

# MBARARA ARCHDIOCESE

## PRIMARY LEAVING MOCK 2023

### MATHEMATICS

**Time allowed: 2 hours 30 minutes**

School EMIS	Personal No.

Index No. :

Candidate's Name : .....

Candidate's Signature : .....

School Name : .....

District Name : .....

**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;  
For Examiner's use only.

FOR EXAMINER'S USE ONLY		
FOR EXAMINER'S USE ONLY		
Qn. No	MARK	SIGN
1 – 5		
6 – 10		
11 – 15		
16 – 20		
21 – 23		
24 – 26		
27 – 29		
30 – 32		
TOTAL		

**Turn over**

Questions 1 to 20 carry 2 marks

1. Work out:  $98 \div 8$

7. Find the least number of oranges given to 15 or 18 pupils leaving 3 as remainder.

2. Write 196,342 in words.

8. Solve:  $\frac{3}{p} = 4$  (finite 5)

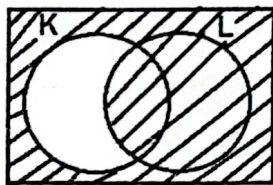
3. Simplify:  $3(w - 2) - 2(w + 3)$

9. Round off 6372 to the nearest hundreds.

4. Write 3800 in standard form.

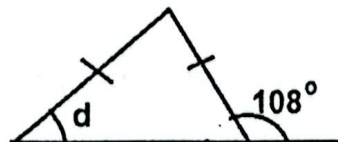
10. Work out the mean of  $3n$ , 7,  $n + 1$  and 4.

5. Describe the shaded region in the figure below.



6. Write CDLXV in Hindu Arabic numerals.

11. Find the value of  $d$  in the figure below.



12. Express  $4\text{m}^2$  to  $\text{cm}^2$ .

17. A motorist covered 400m in 20 seconds. Calculate the motorist's speed in km/h.

13. If today is Tuesday, what day of the week was it 39 days ago?

18. A trader sold a belt at sh.3000 and made a profit of sh.600. Calculate the trader's percentage profit.

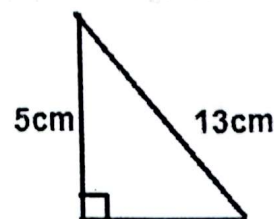
14. Solve:  $6 - 2n = 2$

19. The LCM of two numbers is 90 and their GCF is 3. If one of the numbers is 18, find the second number.

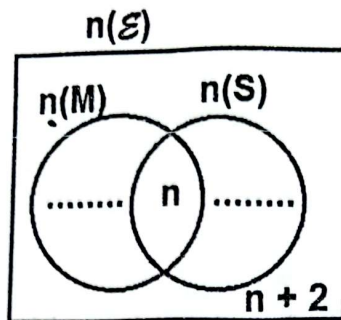
15. Using a ruler and a pair of compasses, construct an angle of  $105^\circ$ .

16. Express 0.2333.....as a simplified common fraction.

20. Work out the distance around the figure below.



21. In a class, 24 pupils like Maths (M) only,  $n$  like both Science (S) and Maths. The number which likes Science only is thrice those that like both subjects while  $n + 2$  like other subjects.
- a) Use the above information to complete the Venn diagram below.



- b) Given that 28 pupils like Science, find the value of  $n$ .

- c) How many pupils are in the class?

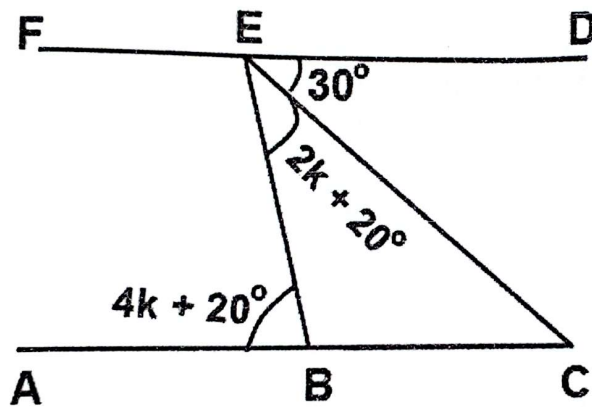
22. (a) Work out: 
$$\begin{array}{r} 232_{\text{five}} \\ - 34_{\text{five}} \\ \hline \end{array}$$

(b) Given that  $301_p = 144_{\text{five}}$

23. The sum of 3 consecutive even numbers is 42. If the largest number is  $g$ ,  
a) Find the value of  $g$ .

b) Work out their range.

24. Study the figure below and use it to answer the questions that follow.



a) Find the value of  $k$ .

b) Work out the size of angle CBE.



25. A hen costs sh.12,000 less than a cock and a turkey costs twice as much as a cock. If their total cost is sh.96,000. Find the cost of each item.

26. (a) Using a ruler and a pair of compasses, construct a triangle PQR where  $PQ = 7\text{cm}$ , angle  $PQR = 60^\circ$  and angle  $QPR = 45^\circ$ . Drop a perpendicular line from R to meet PQ at point O.

(b) Measure the length RO.

27. Aminah went shopping and bought the following items:

3kg of rice at sh.15,600

$1\frac{1}{2}$  litres of cooking oil at sh.7000 per litre

500gm of meat at sh.14,000 per kg

2 packets royco at sh.1,000

a) Calculate her total expenditure.

- b) If she was offered a discount of 5%, how much money did she pay for all the items?

28. The table below shows the performance of a P.7 class in a math test. Use it to answer the questions that follow.

Marks scored	65	P	70	25
No. of pupils	2	3	1	4

a) How many pupils did the test?

b) If their average score was 48, find the value of P.

29. A tank is  $\frac{2}{5}$  full of water. When  $\frac{1}{6}$  of the water was sold, 6000 litres remained. Find the capacity of the tank.

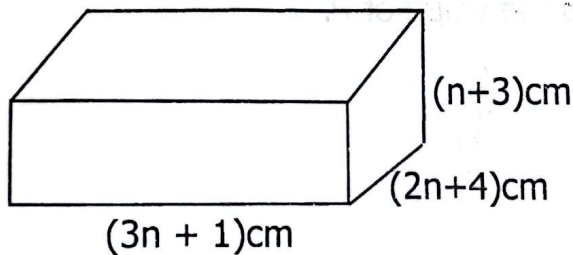
30. A motorist left town P travelling at a speed of 90km/h for 2 hours to town Q. If he returned to town P at a speed of 60km/h,

- a) Find the distance between towns **P** and **Q**. (b) Work out the average speed for the whole journey.

31. On a farm, there are 40% more cattle than goats.  
a) Find the percentage of goats on the farm.

b) If there are 42 cattle, find the total number of animals on the farm.

32. The sum of all the edges on the figure below is 104cm.



a) Find the value of  $n$ .

b) Work out its volume.