minutes

Question 29

- (a) *State the name of a closed shape with eight straight sides.*

Wrong spellings such as octargon were observed. Some candidates would combine words and give responses such as optagon, eightgon, oxergon and hoctagon.

Answer: Octagon

- (b) *For the set of numbers below*

7 4 5 4 3 9 12

Find

- (i) *The mode*

Most candidates gave the expected response.

Answer: 4

- (ii) *The median*

The few candidates, who got incorrect responses, had not arranged the set of numbers in order of size. Others would arrange but omit one of the 4s (3 4 5 7 9 12) then choose 4 or 7 as the answer.

Answer: 5

- (c) *P and Q are different prime numbers less than 20.*

R is a multiple of 11 less than 30.

Given that

$$P \times Q = R$$

Find the values of P, Q and R.

Those candidates who did not know what prime numbers are could not answer the question correctly. Some of those who knew about prime numbers did not pay attention to the conditions given.

Answer: P = 2 or 11

Q = 11 or 2

R = 22

Paper (212/02)

GENERAL COMMENTS

Many candidates presented clear and logical working in this paper, particularly where the question required it. This made awarding method marks easy in cases where the answer was incorrect. A majority of the incorrect answers resulted from arithmetic errors, that is, failure to use the 4 basic operations correctly. For example, in **question 3(a)** some candidates wrote 56 instead of 560 as their answer. In addition, some candidates lost marks by performing only the first step especially in problem solving questions requiring more than 1 step such as **question 7**.

In measurement items, candidates should be encouraged to show the correct units with their answers.

SPECIFIC COMMENTS ON QUESTIONS**Question 1**

- (a) This item was poorly attempted. The candidates were required to write two-fifths in numeral form. The most incorrect answers were 2,5 or 0.25.

Answer: $\frac{2}{5}$ or 0.4

- (b) This item was also poorly done by most candidates. A majority of the candidates were unable to write forty – seven hundredths in numeral form as required. The common wrong answers were 47, 40. 7 and 407.

Answer: 0.47 or $\frac{47}{100}$

- (c) A majority of the candidates did well in this item. the candidates were expected to write zero point nine one in numeral form. 091 and 0 + 90 + 1 were common among the weak candidates.

Answer: 0.91

- (d) In this item, the candidates were required to write eight and a half in numeral form. Many candidates got this item correct. 8.5 was accepted as a correct answer.

The most common incorrect answer was $\frac{8}{4}$.

Answer: $8\frac{1}{2}$

Question 2

In this question, the candidates were expected to choose a word, from a given list of words, that completes each of the given statements.

- (a) This item was well answered by a majority of the candidates as they were able to choose the correct word to complete the statement as required.

Answer: *less*

- (b) The candidates were expected to state the direction of the number line for the first number when reading or plotting points on a grid. The item was fairly done. A majority of the candidates were able to realize that the number line can be either vertical or horizontal. The most common incorrect answer was vertical.

Answer: *Horizontal*

- (c) The candidates were required to choose the angle made by perpendicular lines. Many candidates answered this question correctly. The most common incorrect answer was 180° .

Answer: 90°

- (d) Many candidates were able to choose 180° as expected. A popular incorrect answer was 90° .

Answer: 180°

- (e) A majority of the candidates got this item correct. 180° was marked as a correct answer. The most popular incorrect answer was obtuse.

Answer: *reflex*

Question 3

- (a) A few candidates were able to complete the division correctly. However, it was pleasing to note that a majority were proficient in using the long division method. Hence, the most common incorrect answer was 56 which resulted from omitting the 0 in the quotient. A few candidates changed the division sign to multiplication.

Answer: *560*

- (b) This item was fairly done as a sizeable number of candidates were able to add the common fractions $\frac{1}{4} + \frac{2}{3}$ as required. Some candidates struggled to write the two fractions with a common name. The most prevalent incorrect answers were $\frac{3}{7}$ and $\frac{3}{12}$.

Answer: $\frac{11}{12}$

- (c) The candidates were expected to multiply $10 \times \frac{3}{5}$. Many candidates were able to complete the task as expected. The most popular wrong answer resulted from candidates using the division algorithm for common fractions as they reciprocated $\frac{3}{5}$ before multiplying by 50 like this $50 \times \frac{5}{3} = \frac{50}{3}$. Other candidates lost marks due to arithmetic error when simplifying $\frac{30}{5} = 0.6$

Answer: 6

Question 4

The candidates were given the information that Masakhisane Block yard produced 9 145 and 10 100 bricks in January and February respectively.

- (a) The candidates were required to calculate the increase in the number of bricks produced by the block yard in February. Generally, many candidates did well in this item. A few candidates subtracted 10 100 from 9 145 which gave an incorrect answer.

Answer: 955

- (b) A majority of the candidates worked out the income from selling all the bricks in January successfully. Most of the incorrect responses resulted from arithmetic errors in the multiplication. A few candidates used their answer in part (a) when finding the total income which was wrong: 955×12 .

Answer: 109 740

- (c) A few candidates were successful in calculating the percentage increase in the price of each brick in February. The main source of difficulty was choosing the correct denominator for the fractional part of the calculation, hence they presented their working as $\frac{3}{15} \times 100$. Others simply added 3 and

12 like this $3 + 12 = \frac{15}{100}$.

Answer: 25%

Question 5

- (a) While this part of the question was well answered, some candidates marked the point S on the line segment ignoring the fact that it should be 7 cm from R. Others constructed their own line segment above R.
- (b) The candidates were required to draw an arc that is 6 cm above R using R as a centre. Many candidates were able to draw the arc as expected. Incorrect arcs were a result of candidates not using the 6 cm as instructed.
- (c) Similarly, to part (b), many of the candidates drew the arc that was 5 cm from S as expected. Some candidates scored a follow through mark for drawing the arc using their S as the centre. Other candidates did not follow the instruction that the arc should be 5 cm from S.
- (d) Many candidates correctly marked the point T where their arcs meet. Most common wrong responses resulted from candidates either not marking T or marking T at the end of the line segment.

- (e) In this part of the question, the candidates were required to join R to T and S to T forming triangle RST . Most of the candidates were able to complete this task successfully. Even some of those who failed either part(a) and/or part (b) or part(c) were able to join their points forming triangle RST .
- (f) While many candidates were able to join the points forming triangle RST in part(e), a few were able to measure the size of angle RTS correctly. Most incorrect measurements were a result of failure to choose the appropriate scale in their protectors.

Answer: 78°

- (g) Very few candidates named triangle RST as expected. Instead of naming the type of triangle RST , many candidates gave the properties of different triangles. Others gave names of types of angles such as acute, obtuse, reflex and right angle.

Answer: Scalene

Question 6

- (a) This item was a challenge for many candidates. A majority subtracted 7 years 11months from 13 months 8 months using base 10, that is, they renamed 1 year as 10 months which resulted in the common incorrect answer 5 years and 7months.

Answer: 5 years 9 months

- (b) The candidates were required to find the time the pastor started preaching when given that her sermon took 1hour 7 minutes and finished at 12.05 p.m. To get the correct response, the candidates were expected to subtract 1 hour 7 minutes from 12.05 p.m. A significant number failed to realize that in order to align the minutes correctly they were supposed to rewrite 7 minutes as 07 minutes. Thus, the most common incorrect subtraction sentence they used was

$$\begin{array}{r} 12.05 \\ - 1.7 \\ \hline \end{array}$$

Answer: 10.58 am/1058h

Question 7

The candidates were required to calculate the total number of cows Anele and Senzo had altogether when given that Anele had 127 cows and Senzo had 78 more cows than Anele. This question was well answered although some failed to complete their calculation by adding 205 to 127, thus they left their answer as 205, the number of cows for Senzo. Very few candidates multiplied 127 by 78.

Answer: 332

Question 8

The candidates were given a table showing the pattern for the number of pages Mary read in a week in a book reading challenge.

- (a) Many candidates calculated the number of pages Mary read on Thursday as required. A common incorrect response resulted from candidates calculating the sum $7 + 22 + 36$ which was the numbers given in the pattern.

Answer: 52

- (b) This part of the question was fairly done. While some candidates were able to get the required day, Saturday, others instead of writing the day, wrote 6 days or 6th day which was incorrect. Some were writing Friday, Saturday and Sunday.

Answer: Saturday

- (c) While **part(a)** and **part(b)** was fairly done, many did not get the rule for the number of pages Mary needs to read the next day in this part of the question. It was common to see responses such as 15, count by 15, calculate by 15, $n + 15$, $\times + 15$.

Answer: Add 15

Question 9

The candidates were shown a bar chart displaying the method used by learners in class to prevent the spread of Covid-19 virus. An overwhelming number of candidates did well in this question.

- (a) Many candidates answered this part of the question correctly. A few lost the mark by writing 8, the number of learners who liked wearing a mask instead of writing the method.

Answer: wear a mask

- (b) This part of the question required candidates to calculate the total number of learners in the class. While this part of the question was fairly answered, most errors came from arithmetic errors. This resulted in candidates writing 19 or 21 as their answers. Very few calculated the total number of learners as 45 which was a result of ignoring the height of each bar.

Answer: 20

- (c) This part of the question was fairly done. A significant number of candidates were able to find the fraction of learners who liked washing their hands as expected. The most common incorrect answer was 5.

Answer: $\frac{5}{20}$ or $\frac{1}{4}$

- (d) While many candidates answered this question well showing all necessary working, most errors resulted from either adding $5 + 3$ or multiplying 5×3 .

Answer: 2

- (e) A few candidates were able to work out the sector angle for the learners who liked to sanitize. Some of those who started well, failed to complete their calculation due to failure to simplify $\frac{4}{20} \times 360^\circ$. Thus, 144° or 1440° was common amongst this group. The other common source of incorrect answer resulted from multiplying by 100, that is, $\frac{4}{20} \times 100$.

Answer: 72°

Question 10

This question was answered well with candidates using various clear methods to calculate the number of nines in 110. Some of the methods include long division, repeated addition of 9, continual subtracting 9 from 110, using diagrams of groups of 9. The most common incorrect answer was 12 remainder 2.

Answer: 12

Question 11

The candidates were shown a quadrilateral with an unknown angle marked m .

- (a) Many candidates named the quadrilateral correctly, although some used wrong spelling. Among the incorrect answers, parallelogram and rhombus was occasionally seen.

Answer: Trapezium

- (b) This part of the question was also well answered. Some common errors came from candidates either misreading 62° as 63° or 65° or subtracting the sum of the three angles from 180° instead of 360° . A few candidates failed to align correctly the digits when calculating the sum of the three angles as shown.

105

100

+62

Answer: 93°

Question 12

This question was poorly done. A few candidates were able to subtract 95 000 from 351 000 as required. Many candidates added $95\ 000 + 351\ 000$ to work out the number of adults in the village. Sometimes the incorrect working $95\ 000 - 351\ 000$ was observed.

Answer: 255 400

Question 13

Generally, this question was well answered, with a majority of the candidates answering correctly all the parts of the question.

- (a) Almost all the candidates completed the table to show the cost of Pauls birthday items as required.

Answer:

Item	Cost(E)
Cake	680
Drinks	900
Snacks	105
Fruits	230

- (b) Even in this part, most candidates correctly calculated the amount Paul spent on his birthday items. The most common incorrect answer resulted from failing to regroup correctly in the hundreds place value when adding the total cost leading to 1 815 as an answer.

Answer: E1 915

- (c) While this part of the question was fairly done, a few candidates failed to identify the item that cost about 3 times the cost of fruits. They multiplied E230 by 3 and recorded their answer as E690 which was the first part of the required response. The second part was to use this product to choose the item that cost about E690.

Answer: Cake

- (d) In this last part of the question, the candidates were required to work out the number of drinks he bought if each drink cost E15. Many worked out this number clearly, dividing $900 \div 15$ using long division while some added E15 repeatedly until they reach E900. Incorrect answers came from candidates either adding or subtracting 15 from E900.

Answer: 60

Question 14

- (a) This item was fairly done. The candidates were expected to work out $12 \div \frac{1}{6}$. The most incorrect answer emanated from the incorrect algorithm of dividing by a unit fraction, as they failed to multiply by the reciprocal of $\frac{1}{6}$. Consequently, the most common incorrect working was $12 \times \frac{1}{6}$. A few candidates worked out the answer as follows: $12 \div \frac{1}{6} = 72$ which is discouraged.

Answer: 72

- (b) The candidates were given the scale 1 to 200 of a plan and instructed to calculate the actual distance represented by 3.5 cm on the plan in metres. A few candidates completed the working correctly. A majority interpreted the scale as 1.200 and added this number to 3.5, that is, $1.200 + 3.5 = 4.700$.

Answer: 7m

Question 15

- (a) While a majority of the candidates answered this item correctly, some lost marks due to arithmetic errors in the multiplication of 239.6×8 . Other candidates opted to use repeated addition of 239.6 eight times but failed to place the decimal point appropriately.

Answer: 1 916.8 litres

- (b) This was a well answered item as a significant number of candidates were able to write the next two multiples of 6 in the sequence as required. There were a few candidates who wrote the multiple 30 only.

Answer: 30, 36

Question 16

- (a) This part of the question required candidates to state the number of squares in a row of rectangle *J*. A few candidates stated the correct number of squares in a row of the rectangle with a majority stating the number of rows. Thus, the most incorrect answer was 3. Some candidates calculated the area of the rectangle.

Answer: 2

- (b) Many candidates calculated the area of the rectangle as required but lost a mark by failing to write the correct units with their answer. The candidates were given the information that rectangle *J* was drawn on a grid made of 1 cm by 1 cm squares.

Answer: 6 cm²

- (c) This part of the question was fairly done. The candidates were expected to draw a similar rectangle with twice the area as rectangle *J*. It was pleasing to note that almost all the candidates labelled their images. Incorrect answers came from candidates interpreting twice the area as scale factor 2.
- (d) Most candidates were successful in this part as they described the transformation that maps their rectangle *J* to rectangle *K*.

Answer: Enlargement

Question 17

- (a) The candidates were given the information: *Zodwa bought 50 kilograms of fertilizer. She used 23 400 grams in vegetables. She used the rest of the fertilizer in maize.* They were required to calculate the amount of fertilizer she used in maize. Few candidates presented clear working. They were supposed to either change 50 kg to 50 000 g or 23 400 g to 23.4 kg first before calculating the amount of fertilizer she used in maize. A significant number attempted to convert 50 kg to grams but made an error by multiplying by 100 instead of 1 000. The other incorrect answers were a result of candidates adding or subtracting the masses as they, for instance 50 kg + 23 000 g or 23 400g – 50 kg.

Answer: 26 600 g or 26.6 kg

- (b) While many candidates calculated the length of the missing side of the triangle correctly, some presented their answer as the sum of the given sides 9 cm + 9 cm = 18 cm. Often, some candidates presented their answer as 9 cm + 9 cm + 9 cm = 27 cm.

Answer: 7 cm

- (c) Most candidates were successful in this item. The most common incorrect answer resulted from lack of understanding of the concept of interpreting pictograms as evidenced by candidates adding the numbers given in the key, that is, 20 + 10 = 30 people.

Answer: 90 people