



# BOBI WINE PEOPLE POWER NUP

## P.7 MOCK EXAMINATIONS

### MATHEMATICS

*Time allowed: 2 Hours 30 Minutes*

INDEX NUMBER

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Candidate's Name: \_\_\_\_\_

Candidate's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

School's EMIS Number: \_\_\_\_\_

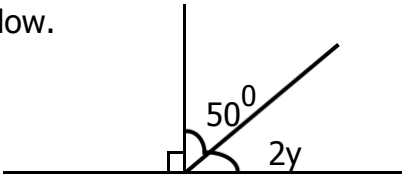
District Name: \_\_\_\_\_

**Read the following instructions carefully**

1. The 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. Diagrams must be drawn in pencil.
4. Un necessary changes of work may lead to loss of marks.
5. Any handwriting that cannot easily be read may lead to loss of marks.
6. Do not fill anything in boxes indicated: **"For Examiners' Use Only:**  
and those inside the question paper

SECTIONS	MARKS
SECTION A	
SECTION B	
TOTAL	

### SECTION A: 40 MARKS

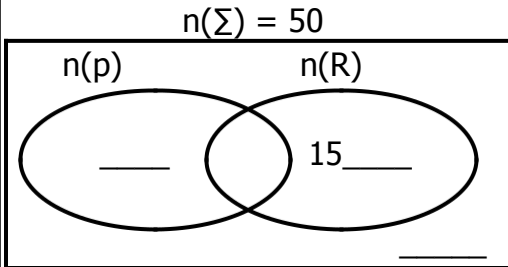
1. Work out: $34 \times 3$	2. Write XCIX in Hindu Arabic numerals.
3. Simplify: $a^6 \div a^3$	4. How many $\frac{1}{4}$ kg packets of sugar can be got from 20kg?
5. Find the square root of $1\frac{7}{9}$	6. Find the size of angle y in the figure below. 
7. Musa deposited sh.400,000 in the bank that offers an interest rate of 5% per month for $1\frac{1}{2}$ years. Find his interest.	8. Change 20m/s to kilometers per hour.
9. Convert 14 40hour to a 12 – hour clock system.	10. Using a ruler and a pair of compasses only, construct an angle of $45^\circ$ .

11.	Express $34_{\text{five}}$ into binary base.	12.	A man bought a watch at sh.25,000 and later sold it at sh.30,000. Calculate his percentage profit.
13.	Work out: $2 - 5 = \underline{\hspace{2cm}}$ (mod 6)	14.	Find the smallest number of mangoes that can be divisible by 6 or 9 pupils and leaves 2 as a remainder.
15.	Calculate the range of -8 and -1.	16.	Solve: $3a - 6 = a + 4$
17.	A lady had sh.27,000 in her bag. She spent ₦ on meat. How much money did she remain with?	18.	The circumference of a circle is 88m. find its radius (Take $\pi$ as $\frac{22}{7}$ )
19.	If 8 girls can take 5 days to do a piece of work. How many more days can 4 girls take to do the same piece of work?	20.	There are 31 proper subsets in set D. How many members can be got from set D?

## SECTION B: 60 MARKS

21. In a class of 50 pupils,  $h$  like Posho(P), 25 like rice (R), 15 like both posho and rice while 5 pupils do not like any of the two types of food.

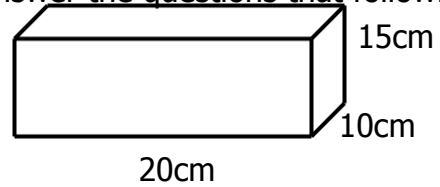
a) Complete the Venn diagram below. (3mks)



b) Find the value of  $h$ . (2mks)

c) How many pupils do not like posho? (1mk)

22. The figure below is a cuboid. Use it to answer the questions that follow.



a) How many litres of water can the figure above hold when it is completely full? (2mks)

b) Work out the total surface area of the figure above. (2mks)

23. Two bells ring at the intervals of 30 minutes, 40 minutes respectively. If they rang together at 10:50am,

a) After how long will the two bells ring together again? (3mks)

b) At what time will the two bells ring together again? (2mks)

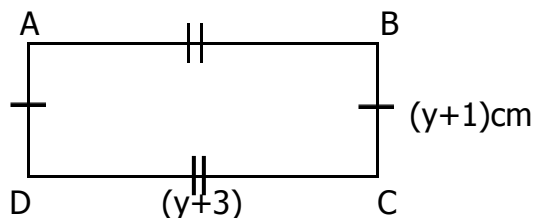
24.

a) Using a ruler and a pair of compasses only, construct a triangle ABC in which  
AB =7cm, AC=5cm and angle BAC = 120<sup>0</sup>.

b) If she was given a discount of 10%, how much money did she pay? (1mk)

27. The perimeter of the rectangle below is

28cm. study it carefully and use it to answer the questions that follow.



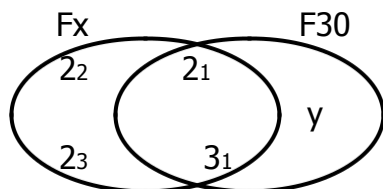
a) Find the value of  $y$ . (2mks)

b) Work out the area of the figure above. (2mks)

28.

In a school,  $\frac{2}{3}$  of the pupils are boys. One day,  $\frac{1}{4}$  of the boys and  $\frac{1}{5}$  of the girls were absent. If 1050 pupils were absent that day, how many pupils were present?

29. The Venn diagram below represents the prime factors of two numbers. Use it to answer the questions that follow.



a) Find the value of  $x$ .

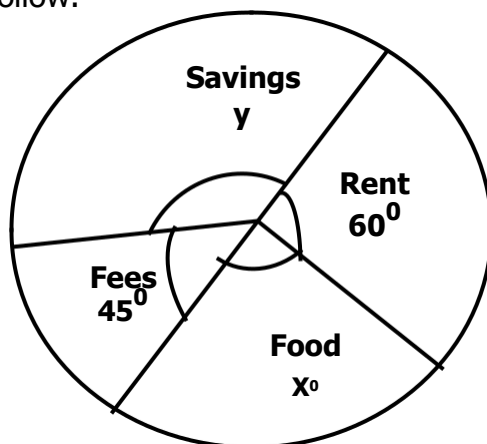
(2mks)

	<p>b) Calculate the value of y. (2mks)</p> <p>c) Work out the LCM of X and 30 (2mks)</p>
30.	<p>a) Solve: <math>2(2a + 4) - 2(a - 2) = 0</math> (2mks)</p> <p>b) If <math>p = 3</math>, <math>q = -4</math> and <math>r = 2</math>, find the value of <math>\frac{pr - q}{P - q}</math> (2mks)</p>
31.	<p>Moses, Timothy and Robert shared a certain amount of money in the ratio of 2:3:5 respectively. If Robert got sh.60,000 more than Moses,</p> <p>a) How much money did they share altogether? (4mks)</p>

b) What percentage of the money did Timothy get?

(1mk)

32. The pie – chart below shows Muzorewa's monthly expenditure. Use it to answer the questions that follow.



a) Find the value of  $y$  in degrees.

(2mks)

b) Work out the size of angle marked  $x$ .

(2mks)

c) If he spends sh.180,000 on rent, find his monthly income.

(2mks)

**END**