

# MBARARA ARCHDIOCESE

## PRE – PRIMARY LEAVING EXAMINATION 2023

### MATHEMATICS

Time allowed: 2 hours 30 minutes

Index No. :

School EMIS						Personal No.		

Candidate's Name : .....

Candidate's Signature : .....

School Name : .....

Parish : .....

Read the following instructions carefully:



1. The paper has **two** sections: **A** and **B**
2. Section **A** has 20 questions (40 marks)
3. Section **B** has 12 questions (60 marks)
4. Answer **ALL** questions. All answers to both Sections A and B must be written in the spaces provided.
5. All answers must be written using a blue or black ball point pen or ink. Diagrams should be drawn in pencil.
6. Unnecessary crossing of work may lead to loss of marks.
7. Any handwriting that cannot be easily read may lead to loss of marks.
8. Do **not** fill anything in the boxes indicated;

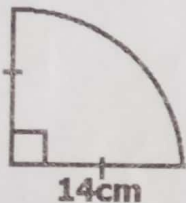
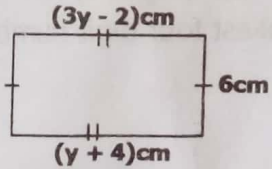
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ONLY

Qn. No	MARK	SIGN
1 – 5		
6 – 10		
11 – 15		
16 – 20		
21 – 23		
24 – 26		
27 – 29		
30 – 32		
TOTAL		

**SECTION A: 40 MARKS**  
**Questions 1 to 20 carry 2 marks each**

1.	Work out: $\begin{array}{r} 783 \\ -154 \\ \hline \end{array}$	7.	Solve: $3(n - 2) = 12$
2.	Simplify: $-6 + -3$	8.	Write the afternoon time shown on the clock face. 
3.	Write in words: 708,346	9.	Find the square root of $\sqrt{\frac{1}{9}}$
4.	Simplify: $3e^2 - 2n + e^2 - 3n$	10.	Write a single number for $4.9 \times 10^{-3}$ .
5.	Find the next number in the sequence: 2, 3, 5, 7, .....	11.	Find the place value of 6 in the number 763.
6.	Given that  represents 12 trees, draw such pictures to represent 84 trees.	12.	Using a ruler and a pair of compasses, construct an angle of $75^\circ$ .

13.	If today is Wednesday, what day of the week was it 37 days ago?	17.	Given that set $P = \{g, e, a, t\}$ , find the number of proper subsets in set P.
14.	Express 200gm as a percentage of 2kg.	18.	Round off 3.96 to the nearest tenths.
15.	Find the distance around the figure below. 	19.	A trader bought an article at sh.25,000 and sold it at sh.30,000. Calculate the trader's profit.
16.	Tom was facing North East and turned anticlockwise to face West. Through what angle did he turn?	20.	Work out the area of the figure. 

### SECTION B: 60 MARKS

Marks for questions **21** to **32** are indicated

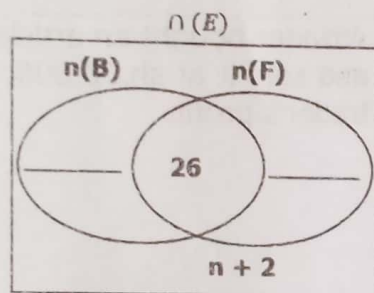
21. (a) Work out: **Hours** **Min**

$$\begin{array}{r} 3 \quad 15 \\ - 1 \quad 25 \\ \hline \end{array}$$

- (b) A motorist left town P at 8:30 am and covered 100km at a speed of 40km/h to town Q. At what time did the motorist reach town Q?

22. In a group,  $2n + 1$  eat beef (B) only,  $3n + 10$  eat fish (F) only, 26 eat both beef and fish while  $n + 2$  eat other dishes.

- a) Use the above information to complete the Venn diagram below.



- b) If the number of people who eat beef is twice the number of people that eat fish, find the value of  $n$ .

23. Given the numerals; 5, 2, 0, 4

- a) Write the smallest four digit number formed using the above digits.

- b) Find the sum of the smallest and largest numbers formed.



24. Moses bought the following items from a whole sale shop.

15kg of sugar at sh.75,000

50kg of rice at sh.150,000

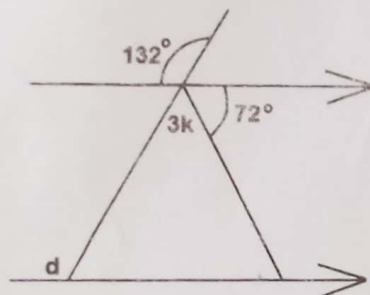
$\frac{3}{4}$  litres of cooking oil at sh.6,000

1 bar of soap at sh.6,000

- a) How much money did he spend altogether?

- b) John bought 2 bars of soap, 3kg of rice and 1kg of sugar from the same shop.  
How much money did he pay altogether?

25. Study the diagram below and use it to answer the questions that follow.



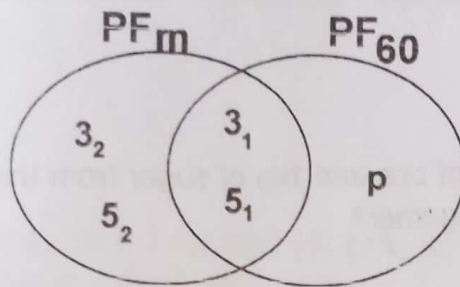
- a) Find the value of **k**.

- b) Find the value of **d**.

26. (a) Solve:  $3^n \div 243 = 1$

(b) Amos is 24 years old and Deborah is 36 years old. How many years ago was Deborah thrice as old as Amos?

27. Study the Venn diagram below and answer the questions that follow.



a) Find the value of  $p$ .

b) Find  $F_m \cap F_{60}$ .

c) Work out the LCM of  $F_m$  and  $F_{60}$ .

28. The average of  $3d$ ,  $8$ ,  $2d + 2$ ,  $6$  and  $4$  is  $10$ .

a) Find the value of  $d$ .

b) Work out their median.

29. A ship sailed from port **A** 350km on a bearing of  $120^\circ$  to Port **B**. It changed direction and sailed 420km to Port **C** on a bearing of  $215^\circ$ .

a) Draw a sketch map showing the above information.

b) Using a scale, 1cm to represent 70km, draw an accurate figure showing the three places.

c) Find the shortest distance between ports **A** and **C**.

30. On a farm, there are  $\frac{1}{4}$  less goats than the sheep. The farm has 24 goats.

a) Find the fraction of goats on the farm.

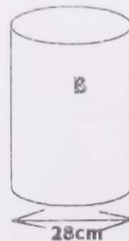
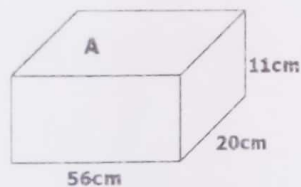
b) Find the total number of animals on the farm.

31. Benson bought 3 shares each at sh.24,000 from a commercial bank at a simple interest rate of 14% p.a for 9 months.

a) What interest did he get from the bank?

b) Find the amount of money he received after 9 months.

32. The containers below hold the same amount of milk when completely full.



a) Find the volume of container B.

b) Find the value of  $h$ . (Take  $\pi = \frac{22}{7}$ )

END