



EXAMINATION NO.: \_\_\_\_\_  
**THE MALAWI NATIONAL EXAMINATIONS BOARD**

2022 PRIMARY SCHOOL LEAVING CERTIFICATE EXAMINATION

# MATHEMATICS

(100 marks)

Subject Number: P131

Thursday, 14 July

Time Allowed: 2 hours

8:00 – 10:00 am

Name of Candidate: \_\_\_\_\_  
(Surname First)

Name of School: \_\_\_\_\_

### Instructions

1. This paper contains 12 printed pages. Please check.
2. There are 20 multiple choice questions in Section A and 10 questions in Section B.
3. Answer all questions. In Section A, encircle the letter corresponding to the right answer to each question. In Section B, write your answers in the spaces provided under each question.
4. You are provided with two blank pages at the end of this question paper for rough work for Section A. Do not tear them off.
5. In Section B, you are required to show all your working.
6. The use of electronic calculators is not allowed.
7. In the table provided on this page, tick against the question number you have answered.
8. Please make sure you have written your examination number, your name and school name on the question paper in the spaces provided.
9. Hand in your examination paper to the invigilator when time is called to stop writing.

Question Number	Tick 21- 30 if answered	Do not write in these columns	
1-10			
11-20			
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**Section A (40 marks)**

**Answer all questions in this section.**

Use the blank pages at the end of this question paper for your rough work in this section only.

**Encircle the letter corresponding to the right answer for each question.**

1. How many significant figures are there in the number 0.006003?

- A. 6
- B. 4
- C. 3
- D. 2

2. What is CLXV in Hindu -Arabic numerals?

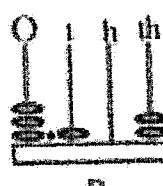
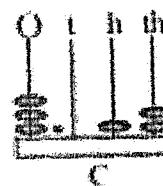
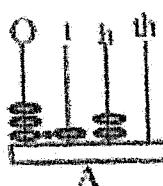
- A. 165
- B. 565
- C. 665
- D. 1065

3. What is the missing number in the following number pattern?

(100, 2), (5 , 40) (200, 1), (50, \_\_)?

- A. 1
- B. 2
- C. 4
- D. 6

4. On which abacus is the number 3.012 correctly modelled?



Use the following numbers:  
18, 5, 2, 34, 2, 18, 5, 2, 42, to answer questions 5 and 6.

5. What is the modal number?

- A. 2
- B. 5
- C. 10
- D. 13

6. What is the median number?

- A. 2
- B. 5
- C. 10
- D. 13

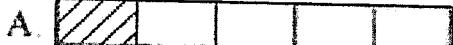
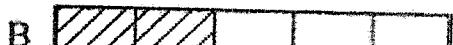
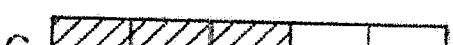
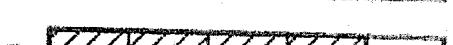
7. Alinafe sold pairs of shoes for K40 000 and got K8 000 commission. What was her commission percent?

- A. 20%
- B. 25%
- C. 50%
- D. 80%

8. If the perimeter of a square is 48 cm, how long is its side?

- A. 4 cm
- B. 6 cm
- C. 8 cm
- D. 12 cm

Continued/..

9. How many 500 g packets of sugar can be packed from a 50 kg bag of sugar?
- 10
  - 100
  - 450
  - 550
10. A container of capacity 721.4 litres is full of sand. What is the volume of the sand in  $\text{cm}^3$ ?
- $7\ 214 \text{ cm}^3$
  - $7\ 2140 \text{ cm}^3$
  - $721\ 400 \text{ cm}^3$
  - $7\ 214\ 000 \text{ cm}^3$
11. Which of the following is correct for the mathematic statement:  
Yame had  $x$  oranges and when he ate 10 oranges, he remained with 5 oranges?
- $x + 5 = 10$
  - $x - 5 = 5$
  - $x + 10 = 5$
  - $x - 10 = 5$
12. Table 1 shows body temperatures of four learners.
- | Name of learner | Body Temperature ( $^{\circ}\text{C}$ ) |
|-----------------|---|
| Wakisa          | 36.5                                    |
| Tiwonge         | 36.2                                    |
| Enily           | 37.0                                    |
| Okumi           | 36.8                                    |
13. Which of the following shaded parts of numbers represents a model answer for  $\frac{1}{5} + \frac{3}{5}$ ?
- A. 
- B. 
- C. 
- D. 
14. A shopkeeper had 80.35 m piece of cloth. If 3 people bought 8.3 m each, how many metres of cloth remained?
- 24.90 m
  - 55.45 m
  - 56.45 m
  - 75.05 m
15. What name is given to an activity which shows how money has been received or used in cash or by cheque?
- account
  - expenditure
  - income
  - transaction
16. A learner bought 7 postal orders for K21 000. What was the cost of three postal orders?
- K 12 000
  - K 9 000
  - K 6 000
  - K 3 000

Which learner had the lowest body temperature?

- Enily
- Okumi
- Tiwonge
- Wakisa

Continued/...

17. What do we call the amount of money that is paid to an insurance company for insurance agreement?
- insurance policy
  - life insurance
  - policy
  - premium
18. Mr Degu bought tomatoes for K40 000. If he sold them at a profit of 25%, what was the selling price?
- K10 000
  - K30 000
  - K32 000
  - K50 000
19. A clock shows the time as 8:55 am. What is the time in words?
- five minutes past eight
  - fifty five minutes to eight
  - five minutes to nine
  - fifty five minutes past nine
20. A building is 20 m high while its drawing is 10 cm high. What scale was used to draw the building?
- 1 : 2
  - 2 : 1
  - 1 : 200
  - 200 : 1

### Section B (60 marks)

Answer **all** questions in this section. Write your answers in the spaces provided under each question. Show your working.

21. Divide the LCM of 10, 20 and 30 by their HCF.

(5 marks)

22. a. Solve the equation  $8h - 3h + 9 = 23 - 2h$ .

(4 marks)

b. The product of 21 and  $x$  is greater than or equal to 42. Formulate an inequality and solve it.

(5 marks)

2022

23. a. The first three numbers in a number pattern are: 448, 224 and 112.  
Find the fourth number. (3 marks)
- b. The average temperature of water in four buckets was  $32^{\circ}\text{C}$ . If  
temperatures of water in the three buckets were  $35^{\circ}\text{C}$ ,  $39^{\circ}\text{C}$  and  $30^{\circ}\text{C}$ ,  
find the temperature of the water in the fourth bucket. (4 marks)

24. a. A bus covers a certain distance in 4 hours at an average speed of 80 km per hour. If a motor car covers the same distance at an average speed of 64 km per hour, calculate the time taken by the motorcar to cover the distance. (3 marks)
- b. A commission of 10% is charged on total value of postal orders bought. If an additional postal stamp of K600 and a registration fee of K375 are charged for sending the postal orders, find the total cost of sending postal order worth K37 500. (4 marks)

2022

25. Table 2 shows some details of cash withdraw form for Blemo Bank.

Table 2

BLEMO BANK CASH WITHDRAWAL FORM	
Service centre _____	Date _____
Customer's name _____	Account number <input type="text"/>
Amount in words _____	
Please debit my/our account above	
BANK STAMP AND TELLER'S INITIAL	Customer to acknowledge receipt of fund overleaf

Mr Jimmy Mchoka has an account with Blemo Bank at Changu District. On 28 June, 2022 he wanted to withdraw K20 000 from his account number 001276300 and he was required to fill a withdrawal form first. Using Mr Mchoka's information, fill in the withdrawal form for him in Table 2. (5 marks)

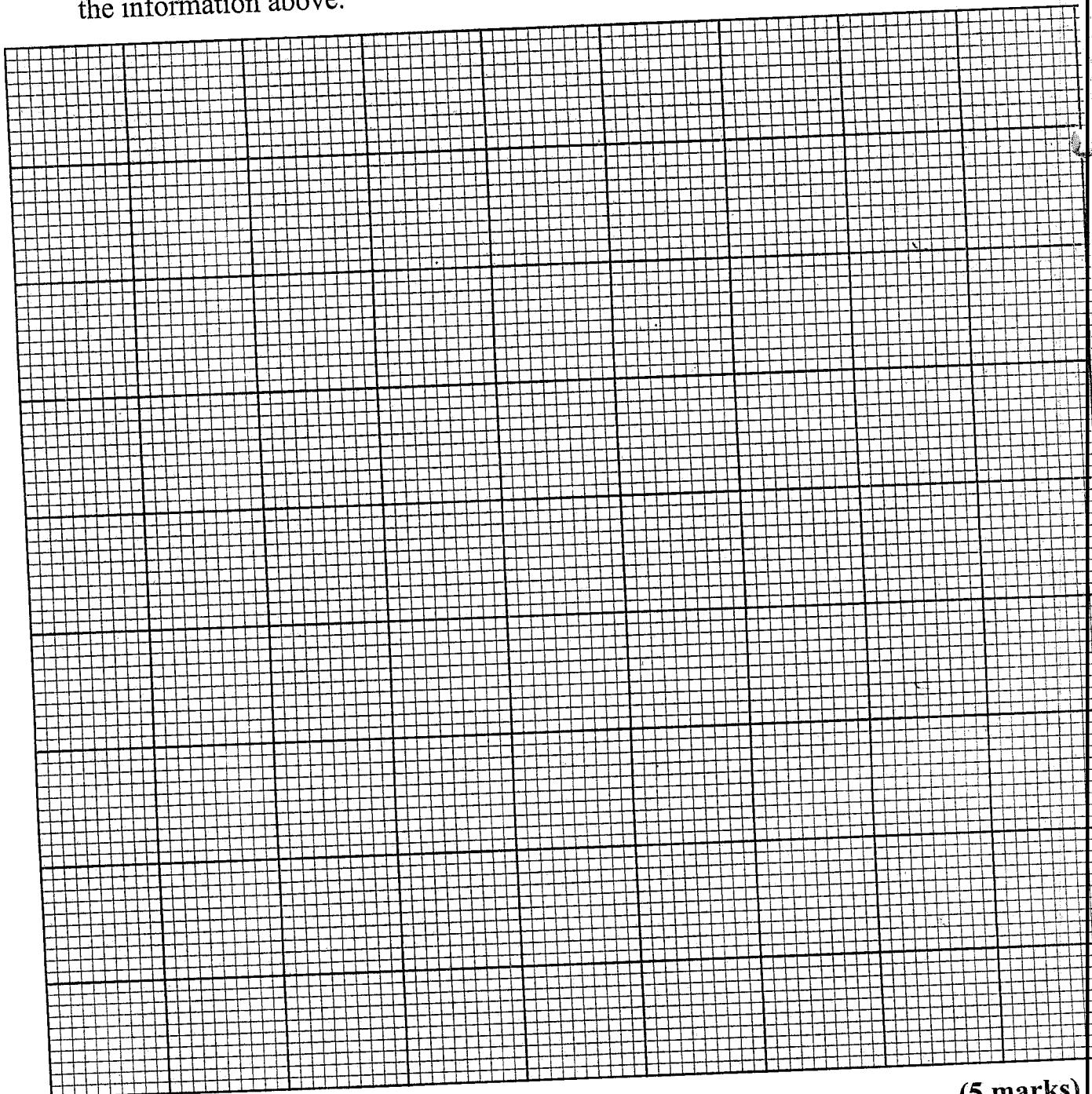
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26. A child was born when his mother was celebrating her silver jubilee.  
Find the age of the son when the mother was celebrating her diamond jubilee. (4 marks)
27. The amount of money paid by 6 passengers in a minibus was K38 160. If the passengers paid equal amount of money, calculate the money paid by each passenger. (3 marks)

28. At a certain school, standard 6 learners' enrolment was as follows:

standard 6A	200 learners
standard 6B	120 learners
standard 6C	140 learners

Using a scale of 2 cm to represent 40 learners on the vertical axis and 2 cm to represent a class on the horizontal axis, draw a bar graph to represent the information above.



(5 marks)

Continued...

29. Figure 1 is a composite shape made up of an equilateral triangle KLM and a semi-circle MXW in which  $KL = 28 \text{ cm}$ ,  $LY = 20 \text{ cm}$  and  $MW = 14 \text{ cm}$ .

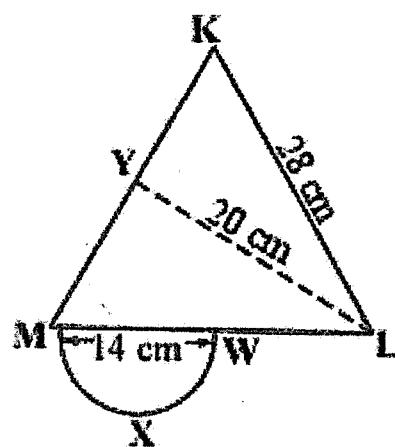


Figure 1

If  $LY$  is a perpendicular height of the triangle, find the area of the composite shape.  $\left( \text{Take } \pi = \frac{22}{7} \right)$ .

(7 marks)

2022

30. Figure 2 is a sketch of the plan of a square garden ABCD in which  $AD = 20 \text{ m}$  and  $AE = EB$ .

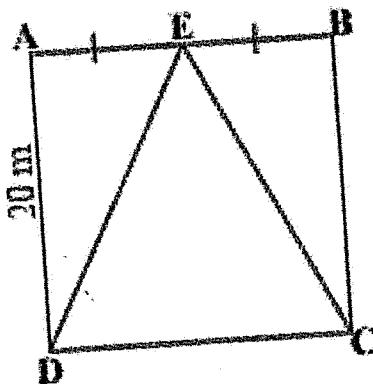
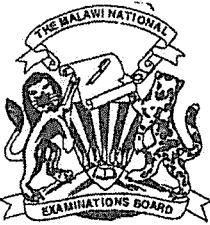


Figure 2

- a. Using a ruler, a protractor and a scale of 1 cm to represent 4 m, draw the plan of the garden accurately. (5 marks)
- b. Measure and state the lengths of EC and ED. (2 marks)
- c. Name the type of triangle DEC. (1 mark)

**END OF QUESTION PAPER**

— contains 12 printed pages.



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**THE MALAWI NATIONAL EXAMINATIONS BOARD**

2021 PRIMARY SCHOOL LEAVING CERTIFICATE EXAMINATION

**MATHEMATICS**

(100 marks)

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(Surname First)**Name of School:** \_\_\_\_\_**Instructions**

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## Section A (40 marks)

Answer all questions in this section.

Use the blank pages at the end of this question paper for your rough work in this section only.

Encircle the letter corresponding to the right answer for each question.

1. What is the place value of 7 in the following number 816.9742?
  - A. tenth
  - B. hundredth
  - C. thousandth
  - D. ten thousandth
  
2. Which of the following is a property of a kite?
  - A. adjacent sides are equal
  - B. all sides are equal
  - C. one pair of opposite sides are parallel
  - D. opposite sides are equal
  
3. What is DXLIX in Hindu-Arabic Numerals?
  - A. 549
  - B. 559
  - C. 649
  - D. 659
  
4. What is the simplified form of  $4m - b + m + 7b$ ?
  - A.  $3m + 8b$
  - B.  $4m - 8b$
  - C.  $5m + 6b$
  - D.  $5m - 6b$
  
5. A man bought goods for K40 000 and sold them for K60 000. What is the profit percent?
  - A. 20
  - B. 33
  - C. 50
  - D. 57
  
6. Which of the following represents twenty one million and one in figures?
  - A. 21 000 001
  - B. 21 000 100
  - C. 21 001 000
  - D. 21 100 000
  
7. The difference between  $x$  and 5 is greater than or equal to 13, what is the value of  $x$ ?
  - A.  $x \leq 8$
  - B.  $x \geq 8$
  - C.  $x \leq 18$
  - D.  $x \geq 18$
  
8. Which of the following uses  $\frac{1}{2}bh$  as a formula for finding its area?
  - A. parallelogram
  - B. rectangle
  - C. trapezium
  - D. triangle
  
9. The height of a drawing of a building is 3 cm. If a scale of 1 cm to represent 300 cm was used, what is the height of the building?
  - A. 100 cm
  - B. 297 cm
  - C. 303 cm
  - D. 900 cm

Continued/...

10. A girl weighed 15 kg 500 g in May, 2021. If the girl's mass is increased by 700 g in June 2021, what was her mass in June 2021?
- 14 kg 800 g
  - 15 kg 150 g
  - 15 kg 200 g
  - 16 kg 200 g
11. Which of the following is the largest number that can divide into 60, 120 and 180 without leaving a remainder?
- 2
  - 12
  - 30
  - 60
12. Puna was offered a discount of 8% on a pair of shoes marked K4 500. How much did she pay for the shoes?
- K 360
  - K4 140
  - K4 472
  - K4 860
13. Figure 1 is a triangle ABC.

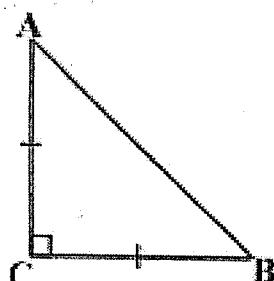


Figure 1

- What type of triangle is ABC?
- isosceles
  - right angled isosceles
  - right angled scalene
  - scalene

14. A total of K7 200 was paid by 24 learners for school development fund. If they paid equal amount of money, how much did each learner pay?
- K 30
  - K 300
  - K7 176
  - K7 224
15. Find the median of the following numbers: 3, 10, 8, 12, 6, 18.
- 9.0
  - 9.5
  - 18
  - 57

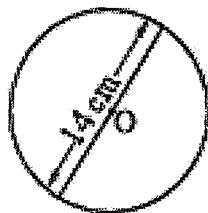
The **Table** below shows the number of dogs vaccinated in a certain area for four months. Use it to answer questions 16 and 17.

MONTH	NO OF DOGS VACCINATED
JANUARY	
FEBRUARY	
MARCH	
APRIL	

16. Which month had the least number of dogs vaccinated?
- January
  - February
  - March
  - April
17. What is the total number of dogs vaccinated in January and February?
- 17
  - 24
  - 28
  - 38

Continued/...

18. Figure 2 shows a circle with centre **O** and diameter 14 cm.



**Figure 2**

What is the area of the circle?

(Take  $\pi = \frac{22}{7}$ ).

- A.  $22 \text{ cm}^2$
- B.  $44 \text{ cm}^2$
- C.  $154 \text{ cm}^2$
- D.  $616 \text{ cm}^2$

19. A butcher man had K24 000 at the bank. If he was given 30% simple interest per annum for a period of 2 years, what was the interest?

- A. K1 600
- B. K9 600
- C. K14 400
- D. K38 400

20. A man bought a television set for K235 000 including Value Added Tax (VAT). If the VAT was charged at the rate of  $17\frac{1}{2}\%$ , what was the VAT.?

- A. K 41 125
- B. K193 875
- C. K235 017
- D. K276 125

### Section B (60 marks)

Answer all questions in this section. Write your answers in the space provided under each question. Show your working.

21. a. Multiply  $1\ell 973 \text{ ml}$  by 60.

(3 marks)



Continued/...

## 21. (Continued)

b. Simplify  $\left(6\frac{1}{2} - 4\frac{1}{3}\right) \div \frac{5}{12}$ . (5 marks)

22. A person paid K1 560 000 as custom duty for a car. If the custom duty was charged at 60%, find the cost of the car. (3 marks)

Continued/...

2021

- \* 23. a. Simplify  $\frac{6.3}{0.9 \times 0.7}$ , giving the answer to two decimal places. (3 marks)
- \* b. Tadala scored 75% of the total number of marks of a test. If the total number of marks of the test was 40, calculate the marks that Tadala scored. (3 marks)

24. a. Given the number pattern 288, 144, 72 ... , find the fifth number.

(5 marks)

- b. James, Zione and Takondwa shared a certain amount of money in the ratio 1 : 2 : 3 respectively. If James received K300 and Zione K600, find the total money shared.

(4 marks)

25. Figure 3 is a composite shape made up of a rectangle ABDE and semi-circles AEF and BCD.

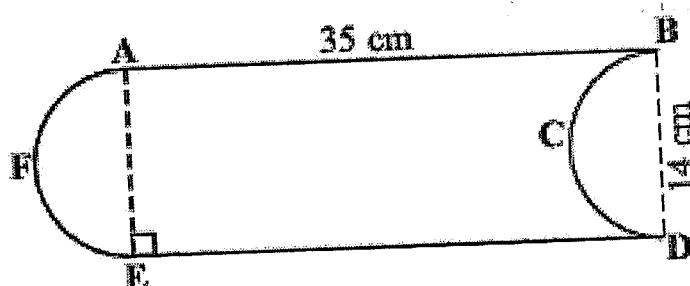


Figure 3

If  $\mathbf{AB} = 35 \text{ cm}$  and  $\mathbf{BD} = 14 \text{ cm}$ , calculate the perimeter of the shape. (5 marks)

26. a. Chifundo wants to buy the following items: 2 chickens at K3 500 each, 3 heaps of tomatoes at K100 each heap and 6 bundles of vegetables at 3 bundles for K100. Prepare a budget for Chifundo. (4 marks)
- b. A woman cerebrated her Golden Jubilee in 2020. If her daughter will celebrate her Silver Jubilee in 2024, find the age of the woman when the daughter was born. (5 marks)

Continued/...



27. A sales lady had  $2y$  baskets of tomatoes. When she sold 8 baskets, she remained with 12 baskets. Find the value of  $y$ . (5 marks)

28. Figure 4 is a sketch of a parallelogram ABCD in which BC = 3500 cm, CD = 4500 cm, angle ADC =  $100^\circ$  and angle BCD =  $80^\circ$ .

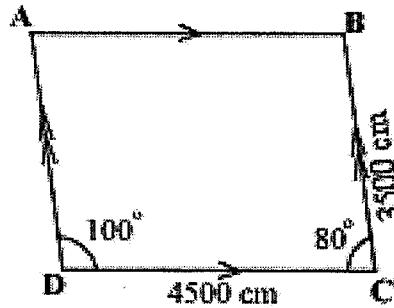


Figure 4

Using a ruler, a protractor and a scale of 1 cm to represent 500 cm, draw the parallelogram accurately. (4 marks)

29. A farmer had K80 000 balance at the bank on August 1, 2021 and made the following transactions during the month:

5 August	Bought chicken by cheque	K50 000
20 August	Sold eggs by cheque	K32 000
28 August	Banked	K38 000

Prepare bank account for the farmer and balance it as at 31 August 2021.

(7 marks)

30. Figure 5 is a bar graph showing number of patients who received treatment at a certain health centre.

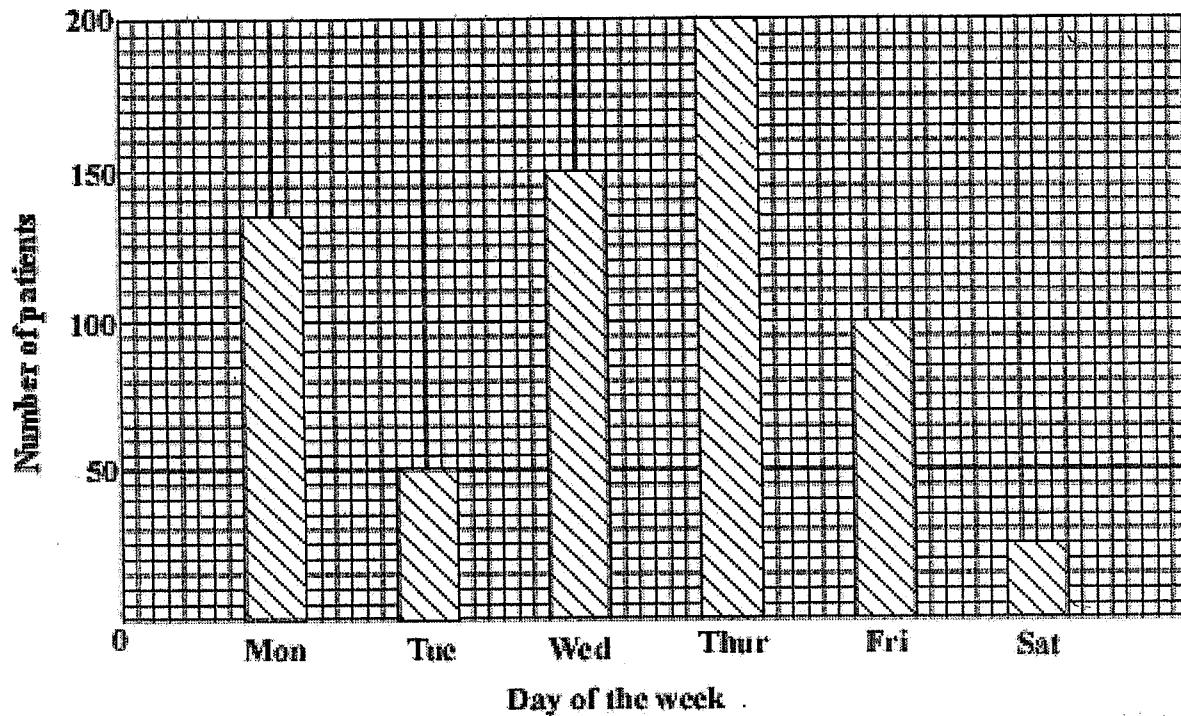
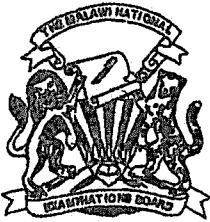


Figure 5

- a. Find the difference between the largest and the least number of patients. (3 marks)
- b. Calculate the mean number of patients treated that week. (3 marks)

**END OF QUESTION PAPER**

NB: This paper contains 12 printed pages.



EXAMINATION NO.: \_\_\_\_\_

**THE MALAWI NATIONAL EXAMINATIONS BOARD**  
**2020 PRIMARY SCHOOL LEAVING CERTIFICATE EXAMINATION**

# **MATHEMATICS**

(100 marks)

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**Section A (40 marks)****Answer all questions in this section.**

Use the blank pages at the end of this question paper for your rough work in this section only.

Encircle the letter corresponding to the right answer for each question.

- |  |  |
|--|--|
| <p>1. Express 20.0054 to 4 significant figures.</p> <p>A. 20.00<br/>B. 20.01<br/>C. 20.005<br/>D. 20.006</p> <p>2. Nine million, ninety nine thousand and one in figures is</p> <p>A. 9 099 001<br/>B. 9 099 100<br/>C. 9 990 001<br/>D. 9 991 000</p> <p>3. Simplify <math>4y - 12y + 17y - 6y</math>.</p> <p>A. <math>3y</math><br/>B. <math>15y</math><br/>C. <math>18y</math><br/>D. <math>19y</math></p> <p>4. What is the 4<sup>th</sup> number in the following number pattern:<br/>36, 39, 42...?</p> <p>A. 40<br/>B. 41<br/>C. 44<br/>D. 45</p> | <p>5. Which of the following numbers is a prime factor of 64?</p> <p>A. 2<br/>B. 4<br/>C. 8<br/>D. 32</p> <p>6. Which of the following values of angles represents a reflex angle?</p> <p>A. <math>70^\circ</math><br/>B. <math>90^\circ</math><br/>C. <math>150^\circ</math><br/>D. <math>275^\circ</math></p> <p>7. Subtract 417 g from 0.699 kg</p> <p>A. 282 g<br/>B. 347.1 g<br/>C. 416.3 g<br/>D. 1116 g</p> <p>8. What term is given when a selling price is less than a cost price?</p> <p>A. Discount<br/>B. Loss<br/>C. Marked price<br/>D. Profit</p> |
|--|--|

Continued/...

9. A person had one K1 000 bank note, two K500 bank notes and ten K50 bank notes. Find the total money that the person had.
- K1 550
  - K2 000
  - K2 050
  - K2 500
10. Table 1 shows property and premium paid per month for the property in a certain year.
- | Property | Premium per month (K) |
|----------|-----------------------|
| House    | 9 000                 |
| Car      | 4 000                 |
- If Ziwako insured two cars and one house for one month only, how much did he pay all together?
- K 8 000
  - K13 000
  - K17 000
  - K22 000
11. A bottle has a volume of  $35\ 000\ \text{cm}^3$ . What is the capacity of the bottle in litres?
- 35 l
  - 350 l
  - 3 500 l
  - 35 000 l
12. A vehicle covered a distance of 60 kilometres in 30 minutes. What was its speed in km/hour?
- 2km/h
  - 12km/h
  - 20km/h
  - 30km/h
13. Figure 1 shows time on an analogue clock face.
- 
- Figure 1
- What time is the clock showing?
- Twenty minutes to four
  - Twenty minutes past four
  - Twenty minutes to five
  - Twenty minutes past five
14. Which quadrilateral has all its sides and all its angles equal?
- Square
  - Rectangle
  - Rhombus
  - Parallelogram
15. A sales lady bought 280 guavas. If she sold them at K6 each and made a total loss of K125, how much did she buy the 280 guavas?
- K 750
  - K 630
  - K1 555
  - K1 805
16. A salesman receives a commission of K70 on every K1 000 sales. How much commission does he receive for K35 000 sales?
- K 500
  - K 100
  - K2 450
  - K7 000

Continued/...

2020

17. Body temperatures of patients at a certain hospital were:  $36.5^{\circ}\text{C}$ ,  $37^{\circ}\text{C}$ ,  $37.8^{\circ}\text{C}$ ,  $38^{\circ}\text{C}$ ,  $38.5^{\circ}\text{C}$ ,  $38.9^{\circ}\text{C}$ ,  $39^{\circ}\text{C}$ . If a patient is treated for malaria when the body temperature is greater than  $38^{\circ}\text{C}$ , how many patients were treated for malaria?
- 2
  - 3
  - 4
  - 5

18. Table 2 shows column headings for one of the types of simple accounts.

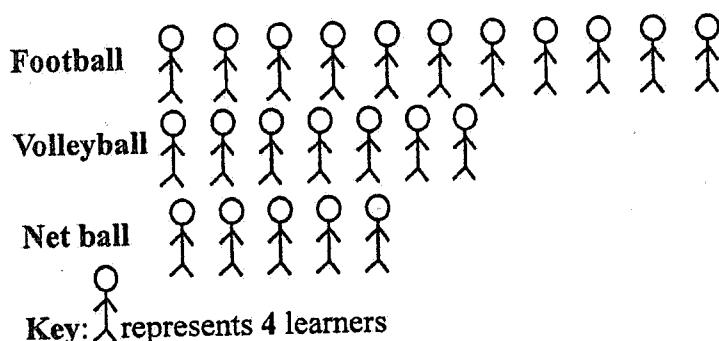
Table 2

Dr					Cr		
Date	Income	Cash K	Bank K	Date	Expenditure	Cash K	Bank K

Which of the following types of simple accounts has the details as shown in Table 2?

- Cash account
- Bank account
- Cash book
- Cheque book

Figure 2 is a picture graph showing learners who play different games at a certain school. Use it to answer Questions 19 and 20.



19. How many learners play volleyball?

- 7
- 11
- 28
- 44

20. Find the difference between the number of learners who play football and those who play netball.

- 4
- 6
- 24
- 39

**Section B (60 marks)**

Answer all questions in this section. Write your answer in the space provided under each question. Show all your working.

21. a. Simplify  $0.24 - 0.04 \times 0.35 + 0.14$  and give the answer to three decimal places. (4 marks)

- b. Solve the following inequality  $3m + 8 \geq 57 - 4m$ . (3 marks)

22. a. The circumference of a circle is 88 cm. Calculate its radius. (Take  $\pi = \frac{22}{7}$ ). (5 marks)

**22. (Continued)**

- b. Subtract the LCM of 50 and 75 from 286.

(4 mark)

23. A parent bought 90 sweets for her three children: Chiku, Maya and Tada. For every 2 sweets she gave to Chiku, she gave 3 to Maya and 5 to Tada. Calculate the difference between the number of sweets that Tada and Chiku received.

(5 mark)

24. Figure 3 shows a sketch of a triangular garden PQR in which  $RQ = 600 \text{ m}$ , angle  $PRQ = 90^\circ$  and angle  $PQR = 50^\circ$ .

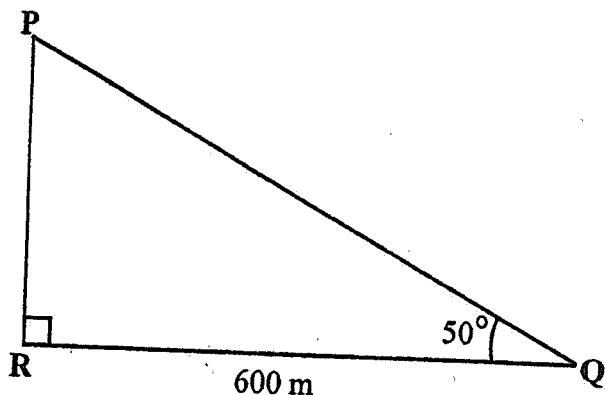


Figure 3

- a. Using a protractor, a ruler and a scale of 1cm to represent 100 m, draw the figure accurately.

(4 marks)

- b. Find the actual length of  $PQ$ .

(3 marks)

25. a. Malijesi had K24 000 for shopping. When he bought 12 kg of meet, he was left with K9 600. Find the cost of the meet per kg. (3 marks)

b. Given that the average of 6, 10, 8 and  $y$  is 9, find the value of  $y$ . (5 marks)

26. Figure 4 shows a circular top of a table ABC, centre O, covered with a square cloth PQRS on it.

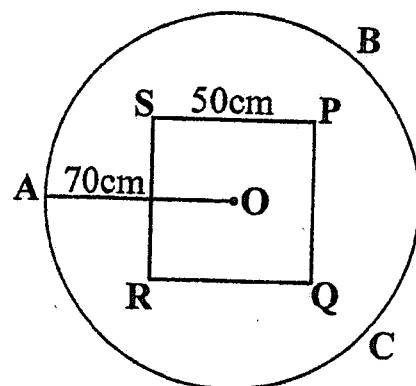


Figure 4

If the radius, OA of the top of the table is 70 cm and the side of a square is 50 cm, calculate the area of the uncovered part of the top of the table. (Take  $\pi = \frac{22}{7}$ ).

(5 marks)

27. Table 3 shows rates of tax on salaries per month for a certain year.

Table 3

Salary per month	Rate of tax
First K 900	0% (tax free)
Next K 3 000	15%
Over K12 000	30%

Use the information in Table 3 to calculate the monthly tax a worker pays on a monthly salary of K18 500.

(5 marks)

28. A lesson starts at 7:30 am but a teacher was late by 12 minutes. If the lesson ended at 8:10 am, calculate the number of minutes that the lesson took.

(3 marks)

29. Calculate the compound interest on K28 000 for 2 years at 10% per annum.

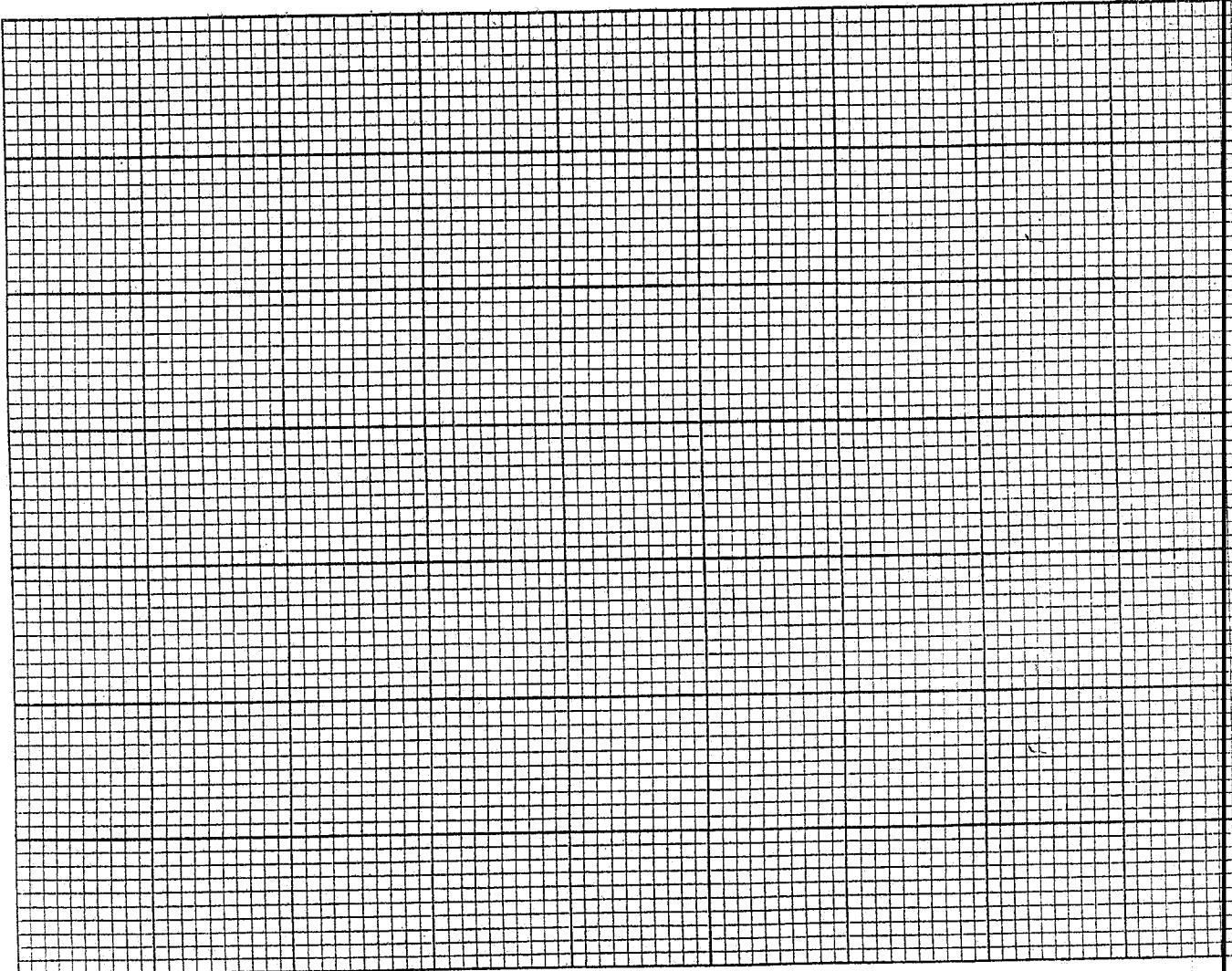
(5 marks)

30. Table 4 shows time taken and distance covered by a girl in a running competition.

Table 4

Time (min)	0	5	10	15	20
Distance (km)	0	3	6	9	12

- a. Use the information in Table 4 and a scale of 2 cm to represent 2 kilometres on vertical axis and 2 cm to represent 5 minutes on horizontal axis, draw a line graph. (5 marks)



- b. Use the graph to find the time taken by the girl to cover a distance of 8 km. (1 mark)

**END OF QUESTION PAPER**

**NB:** This paper contains 12 printed pages.



EXAMINATION NO.: \_\_\_\_\_

# THE MALAWI NATIONAL EXAMINATIONS BOARD

2019 PRIMARY SCHOOL LEAVING CERTIFICATE EXAMINATION

## MATHEMATICS

(100 marks)

Thursday, 9 May

Subject Number: P131

Time Allowed: 2 hours

8:00 – 10:00 am

Name of Candidate: \_\_\_\_\_  
(Surname First)

Name of School: \_\_\_\_\_

### Instructions

1. This paper contains 12 printed pages. Please check.
2. There are 20 multiple choice questions in Section A and 10 questions in Section B.
3. Answer all questions. In Section A, encircle the letter corresponding to the right answer to each question. In Section B, write your answers in the spaces provided under each question.
4. You are provided with two blank pages at the end of this question paper for rough work for Section A. Do not tear them off.
5. In Section B, you are required to show all your working.
6. The use of electronic calculators is not allowed.
7. In the table provided on this page, tick against the question number you have answered.
8. Please make sure you have written your examination number, your name and school name on the question paper in the spaces provided.
9. Hand in your examination paper to the invigilator when time is called to stop writing.

	Tick 21- 30 if answered	Do not write in these columns
1-10		
11-20		
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**Section A (40 marks)**

Answer all questions in this section.

Use the blank pages at the end of this question paper for your rough work in this section only.

Encircle the letter corresponding to the right answer for each question.

1. Express 245 to the nearest ten.
  - A. 25
  - B. 240
  - C. 245
  - D. 250
2. Add the following decimal numbers:  
11.02, 2.8 and 0.435.
  - A. 14.255
  - B. 15.65
  - C. 18.17
  - D. 39.455
3. Express  $\frac{4}{5}$  as a percentage.
  - A. 20%
  - B. 24%
  - C. 80%
  - D. 125%
4. Which of the following fractions is equivalent to  $\frac{2}{5}$ ?
  - A.  $\frac{3}{5}$
  - B.  $\frac{10}{15}$
  - C.  $\frac{5}{15}$
  - D.  $\frac{6}{15}$
5. Which of the following Hindu Arabic numbers is correctly represented by the Roman numeral DCIX?
  - A. 419
  - B. 509
  - C. 609
  - D. 619
6. Simplify  $4y + 7p - y - 6p$ .
  - A.  $3y - p$
  - B.  $3y + p$
  - C.  $3y - 13p$
  - D.  $3y + 13p$
7. What is the mean of the following numbers: 10, 28 and 13?
  - A. 17
  - B. 28
  - C. 48
  - D. 51
8. Which inequality symbol should be written in the box in order for the inequality  $x - 6 \square x - 10$  to be correct?
  - A.  $<$
  - B.  $>$
  - C.  $\leq$
  - D.  $\geq$

9. A chief will celebrate his silver jubilee in the next 5 years. How old is the chief?
- 20 years
  - 25 years
  - 30 years
  - 35 years
10. A shopkeeper sold 2 bales of sugar for K34 000. If each bale was bought at K15 000, what was the profit made?
- K 1 000
  - K 2 000
  - K 4 000
  - K19 000
11. Figure 1 shows a rectangle ACEG with lines AE, BF, CG and DH.

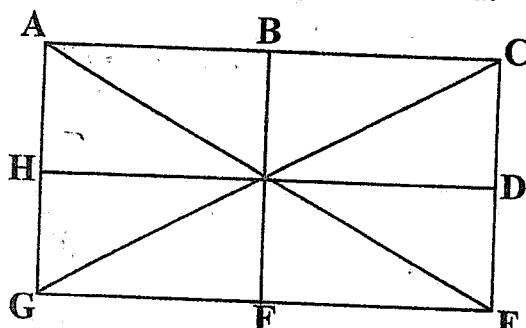


Figure 1

Which lines represent lines of symmetry?

- AE and CG
- AE and DH
- BF and CG
- BF and DH

12. Find the amount of money to be paid on a loan of K18 000 for 36 months at 5% per annum for simple interest.
- K 2 700
  - K 20 700
  - K3 240 000
  - K3 258 000
13. A radio was sold for K4 000 at a discount of 20%. What was the cash discount?
- K 200
  - K 800
  - K3 200
  - K3 800

**Table 1** shows temperature readings for four stations. Use it to answer questions 14 and 15.

Table 1

Station	Temperature (°C)
P	35
S	13
K	21
M	19

14. Which station was the coldest?
- K
  - M
  - P
  - S
15. What is the average temperature for the stations?
- 22°C
  - 24°C
  - 48°C
  - 88°C

Continued/...

16. A vegetable garden is 57m long and 36m wide. What is the length of the wire required to fence the garden?
- A. 21m  
 B. 93m  
 C. 186m  
 D. 2052m
17. Table 2 shows a message sent by telegram.
- |   |
|---|
| <b>Table 2</b>  |
| To: John Phiri Box 38 Kasungu<br>send money for school<br>uniform |
| From: Grace Phiri   |
- What is the cost of sending the message at K20 per word?
- A. K200  
 B. K240  
 C. K280  
 D. K320
18. A boy and a girl shared 120 tablets of soap in the ratio 3:2 respectively. What was the boy's share?
- A. 24  
 B. 40  
 C. 48  
 D. 72
19. A cow had a mass of 201 kg 150 g and a bull had a mass of 232 kg 301 g. What was the difference in mass between the two cattle?
- A. 31kg 151g  
 B. 31kg 251g  
 C. 433kg 151g  
 D. 433kg 451g
20. A worker's salary is K14 200 per month. If he receives K12 700 per month after deducting income tax, what is his income tax per year?
- A. K1 250  
 B. K1 500  
 C. K18 000  
 D. K26 900

### Section B (60 marks)

Answer all questions in this section. Write your answers in the space provided under each question. Show your working.

21. a. Multiply the difference between 701.2 and 681 by 2.3, give the answer to 1 decimal place. (3 marks)

21. (Continued)

- b. A bicycle tyre has a diameter of 34.3 cm. Calculate the circumference of the tyre. (Take  $\pi = \frac{22}{7}$ ).

(3 marks)

22. Simplify  $\frac{4}{5} \times \frac{2}{3} + \frac{3}{10} \div \frac{3}{5}$ .

(4 marks)

23. a. The first three numbers in a number pattern are: 55, 70 and 85.  
Find the fourth number. (3 marks)
- b. A machine uses 550 ml of petrol in a minute. If the machine worked for  $1\frac{1}{2}$  hours, calculate the number of litres used. (4 marks)

24. a. Aleka had K5 000 and bought 30 exercise books at K750 per unit and 5 pens at K120 per pen. Calculate the amount of money left. (5 marks)
- b. Tinyade received R1 275 from South Africa. If  $R1 = K50$ , calculate the amount of money that Tinyade received in Malawi Kwacha. (3 marks)

25. Table 3 shows number of tomatoes sold by two vendors at a certain market.

Table 3

Name of Vendor	Number of Tomatoes Sold
Prince	(6)
Princess	(4)

If represents 60 tomatoes, calculate the difference between the number of tomatoes sold by Prince and those sold by Princess. (4 marks)

Continued/...

26. a. Bengo had  $4x$  Kwacha. He gave  $x$  Kwacha to his friend. If he remained with K21 000, calculate the amount of money that Bengo gave to his friend.

(4 marks)

- b. Figure 2 shows a sketch of a rectangular woodlot ABCD.

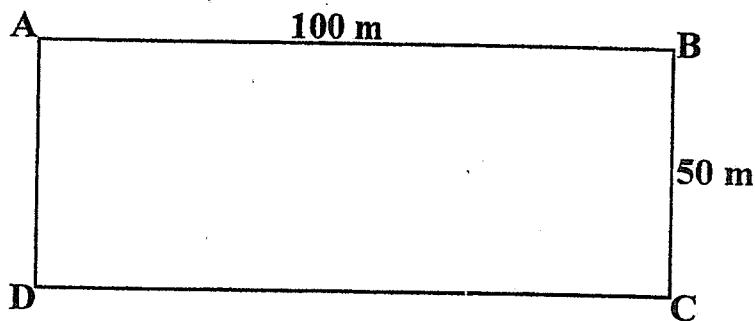


Figure 2

If  $AB = 100$  m and  $BC = 50$  m, using a scale of 1 cm to represent 25 m, draw a plan of the woodlot.

(4 marks)

27. a. The average mass of 13 bags of maize is 52.2 kg. If 3 bags are sold, the average mass of the remaining bags is 52.7 kg. Calculate the total mass of the three bags. (4 marks)
- b. Using a ruler and a protractor, construct an equilateral triangle RST with a side 4 cm. (3 marks)

28. Figure 3 shows a composite shape made up of a square ABCD and a trapezium CEFG.

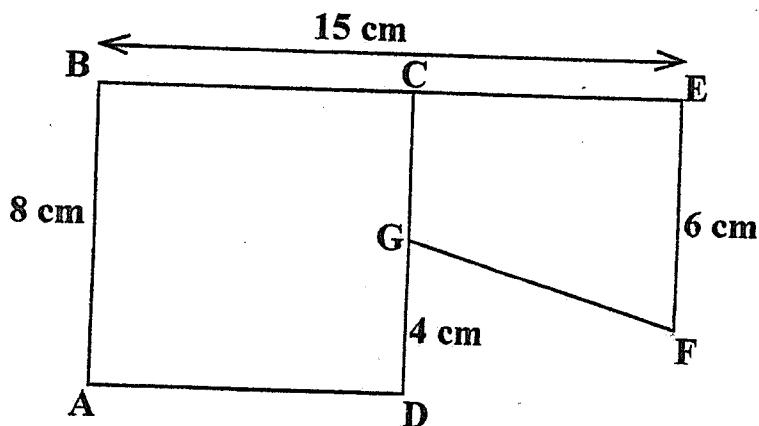


Figure 3

If  $AB = 8 \text{ cm}$ ,  $BCE = 15 \text{ cm}$ ,  $EF = 6 \text{ cm}$  and  $DG = 4 \text{ cm}$ , calculate the area of the composite shape.

(6 marks)

29. Namaye collected the following number of eggs from her farm: 380, 600, 400, 490, 400, 380, 490, 520. Calculate the median number of eggs collected. (4 marks)

30. Mayamiko's business had the following transaction in April 2019:

1 April	balance in hand	K2 000
18 April	bought basins	K3 000
25 April	sold cups	K1 900

Prepare cash account for Mayamiko's business and balance it as at 30th April 2019.  
(6 marks)

**END OF QUESTION PAPER**

**NB:** This paper contains 12 printed pages.



EXAMINATION NO.: \_\_\_\_\_

# THE MALAWI NATIONAL EXAMINATIONS BOARD

2018 PRIMARY SCHOOL LEAVING CERTIFICATE EXAMINATION

## MATHEMATICS

(100 marks)

Subject Number: P131

Thursday, 17 May

Time Allowed: 2 hours

8:00 – 10:00 am

Name of Candidate: \_\_\_\_\_  
(Surname First)

Name of School: \_\_\_\_\_

### Instructions

1. This paper contains 12 printed pages. Please check.
2. There are 20 multiple choice questions in Section A and 10 questions in Section B.
3. Answer all questions. In Section A, encircle the letter corresponding to the right answer to each question. In Section B, write your answers in the spaces provided under each question.
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**Section A (40 marks)**

Answer all questions in this section.

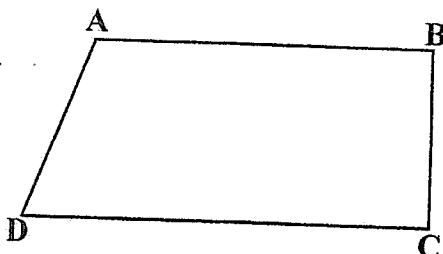
Use the blank pages at the end of this question paper for your rough work in this section only.

Encircle the letter corresponding to the right answer for each question.

1. What is 999 500 tambala in kwacha and tambala?
  - A. K 99 95t
  - B. K 999 50t
  - C. K 999 05t
  - D. K9995 00t
2. What is sixty eight million two hundred and one thousand and one in figures?
  - A. 68 201 101
  - B. 68 201 001
  - C. 68 200 101
  - D. 68 200 001
3. What is 2 472 to the nearest thousand?
  - A. 2 000
  - B. 2 400
  - C. 2 500
  - D. 3 000
4. Which of the following is **correct** for the Mathematical statement: the sum of  $y$  and 5 is less than or equal to 11?
  - A.  $y + 5 < 11$
  - B.  $y + 5 \leq 11$
  - C.  $y + 5 > 11$
  - D.  $y + 5 \geq 11$
5. A diagram of a plant 8 cm long was drawn using a scale of 1 cm representing 2 cm. What was the length of the plant?
  - A. 2 cm
  - B. 4 cm
  - C. 8 cm
  - D. 16 cm
6. What is DXLIX in Hindu Arabic numeral?
  - A. 549
  - B. 559
  - C. 649
  - D. 659
7. Decrease 80 by 20%.
  - A. 16
  - B. 60
  - C. 64
  - D. 96
8. What is the value of  $y$  in the equation  $4y - 8 = 20$ ?
  - A. 3
  - B. 7
  - C. 12
  - D. 22

Continued...

9. Figure 1 shows a trapezium ABCD.



**Figure 1**

Which two sides are parallel to each other?

- A. AB and DC
- B. AB and AD
- C. BC and DC
- D. BC and AD

10. Bina and Chiko shared pens in the ratio 2:3 respectively. If Chiko got 18 pens, what is the total number of pens?
- A. 12
  - B. 27
  - C. 30
  - D. 45

11. The total mass of a tin with water in it is 35.72 g. If the mass of the water only is 28.36 g, what is the mass of the tin?
- A. 7.36 g
  - B. 7.46 g
  - C. 17.36 g
  - D. 64.08 g

12. What is a period of 5 years called?

- A. century
- B. decade
- C. generation
- D. instrum

13. A pair of trousers marked at K6 500 was sold at K5 850. What was the discount percentage?

- A. 9%
- B. 10%
- C. 11%
- D. 12%

**Table 1** shows marks and number of learners represented in a tally form.

**Table 1**

Mark (%)	Tally
10	
20	
30	
40	

Use the table to answer questions 14 and 15.

14. What was the modal mark?

- A. 10
- B. 20
- C. 30
- D. 40

15. What was the median mark?

- A. 20
- B. 25
- C. 30
- D. 35

16. A company paid K400 000 as customs duty for a machine worth K1 600 000. At what rate was the custom duty charged?
- A. 1.5%  
B. 2.5%  
C. 25%  
D. 40%
17. Chikondi bought 3 postal orders for K210. What was the cost of one postal order?
- A. K 0.70  
B. K 7.00  
C. K 70.00  
D. K630.00
18. The perimeter of a rectangular garden is 62 m. If the length of the rectangle is 17 m, what is its width?
- A. 14  
B. 28  
C. 31  
D. 45

Enile made the following transactions in March 2018.

March 1	Balance in bank	K10 000
March 2	Banked	K 5 000
March 18	Withdrawal	K 3 000
March 29	Received cheque	K 4 000

Use this information to answer questions 19 and 20.

19. If bank account for Enile's transactions was to be prepared, which transaction would be entered under expenditure?
- A. Balance in bank K10 000  
B. Banked K 5 000  
C. Received cheque K 4 000  
D. Withdrawal K 3 000
20. How much money at the bank would Enile had as at 31 March 2018?
- A. K12 000  
B. K15 000  
C. K16 000  
D. K19 000

### Section B (60 marks)

Answer all questions in this section. Write your answers in the space provided under each question. Show your working.

21. a. Convert 2 days 5 hours 10 minutes to minutes.

(4 marks)

## 21. (Continued)

- b. Simplify  $1.1 \times 0.02 \div (3.65 + 1.35)$ .

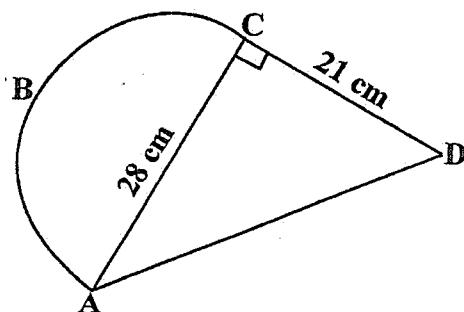
(4 marks)

22. a. A child had  $2a + b$  guavas. If she received  $10 + a$  other guavas, find the total number of guavas she had. (3 marks)
- b. A doctor recorded temperatures of a patient at different intervals as follows:  $36.0^{\circ}\text{C}$ ,  $36.2^{\circ}\text{C}$ ,  $37.7^{\circ}\text{C}$  and  $38.1^{\circ}\text{C}$ . Calculate the mean temperature of the patient. (3 marks)

23. a. In a number pattern, the first number is 540, the second is 180 and the third is 60. Calculate the forth number. (3 marks)
- b. A tank measuring 5m long, 4m wide and 3m deep is half full of water. Calculate the volume of water in the tank. (4 marks)

24. a. There are 180, 126 and 162 learners in standards 3, 4 and 5 respectively. Find the largest number of learners that can be put in a group for each of classes to have the same group sizes. (3 marks)

**Figure 2** is a composite shape made up of a semicircle ABC and a right angled triangle ACD.  $AC = 28 \text{ cm}$ ,  $CD = 21 \text{ cm}$  and angle  $\angle ACD = 90^\circ$ .



- b. Calculate the total area of the shape. (Take  $\pi = \frac{22}{7}$ ). (7 marks)

25. a. A person bought 20 units of fruits for K2 000 and sold them at a profit of K50 each. Calculate the selling price of each fruit. (3 marks)

- b. **Table 2** shows Mama's budget for the month of February 2018.

Item	Quantity	Cost for one item (K)	Amount (K)
Sugar	5 packets	850.00	4 250.00
Cooking oil	3 bottles	1 200.00	
Soap	2 units		1 600.00

(i) Complete the table.

(ii) Find the total cost for Mama's budget.

(4 marks)

26. A lady spends  $\frac{2}{5}$  of her salary on food,  $\frac{1}{6}$  on house rent and the remaining K26 000 on clothes. Calculate her monthly salary. (5 marks)

27. Figure 3 shows part PXY of an equilateral triangle PXZ in which PY is a line of symmetry.

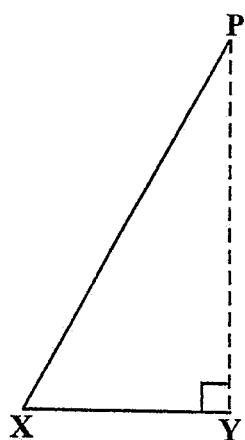


Figure 3

Using a ruler and a protractor complete the shape to form triangle PXZ.

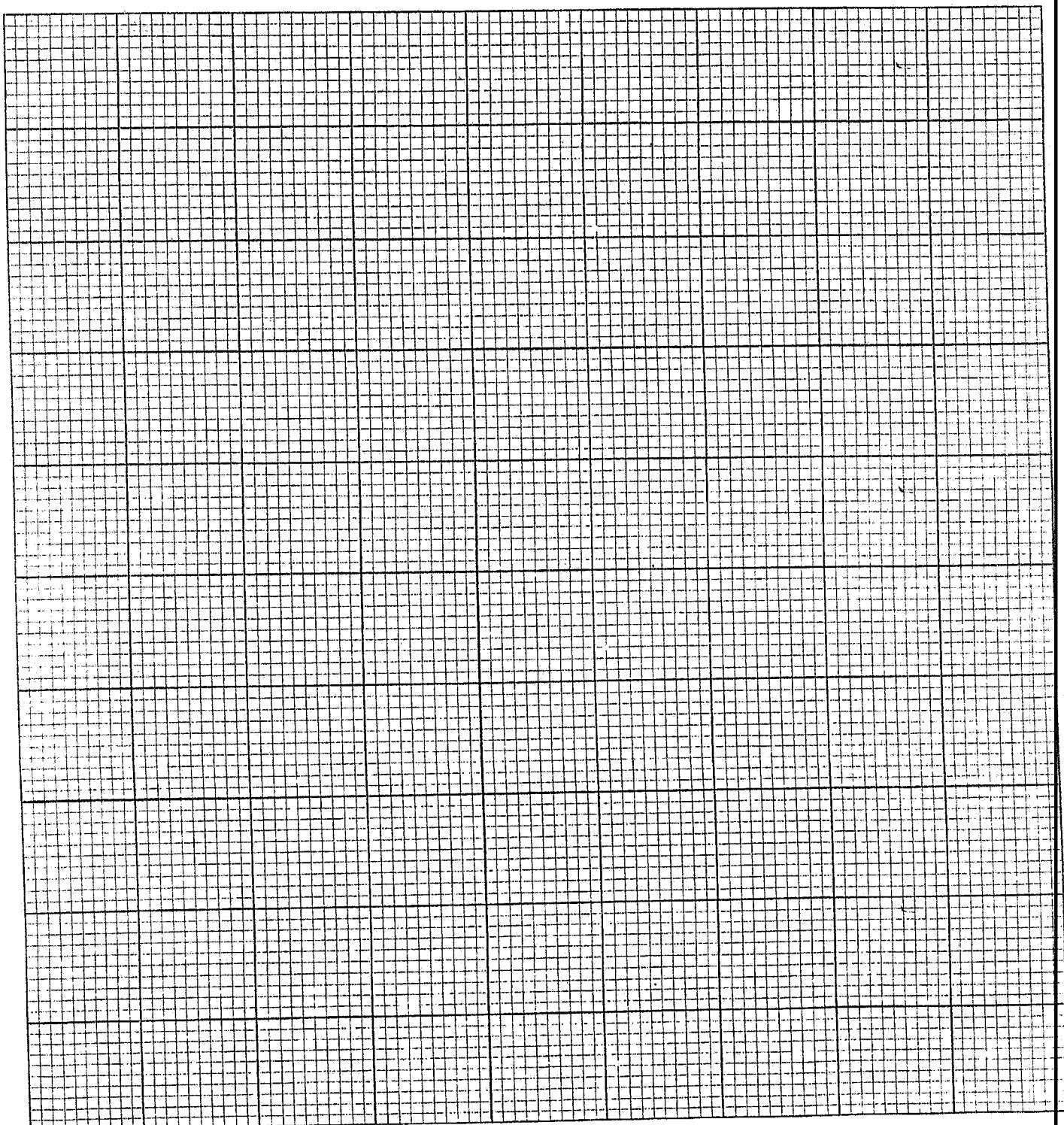
(3 marks)

28. Table 3 shows masses of rice and their costs.

Table 3

Mass in (Kg)	1	2	3	4
Cost in (K)	K450	K900	K1 350	K1 800

- a. Using a scale of 2 cm to represent 1 kg on horizontal axis and 2 cm to represent K450 on vertical axis, draw a linegraph. (4 marks)



28. (Continued)

b. Using the graph, find the:

(i) Cost of  $1\frac{1}{2}$  kg of rice

(ii) Mass of rice if the cost is K1 575

(2 marks)

29. Table 4 shows departure and arrival times of a bus for bus depots A, B and C.

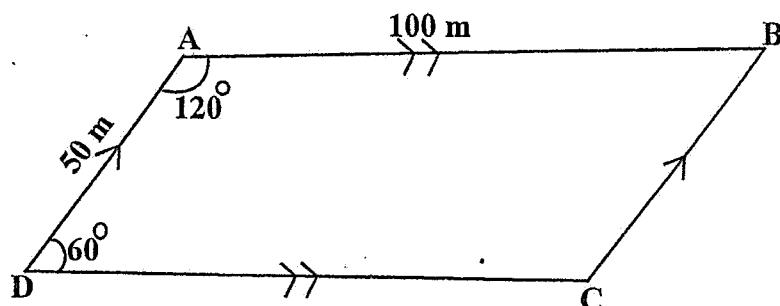
Table 4

Bus Depot	Departure/Arrival	Time
A	Departure	6:00 am
B	Arrival	7:30 am
B	Departure	7:50 am
C	Arrival	8:50 am

If the bus travels at an average speed of 80 km/h, calculate the distance between depot A and depot C.

(4 marks)

30. Figure 4 shows a woodlot in a form of a parallelogram in which  $AB = 100 \text{ m}$ ,  $AD = 50 \text{ m}$ , angle  $ADC = 60^\circ$  and angle  $DAB = 120^\circ$ .

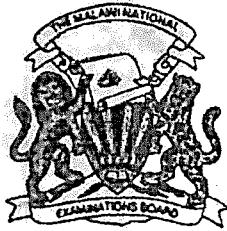


**Figure 4**

- a. Using a protractor, a ruler and a scale of 1 cm to represent 10 m, draw the shape. (4 marks)

**END OF QUESTION PAPER**

NB: This paper contains 12 printed pages.



EXAMINATION NO.: \_\_\_\_\_

## THE MALAWI NATIONAL EXAMINATIONS BOARD

SCH

2017 PRIMARY SCHOOL LEAVING CERTIFICATE EXAMINATION

## MATHEMATICS

(100 marks)

Subject Number: P131

Thursday, 18 May

Time Allowed: 2 hours

8:00 – 10:00 am

Name of Candidate: \_\_\_\_\_

(Surname First)

Name of School: \_\_\_\_\_

## Instructions

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28		
29		
30		

2017

## Section A (40 marks)

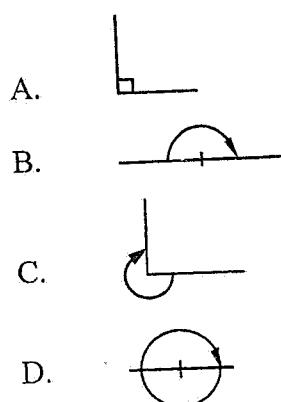
Answer all questions in this section.

Use the blank pages at the end of this question paper for your rough work in this section only.

**Encircle** the letter corresponding to the right answer for each question.

1. Add 84.04, 22, 0.55 and 8.
  - A. 84.89
  - B. 85.61
  - C. 92.81
  - D. 114.59
  
2. Express 45% as a ratio in its simplest form.
  - A. 9:20
  - B. 20:9
  - C. 45:100
  - D. 100:45
  
3. How many fortnights are there in 56 days?
  - A. 2
  - B. 4
  - C. 8
  - D. 14
  
4. Which of the following is the greatest mass?
  - A. 75 milligrams
  - B. 75 decigrams
  - C. 75 hectograms
  - D. 75 decagrams
  
5. Change  $4\frac{5}{7}$  to an improper fraction.
  - A.  $\frac{20}{7}$
  - B.  $\frac{27}{7}$
  - C.  $\frac{28}{7}$
  - D.  $\frac{33}{7}$

6. Which of the following angles is a half turn?



7. Which of the following is a list of prime numbers **only** between 30 and 45?
  - A. 31, 37, 43, 45
  - B. 31, 37, 41, 43
  - C. 31, 35, 37, 43
  - D. 31, 33, 37, 41

8. Mary is 9 years old and John is  $n$  years old. If the sum of their ages is 33, how old is John?
  - A. 24
  - B. 32
  - C. 34
  - D. 42

9. The product of two numbers is 288. One of the numbers is the difference between 11 and 2. Find the other number.
  - A. 13
  - B. 22
  - C. 26
  - D. 32

Continued/...

**Table 1** shows body temperatures for five patients. Use it to answer Questions 10 and 11.

**Table 1**

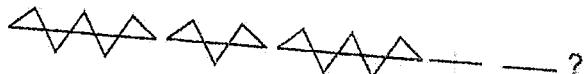
Patient	Body Temperature ( $^{\circ}\text{C}$ )
P	39.2
Q	38.4
R	37.6
S	36.5
T	38.0

10. Which patient had the **highest** body temperature?  
 A. S  
 B. R  
 C. Q  
 D. P
11. A patient is tested for malaria if the body temperature is greater than  $38^{\circ}\text{C}$ . How many patients were tested for malaria?  
 A. 2  
 B. 3  
 C. 4  
 D. 5
12. The following are heights of five buildings in a certain city:  
 18 m, 17 m, 12 m, 18 m, 16 m.

What is the median height of the buildings?

- A. 12 m  
 B. 16 m  
 C. 17 m  
 D. 18 m

13. Which of the following completes the pattern



- A.   
 B.   
 C.   
 D.

14. A girl gave  $\frac{3}{4}$  of \$600 to her brother. What is the value of the remaining dollars in Malawi Kwacha?  
 (\$1 = MK700)

- A. K 150  
 B. K 450  
 C. K105 000  
 D. K315 000

15. A cell phone was marked K8 000. If a discount of K450 was given, find the selling price.

- A. K7 550  
 B. K7 600  
 C. K7 950  
 D. K8 450

16. Which of the following tallies represents the number 18?

- A.   
 B.   
 C.   
 D.

2017

Table 2 shows postal charges for sending newspapers within Malawi.  
Use it to answer Questions 17 and 18.

Table 2

Item	Mass of Item	Postal Charge
Newspaper	up to 20 g	K360
	above 20 g up to 100 g	K820
	above 100 g up to 250 g	K1180
	above 250 g up to 500 g	K1560
	above 500 g up to 1 000 g	K2600
	above 1000 g up to 2000 g	K3840

17. How much would a person pay to send a newspaper weighing 21 g?  
 A. K360  
 B. K820  
 C. K1180  
 D. K1340
18. What would be the total postal charge for newspapers of mass 240 g and 999 g?  
 A. K1180  
 B. K2600  
 C. K3780  
 D. K3840
19. Find the simple interest to be paid on a loan of K24 000 for 3 years at 10% per annum.  
 A. K 720  
 B. K 7 200  
 C. K 24 720  
 D. K 31 200

20. Figure 1 shows a circle with centre C. M and N are points on the circumference of the circle.

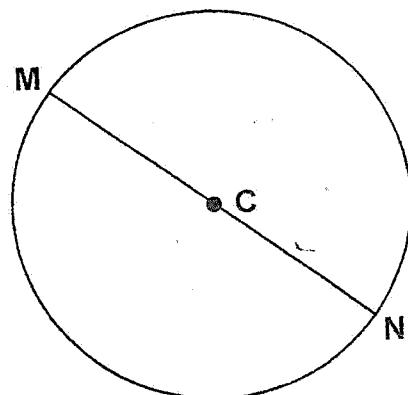


Figure 1

What name is given to the straight line MCN?

- A. circumference  
 B. diameter  
 C. radius  
 D. semicircle

Continued...

**Section B (60 marks)**

Answer all questions in this section. Write your answers in the space provided under each question. Show your working.

21. a. Solve the equation  $2x + 3x - 4x - 7 = 1$ .

(3 marks)

- b. A family has 3 meals in a day. During each meal, 250 ml of milk is used. How many days will the family take to use 3 000 ml of milk?

(4 marks)

2017

22. a. Simplify  $2\frac{2}{9} \times (3\frac{3}{4} - 1\frac{5}{8}) \div 1\frac{1}{3}$ . (4 marks)

b. A circular ground has a diameter of 28.7 m. Calculate the length of wire that could be used to fence the ground. (Take  $\pi = \frac{22}{7}$ ). (3 marks)

Continued/...

23. a. Form an inequality from the following statement and solve it.  
5 subtracted from  $x$  is greater than 18. (3 marks)
- b. The commission charged for sending money by fast cash money transfer is 10%. If Titani sent K20 500 to his mother by fast cash money transfer, calculate the:
- commission paid
  - total money that Titani paid the post office. (5 marks)

24. Mphatso bought 5 metres of cloth at K750 per metre, 18 bananas at 3 for K100 and  $3\frac{1}{2}$  kg rice at K480 per kg. Prepare a bill for Mphatso.

(5 marks)

25. A minibus left Blantyre at 11.30 am and reached Dedza at 3.00 pm on the same day. If it was travelling at an average speed of 60 km/h, calculate the distance covered.

(5 marks)

Continued/...

26. Figure 2 is a rectangle ABCD with triangle CDE inside it.

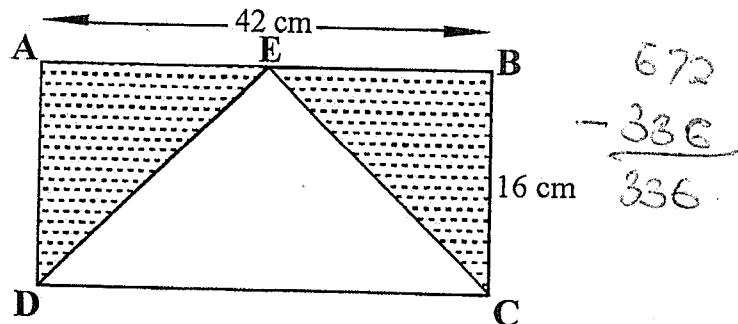


Figure 2

If  $AB = 42$  cm and  $BC = 16$  cm, calculate the area of the shaded part.

(5 marks)

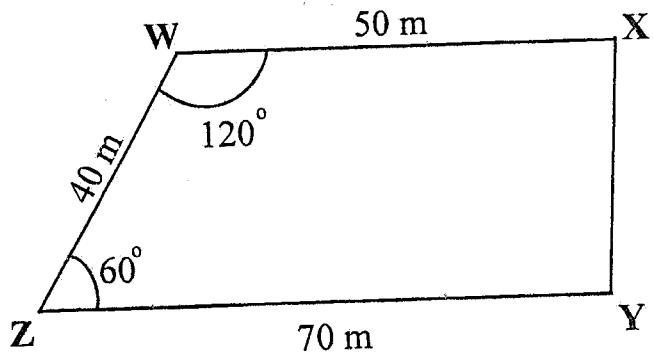
27. a. The value of a sofa set went down by 12% to K132 000 after one year. Find the original value of the sofa set.

(4 marks)

Continued/...

## 27. (Continued)

- b. Figure 3 shows a drawing of a garden in the form of a trapezium  $WXYZ$  in which  $WX = 50 \text{ m}$ ,  $WZ = 40 \text{ m}$ ,  $YZ = 70 \text{ m}$ , angle  $WZY = 60^\circ$  and angle  $XWZ = 120^\circ$ .

**Figure 3**

- (i) Using a scale of 1 cm to represent 10 m, draw the figure accurately.

- (ii) Measure and state the length of  $XY$ .

(6 marks)

Continued

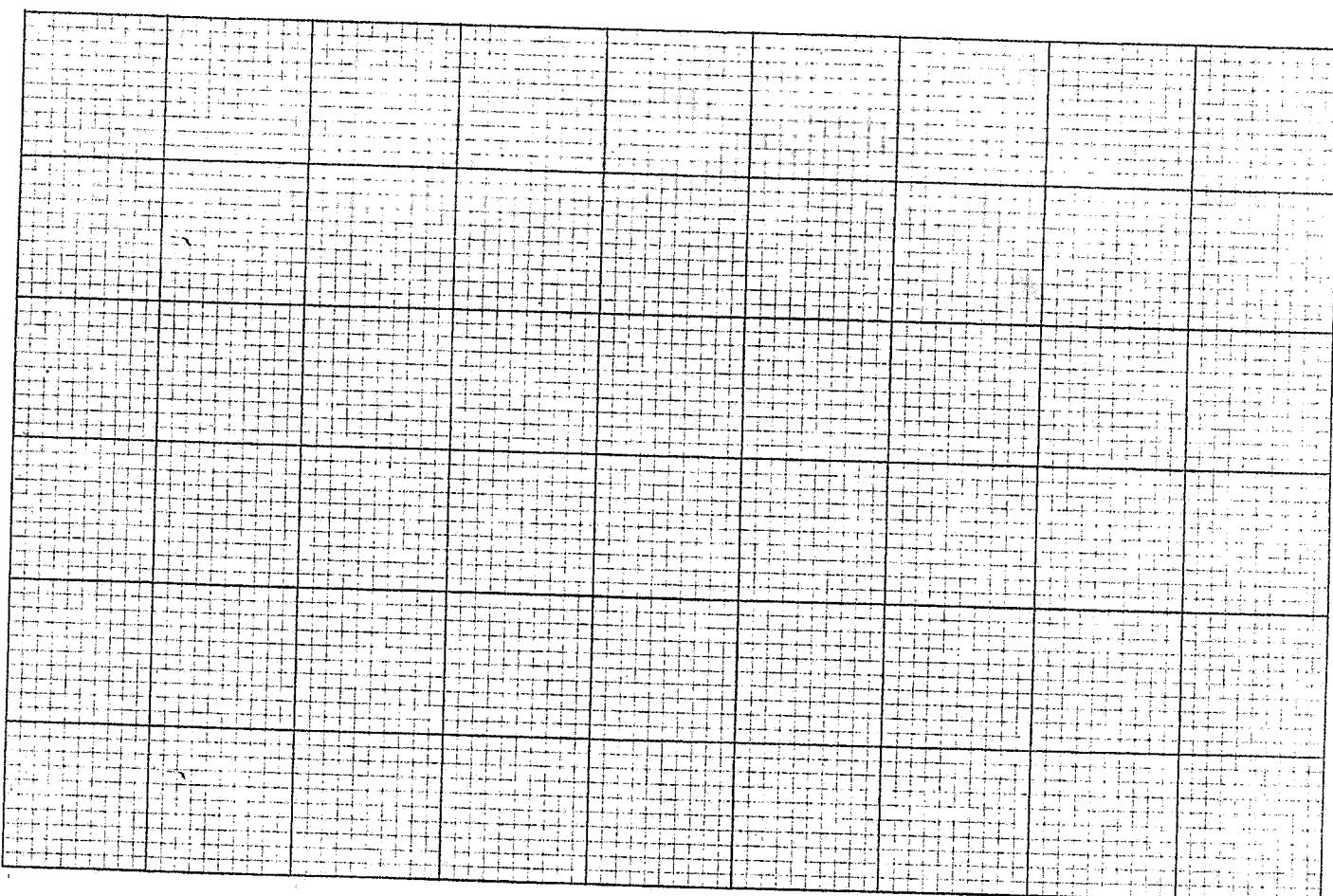
28. Table 3 shows an average rainfall recorded at a weather station for four weeks.

Table 3

Week	Rainfall (mm)
1	35
2	47
3	18
4	20

Using a scale of 2 cm to represent 10 mm on the vertical axis, draw a bar graph to represent the information.

(4 marks)



Continued/...

2017

29. A person paid K420 000 as a custom duty for goods bought. If the rate of the custom duty was  $52\frac{1}{2}\%$ , find the value of the goods. (4 marks)

30. Table 4 shows the results of a Science test for 60 learners:

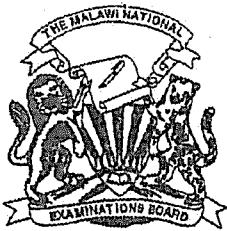
Table 4

Marks	Percentage of learners
From 60 and above	10 %
From 50 to 59	20 %
From 40 to 49	40 %
From 20 to 39	20 %
From 19 and below	10 %

- a. Find the number of learners who had marks from 40 to 49. (2 marks)
- b. Find the total number of learners who had marks greater than 49. (3 marks)

END OF QUESTION PAPER

NB: This paper contains 12 printed pages.



EXAMINATION NO.: \_\_\_\_\_

# THE MALAWI NATIONAL EXAMINATIONS BOARD

2016 PRIMARY SCHOOL LEAVING CERTIFICATE EXAMINATION

## MATHEMATICS

(100 marks)

Subject Number: P131

Thursday, 12 May

Time Allowed: 2 hours

8:00 – 10:00 am

Name of Candidate: \_\_\_\_\_  
(Surname First)

Name of School: \_\_\_\_\_

### Instructions

1. This paper contains 12 printed pages. Please check.
2. Answer all questions. In Section A, encircle the letter corresponding to the right answer to each question. In Section B, write your answers in the spaces provided under each question.
3. There are 20 multiple choice questions in Section A and 10 questions in Section B.
4. You are provided with blank pages at the end of the paper for rough work for Section A. Do not tear them off.
5. In Section B, you need to show all your working.
6. The use of electronic calculators is not allowed.
7. In the table provided on this page, tick against the question number you have answered.
8. Please make sure you have written your examination number, your name and school name on the question paper in the spaces provided.
9. Hand in your examination paper to the invigilator when time is called to stop writing.

	Tick 21-30 if answered	Do not write in these columns	
1-10			
11-20			
21			
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**Section A (40 marks)**

Answer **all** questions in this section.

Use the blank pages at the end of this question paper for your rough work in this section only.  
Encircle the letter corresponding to the right answer for each question.

1. What is 49 in Roman numerals?
  - A. IL
  - B. LIX
  - C. XLIX
  - D. XLVIII
  
2. Simplify  $\frac{3}{7} + \frac{5}{6} + \frac{2}{5}$ .
  - A.  $\frac{4}{35}$
  - B.  $\frac{32}{35}$
  - C.  $\frac{53}{70}$
  - D.  $\frac{67}{70}$
  
3. Which of the following quadrilaterals is **not** a parallelogram?
  - A. rectangle
  - B. rhombus
  - C. square
  - D. trapezium
  
4. A trader bought beans worth K7 200 and sold them for K7 920. What profit percent did the trader make?
  - A. 10 %
  - B. 11 %
  - C. 90 %
  - D. 110 %

5. Solve the equation

$$2t + 1 = 11 + t.$$

- A. 6
- B. 10
- C. 11
- D. 12

**Table 1** shows number of pencils distributed to learners in Standards 1, 2, 3 and 4 at a certain school. Use it to answer **Questions 6 and 7**.

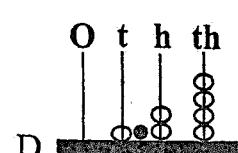
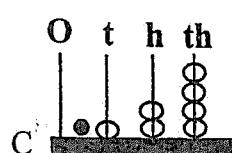
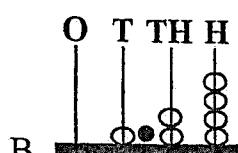
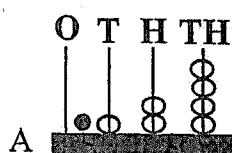
**Table 1**

Class	Tallies
Standard 1	HHH HHH HHH HHH
Standard 2	HHH HHH HHH HHH HHH
Standard 3	HHH HHH HHH
Standard 4	HHH HHH HHH HHH HHH III

6. Which class received the greatest number of pencils?
  - A. Standard 1
  - B. Standard 2
  - C. Standard 3
  - D. Standard 4
  
7. Find the difference between the number of pencils distributed in Standard 1 and Standard 2.
  - A. 1
  - B. 3
  - C. 4
  - D. 5

Continued/...

8. On which abacus is 0.124 correctly modelled?



9. If 1 cm represents 12 km, what distance in km will 5.5 cm represent?
- A. 55 km  
B. 66 km  
C. 550 km  
D. 660 km

10. A person celebrated his diamond jubilee ten years ago. How old is he now?
- A. 40  
B. 50  
C. 60  
D. 70

11. A learner measured an angle and found that it was  $125^\circ$ . What type of angle is it?
- A. acute  
B. obtuse  
C. reflex  
D. right angle.

12. Table 2 shows the official exchange rates of the Malawi Kwacha against some foreign currencies in November 2015.

Table 2

Currency	Buying	Selling
US Dollar (\$)	557	571
British Pound (£)	859	880

If a person exchanged \$20 and £10, how much money in Malawi Kwacha did he get altogether?

- A. K8 590  
B. K11 140  
C. K19 730  
D. K20 220

13. A lady paid K2280 for 4 dresses which were marked K600 each. Find the total discount that the lady was given.

- A. K120  
B. K150  
C. K570  
D. K1 680

14. Which of the following numbers completes the number pattern 0, 1, 1, 2, 3, 5, 8, \_\_\_\_?
- A. 8  
B. 11  
C. 13  
D. 20

15. A person deposited two K1000 bank notes, one K500 bank note and forty K20 bank notes. What was the total money deposited?
- K1 580
  - K2 300
  - K2 580
  - K3 300
16. Yankho takes 2 hours and 30 minutes to walk a distance of 15 km. Calculate Yankho's speed in metres per minute.
- 6 m/min
  - 10 m/min
  - 100 m/min
  - 125 m/min
17. Which inequality symbol should be written instead of the box to come up with a correct inequality  $x - 7 \boxed{\phantom{0}} x - 3$ ?
- <
  - >
  - $\leq$
  - $\geq$
18. Calculate the total cost of the following items:  
10 tomatoes at 2 for K50  
3 books for K500
- K 550
  - K 750
  - K1 600
  - K1 750

19. The sides of a triangular piece of cloth measure 9 m, 20 m and 15 m. If it is to be decorated with ribbons around its edges, find the total length of ribbon required.
- 22 m
  - 44 m
  - 88 m
  - 150 m

**Table 3** shows property and its insurance premium paid per month. Use it to answer **question 20**.

**Table 3**

Property	Insurance premium per month (K)
House	K9 000
Bicycle	K 750
Motor Vehicle	K4 500
House furniture	K3 750

20. If a person paid a total insurance premium of K45 000 for an agreed period of 5 years for ensuring one of the property in **Table 3**, which property was ensured?
- bicycle
  - house
  - house furniture
  - motor vehicle

**Section B (60 marks)**

Answer **all** questions in this section. Write your answers in the space provided under each question. Show your working.

21. a. Simplify  $11.7 + 2.64 + 0.312$ , write your answer to 2 significant figures. **(3 marks)**
- b. Calculate the difference between the LCM and the HCF of 16, 20 and 40. **(5 marks)**

Continued/...

22. a. The following were prices for the same type of handbag in different shops: K3 700, K3 850, K3 900, K3 950, K4 000. Calculate the mean price of the handbag. (3 marks)

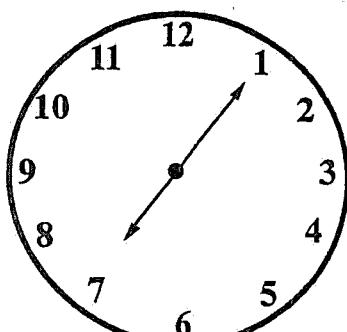
- b. **Table 4** shows rates of value added tax (VAT) on items.

**Table 4**

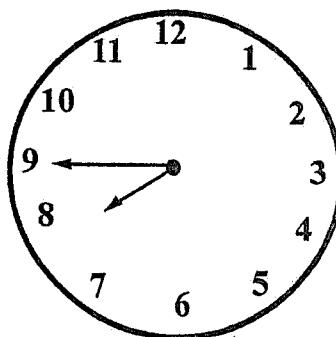
Item	Cost per item	VAT
Sugar	K500	0 % (free)
Bicycle	K40 000	20 %

If a person bought 15 packets of sugar and one bicycle, calculate the amount of money that was paid. (4 marks)

23. Figure 1 shows time on clock faces when Tadala and Mwayi arrived at school on a certain day.



Tadala



Mwayi

Figure 1

How many minutes did Tadala arrive at the school earlier than Mwayi? (4 marks)

24. Dudu has  $y$  mangoes, chako has 10 less mangoes than Dudu and Wanga has 15 more mangoes than Dudu. How many mangoes have they altogether? (5 marks)
25. A container is  $\frac{4}{7}$  full of water. If 60 litres are needed to fill it up, calculate the number of litres that the container holds when it is full. (4 marks)

26. Figure 2 shows a wooden door KLMN with a semi circular glass ABC on it.  $KL = 90 \text{ cm}$ ,  $LM = 250 \text{ cm}$  and  $AOC = 56 \text{ cm}$ .

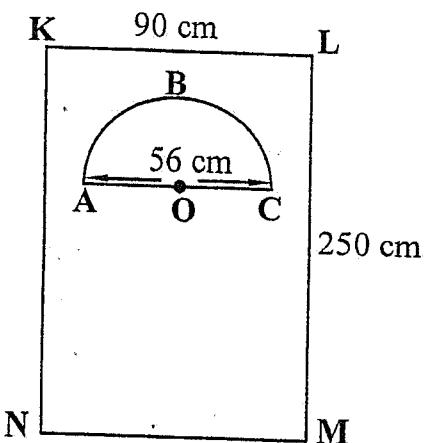


Figure 2

Calculate the area of the wooden part of the door in square metres. (7 marks)  
(Take  $\pi = \frac{22}{7}$ ).

27. A school with 1200 learners had enough "Likuni Phala" flour for 30 days. If after 5 days, 50 more learners joined the school, how many days would the remaining flour take? (5 marks)
28. a. Using a protractor and a ruler, construct a rectangle **DEFG** in which **DE** = 7 cm, and **EF** = 4 cm. (4 marks)
- b. In the diagram, measure **DF** and write down its length. (1 mark)

Continued/...

29. Mrs Sanito had K10 000 balance in bank on 1 April 2015. During the month, she made the following transactions:

2 April sold eggs for K8 000 cash  
10 April withdrew K5 000 from bank  
21 April banked K4 500

Prepare a cash book for her and balance it.

(9 marks)

Continued/...

30. Table 5 is a picture graph showing the number of dogs killed in a certain city to control rabies.

Table 5

Day	Number of dogs killed
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

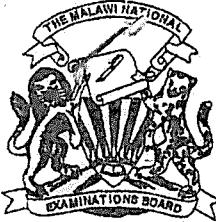
Key :  represents five dogs

If there were 250 dogs in the city, calculate the percentage of dogs that were killed.

(6 marks)

**END OF QUESTION PAPER**

NB: This paper contains 12 printed pages.



EXAMINATION NO.: \_\_\_\_\_

THE MALAWI NATIONAL EXAMINATIONS BOARD  
2015 PRIMARY SCHOOL LEAVING CERTIFICATE EXAMINATION

**MATHEMATICS**

(100 marks)

Subject Number: P131

Thursday, 7 May

Time Allowed: 2 hours

8:00 – 10:00 am

Name of Candidate: \_\_\_\_\_  
(Surname First)

Name of School: \_\_\_\_\_

**Instructions**

1. This paper contains 12 printed pages. Please check.
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5. In Section B, you need to show all your working.
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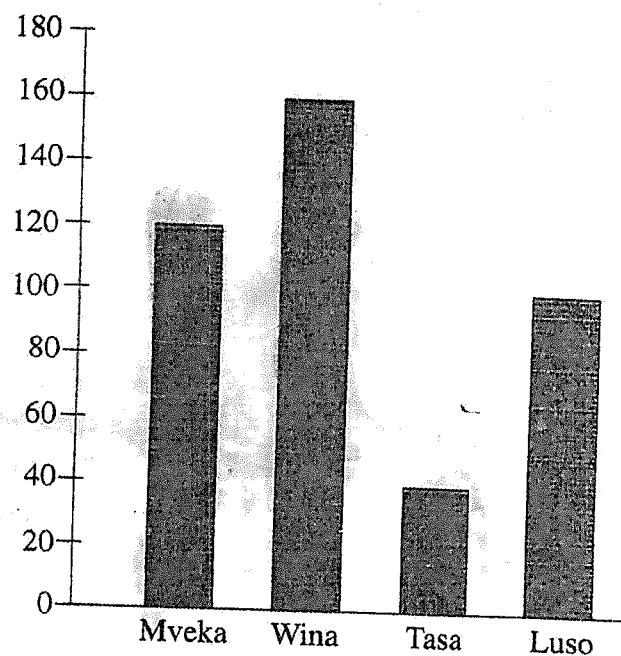
## Section A (40 marks)

Answer all questions in this section.

Use the blank pages at the end of this question paper for your rough work in this section only.  
Encircle the letter corresponding to the right answer for each question.

1. Change 2.625 to a mixed number. ✓
- A.  $2\frac{1}{4}$
  - B.  $2\frac{3}{4}$
  - C.  $2\frac{5}{8}$
  - D.  $2\frac{4}{25}$
2. What does "b/d" stand for in accounting?
- A. balance debited
  - B. bank draft
  - C. break down
  - D. brought down
3. Write a statement to represent the inequality  $x \geq 3$ .
- A.  $x$  is greater than or equal to 3
  - B. 3 is greater than or equal to  $x$
  - C.  $x$  is less than or equal to 3
  - D. 3 is less than  $x$
4. A car travelling at 50 km/h takes 2 hours to cover a certain distance. How long will it take to travel the same distance if it travels at 90 km/h?
- A.  $\frac{5}{18}$  hours
  - B.  $\frac{9}{10}$  hours
  - C.  $\frac{10}{9}$  hours
  - D.  $\frac{18}{5}$  hours

**Figure 1** is a bar graph showing number of trees planted by four primary schools in a certain year. Use it to answer Questions 5 and 6.



5. Which primary school planted the least number of trees?
- A. Wina
  - B. Tasa
  - C. Mveka
  - D. Luso
6. How many more trees did Mveka plant than Tasa?
- A. 20 trees
  - B. 40 trees
  - C. 60 trees
  - D. 80 trees

Continued/...

7. Express  $90^\circ$  as a fraction of a complete turn.
- $\frac{1}{3}$
  - $\frac{2}{3}$
  - $\frac{1}{4}$
  - $\frac{1}{2}$
8. The drawing of an object is 6 cm long. What is the actual length of the object if the scale used is 1:10?
- 0.06 cm
  - 0.6 cm
  - 6.0 cm
  - 60 cm
9. A nurse worked at the hospital for two decades. How many years did she work at the hospital?
- 14 years
  - 20 years
  - 25 years
  - 50 years
10. How many trips will a bus carrying 150 passengers per trip make to transport 6 000 passengers to a celebration?
- 40 trips
  - 29 trips
  - 290 trips
  - 400 trips
11. The initial temperature reading on a thermometer was  $30^\circ\text{C}$ . After being placed under the armpit of a patient, the temperature reading on the thermometer rose by  $37^\circ\text{C}$ . What was the new reading on the thermometer?
- $7^\circ\text{C}$
  - $37^\circ\text{C}$
  - $57^\circ\text{C}$
  - $67^\circ\text{C}$

Figure 2 shows a cash deposit form for Zatonse Bank which is partly filled. Use it to answer Questions 12 and 13.

ZATONSE BANK	
<i>Please write in duplicate</i>	
CASH DEPOSIT SLIP	
Date _____	Service centre _____
Deposited to ➤ <input type="checkbox"/> Current Account <input type="checkbox"/> Savings <input type="checkbox"/> Other	
Account Name (Block letters): _____	
Deposited by (Name): _____	
Depositor's Telephone Number: _____	
Please ensure that you have inserted the correct account number as the Bank cannot be held responsible for errors arising from incorrect account numbers.	
Notes	K
K1000	8000
K500	600
K200	100
K100	900
K50	
K20	
Coins	
Postal/Money Orders	
Total	
Amount in words _____	
Depositor's signature.....	
ZTB	

Figure 2

12. How many K500 kwacha notes were deposited?
- 16
  - 18
  - 8 000
  - 9 000
13. Find the total amount of money that was deposited?
- K8 000
  - K8 600
  - K8 900
  - K9 000

Continued/...

2015

14. Loza gets a commission of K40 on every 5 blouses she sells. If she sells 125 blouses, find her commission?

A. K 200  
B. K 625  
C. K1 000  
D. K5 000

15. A trader paid 17.5 % value added tax for goods worth K2 800. How much was the value added tax?

A. K160  
B. K350  
C. K490  
D. K980

16. What name is given to the triangle whose angles are  $60^\circ$  each?

A. equilateral  
B. isosceles  
C. right angled  
D. scalene

17. A farmer wants to sell equal number of goats from the following: 30 brown, 72 black and 78 white goats. Find the largest number of goats that could be sold from each group.

A. 2  
B. 3  
C. 6  
D. 78

Figure 3 shows a simple balance with mass of two different balls: A and B. Use it to answer Questions 18 and 19.

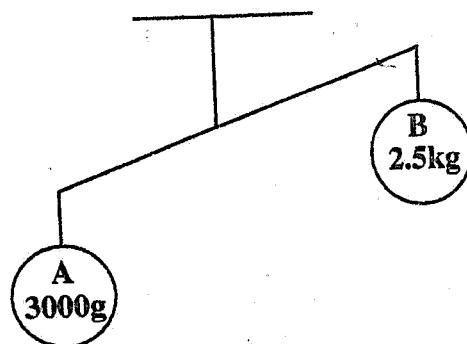


Figure 3

18. What is the mass of the ball B in grammes?

A. 25 g  
B. 250 g  
C. 2500 g  
D. 25 000 g

19. How many grammes should be added to the ball B so that it balances with the ball A?

A. 500 g  
B. 2 750 g  
C. 2 975 g  
D. 2 997.5 g

20. Find the length of a square whose perimeter is 64 cm.

A. 8 cm  
B. 16 cm  
C. 256 cm  
D. 32 cm

Continued/...

**Section B (60 marks)**

Answer all questions in this section. Write your answers in the space provided under each question. Show your working.

21. a. Find the median of the following body temperatures for patients at a certain hospital:  $36.5^{\circ}\text{C}$ ,  $37^{\circ}\text{C}$ ,  $35.9^{\circ}\text{C}$ ,  $36.2^{\circ}\text{C}$ ,  $37.2^{\circ}\text{C}$  and  $37.7^{\circ}\text{C}$ . **(4 marks)**

- b. Find the value of  $x$  in the equation  $3x + 2 = 18 - x$ . **(3 marks)**

Continued/...

22. a. A shirt marked K2 500 was sold for K2 250. Calculate the discount percent.

(4 marks)

- b. In a number pattern, the first number is 26, the second is 40 and the third is 54. Calculate the fifth number.

(4 marks)

23. Add  $4\frac{2}{3}$  to the product of  $3\frac{1}{5}$  and  $\frac{3}{4}$ .

(6 marks)

24. A man bought 5 bags of onions for K4 750. He sold two of the bags at K1 235 each and the rest at K1 084 each. He also paid K50 market fee. Calculate the profit he made.

(5 marks)

25. Figure 4 shows a plan of a hall XWTZY composed of a rectangle XWZY and a semi-circle WTZ.  $WZ = 42 \text{ cm}$  and  $ZY = 15 \text{ cm}$ .

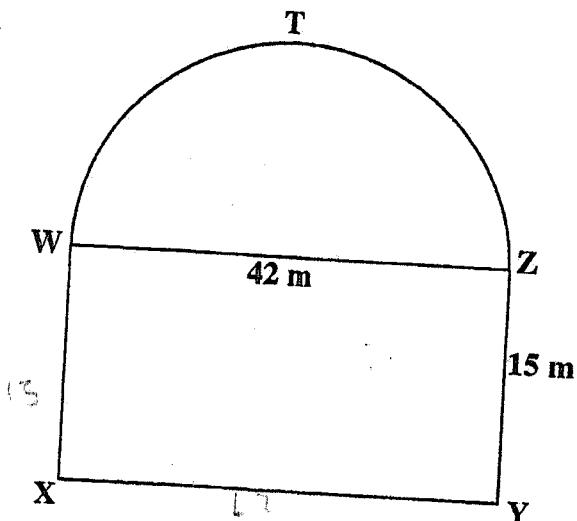


Figure 4

If  $WZ$  is a diameter of the semi-circle, calculate the perimeter of the hall.  
(Take  $\pi = \frac{22}{7}$ ).

(4 marks)

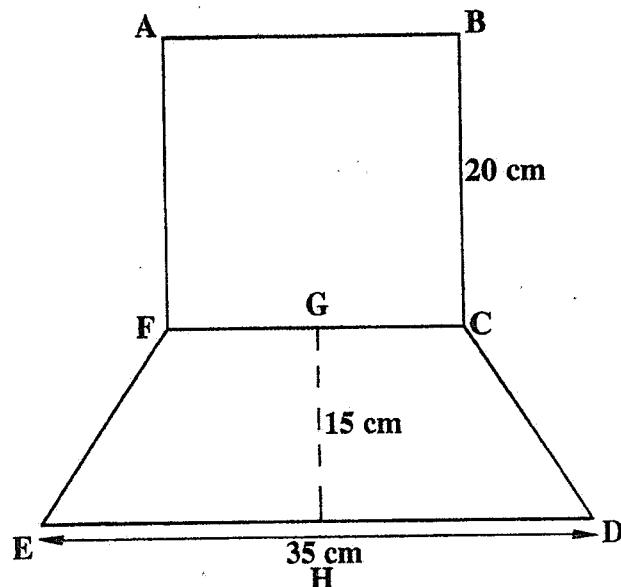
26. a. A tank is 50 dm long 30 dm wide and 20 dm deep. Calculate the capacity of the tank in litres when it is  $\frac{3}{5}$  full.

(5 marks)

- b. Mr Titha borrowed K5 000 from Kupata bank. If the bank charged 10% simple interest per month, how much money did Mr Titha pay at the end of two months?

(4 marks)

27. Figure 5 is a composite shape ABCDEF made up of a trapezium CDEF and a square ABCF.



**Figure 5**

If  $BC = 20 \text{ cm}$ ,  $ED = 35 \text{ cm}$  and perpendicular height  $GH = 15 \text{ cm}$ ,

(6 marks)

## LINEAR EQUATION

2013 (word) practical

2012 No 22 b

2014 (word) practical

2015 numbers

2016 —

2017 — numbers

2018 —

Continued/...

28. Chimwemwe is twice as old as Mphatso. If the sum of their ages is 36 years, find the age of Chimwemwe.

(5 marks)

29. Using a ruler and a protractor, construct a rhombus PQRS in which  $SR = 5 \text{ cm}$ , angle  $PSR = 50^\circ$  and angle  $SRQ = 130^\circ$ .

(5 marks)

2015

EXAMINATION NO.: \_\_\_\_\_  
Page 12 of 12 P131

30. The table below shows the population of people in a certain village.

Year	2002	2003	2004	2005	2006
Number of people	460	600	700	920	1000

Using the scale of 2 cm to represent 100 people on the vertical axis and 2 cm to represent a year on horizontal axis, draw a line graph to represent the information.

(5 marks)



**END OF QUESTION PAPER**

NB: This paper contains 12 printed pages.



EXAMINATION NO.: \_\_\_\_\_  
**THE MALAWI NATIONAL EXAMINATIONS BOARD**

2014 PRIMARY SCHOOL LEAVING CERTIFICATE EXAMINATION

# MATHEMATICS

(100 marks)

**Wednesday, 28 May**

**Subject Number: P131**

**Time Allowed: 2 hours  
8:30 – 10:30 am**

**Name of Candidate:** \_\_\_\_\_  
(Surname First)

**Name of School:** \_\_\_\_\_

**Instructions**

1. This paper contains 12 pages. Please check.
2. Answer all questions. In Section A, encircle the letter representing the right answer to each question. In Section B, write your answers in the spaces provided under each question.
3. There are 20 multiple choice questions in Section A and 10 questions in Section B.
4. You are provided with blank pages at the end of the question paper for rough work for Section A. Do not tear them off.
5. In Section B, you need to show all your working.
6. The use of electronic calculators is not allowed.
7. In the table provided on this page, tick against the question number you have answered.
8. Please make sure you have written your examination number, your name and school name on the question paper in the spaces provided.
  - Hand in your examination paper to the invigilator when time is called to stop writing.

Question Number	Tick 21-30 if answered	Do not write in these columns
1-10		
11-20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

**Section A (40 marks)**

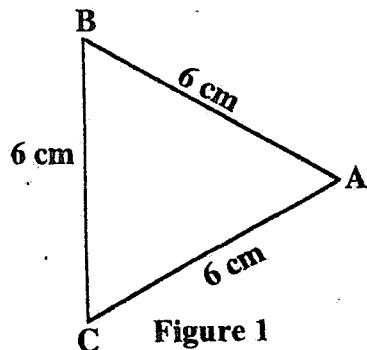
**Answer all questions in this section.**

Use the blank pages at the end of this question paper for your rough work in this section only.

**Encircle the letter corresponding to the right answer for each question.**

1. Simplify  $3.2 + 4.65 \div 1.5$ .
  - A. 5.2
  - B. 6.3
  - C. 7.0
  - D. 11.8
  
2. Find the **fourth** number in the following number pattern: 960, 1 000, 1 040, \_\_\_\_\_, 1 120.
  - A. 1 050
  - B. 1 080
  - C. 1 100
  - D. 1 180
  
3. Solve the inequality  $3x + 3 \leq 15$ .
  - A.  $x \leq 4$
  - B.  $x \leq 6$
  - C.  $x \leq 9$
  - D.  $x \leq 12$

**Figure 1** shows a triangle ABC. Use it to answer **Question 4**.



**Figure 1**

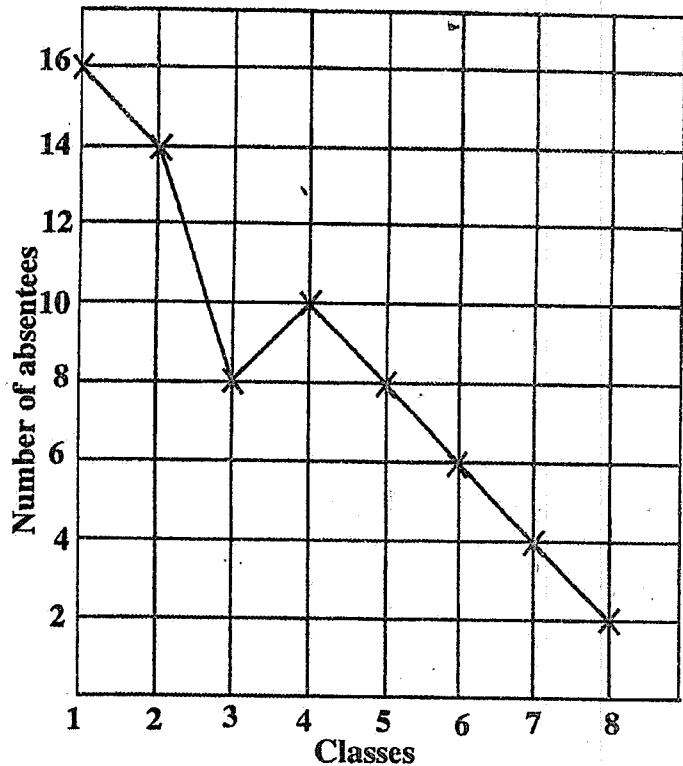
4. What name is given to the type of triangle ABC in **Figure 1**?
  - A. isosceles
  - B. scalene
  - C. equilateral
  - D. right angled

5. Which of the following fractions is equivalent to 80%?
  - A.  $\frac{2}{4}$
  - B.  $\frac{2}{5}$
  - C.  $\frac{3}{5}$
  - D.  $\frac{4}{5}$
  
6. The circumference of the base of a basin is 176 cm. Calculate its radius. (Take  $\pi = \frac{22}{7}$ ).
  - A. 16 cm
  - B. 28 cm
  - C. 56 cm
  - D. 112 cm
  
7. Change the time 2:15 pm to 24 hours.
  - A. 02:15 hours
  - B. 13:15 hours
  - C. 14:15 hours
  - D. 20:15 hours
  
8. Express 1 549 to the nearest hundred.
  - A. 1 500
  - B. 1 540
  - C. 1 550
  - D. 1 600
  
9. Simplify  $12e + 8f - 5 - 7f + 5e + 6$ .
  - A.  $7e - f + 1$
  - B.  $7e + f + 1$
  - C.  $17e - f + 1$
  - D.  $17e + f + 1$

Continued/...

10. A shopkeeper bought a tin of paint at K2 500.00 and sold it at K2 900.00. Calculate the profit percent.
- A. 14%  
 B. 16%  
 C. 25%  
 D. 86%
11. Which of the following Hindu-Arabic numerals represents the Roman numeral XXIX?
- A. 19  
 B. 29  
 C. 31  
 D. 26
12. Takondwa and Chikondi shared sweets in the ratio of 5:7. If Chikondi got 42 sweets, how many sweets did Takondwa get?
- A. 30  
 B. 35  
 C. 25  
 D. 18
13. Express  $\frac{1}{3}$  as a decimal number, correct to 3 decimal places.
- A. 0.3  
 B. 0.33  
 C. 0.333  
 D. 0.3333
14. Chifundo scored 80% in a test. If the test was marked out of 20, calculate Chifundo's actual score.
- A. 4  
 B. 16  
 C. 24  
 D. 25

**Figure 2** is a line graph showing the number of pupils who were absent from school on a certain Monday at Dzalani Primary School. Use it to answer **Questions 15 and 16**.



15. Find the difference between the number of absentees in classes 1 and 4.
- A. 6  
 B. 3  
 C. 10  
 D. 15
16. Find the average number of pupils who were absent in classes 2 and 7.
- A. 4  
 B. 7  
 C. 9  
 D. 14
17. A rectangular garden measures 520 m by 280 m. Reduce the measurements using a scale of 1 : 20.
- A. 26 m by 14 m  
 B. 52 m by 28 m  
 C. 130 m by 70 m  
 D. 260 m by 140 m

Figure 3 shows a type of an angle. Use it to answer Question 18.

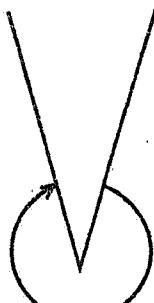


Figure 3

18. What name is given to the type of an angle in **Figure 3**?
- A. acute
  - B. obtuse
  - C. right
  - D. reflex

19. Write six hundred and one million seven thousand five hundred and twelve in figures.

- A. 60 107 512
- B. 601 007 512
- C. 6 010 075 012
- D. 60 017 000 512

20. What would be the result if 0.382 is multiplied by 2.1?

- A. 0.8022
- B. 8.0220
- C. 802.2
- D. 8022

### Section B (60 marks)

Answer **all** questions in this section. Write your answers in the space provided under each question. Show your working.

21. Divide 92 kg 15 g by 7. (5 marks)

22. a. Table 1 shows a message sent by telegram.

Table 1

FROM:	MPHATSO BOX 555 LIWONDE SCHOOL CLOSES NEXT WEEK SEND TRANSPORT
TO:	MRS MWALE BOX 6814 BLANTYRE

How much was the cost of sending the telegram at K12.00 per word?

(3 marks)

- b. When the number  $m$  is reduced by 13, the result is 15. Calculate the number represented by  $m$ .

(3 marks)

23. Figure 4 shows a triangular space ABC with a flower lawn 1 m wide.  
 $BC = 8 \text{ m}$  and  $DH = 20 \text{ m}$ .

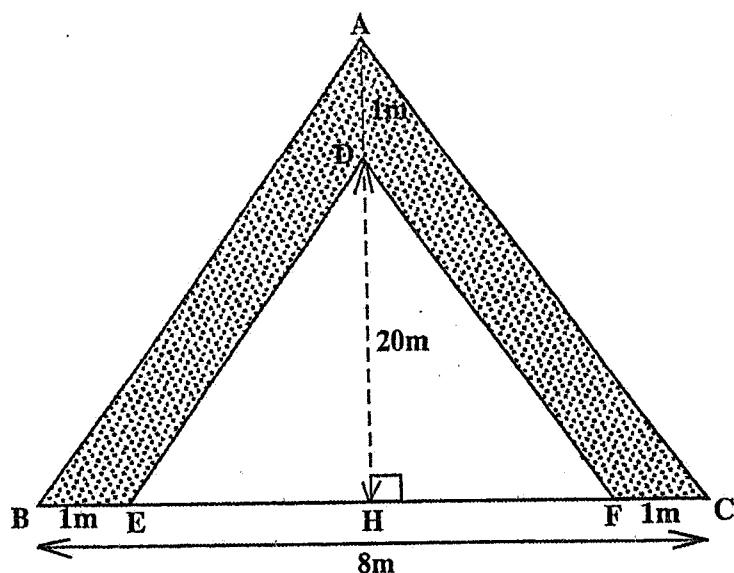


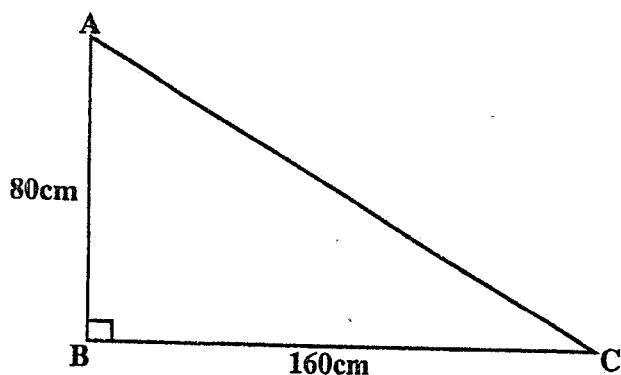
Figure 4

Calculate the area of the lawn.

(6 marks)

Continued...

24. Figure 5 shows a triangle ABC in which angle ABC = 90°, AB = 80 cm and BC = 160 cm.



**Figure 5**

- a. Draw the figure accurately using a scale of 1 cm representing 20 cm. (4 marks)
- b. In your diagram, measure angle BAC and state its value. (1 mark)

Continued/...

25. After selling a bicycle at K10 800.00, a person made a lost of 10%.  
At what price must have the person sold it to gain 5%? (5 marks)

26. Figure 6 shows a rectangle ABCD 15 m long and 7 m wide with semi-circles on two opposite sides.

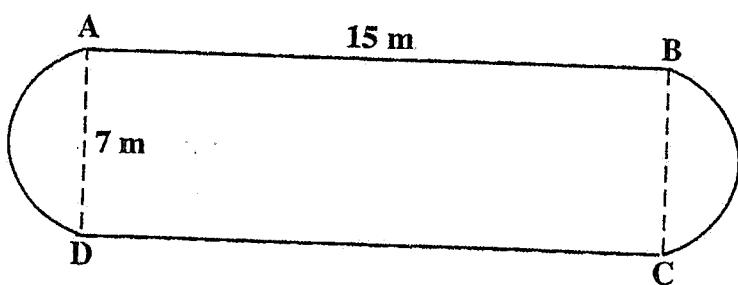


Figure 6

Calculate the perimeter of the figure. (Take  $\pi = \frac{22}{7}$ ).

(4 marks)

Continued...

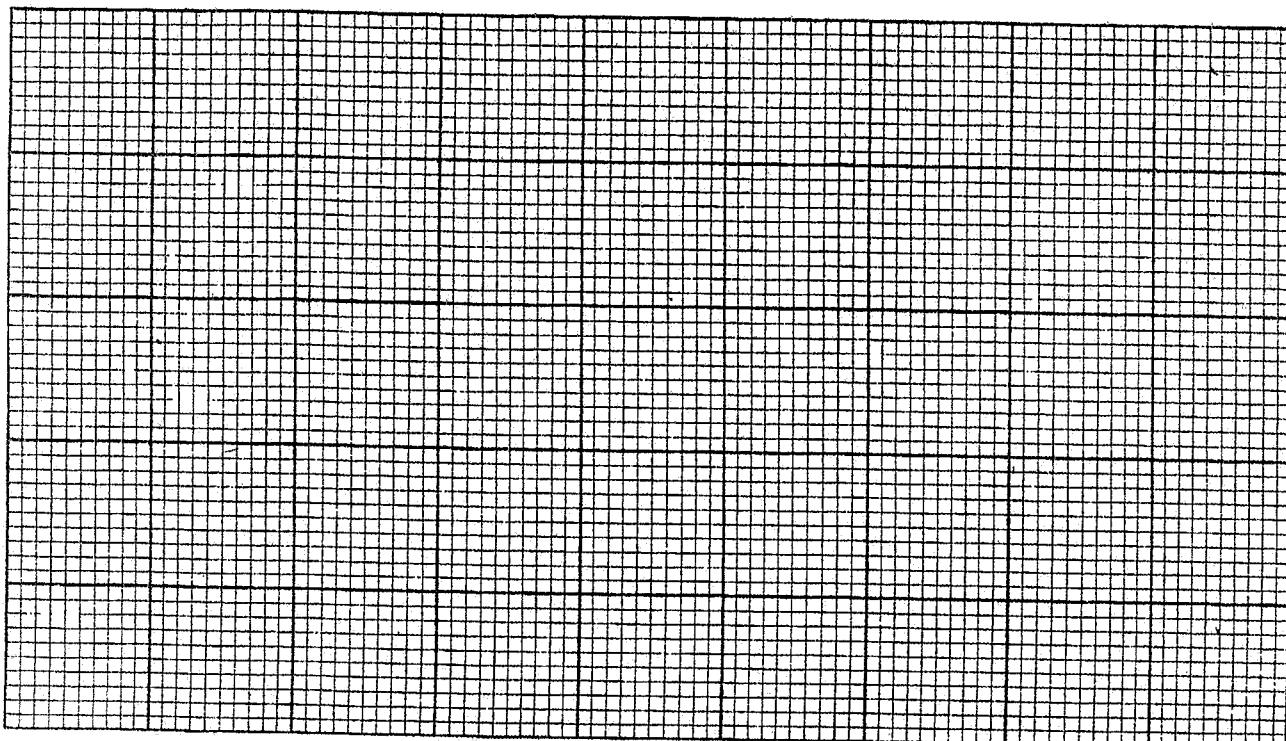
27. Table 2 shows the temperature readings for a certain school for five days.

Table 2

Day	Temperature °C
Monday	30
Tuesday	26
Wednesday	27
Thursday	32
Friday	20

Using the scale 2 cm to represent  $10^{\circ}\text{C}$  on the vertical axis, draw a bar graph to represent the information.

(8 marks)



Continued/...

28. Table 3 shows rates of tax on salary per month for a certain country.

Table 3

Salary per month	Tax rate
First K9 000.00	% (tax free)
Next K10 000.00	15%
Next K12 000.00	25%
Next K15 000.00	35%

If a worker earns K30 000.00 per month, calculate the worker's monthly tax.

(7 marks)

29. A rectangular tank 6 m high has a base which measures 2 m by 1.5 m. How many litres of water does it hold when it is half full?

(5 marks)

30. Tadyere started business on 1<sup>st</sup> January, 2010 with cash in hand K20 000.00. During the month Tadyere's transactions were as follows:

2<sup>nd</sup> January banked K10 000.00  
5<sup>th</sup> January sold goods K8 575.00 cash  
10<sup>th</sup> January cashed a cheque for goods sold K9 000.00  
15<sup>th</sup> January paid loan K5 350.00

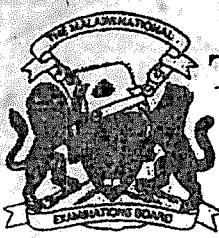
Prepare Tadyere's cash account and bring down the balance ready for business on 1<sup>st</sup> February.

(9 marks)

516,998  
139,600  
467,498  
366,848.20  
  
517,498

**END OF QUESTION PAPER**

NB: This paper contains 12 pages.



EXAMINATION NO.: \_\_\_\_\_

# THE MALAWI NATIONAL EXAMINATIONS BOARD

2013 PRIMARY SCHOOL LEAVING CERTIFICATE EXAMINATION

## MATHEMATICS

(100 marks)

Subject Number: P131

Thursday, 16 May

Time Allowed: 2 hours

8:30 – 10:30 am

Name of Candidate: \_\_\_\_\_

(Surname First)

Name of School: \_\_\_\_\_

### Instructions

1. This paper contains 12 pages. Please check.
2. Answer all questions. In Section A, encircle the letter representing the right answer to each question. In Section B, write your answers in the spaces provided under each question.
3. There are 20 multiple choice questions in Section A and 10 questions in Section B.
4. You are provided with a loose sheet of paper for rough work for Section A.
5. In Section B, you need to show all your working.
6. The use of electronic calculators is **not** allowed.
7. In the table provided on this page, tick against the question number you have answered.
8. Please make sure you have written your **examination number, name and school name** on the question paper in the spaces provided.
  - Hand in your examination paper to the invigilator when time is called to stop writing.
  - Do not hand in the rough work done for Section A.

Question Number	Tick 21-30 if answered	Do not write in these columns
1-10		
11-20		
21	✓	
22		
23		
24		
25		
26		
27		
28		
29		
30		

**Section A (40 marks)**

**Answer all questions in this section.**

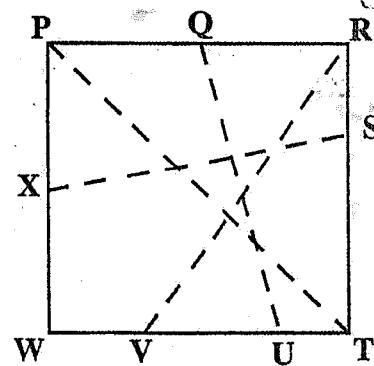
You are provided with a loose sheet of paper for your rough work in this section only.

**Encircle the letter corresponding to the right answer for each question.**

- |   |   |
|---|---|
| <p>1. Express 10075 tambala in kwacha and tambala.</p> <p>A. 1 kwacha 75 tambala<br/>     B. 10 kwacha 75 tambala<br/>     C. ✓ 100 kwacha 75 tambala<br/>     D. 1007 kwacha 50 tambala</p> <p>2. Which of the following figures represents sixty five million one hundred and twelve?</p> <p>A. 65 000 012<br/>     B. ✓ 65 000 112<br/>     C. 65 100 012<br/>     D. 65 100 112</p> <p>3. Divide 784 by 10 giving your answer correct to the nearest whole number.</p> <p>A. ✓ 78<br/>     B. 78.4<br/>     C. 79<br/>     D. 80</p> <p>4. A picture of a tree is 8 cm long. If the scale used was <math>\frac{1}{4}</math>, find the actual length.</p> <p>A. 2 cm<br/>     B. 4 cm<br/>     C. 8 cm<br/>     D. ✓ 32 cm</p> <p>5. Which of the following is a prime factor of 81?</p> <p>A. 3<br/>     B. ✓ 9<br/>     C. 27<br/>     D. 81</p> | <p>6. Find the total amount to be paid on a loan of K18 000 for 3 years at 5% simple interest.</p> <p>A. ✓ K2 700<br/>     B. K15 300<br/>     C. K20 700<br/>     D. K27 000</p> <p>7. Simplify <math>18t + 4 - 2t - 1</math>.</p> <p>A. ✓ <math>16t + 3</math><br/>     B. <math>16t + 5</math><br/>     C. <math>20t + 3</math><br/>     D. <math>20t + 5</math></p> |
|---|---|

**Figure 1** shows a square with lines drawn in it. Use it to answer

**Question 8.**



**Figure 1**

8. Which of the following lines is a line of symmetry of the diagram?
- A. QU  
 B. RV  
 C. SX  
 D. ✓ PT

Continued/...

9. Simplify  $\frac{0.6 \times 0.8}{0.012}$ .

- A. 0.4
- B. 4
- C. 40
- D. 400

10. Find the median of the following set of numbers:

23, 17, 23, 17, 18, 19, 15, 16.

- A. 17.0
- B. 17.5
- C. 18.0
- D. 18.5

11. Figure 2 shows a right angle  $PQR$  and line  $QS$  bisects the angle.

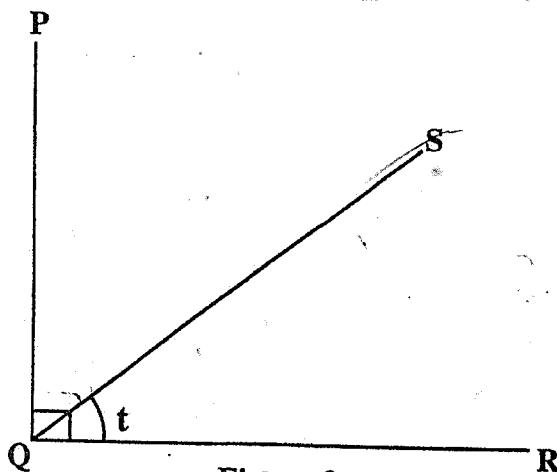


Figure 2

What is the value of angle  $t$ ?

- A.  $30^\circ$
- B.  $45^\circ$
- C.  $60^\circ$
- D.  $90^\circ$

Figure 3 is a diagram of a bottle containing paraffin. Use it to answer Questions 12 and 13.

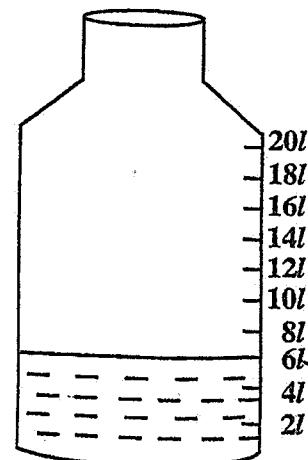


Figure 3

12. How many more litres of paraffin are needed to fill the bottle to the maximum marked level?

- A.  $6l$
- B.  $7l$
- C.  $14l$
- D.  $20l$

13. If the cost of paraffin is K500 per litre, find the cost of paraffin that is in the bottle.

- A. K 1 500
- B. K 3 000
- C. K 7 000
- D. K10 000

14. A worker receives K23 500 per month as his net salary. If the gross salary per month is K28 000, find the total tax that the worker will pay after a year.

- A. K4 500
- B. K5 400
- C. K45 000
- D. K54 000

15. Which of the following times represents twenty five minutes to six in the morning?
- 5:25
  - 5:35
  - 6:25
  - 6:35
16. Find the greatest number of farmers that can share 12 treadle pumps, 24 bags of fertilizer and 32 packets of seeds without a remainder.
- 4
  - 6
  - 8
  - 12
17. Find a rule for generating the following number pattern:
- 34, 28, 22, 16, ...
- add 5
  - subtract 5
  - add 6
  - subtract 6
18. By selling a car for K500 000, a loss was made at the rate of 6t per kwacha. Find the amount lost.
- K 30 000
  - K300 000
  - K470 000
  - K530 000

Table 1 shows business transactions for Mr Phiri for the month of November 2010. Use it to answer Questions 19 and 20.

Table 1

Dr

Cr

Date	Income	Cash	Bank	Date	Expenditure	Cash	Bank
02/11/10	Cash	K8 000		02/11/10	Banked	K3 500	
08/11/10	Receipt		K10 000		Paid for goods	K 600	

19. What type of account is shown in the table?
- cash account
  - bank account
  - cash book
  - ledger
20. What was the balance in hand on 1 December 2010?
- K3 900
  - K7 400
  - K8 000
  - K13 900

Continued/...

**Section B (60 marks)**

Answer **all** questions in this section. Write your answers in the space provided under each question. Show your working.

21. a. Take away the sum of 1625 and 1021 from 3000.

(4 marks)

- b. A hen laid  $2x$  eggs. After hatching 5 chicks, 7 eggs remained.  
Find the value of  $x$ .

(4 marks)

Continued/...

22. Table 2 shows rates of sending mail within Malawi.

**Table 2**

POSTAL ARTICLE	MASS	RATE(K)
By ordinary mail	up to 1000 g	150
	above 1000 g up to 3500 g	200
	above 3500 g up to 5000 g	350
	above 5000 g up to 7500 g	400
By express mail	up to 500 g	750
	above 500 g up to 10 kg	1000

How much would a person pay altogether for sending an ordinary mail of 550 g and an express mail of 800 g?

(4 marks)

23. Twenty learners got the following marks out of 5:

**1, 4, 5, 2, 3, 2, 5, 4, 3, 4, 5, 3, 4, 5, 1, 0, 4, 3, 5, 4, 4, 5, 3, 4, 3.**

a. Present the data in a tally table.

(4 marks)

b. What was the mode?

(1 mark)

Continued/...

24. a. Solve the inequality  $g + 18 > 80$ . (3 marks)
- b. The area of a rectangle is  $72 \text{ cm}^2$  and its length is 16 cm.  
Calculate the perimeter of the rectangle. (4 marks)

Continued/..

25. Figure 4 shows a composite shape made up of a square ABDE and a triangle BCD in which  $AB = 40 \text{ cm}$  and  $CF = 15 \text{ cm}$ .

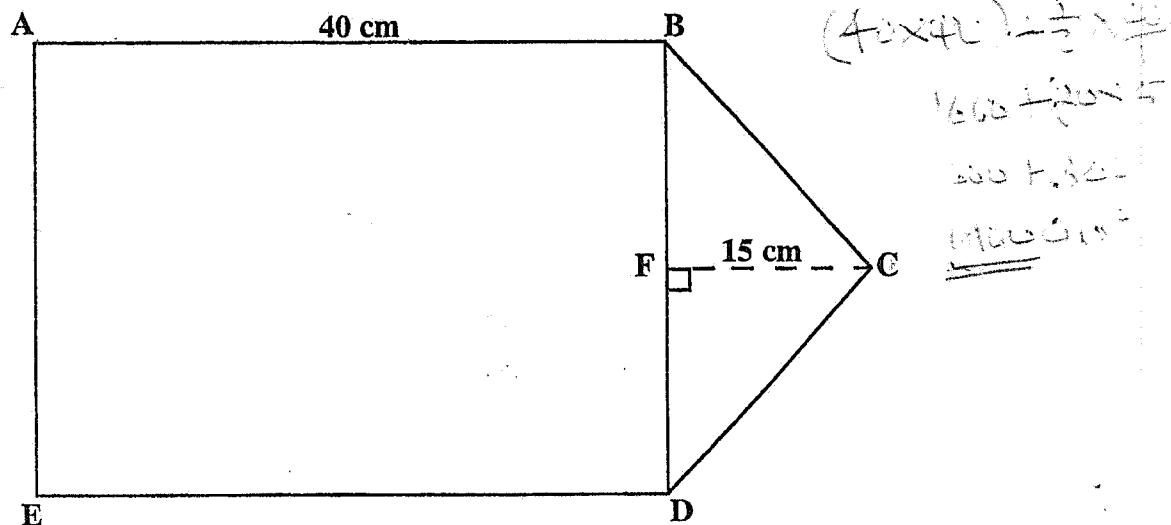


Figure 4

If CF is a perpendicular height of the triangle, calculate the area of the shape.

(5 marks)

26. Table 3 shows the monthly premium per K10 000 for life insurance policy for 26 to 28 years olds.

Table 3

Age(years)	Rate per K10 000 Per month
26	K51.70
27	K51.80
28	K52.00

A man 28 years old and his wife 26 years old want to insure their lives for K150 000 each. Find the total monthly premium for the two.

(5 marks)

$$\left( \frac{52 \times 150000}{10000} \right) + \left( \frac{51.70 \times 150000}{10000} \right)$$

$$780 + 775.50$$

$$1555.50$$

Continued/...

27. Tina bought a dress at K3 500. Zione made a similar dress from 2 metres piece of cloth at K750 per metre, 6 buttons at 3 for K100, and thread for K60. How much did Zione save? (5 marks)

$$\begin{array}{rcl} \text{Tina} & = & 3500 \\ 2 \times 750 & = & 1500 \\ 6 \times 100 & = & 600 \\ 60 & & \\ 3500 - \cancel{1760} & & \\ & & = 1740 \end{array}$$

28. a. Using a ruler and a protractor, construct a triangle ABC in which BC = 7 cm, angle ABC =  $65^\circ$  and angle ACB =  $50^\circ$ . (4 marks)
- b. Measure and state the length of AC. (1 mark)
- c. What type of triangle is it? (1 mark)

Continued/...

29. a. A man bought 2 units of soap. He gave 8 tablets of soap to his son and the rest to his wife. Find the ratio of soap given to the son to that given to the wife. (3 marks)

Son      wife

$$\begin{array}{rcl} 2 & = & 2 \times 4 \\ 8 & & 12 \\ 2 & : & 6 \end{array}$$

- b. A school has 800 learners; 25% are girls. If 75% of the girls stay at the boarding, find the number of girls who do not stay at the boarding. (5 marks)

$$800 \times \frac{25}{100} = 200 \text{ girls}$$

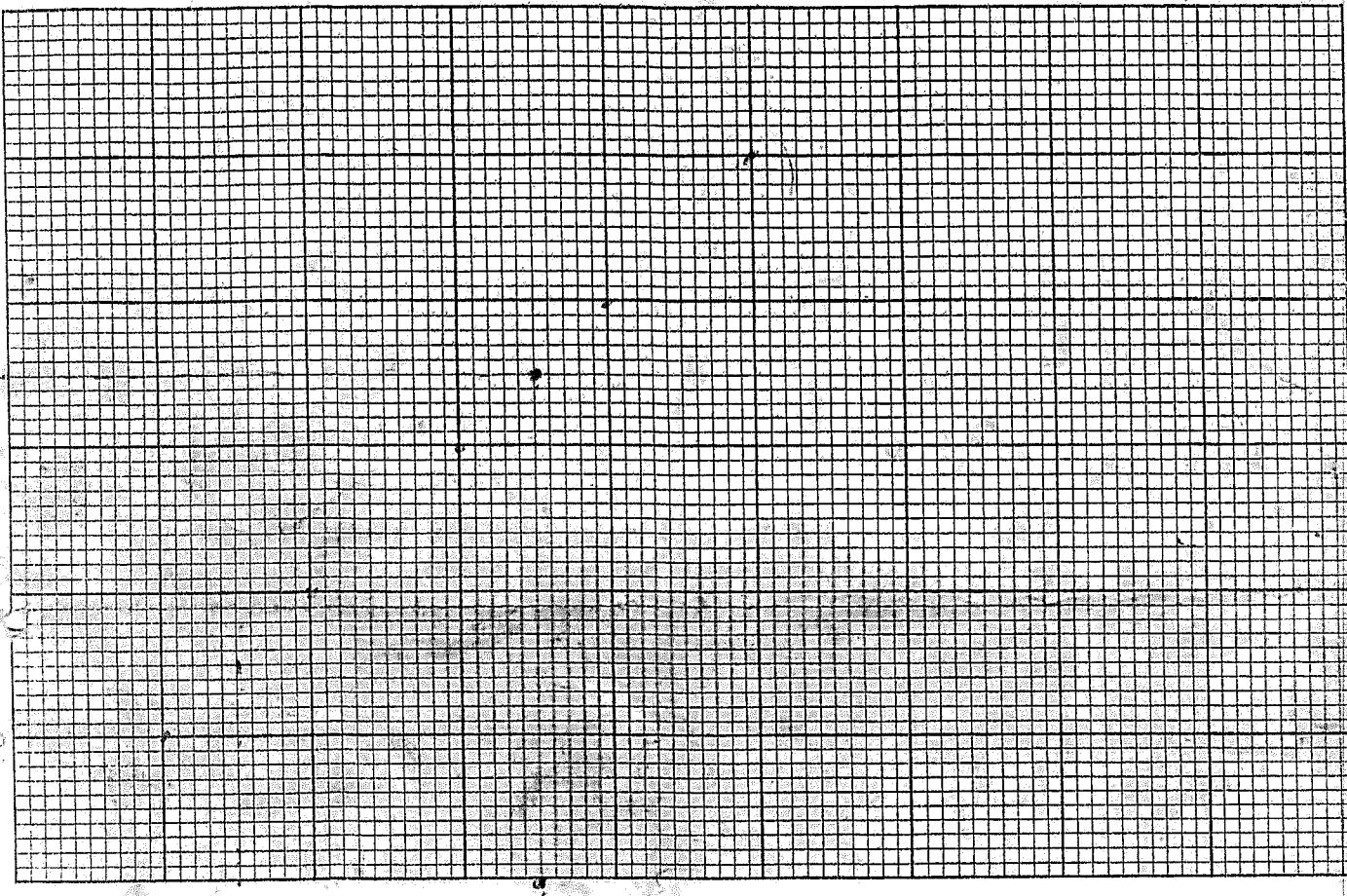
$$\begin{aligned} (200-75) &= 200 - 75 \\ &= 125 \end{aligned}$$

Continued/...

30. A car travelled at a speed of 80 km per hour for five hours.

- a. Using a scale of 2 cm to represent 1 hour on the horizontal axis and 2 cm to represent 80 km on the vertical axis, plot a line graph to represent the information.

(5 marks)



2 3 4 5

Time in hrs

- b. Use your graph to find:

(i) The time the car would take to cover 280 km

3.5 hrs

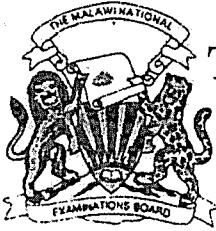
(ii) The distance the car would cover in  $1\frac{1}{2}$  hours

120 km

(2 marks)

**END OF QUESTION PAPER**

**NB:** This paper contains 12 pages.



EXAMINATION NO.: \_\_\_\_\_

# THE MALAWI NATIONAL EXAMINATIONS BOARD

2012 PRIMARY SCHOOL LEAVING CERTIFICATE EXAMINATION

## MATHEMATICS

(100 marks)

Subject Number: P131

Thursday, 17 May

Time Allowed: 2 hours

8:30 – 10:30 am

Name of Candidate: \_\_\_\_\_  
(Surname First)

Name of School: \_\_\_\_\_

### Instructions

1. This paper contains 12 pages. Please check.
2. Answer all questions. In Section A, encircle the letter representing the right answer to each question. In Section B, write your answers in the spaces provided under each question.
3. There are 20 multiple choice questions in Section A and 10 questions in Section B.
4. You are provided with loose sheet of paper for rough work for Section A.
5. In Section B you need to show all your working.
6. The use of electronic calculators is not allowed.
7. In the table provided on this page, tick against the question number you have answered.
8. Please make sure you have written your examination number, name and school name on the question paper in the spaces provided.
  - Hand in your examination paper to the invigilator when time is called to stop writing.
  - Do not hand in the rough work done for Section A.

Question Number	Tick 21-30 if answered	Do not write in these columns	
1-10			
11-20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

## Section A (40 marks)

Answer all questions in this section.

You are provided with a loose sheet of paper for your rough work in this section only.

Encircle the letter corresponding to the right answer for each question.

1. Evaluate  $958 - 556 + 785$ .

- A. 1 087
- B. 1 115
- C. 1 177
- D. 1 187

2. Which of the following is the unit measurement of capacity?

- A. kilogram
- B. metre
- C. litre
- D. gram

3. Convert 5 km to metres.

- A. 50 m
- B. 500 m
- C. 1 000 m
- D. 5 000 m

4. There are 8 teachers and 376 learners at a school. Find the ratio of teachers to their learners in its simplest form.

- A. ✓ 1:47
- B. 8:46
- C. 8:47
- D. 47:1

5. Which of the following is a property of an equilateral triangle?
- A. all the sides are of different lengths
  - B. all the sides are of the same lengths
  - C. one of its angles is a right angle
  - D. two of its sides are of equal lengths

6. Simplify  $2\frac{1}{2} \div 1\frac{1}{4} \times \frac{1}{3}$ .

- A.  $\frac{5}{6}$
- B.  $\frac{2}{3}$
- C.  $1\frac{1}{24}$
- D. 6

Table 1 shows the charges for sending a telegram. Use it to answer Question 7.

Table 1

Charges for internal telegram
Rate per word – K30.00

MANAGER MBALA ESTATE BOX 12  
ZOMBA THIS TERM ENDS ON 10  
DECEMBER PLEASE SEND  
TRANSPORT MONEY ZIONE  
TEBULO

7. How much did she pay for the telegram?

- A. K450.00
- B. K480.00
- C. K510.00
- D. K540.00

8. How many K500 notes are there in K8 000?

- C. 16
- D. 18
- C. 8 000
- D. 9 000

Continued...

9. Express 4 997 to the nearest 10.
- 4 900
  - 4 990
  - 5 000
  - 5 007
10. The temperature of a certain area was  $68^{\circ}\text{C}$  less than the boiling point of water. If the boiling point of water is  $100^{\circ}\text{C}$ , find the temperature of the area.
- $32^{\circ}\text{C}$
  - $37^{\circ}\text{C}$
  - $25^{\circ}\text{C}$
  - $42^{\circ}\text{C}$
11. Fire destroyed 96% of books in a library. If 200 books were not burnt, calculate the original number of books in the library.
- 192
  - 208
  - 4 800
  - 5 000
12. Convert LXIV to Hindu-Arabic.
- 54
  - 55
  - 64
  - 66
13. Express  $540^{\circ}$  in right angles.
- 3
  - 6
  - 9
  - 12

Figure 1 shows a type of an angle. Use it to answer Question 14.

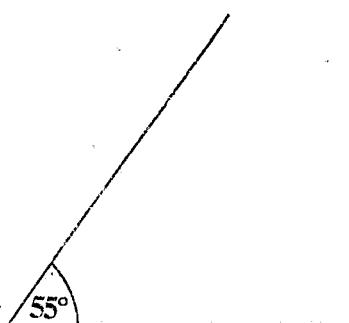


Figure 1

14. What name is given to the type of the angle in Figure 1?
- acute angle
  - obtuse angle
  - reflex angle
  - right angle
15. Mary goes to a school that starts at 7:30 am. One day she arrived at the school 35 minutes late. At what time did she get there?
- 6:55 am
  - 7:05 am
  - 8:05 am
  - 9:05 am
16. Find the next group of objects in the following geometric pattern.
- |                |           |           |  |           |                |           |                                 |           |
|----------------|-----------|-----------|--|-----------|----------------|-----------|---------------------------------|-----------|
| $\Delta$       | $\square$ | $\square$ | <td style="width: 100px;"></td> <td><math>\Delta\Delta</math></td> <td><math>\square</math></td> <td><math>\square</math></td> <td><math>\square</math></td> |           | $\Delta\Delta$ | $\square$ | $\square$                       | $\square$ |
| $\Delta\Delta$ | $\square$ | $\square$ | $\square$  | $\square$ | $\square$      | $\square$ | <td style="width: 100px;"></td> |           |
- A.  $\Delta\square\square\square\square$   
 B.  $\Delta\Delta\square\square\square\square$   
 C.  $\Delta\Delta\Delta\square\square\square\square\square$   
 D.  $\Delta\Delta\Delta\Delta\square\square\square\square\square$
17. There are  $x$  guavas in a basket. If 15 more are added to get 45 guavas, how many guavas were in the basket?
- 3
  - 30
  - 45
  - 60
18. Write the correct inequality for the following statement: The sum of  $x$  and 5 is less than or equal to 4.
- $x + 5 \geq 4$
  - $x + 5 \leq 4$
  - $x + 5 < 4$
  - $x + 5 > 4$

Continued/...

19. Calculate the volume of a cuboid which has the measurements of 12 cm by 7 cm by 4 cm.

- A.  $84 \text{ cm}^3$
- B.  $23 \text{ cm}^3$
- C.  $48 \text{ cm}^3$
- D.  $336 \text{ cm}^3$

20. Mrs Phiri's son was born during her silver jubilee. If the son is now 22 years, how old is Mrs Phiri?

- A. 47
- B. 50
- C. 72
- D. 82

### Section B (60 marks)

Answer all questions in this section. Write your answers in the space provided under each question. Show your working.

21. Simplify  $0.12 - 0.02 \times 0.65$ .

(4 marks)

Continued/...

22. a. A vendor has property worth K1 500 000.00 and would like to insure it against fire. If the premium rate is at  $7\frac{1}{2}\%$ , calculate the premium paid. (3 marks)
- b. Solve the equation  $120 + 3n + 260 - n = 450$ . (4 marks)

Continued/...

23. a. In a number pattern, the first number is 26, the second is 40 and the third is 54. Calculate the **fifth** number.

(3 marks)

- b. **Table 2** shows number of fish caught during a week.

Table 2

Day	Number of fish
Monday	100
Tuesday	80
Wednesday	120
Thursday	40
Friday	60

Using the symbol  to stand for 20 fish, draw a picture graph to represent this information.

(5 marks)

Continued/...

2012

EXAMINATION NO.:

Page 7 of 12

P131

24. A shirt was sold for K2 000. 00. If it was sold at a profit of 25%. calculate the cost price.

(4 marks)

25. You want to withdraw K2 500.00 from your Malawi Savings Bank account number 401277100. Complete the withdrawal slip shown below. (5 marks)



**MALAWI SAVINGS BANK LIMITED**  
Registered Under the Banking Act 1989

(Tick where appropriate)			Withdrawal Slip			
Account Name	<input checked="" type="checkbox"/> Savings Account	<input type="checkbox"/> Premium Account	<input type="checkbox"/> Fixed Account			
Telephone Number	0666672001	Account Number	Branch / Agency	Zomba	Date	17/05/12
For Bank Use Only		Received the sum of (words)				
Teller Stamp Initials New Account Balance		K				
K						
Initials (Checker)		Authorised Signature (s) .....				

Continued/...

26. Table 3 shows income tax rates.

Table 3

Income per Month	Tax Rate
First K12 000.00	0% (tax free)
Next K3 000.00	15%
Excess (over) K15 000.00	30%

How much tax does a person who receives a salary of K40 000.00 pay per month? (8 marks)

$$\begin{array}{r} 256250 \times \frac{30}{100} = 76875 \\ \hline 450 \\ \hline 7950 \end{array}$$

Continued/...

27. A certain amount of money was shared among three children in the ratio 2:3:5. If the least got K3 000.00, calculate the total amount.

(5 marks)

21000

$$\frac{10}{2} \times 3000 = 15,000$$

$$\frac{20000 \times 3}{10}$$

2  
10

Continued/...

28. Figure 2 is a composite shape made up of a trapezium ABCD and a semi-circle DEC.

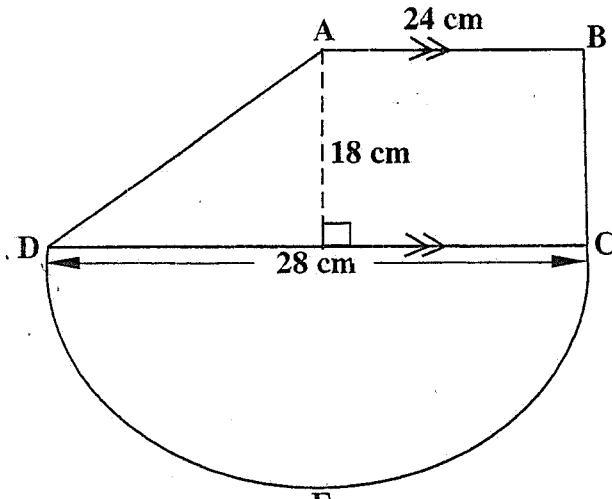


Figure 2

Calculate the total area of the figure. (Take  $\pi = \frac{22}{7}$ ).

(8 marks)

Continued/...

29. Figure 3 is a graph showing number of oranges harvested in a certain farm for five days. Use the graph to answer the questions below:

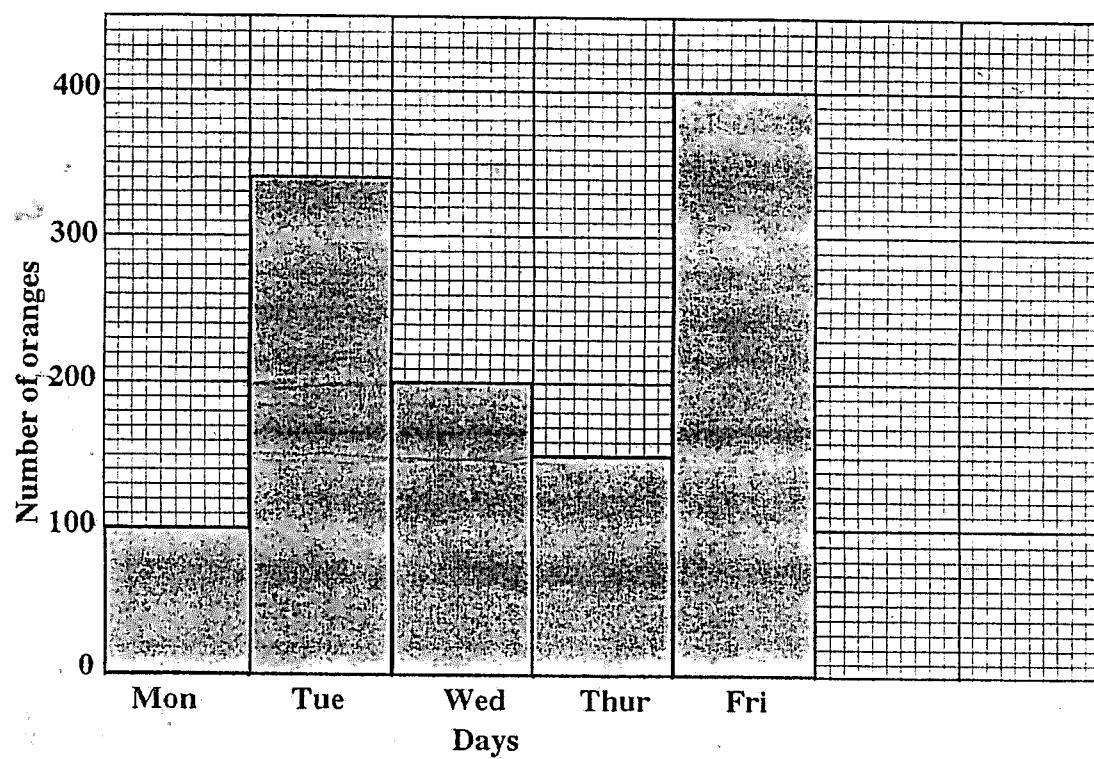


Figure 3

- a. How many more oranges were harvested on Wednesday than Thursday? (3 marks)
- b. If the price of oranges was K50.00 each, find the amount of money obtained by selling oranges on Tuesday. (3 marks)

Continued/...

- ✓ 30. Figure 4 shows a triangle XYZ with  $XY = 3 \text{ cm}$  and  $YZ = 4 \text{ cm}$  and angle  $\angle XYZ = 90^\circ$ .

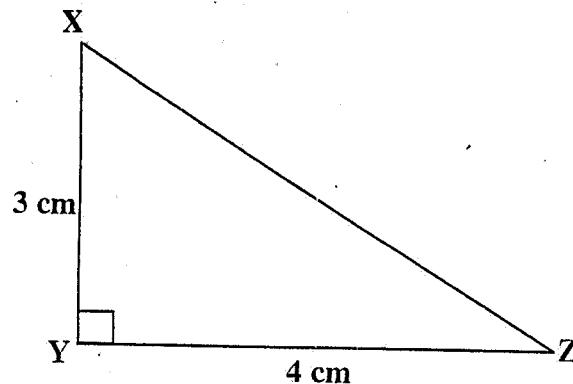


Figure 4

- (i) Using a scale 2:1, draw an enlarged diagram of triangle XYZ. (4 marks)

- (ii) Measure the length of XZ on your diagram and write it down. (1 mark)

**END OF QUESTION PAPER**

NB: This paper contains 12 pages.



EXAMINATION NO.: \_\_\_\_\_

# THE MALAWI NATIONAL EXAMINATIONS BOARD

2011 PRIMARY SCHOOL LEAVING CERTIFICATE EXAMINATION

## MATHEMATICS

(100 marks)

Subject Number: P131

Wednesday, 1 June

Time Allowed: 2 hours  
8:30 – 10:30 am

Name of Candidate: \_\_\_\_\_  
(Surname First)

Name of School: \_\_\_\_\_

### Instructions

1. This paper contains 12 pages. Please check.
2. Answer all questions. In Section A, encircle the letter representing the right answer to each question. In Section B, write your answers in spaces provided under each question.
3. There are 20 multiple choice questions in Section A and 10 questions in Section B.
4. You are provided with loose sheet of paper for rough work for Section A.
5. In Section B you need to show your working.
6. The use of electronic calculators is not allowed.
7. In the table provided on this page, tick against the question number you have answered.
8. Please make sure you have written your examination number, name and school name on the question paper in the spaces provided.
  - Hand in your examination paper to the invigilator when time is called to stop writing.
  - Do not hand in the rough work done for Section A.

Question Number	Tick 21-30 if answered	Do not write in these columns
1-10		
11-20		
21		
22		
23		
24		
25		
26		
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28		
29		
30		

07.01.27

## Section A (40 marks)

Answer all questions in this section.

Use rough paper for your working in this section only.

Encircle the letter corresponding to the right answer for each question.

1. Change the ratio 16:84 to a fraction.

- A.  $\frac{4}{25}$
- B.  $\frac{4}{21}$
- C.  $\frac{21}{25}$
- D.  $\frac{21}{4}$

2. By how much does the sum of 25.04 and 96.75 exceed 72.5?

- A. 49.29
- B. 57.74
- C. 131.79
- D. 144.21

3. The rule for generating a number pattern is subtract 3. Which of the following number pattern is correct?

- A. 9, 12, 15, 18
- B. 10, 14, 18, 22
- C. 35, 32, 29, 26
- D. 27, 23, 19, 13

Table 1 shows temperature readings in °C for different stations. Use it to answer Questions 4 and 5.

Table 1

Station	Temperature
P	35
S	13
K	21
M	19

4. Which station was coldest?

- A. K
- B. P
- C. S
- D. M

5. Find the average temperature for all the stations.

- A. 21°C
- B. 22°
- C. 44°C
- D. 88°C

6. Which inequality symbol should be inserted in the box to give a true inequality?  $x + 6 \boxed{\phantom{0}} x + 10$

- A. >
- B. <
- C. ≥
- D. ≤

7. A cow had a mass of 201 kg 150 g and a bull had a mass of 232 kg 301 g. Find the difference in mass between the two cattle.

- A. 31 kg 151 g
- B. 295 kg 103 g
- C. 433 kg 151 g
- D. 433 kg 451 g

8. A farmer received a cheque worth K15 500 and deposited it into his account. He deposited again K12 000 after selling his bags of beans and the bank deducted K1 200 as bank charges. How much money remained in his account?

- A. K 4 700
- B. K26 300
- C. K27 500
- D. K28 700

9. Arrange the following Roman Numerals VI, IX, V, VIII in descending order.

- A. IX, VIII, V, VI
- B. IX, VIII, VI, V
- C. VIII, IX, VI, V
- D. V, VI, VIII, IX

10. Write 0.0798 to 2 significant figures.

- A. 0.100
- B. 0.080
- C. 0.079
- D. 0.070

Continued/...

11. Find the base of a triangle which has an area of  $22 \text{ cm}^2$  and a height of  $5\frac{1}{2}$  cm.
- 2 cm
  - 4 cm
  - 8 cm
  - 60.5 cm
12. Tayamika bought 20 mangoes at 4 for 40t and she sold them at 5 for 60t. What was her profit?
- 12t
  - 20t
  - 40t
  - 60t
15. **Figure 1** shows angles of different sizes.

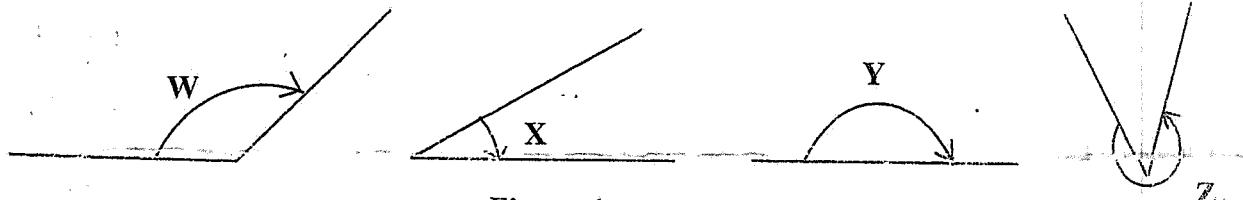


Figure 1

- Arrange the angles in **descending** order.
- W, Y, X, Z**
  - Y, Z, W, X**
  - X, W, Z, Y**
  - Z, Y, W, X**
16. What is the place value of 5 in 64.521?
- hundredth
  - ones
  - tenth
  - thousandth

17. **Figure 2** is a diagram showing a picture of a number modelled on an abacus.

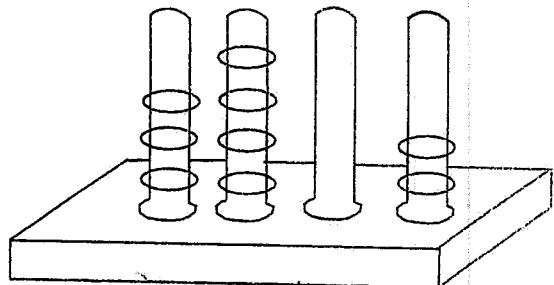


Figure 2

- What number is represented on the abacus?
- 342
  - 2 043
  - 3 402
  - 34 002

Continued/...

2011

Figure 3 is a line graph showing mass of a baby recorded in kg for 7 months. Use it to answer Questions 18 to 20.

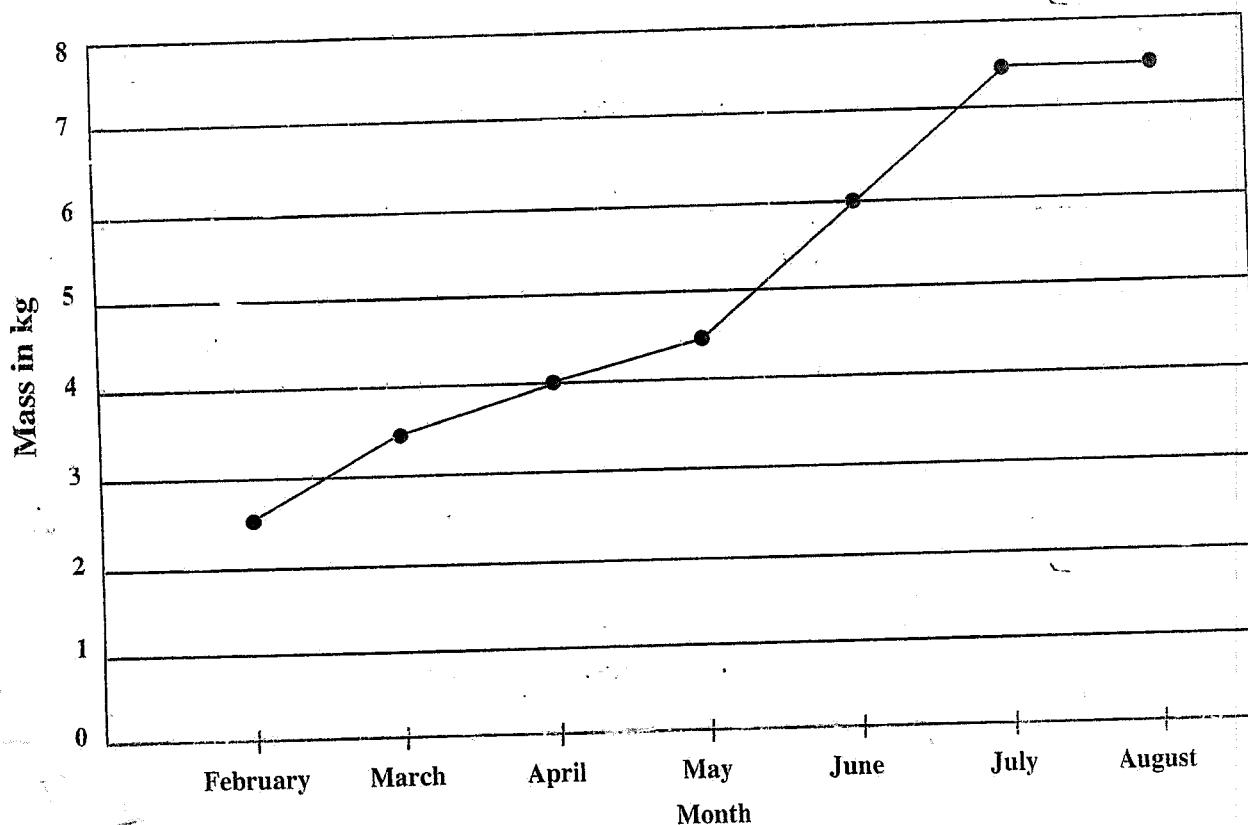


Figure 3

18. In which of the following months was the mass of the baby the same?
  - A. June and July
  - B. February and April
  - C. July and August
  - D. April and May
  
19. What was the mass of the baby in the month of May?
  - A. 4.1 kg
  - B. 4.5 kg
  - C. 5.1 kg
  - D. 5.5 kg
  
20. How long did it take for the mass of the baby to reach 6 kg from 2.5 kg?
  - A. 3 months
  - B. 3½ months
  - C. 4 months
  - D. 5 months

Continued/...

**Section B (60 marks)**

Answer **all** questions in this section. Write your answers in the space provided under each question. Show your working.

21. A rectangular building measures 20 metres by 16 metres.

- a. Draw a plan of this building using a scale of 1 cm representing 4 metres. (4 marks)

b. Measure the diagonal AC. (1 mark)

c. State what AC in part (b) represents on the building in metres. (2 marks)

22. Calculate the HCF of 1040 and 720. (6 marks)

Continued/...

23. Three taps fill water in a tank as follows:

The first tap fills it in 3 hours, second tap fills in 4 hours and third fills in 6 hours. If they all run together, how long will they take to fill the tank? (5 marks)

Continued/...

- 24.** A vendor bought 240 eggs for K6 000.00. Calculate the profit percent made, if 22 eggs were broken and the rest were sold at K30.00 each. **(6 marks)**

Continued/...

25. Figure 4 shows amount of tobacco produced on a certain farm for three years.

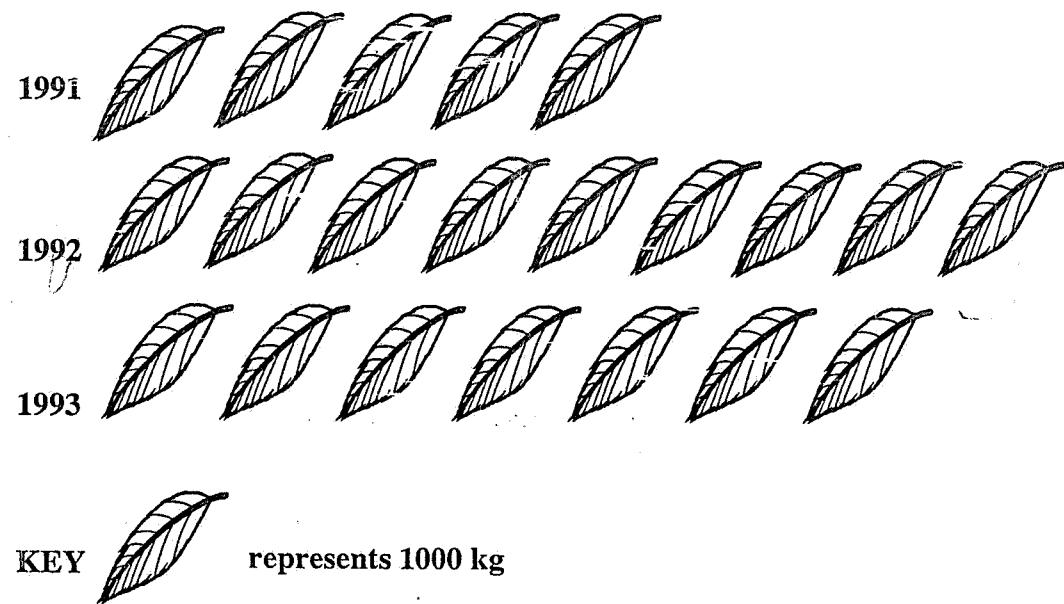


Figure 4

- What was the difference in kg between the year of highest harvest and that of the lowest harvest? (3 marks)
- How much money from tobacco sales did the farm have in 1993 if tobacco was bought at an average price of K80 per kg? (3 marks)
- What was the average amount of tobacco produced during the three years? (3 marks)

Continued/...

26. A parent received 40 USA dollars from a son and 50 rands from a daughter.  
How much in Malawi Kwacha did the parent receive? (6 marks)

Use the exchange rates as on 15/05/08.

Currency	Buying	Selling
USA dollar	K139.10	K141.89
Rand	K 18.80	K 19.74

27. Table 2 shows marks scored by a learner in a mid-term test.

Table 2

Subject	Marks
Mathematics	70
English	50
Chichewa	60
Primary Sciences	50
Arts and Life Skills	50

Find the:

(i) mode. (1 mark)

(ii) mean. (3 marks)

Continued/...

2011

EXAMINATION NO.: \_\_\_\_\_  
Page 10 of 12 P131

28. A circle has a diameter of 21 cm. Calculate its:

a. circumference. (3 marks)

b. area. (4 marks)

(Take  $\pi = \frac{22}{7}$  ).

Continued/...

29. a. Solve the following equation:

$$10y - 3 = 27.$$

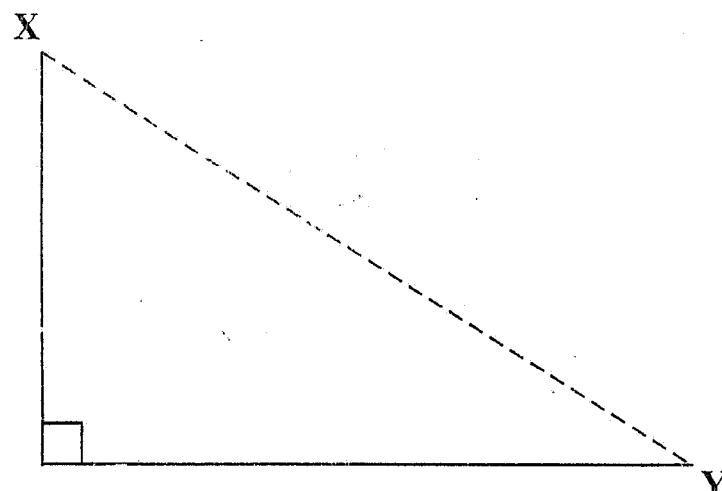
(3 marks)

- b. A rectangular tank 4 m wide and 7 m high has a volume of  $168 \text{ m}^3$ .  
Calculate the length of the tank.

(3 marks)

Continued/...

30. Using a protractor and a ruler complete the shape shown in **Figure 5** below if  $XY$  is a line of symmetry. (4 marks)



**Figure 5**

**END OF QUESTION PAPER**

**NB:** This paper contains 12 pages.



PRIMARY SCHOOL

EXAMINATION NO:

THE MALAWI NATIONAL EXAMINATIONS BOARD

2010 PRIMARY SCHOOL LEAVING CERTIFICATE EXAMINATION

MATHEMATICS  
(100 marks)

SAMPLE PAPER

Subject Number: P131

Time Allowed: 2 hours

Time:

Name of Candidate:  
(Surname First)

Name of School:

Instructions

1. This paper contains 12 pages. Please check.
2. Answer all questions. In section A, encircle the letter representing the right answer to each question. In section B, write your answers in the spaces provided under each question.
3. There are 20 multiple choice questions in section A and 10 questions in section B.
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Question Number	Tick Questions 21-30 if answered	Do not write in these columns
1-10		
11-20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

## Section A (40 marks)

Answer all questions in this section.

Use rough paper for your working in this section only.

Encircle the letter corresponding to the right answer for each question.

1. Write the following Roman numerals XIV, XIX, XX, XVIII in ascending order.

- A. XIX, XX, XIV, XVIII
- B. XIV, XVIII, XIX, XX
- C. XX, XIX, XVIII, XIV
- D. XVIII, XIX, XIV, XX

2. Express 0.37 litres in cm<sup>3</sup>.
- A. 37 cm<sup>3</sup>
  - B. 370 cm<sup>3</sup>
  - C. 3700 cm<sup>3</sup>
  - D. 37000 cm<sup>3</sup>

3. Zikhale was awarded 75% in Mathematics test. If the test was marked out of 40, how many marks did Zikhale get?
- A. 25
  - B. 30
  - C. 40
  - D. 50

4. Evaluate  $\left(\frac{2}{5} + \frac{1}{2}\right) \div \left(\frac{9}{10} - \frac{3}{5}\right)$ .

- A.  $\frac{5}{16}$
- B.  $\frac{3}{10}$
- C.  $\frac{9}{10}$
- D. 3

5. Find the LCM of 6, 8 and 12.

- A. 48
- B. 24
- C. 12
- D. 2

6. The average of 5 numbers is 95. If the first four numbers are 97, 105, 88 and 114. Find the fifth number.

- A. 19
- B. 101
- C. 71
- D. 91

Continued/...

$$\begin{array}{r}
 & 20 \\
 & \overline{40 \times 100} \\
 15 & 2 \\
 \underline{25} & \overline{25} \\
 \underline{\underline{15}} & \underline{\underline{15}} \\
 \end{array}$$
  

$$\begin{array}{r}
 \text{Proof } 25 \\
 30 \times 100 = 25 \\
 \underline{40} \\
 1 \quad 60
 \end{array}$$

$$\begin{array}{r}
 \left( \frac{2}{5} + \frac{1}{2} \right) \times \left( \frac{9}{10} - \frac{3}{5} \right) \\
 4 + 5 \quad \frac{9}{10} - \frac{6}{10} \\
 \underline{\underline{10}} \quad \underline{\underline{10}} \\
 \frac{9}{10} - \frac{3}{10} \\
 \frac{40}{10} \times \frac{100}{3} = 33
 \end{array}$$

7. Figure 1 shows four boxes M, N, O and P used for storing beans.

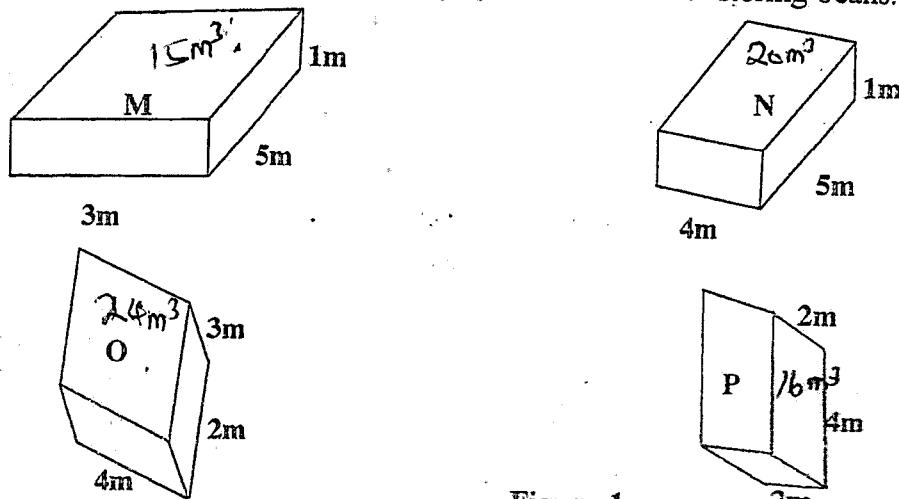


Figure 1

4. Which box would keep the largest amount of beans?
- M
  - N
  - O
  - P
8. Simplify  $5t + 12r + 3t - 10r$ .
- $2t - 2r$
  - $15t + 2r$
  - $8t - 2r$
  - $8t + 2r$
9. Convert R200 into Malawian Kwacha given that 1 Rand = K19.74.
- K3 948.00
  - K39 480.00
  - K394 800.00
  - K3948000.00
10. The total mass of 9 chickens is 18.288 kg. If the chickens weigh the same, calculate the mass of each chicken.
- 2.032 kg
  - 2.32 kg
  - 8.279 kg
  - 18.297 kg
11. A trader made a loss of 20t in every kwacha after selling a cow at K12 000. Calculate the cost price of the cow.
- K2 400
  - K9 600
  - K14 400
  - K15 000
12. What is the next number in the following pattern?  
810, 270, 90, \_\_\_\_\_.
- 45
  - 30
  - 15
  - 10

$$CP = SP \div 100 + L\%$$

$$12000 \div (100 - 20)$$

$$12000 \div \frac{80}{100} = 12000 \times \frac{25}{80}$$

$$CP = K 15000$$

Continued...

$$\text{Profit } L\% = \frac{L \times 100}{CP} = \frac{80 \times 100}{15000} = \frac{8000}{15000} = \frac{16}{3} = 5.33\%$$

Table 1 shows number of books shared in a certain class. Use it to answer questions 13 and 14.

Table 1

Books	Tallies
English	~
Mathematics	~
Chicewa	~      ~

13. How many English books were shared?

A. 16  
B. 18  
C. 35  
D. 45

14. Find the total number of books shared.

A. 16  
B. 18  
C. 35  
D. 45

15. A shopkeeper has thirty K500 notes, twelve K200 notes, fifteen K100 notes and forty K50 notes. How much money does the shopkeeper have altogether?

A. K7 500  
B. K15 000  
C. K20 900  
D. K18 900

16. Figure 2 shows an angle marked  $x$ , drawn accurately.

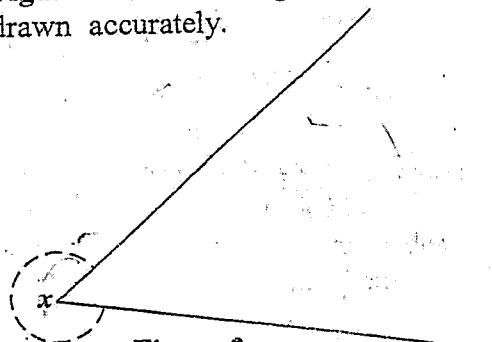


Figure 2

What is the size of angle  $x$ ?

A.  $50^\circ$  C.  $310^\circ$   
B.  $60^\circ$  D.  $360^\circ$

17. Calculate the total length of a ribbon required to decorate around a triangular piece of cloth with sides 3 m, 1 m 45 cm and 1 m 45 cm.

A. 2 m 93 cm  
B. 3 m 45 cm  
C. 4 m 45 cm  
D. 5 m 90 cm

18. Formulate the number sentence for the following statement:

Luka thinks of a number  $c$  and then adds 8 to it, the result is greater than 14.

A.  $c + 8 \leq 14$   
B.  $c + 8 < 14$   
C.  $c + 8 \geq 14$   
D.  $c + 8 > 14$

Continued/...

19. Figure 3 shows a quadrilateral ABCD.

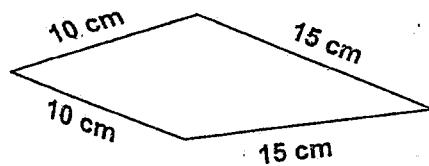


Figure 3

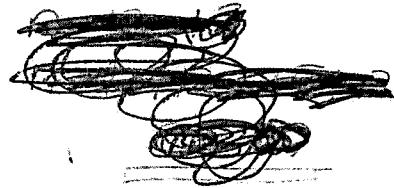
What is the name of the quadrilateral?

- A. kite
  - B. trapezium
  - C. square
  - D. rhombus
20. After how long would K75 000 yield K3 000 simple interest at 2% per annum.
- A.  $\frac{1}{2}$  yr
  - B. 2 yrs
  - C.  $14\frac{1}{2}$  yrs
  - D. 50 yrs

### Section B (60 marks)

Answer all questions in this section. Write your answers in the space provided under each question. Show your working.

21. A trader had  $n$  shirts to sell. If 12 of the shirts were sold and remained with 15 shirts, calculate the total number of shirts represented by  $n$ . (3 marks)



Continued/...

22. The rule for generating a number pattern is subtracting 14. Generate the pattern, beginning with 105 and ending with 63. (3 marks)
23. Titha walked a distance of 6 km in 2 hours and then cycled for 4 hours at 6 km per hour. Calculate the average speed for the whole journey. (5 marks)

$$\frac{6}{2} = 3 \text{ km/h}$$

$$D = 4 \times 6 = 24 \text{ km}$$

$$24 + 6 = \frac{30}{6} = 5 \text{ km/hr}$$

$$D = 6 + 24 = 30$$

$$T = 4 + 2 = 6$$

$$SP = \frac{30}{6} = 5 \text{ km/hr}$$

Continued/...

24. Chisomo decreased a number by 10% and Yamikani increased the same number by 20%. If the difference of the new numbers Chisomo and Yamikani got is 60, calculate the original number. (6 marks)

*x+*

25. A group of patients had their body temperature measured. The results are shown in Table 2.

Table 2

Patients	Body Temperature (°C)
A	38.2
B	39.6
C	37.7
D	39.7

- a. Which person had the highest body temperature? (1 mark)
- b. Calculate the average body temperature of the four patients. (4 marks)

Continued/...

26. Figure 4 is a composite figure consisting of a square and a circle.

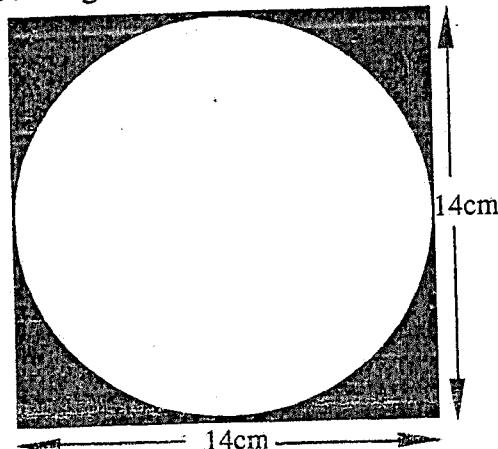


Figure 4

Calculate the area of the shaded part.

(7 marks)

Continued...

27. Figure 5 shows a garden in form of a triangle XYZ in which  $XY = 400 \text{ m}$ ,  $YZ = 600 \text{ m}$  and angle  $XYZ = 90^\circ$

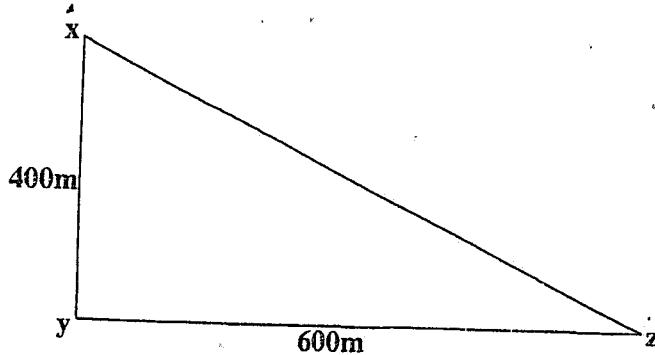


Figure 5

- a. Draw the figure accurately using a scale of 1 cm representing 100 m.

(4 marks)

- b. Measure line XZ and state its length on the actual ground.

(2 marks)

Continued/...

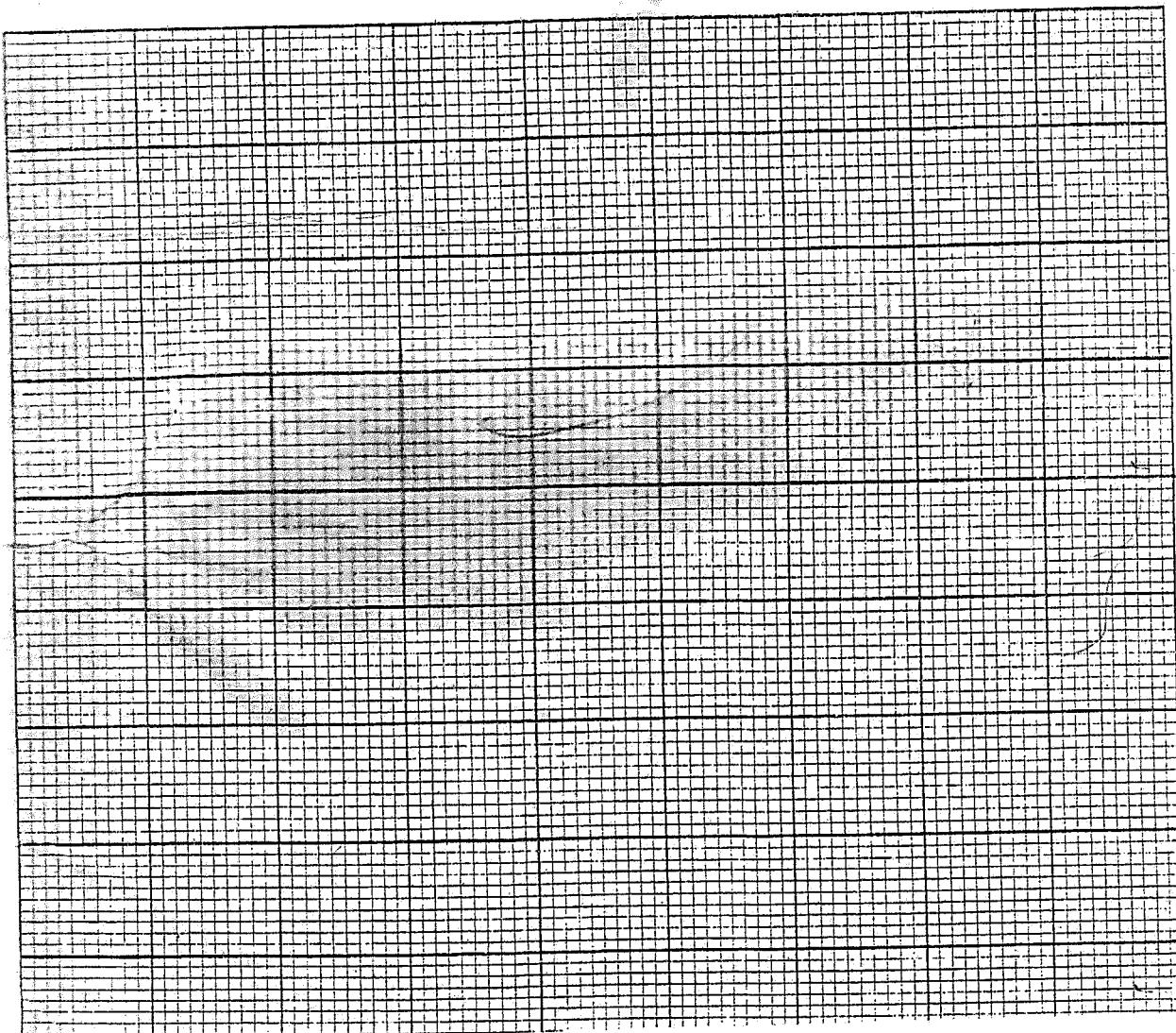
28. Table 3 shows temperatures in degrees celsius recorded in towns A, B, C, D and E.

Table 3

TOWN	A	B	C	D	E
Temperatures in degrees celcius	30	25	35	25	40

Using scale of 2 cm to represent 10 degrees celcius, draw a bar graph on the graph paper shown below to represent this information.

(7 marks)



28. (Continued)

b. Using the information in the table, find the median. (2 marks)

29. Mrs Zantchito started her business on 1<sup>st</sup> January with K25 000.00 cash in hand. During the month, the following were her transactions:  
January 1<sup>st</sup> banked K10 000.00  
January 5<sup>th</sup> bought beans for cash K4 000.00  
January 10<sup>th</sup> sold beans worth K6 000.00 for cash  
January 25<sup>th</sup> sold beans by cheque K20 000.00 and banked it  
January 25<sup>th</sup> withdrew K17 000.00 from the bank.

Prepare Mrs Zantchito's cashbook, balance and bring down the balance ready for business on 1<sup>st</sup> February. (11 marks)

Continued/...

30. Table 4 shows commission of sending money by postal order, registration fee and postage stamp rate.

Table 4

Value of Postal Order	Commission	Registration Fee	Postage Stamp
K50	K5	K25	K40 each
K100	K10	K25	
K200	K20	K25	
K500	K50	K25	
K100	K100	K25	

Calculate the total cost of sending K5000 by postal order as registered item.

(5 marks)

**END OF QUESTION PAPER**

NB. This paper contains 12 pages.



EXAMINATION NO: \_\_\_\_\_  
**THE MALAWI NATIONAL EXAMINATIONS BOARD**  
2010 PRIMARY SCHOOL LEAVING CERTIFICATE EXAMINATION

## MATHEMATICS

(100 marks)

Subject Number: P131

Thursday, 1 July

Time Allowed: 2 hours  
8:30 – 10:30 am

Name of candidate: \_\_\_\_\_  
(Surname First)

Name of School: \_\_\_\_\_

### Instructions

1. This paper contains 12 pages. Please check.
2. Answer all questions. In Section A, encircle the letter representing the right answer to each question. In Section B, write your answers in spaces provided under each question.
3. There are 20 multiple choice questions in Section A and 10 questions in Section B.
4. You are provided with loose sheets of paper for rough work for Section A.
5. In Section B you need to show your working.
6. The use of electronic calculators is not allowed.
7. In the table provided on this page, tick against the question number you have answered.
  - Hand in your examination paper to the invigilator when time is called to stop writing.
  - Do not hand in the rough work done for Section A.
8. Please make sure you have written your examination number, name and school name on the question paper in the spaces provided.

Question Number	Tick 21-30 if answered	Do not write in these columns
1-10		
11-20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

## Section A (40 marks)

Answer all questions in this section.

Use rough paper for your working in this section only.

Encircle the letter corresponding to the right answer for each question.

1. Decrease 1944 in the ratio 2:3.  
 A. 1286  
 B. 1296  
 C. 2716  
 D. 2916
2. Express 3.0552 to 2 significant figures.  
 A. 3.0  
 B. 3.05  
 C. 3.06  
 D. 3.1
3. What is the smallest number of bananas that can be put in bunches of 18, 30 and 120?  
 A. 6  
 B. 120  
 C. 180  
 D. 360
4. A bed was sold at a loss of K1650. If the cost price of the bed was K3510. What was the selling price?  
 A. K1 860  
 B. K1 960  
 C. K4 160  
 D. K5 160
5. What is the solution of the inequality  $x + 5 \leq 12$ ?  
 A.  $x < 7$   
 B.  $x > 7$   
 C.  $x \leq 17$   
 D.  $x \leq 7$
6. A student of a certain school obtained the following marks in English in a term: 54, 80, 70, 54, 83 and 43. What was the mean score?  
 A. 54  
 B. 62  
 C. 64  
 D. 83
7. Brenda receives K2 300 per fortnight from an employer as her wage. Find the amount of money she gets in a month.  
 A. K4 600  
 B. K4 929  
 C. K9 200  
 D. K16 600
8. Chikondi bought a bicycle in South Africa worth 500 rands. If one rand is equivalent to K19.74, what is the value of the bicycle in Malawi Kwacha?  
 A. K987.00  
 B. K9 870.00  
 C. K98 700.00  
 D. K98 7000.00
9. A person digs  $\frac{3}{8}$  of a pit in 24 days. How long will the person take to complete the remaining work?  
 A. 9 days  
 B. 15 days  
 C. 40 days  
 D. 64 days

Table 1 shows the number of eggs collected by a farmer in five days. Use it to answer Question 10 and 11.

Day	Number of eggs collected
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

Continued/...

10. What is the number of eggs collected on Wednesday?
- 3
  - 9
  - 11
  - 21
11. On which day was there the least number of eggs collected?
- Monday
  - Tuesday
  - Thursday
  - Friday
12. A bus left Majiga at 7:30 am and reached Dzwe at 10:30 am. If it was travelling at an average speed of 90 km/h, what distance did it cover?
- 30 km
  - 93 km
  - 270 km
  - 315 km
13. An obtuse angle is an angle which is \_\_\_\_\_.
- less than  $90^\circ$ .
  - greater than  $90^\circ$  but less than  $180^\circ$ .
  - greater than or equal to  $90^\circ$ .
  - greater than  $180^\circ$  but less than  $360^\circ$ .

Figure 1 shows a quadrilateral ABCD. Use it to answer Questions 14 and 15.

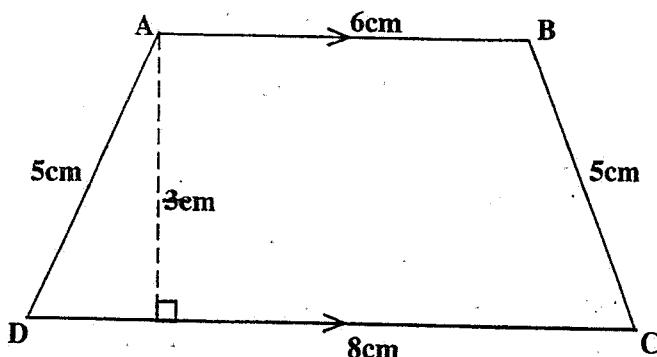


Figure 1

14. What is the name of the quadrilateral?
- rectangle
  - square
  - parallelogram
  - trapezium
15. Find the area of the quadrilateral.
- $21 \text{ cm}^2$
  - $24 \text{ cm}^2$
  - $27 \text{ cm}^2$
  - $35 \text{ cm}^2$
16. Bwemba gets a commission of K600 for every K10 000 on items sold. Find the total commission Bwemba would get after selling items worth K35 000.
- K1 500
  - K2 100
  - K2 400
  - K2 700
17. Express  $2\frac{1}{3}$  as decimal number.
- 2.03
  - 2.0
  - 2.34
  - 2.33
18. Simplify  $7x + 8y - 3x + y$ .
- $4x + 8y$
  - $4x + 9y$
  - $4x + 7y$
  - $4x + 5y$
19. The area of a triangle is  $36 \text{ m}^2$ . If the base is 12 m, find the height.
- 6 m
  - 48 m
  - 3 m
  - 216 m
20. What is the rule for generating a number pattern 49, 63, 77, 91?
- add 7
  - subtract 7
  - add 14
  - subtract 14

**Section B (60 marks)**

Answer all questions in this section. Write your answers in the space provided under each question.  
Show your working.

21. After a competition, Temwa received  $2y$  kwacha and Malumbo  $(500 - y)$  kwacha.  
If they received K800 altogether, how much did each receive? **(7 marks)**

22. Figure 2 is a graph showing speed of two cars A and B.

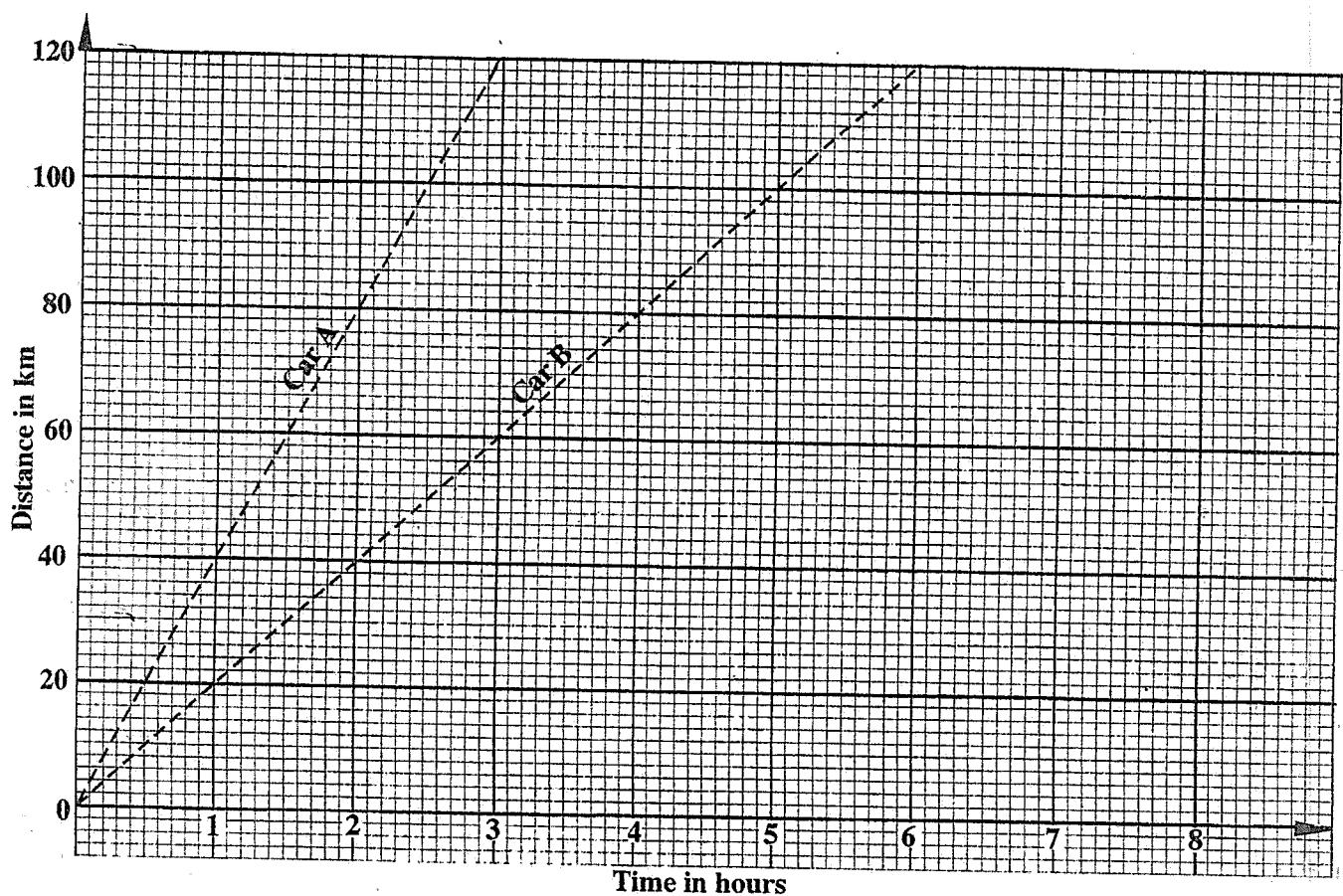


Figure 2

- a. What is the average speed of car A? (1 mark)
- b. After how long will car B have travelled 100 km? (1 mark)
- c. Calculate the difference between distances covered by car A and B in the first 3 hours. (3 marks)

Continued/...

2010

EXAMINATION NO.: \_\_\_\_\_  
Page 6 of 12 P131

23. Using a ruler and a protractor only, construct an angle  $ABC$  of 65 degrees whose sides  $AB = 6$  cm and  $BC = 8$  cm . (4 marks)

Continued/...

24. Figure 3 shows an equilateral triangle ABC.

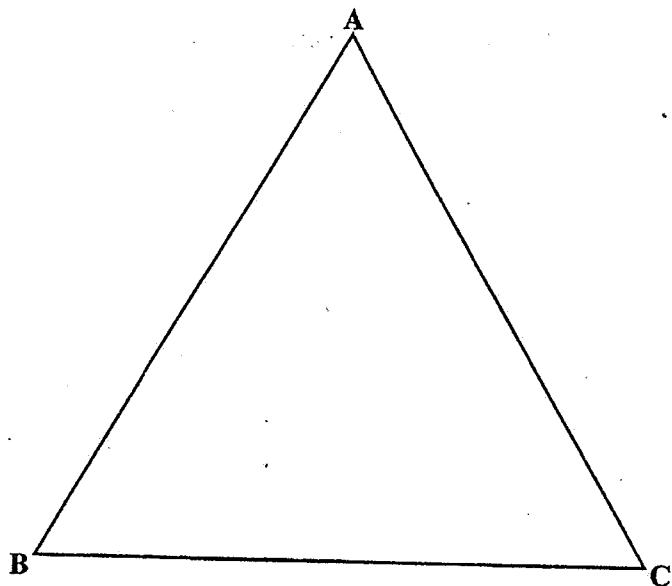


Figure 3

On the diagram, draw all the lines of symmetry.

(4 marks)

25. Calculate compound interest on K70 000 for 2 years at 10% per annum.

(7 marks)

26. Figure 4 shows a semi circle ABC in which a right angled triangle DOC has been removed.  
 $AO = 7 \text{ cm}$  and  $OD = 5 \text{ cm}$ .

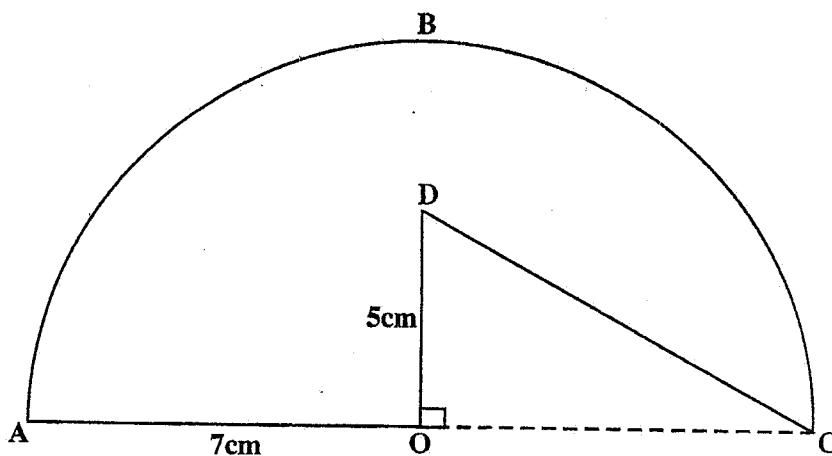


Figure 4

If O is the centre of the semi circle, calculate the area of the remaining part.

(Take  $\pi = \frac{22}{7}$ )

(6 marks)

27. Table 2 shows premium on insured property.

Table 2

Type of Property	Premium per month in Kwacha
Truck	K5000
Saloon car	K2000

If a company insured two trucks and a saloon car, calculate the total insurance paid for one year.

(5 marks)

Continued/...

28. A person walked 2.5 km at a speed of 5 km/h and then cycled for 1 hour at 17 km/h.  
Calculate the average speed for the whole journey. (7 marks)

Continued/...

29. A garden was to be prepared by 24 people in 30 days. After working for 10 days, 14 men left. How long would the remaining people take to complete the garden? (6 marks)

Continued/...

30. Benja started business on 1<sup>st</sup> July 2009 with K52 000 in bank. During the month Benja's transactions were as follows:

2<sup>nd</sup> July withdrew K40 000  
7<sup>th</sup> July bought maize K30 000  
10<sup>th</sup> July sold maize K45 000  
15<sup>th</sup> July banked K33 000

- a. Prepare Benja's cashbook. **(7 marks)**

- b. What was Benja's capital on 1<sup>st</sup> August? **(2 marks)**

**END OF QUESTION PAPER**

NB: This paper contains 12 pages.