# PRE-PLE EXAMINATION - 2024

## 2024

## MATHEMATICS

### *Time allowed: 2hours 30 minutes*

| Random No. | | | | | | Personal No. | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

Candidate's Name: ..........*Marking guide*...........................

Candidate's Signature: ...................................................

**District ID No.**

| | | | |
|---|---|---|---|
| | | | |

## Read the following instructions carefully:

1. Do not write your **school** or **district name** anywhere on this paper.
2. This paper has two sections: **A** and **B**. Section **A** has **20 questions** and **section B** has **12 questions** .This paper has **16 pages** printed altogether.
3. Answer **all** questions. All the working for both sections **A** and **B** must be shown in the spaces provided.
4. **All** working **must** be done using a **blue** or **black** ball point pen or ink. Any work done in pencil other than graphs and diagrams will **not** be marked.
5. **No calculators** are allowed in the examination room.
6. Unnecessary **changes** in your work and handwriting that cannot be easily read may lead to **loss of marks.**
7. Do not fill anything in the table indicated "**For Examiners' use only**" and the boxes inside the question paper.
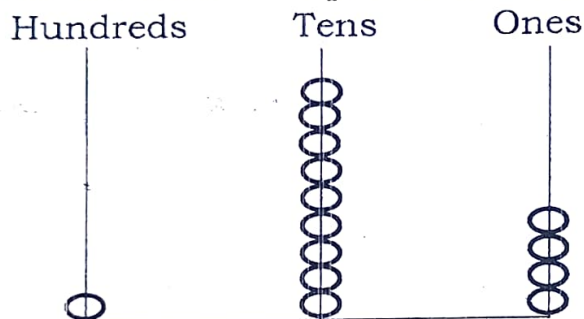
Answer **all** questions in this section.

Question **1** to **20** carry two marks each

1- Simplify: 9p + 2p – 3p

2- Write the number represented on the abacus below in Roman numerals.

| Hundreds | Tens | Ones |



_____

3- Workout: 36 ÷ 3

4- Study the venn diagram below and use it to answer the question that follows.
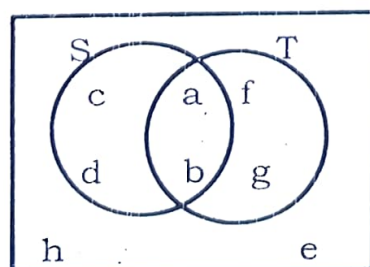


List the subsets of set T but not in set S.

5- Round off 34.967 to one place of decimal.

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│         │
│         │
└─────────┘
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6- Workout:   $1\frac{2}{3} \div \frac{5}{6}$

7- Using a pair of compasses, ruler and a pencil only, copy the acute angle LMN below.
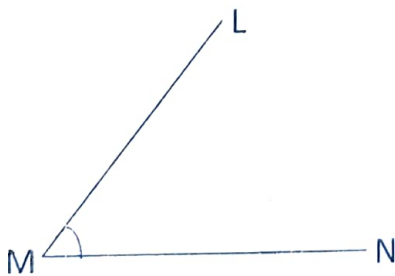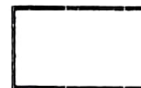


8- Find the next number in the sequence;

-11, -13, -16, -21, -28, _____

9- Express 2450 in standard form.

10- Solve: $15 - 2m = 3$
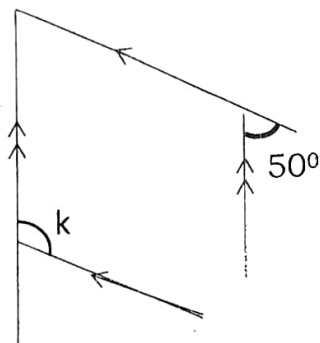
11- Evaluate; $\dfrac{1}{2}$ of $4 + 2$

12- The average weight of 3 children is 28kg. When their father joined them, their average weight became 15kg more than the average weight of the 3 children.

   Calculate the weight of the father.
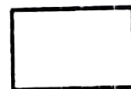
13- Change $121_{three}$ to base ten

14- Study the figure below carefully and find the value of k in degrees.



15- Bbosa went to sleep at twenty minutes past midnight. Write this time in the military time.

16- Convert 0.75kg into grammes.

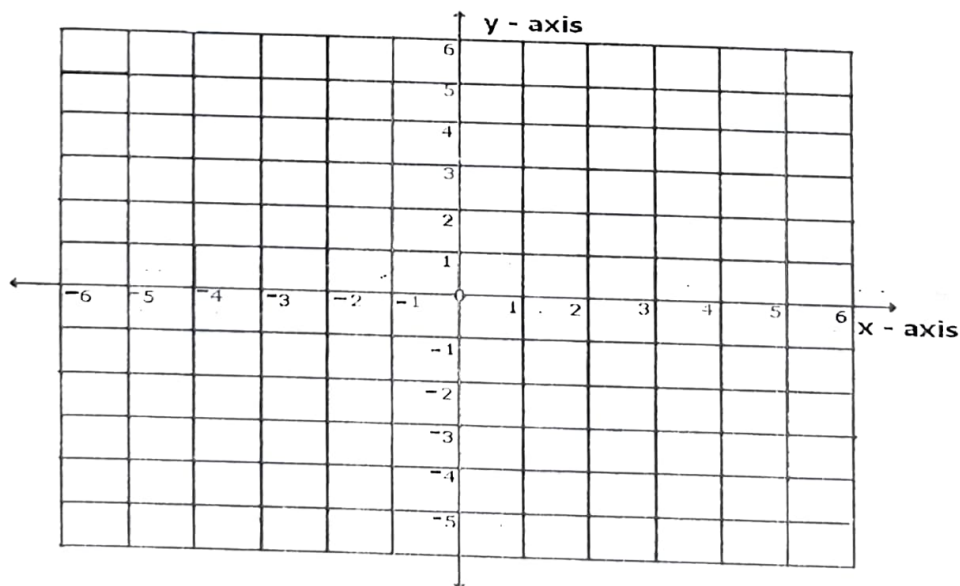17- Musasizi paid sh.48,000 for a radio from China town after being given a discount of 20%.

  Calculate the original price of the radio before the discount.

18- Find the square of 0.2

19- The table below shows the coordinates of plot A and B

| Coordinates | A | B |
|---|---|---|
| x | 2 | 0 |
| y | 0 | -2 |

Plot the above coordinates on the coordinate graph below.

20- Find the area of the figure below. (Use $\pi = \frac{22}{7}$ )

7cm

36⁰
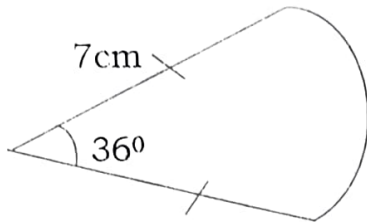
*Answer **all** the questions in this section.*

*Marks for each question are indicated in brackets.*

**(02marks)**

21- (a) Workout:

    4  2  1 five

  - 1  1  3 five

_____

(b) Given that $23_k = 11$. Find the un-known base k    **(02marks)**

22- A shopkeeper bought a tray of 30 eggs at sh. 12,000.
   On his way back, some eggs fell on the way and sold the remaining eggs
   at sh.600 each.
   He made a profit of 15% after selling all the remaining eggs.
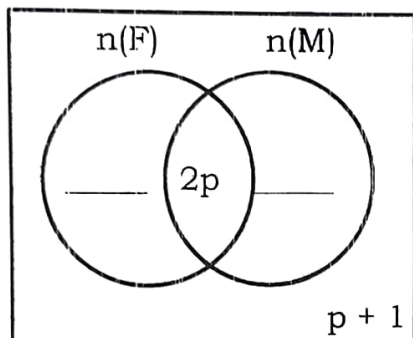   How many eggs fell on the way?                    *(06marks)*

23- In a class, 4p + 1 pupils like fish only, 3p + 3 like meat only, 2p like both dishes while p + 1 do not like any of the two dishes.

(a) Use the above information to complete the venn diagram below.

*(02marks)*

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┌─────────────────────────────┐
│  n(F)        n(M)           │
│    ___      ___             │
│   /   \    /   \            │
│  (      )  (     )          │
│ ____| 2p |____              │
│  \      /  \     /          │
│   \___/    \___/            │
│                             │
│                  p + 1      │
└─────────────────────────────┘
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b) Given that 13 more pupils like fish than meat only, how many pupils were in the class? *(3marks)*

24- During Busoga Tourism day, groups of cyclist and motorist were leaving the source of the Nile at intervals of a half an hour and two thirds hour respectively.

(a) After how many minutes will both the cyclist and motorist take to leave the source of the Nile at the same time? *(03marks)*

(b) If they left the source of the Nile together for the first time at 8:15a.m, at what time will they leave the source of the Nile together for the third time? *(02marks)*

25- In a certain district, schools A, B and C received pupils on the reporting day in the ratio of 2 : 3 : 7 respectively. Schools A and B received 400 pupils.

How many pupils were received on the reporting day in the above three schools altogether?

(05marks)

26- The time table below shows the journey of a bus from Kampala to Budaka through Mukono, Jinja, Iganga and Namutumba. Study the table and use it to answer the questions that follow.

| Town | Arrival time | Departure time |
|------|-------------|----------------|
| Kampala | | 7:20a.m |
| Mukono | 8:50a.m | 9:10a.m |
| Jinja | 10:30a.m | 10:35a.m |
| Iganga | 11:20a.m | 11:30a.m |
| Namutamba | 12:05p.m | 12:15p.m |
| Budaka | 1:05p.m | |

(a) At what time did the bus leave Jinja?

(01mark)

(b) If the above wire was then curved into a circular shape and pegs were placed round the circular shape at intervals of 3 metres apart. How many pegs were placed at the shape altogether?     *(02marks)*
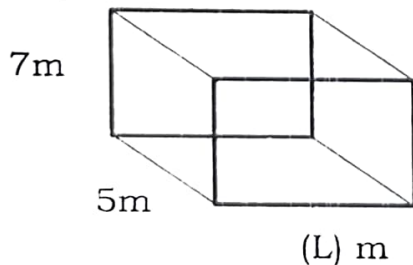
28- The interior angle of a regular polygon is thrice the exterior angle. Calculate its interior angle sum.     *(05marks)*

(b) For how long did the bus stay at Mukono? **(01mark)**

(c) If the distance from Kampala to Budaka is 368km. Calculate the average speed of the bus for the whole journey. **(03maks)**

27- The figure below is made of a wire of total length 96metres.



7m

5m

(L) m

(a) Calculate the length (L) of the above shape. **(03marks)**

29. Mutebi deposited money in the bank which offers a simple interest rate of 8% per year.

After 9 months, his account had an amount of sh. 3,710,000. Calculate the money Mutebi deposited in the bank. **(05marks)**

30- (a) Given that a = 2, b = 2a and c = 5.

Evaluate: $4c - b^2$ (02marks)

(b) Solve the inequality $3 - 2p < 15$ and write the solution set if p is a negative integer. (03marks)

31- The table below shows the marks obtained by some pupils in a weekly test. Use it to answer the questions that follow.

| Marks | 60 | 90 | 70 | b |
|---|---|---|---|---|
| Number of pupils | 4 | 1 | 3 | 2 |

(a) How many pupils did the test? (01mark)

(b) If the average mark scored was 70, how many pupils scored above the average? (04marks)

32- Brenda moved from the shop to the Petrol Station a distance of 60metres on a bearing of $250^0$. At the Petrol Station she continued to the hardware a distance of 55metres on a bearing of $150^0$.

(a) Draw a sketch diagram to show the three places.          *(01mark)*

(b) Using a scale of 1cm to represent 10metres, draw an accurate diagram for the three places.          *(04marks)*