NAMAGUNGA PRIMARY BOARDING SCHOOL
MIDTERM ONE EXAMINATION, 2023
PRIMARY SEVEN - MATHEMATICS

Time allowed: **2 Hours 30 Minutes**

Name: ....

Stream: .... Date: ....

Read the following instructions carefully:

1. This paper has **two** Sections: **A** and **B**.

2. All the working for both sections A and B must be shown in the spaces provided.

3. All working must be done using a blue or black ball point pen or fountain pen. Any work done in pencil other than graphs, pictures and diagrams will not be marked.

4. No calculators are allowed in the examination room.

5. Unnecessary changes of work may lead to loss of marks.

6. Any hand writing that cannot easily be read may lead to loss of marks.

7. Do not fill anything in the boxes indicated "For Examiner's Use Only".

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SECTION A   (40 marks)

1. Work out:
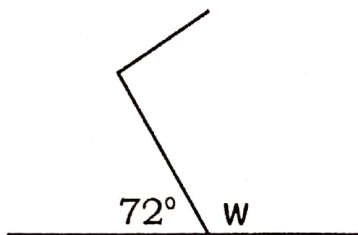$$\begin{array}{r} 7\ 7\ 5 \\ -\ 2\ 1\ 3 \\ \hline \end{array}$$

2. Express 946 in scientific notation.

3. Mark picked eggs from his farm and tallied them as shown below.

|||| |||| |||| |||| |||| |||| |||

Write the number of eggs he picked in Roman numerals.

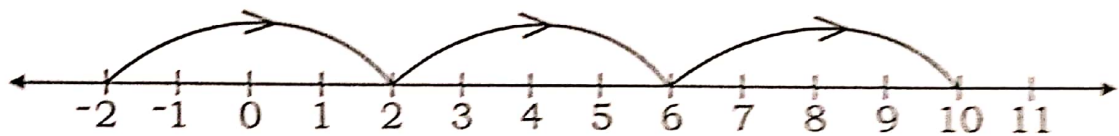4. Find the size of angle marked w in the figure below.

72° w

5. Simplify: 5p − 2r + p − 3r

6. Asaba prepared some juice and served each of her visitors 0·75 litres. If all visitors took 9 litres altogether, how many visitors did she host?

7. Draw a set symbol for a void set.

8. Write the mathematical statement shown one the number line below.

9. At Scoul, the area of one of the flower gardens is 121m. Calculate the perimeter of the flower garden.

10. A morning assembly at a certain school takes 50 minutes. If it ended at 8:30 a.m., at what time did it start?

11. Work out : $\dfrac{3}{4} \div \dfrac{1}{2}$

12. If a dice is tossed once, what is the chance of getting a square number appearing on top .
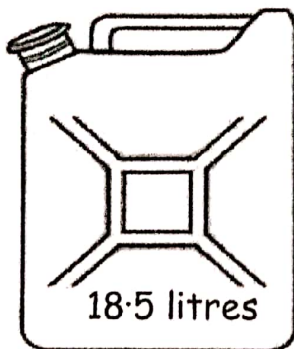
13. Chemutai received a bundle of fifty thousand shilling notes numbered consecutively from BF 4327187 to BF 4327211 . How much money did she receive ?

14. The lowest common multiple of a and c is 48 and their highest common factor is 8 . Find the value of c if $a = 16$.

15. Find the square of the next number in the sequence below .

    1 , 3 , 5 , 7 , ...

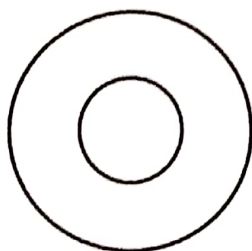16. Below is a container of water. Find its volume (cm³).

18·5 litres

17. Use a protractor to measure the size of the given angle below.

18. Given that: $P = \{1, 2, 3, 4, 5, 6, 7\}$ and

$R = \{2, 4, 6\}$

Represent the above sets on the Venn diagram below.

19. The taxi operators charge sh. 7,000 as fare from town M to town N. How much money was collected if there were 13 passengers on board.

20. Simplify:

	Kg	gms
	3	786
+	9	349

SECTION B (60 MARKS)

21(a) Simplify: $\dfrac{0.24 \times 8}{0.6 \times 0.02}$ (3 marks)

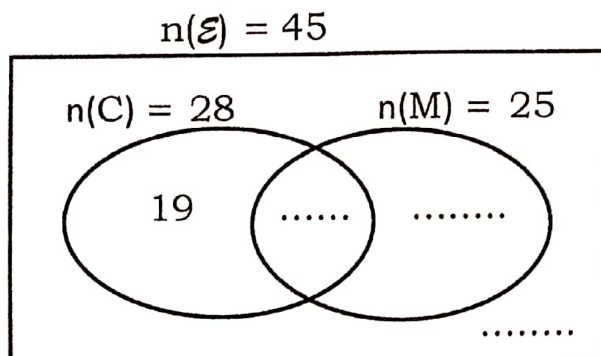(b) Write $\dfrac{2}{9} \div \dfrac{2}{3}$ of $\dfrac{1}{6}$ in its shortest form. (3 marks)

22(a) Using a ruler, a pair of compasses and a sharp pencil only, construct triangle PBS where $\overline{PB}$ = 6cm , angle BPS = 45° and $\overline{PS}$ = 10cm . **(4 marks)**

(b) Dralu was facing Northwest and she turned clockwise through an angle of 270°. Find the new direction she faced. **(2 marks)**

23. In a village with 45 farmers, 25 grow maize (M), 28 grow cassava (C), a farmer does not grow any of the two crops while some farmers grow both crops.

(a) Use the above information to complete the Venn diagram below. (3 marks)

$$n(\varepsilon) = 45$$

(a) How many farmers grow both maize and cassava? (1 mark)

24. A teacher recorded marks for P.7 pupils in a Science test as shown in the table below.

Mark	95	80	73	90	96
Number of pupils	1	3	7	5	4

(a) What is the modal mark. (1 mark)

(b) Find the range of marks. (1 mark)

(c) Calculate the mean mark. (3 marks)

25. In Palam Primary School, two bells are used and are rung at intervals of 30 minutes and 45 minutes respectively.

(a) After how many hours will the two bells be sounded at the same time. (3 marks)

(b) If they were last rung at 8:30am, at what time will they be rung together again? (2marks)

26. Mukasa borrowed sh. 140,000 from a sacco which charges 2 ¼ % per month. If he serviced his loan in 10 months,
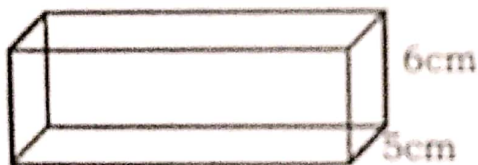
a) how much interest did he pay. (2 marks)

b) Calculate the amount he paid by the end of the 10th month. (2marks)

27(a) Find the least number of pupils when grouped in eights, a pupil remained and when grouped in fives, three remained. **(3 marks)**

(b) Kirya arrived at the bus park 27 minutes before the normal departure time for the bus. That day, the bus delayed by 15 minutes. For how long had he stayed at the park by the time the bus left? **(2marks)**

28. Below is a rectangular prism whose base area is 40cm².

6cm

5cm

(a) Find the length of the prism. **(2 marks)**

(b) Calculate its total surface area. **(3marks)**

29. Opolot went shopping and bought the following items

2 loaves of bread for Sh. 2,800 each

$1\frac{1}{2}$ kg of sugar for sh. 4,800 per kg

1 tin of margarine for sh. 4,500

$\frac{3}{4}$ of beef for sh. 10,500

(a) Find the cost of a kg of beef. (2 marks)

(b) Calculate the amount Opolot paid for all the items he bought. (3marks)

30. (a) Express 134_{five} as a base three numeral. (3marks)
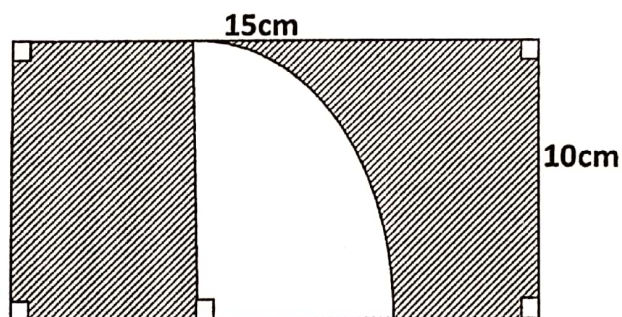
(b) Work out: (2 marks)

$$
\begin{array}{r}
1\ 0\ 1\ 1_{two} \\
+\quad 1\ 1\ 1_{two} \\
\hline
\end{array}
$$

31. Jojo is four times as old as Dan. If their total age is 55 years,
     a) how old is Jojo?   (3 marks)

     b) Find their total age five years ago.   (2 marks)

32. Given the figure below.

     Calculate the area of the shaded region.   (5marks)

End