## DRTH KIGEZI DIOCESAN PRE- MOCK EXAMINATION 2022

## **MATHEMATICS 2022**

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## Read the following instructions carefully

- 1. The paper has two sections A and B.
- 2 Section 4 has 20 questions (40 marks)
- 3. Section B has 12 questions (60 marks)
- 4. Attempt all questions. All answers to both sections A and B must be written or drawn in the spaces provided
- 5. All answers must be written using a blue or black point pen or ink.
  Only diagrams and graphs work may be done in pencil.
- 6. Unnecessary alteration of work may lead to loss of marks.
- 7. Any handwriting that cannot be read may lead to loss of marks.
- 8. Do not fill anything in the boxes indicated for official use only.

## FOR OFFICIAL USE ONLY.

n.	1-7	8-14	15-20	21-22	23-24	25-26	27-28	29-30	31-32	Total
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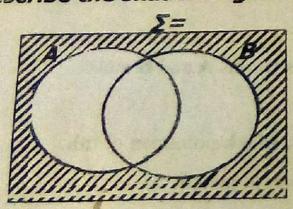
1. Add: 372

+ 2 7

2. Express XCVI in Hindu Arabic numerals.

3. Write "forty four thousand four hundred four" in figures.

4. Describe the shaded region in the diagram below;

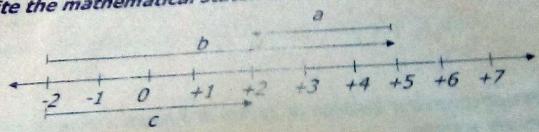


Find the values of 8 and 4 in the number; 403.28.

6. There are 4700 people in a certain sub county. Express this number in standard form.

7. Solve the equation below. 3n + 9 = 24

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



9. Find the next two numbers in the sequence 100, 81, 64, 49, 36, \_\_\_\_\_

10. The cost of 8 pens is sh. 4800. Find the cost of 3 similar pens.

- 12. Given that; P and 36° are complementary angles. Find the value of P.
- 16. 11

13. A motorist covered a distance of 162km in 3 hours. Calculate the motorist's s

14. Find the lowest common multiple of 12 and 15.

15. Using distributive property, workout;  $(0.52 \times 84) + (16 \times 0.52)$ 

16. IF P= -2 and d=3, find the value of pd-p

17. The area of a square is 36cm. Find the length of its side.

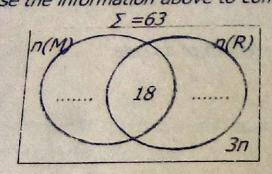
8. What number is expanded to get; 
$$(2 \times 1000) + (9 \times 1) + \begin{pmatrix} 3 \times 1 \\ 10 \end{pmatrix} + \begin{pmatrix} 4 \times 1 \\ 100 \end{pmatrix}$$

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22. (a) W (i) P

SECTION.B. (60 MARKS)

21. In a village of 63 farmers, 32 of them grow maize (M), 19 farmers grow rice (R), and 18 farmers grow both (a) Use the information above to complete the Venn diagram below. and 18 farmers grow both rice and maize.



(b) Find the value of n

(c) How many farmers do not grow rice?

22. (a) Workout;  
(i) 
$$\frac{P^4 \times P^2}{P^5}$$

(ii) 
$$4^3 + 4^1 + 4^0$$

(b) Solve; 
$$2^{x} \times 2^{3} = 2^{4}$$

(06 Marks)

23. A woman bought the following items;
750g of salt for sh. 4000 per kg
21/4 kg of sugar for sh. 3200 a kg
30 oranges for sh. 2000 for every 6 oranges
3 bars of soap for sh.15000.
How much did the woman pay altogether?

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(b) Find the value of 
$$n_i$$
,  
 $204_n = 54_{ten}$ 

25 The information below shows marks obtained by pupils in a test. Use it to answer

questions that follow.

Mark	Frequency
90%	1 //
84%	
72%	111
65%	1///

(a) State the modal mark.

(b) Find the median mark.

(c) Calculate the average mark.

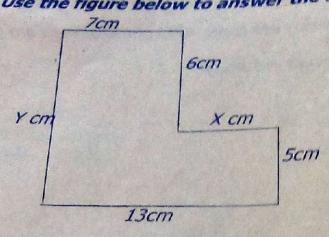
26 On a farm, 25% of the animals are cows, 40% of the animals are goal are sheep.

(a) What percentage of animals are sheep?

(b) If there are 240 animals altogether, How many more goats than cow farm?

17 Using a ruler and a pair of compasses,
(a) Construct a rectangle LMNP in which line MN=7cm and line NF=4.5c.

28 Use the figure below to answer the questions that following



- (a) Find the value of;
- (1) x

(II) Y

(b) Calculate the area of the figure.

A driver left his home at 10:55am and reached town at 12:35pm.

(b) If the town is 120km from the driver's home, calculate his speed.

(04 marks)

30 (a) Express 108 as a product of its prime factors.

(b) Given that  $F_X = \{2_1, 2_2, 2_3, 3_1, 3_2\}$   $F_{120} = \{2_1, 2_2, 2_3, 3_1, P\}$  (i) Find the value of P

(ii) Workout the LCM of X and 120 using the above prime factors.

(06 mari

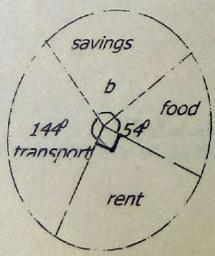
31 (a) Peter, Jane and James shared sh. 12000 in the ratio of 1:5:9 respectively. How much more did James get than Jane?

(b) 3 men can slash a compound in 12 days. How long will 4 men take to slash the same compound working at the same rate?

(05 Marks)

32 The pie chart below shows how a worker spends his salary of sh.480,000.

(a) Find the value of b.



(b) How much does the worker spend on food?

(c) Express the sector for transport as a fraction in its lowest term.

(05 Marks)