OUTREACH SCHOOLS EXAMINATIONS BOARD

BEGINNING OF TERM II EXAMINATION 2023

P.6 MATHEMATICS

Time Allowed: 2hours 15 Minutes

Pupil's Name: .....

Class: .....

School Name: .....

Read the following instructions carefully:

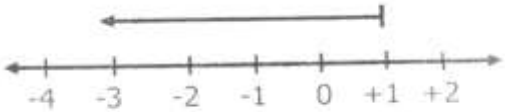
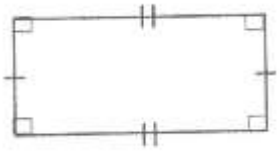
1. This paper has two sections: **A** and **B**
2. Section **A** has 20 short questions (40 marks)
3. Section **B** has 12 questions (60 marks)
4. Answer all questions. All the working for both sections A and B must be shown in the spaces provided.
5. All working must be done using a blue or black ball point pen or ink. Any work done in pencil will NOT be marked except drawings and diagram.
6. Unnecessary changes in your work and handwriting that cannot be easily read may lead to loss of marks.
7. Do not fill anything in the table indicated **"For examiners' use only"** and the boxes inside the question paper.

FOR EXAMINERS' USE ONLY		
Qn. No.	**MARKS**	**EXR'S No.**
1 - 10		
11 – 20		
21 – 30		
31 – 32		
TOTAL		

Turn Over

SECTION A (40 marks)

1.	Subtract: 4 6 - 1 4 _____ _____	2.	Write "Two thousand forty – nine" in digit form.
3.	Simplify: 2x + y + 5x – 2y	4.	Draw a Venn diagram showing that all stones are non living things.
5.	Divide: $\frac{4}{6} \div \frac{1}{2}$	6.	Find the next number in the sequence. 2, 3, 5, 7, _____
7.	Express 3500gms as kg.	8.	What number has been expanded to give $(5x10^2)+(3x10^1)+(2x10^0)$?
9.	Find the square of 9.	10.	A football match started at 8:00p.m and lasted for 90 minutes. At what time did it end?

11.	6 cups cost sh.1800. What is the cost of a cup at the same rate?	12.	Write 18 as a product of its prime factors.
13.	Given that set A = {1,3,4,6,8} and AUB = {1,2,3,4,5,6,7,8} List down all elements of set B	14.	Using a protractor, a ruler and a pencil only, draw an angle of 60^0 in the space provided below.
15.	What is the value of $2^3 + 2^0$?	16.	Express 49 as a Roman numeral.
17.	How many quarter litres of juice can fill a 5 litre container?	18.	What integer is represented by the arrow on the number line below? 
19.	Marion scored the following marks in a test; 50, 40, 30, 60 and 40. Calculate his mean mark.	20.	How many lines of folding symmetry has the figure below? 

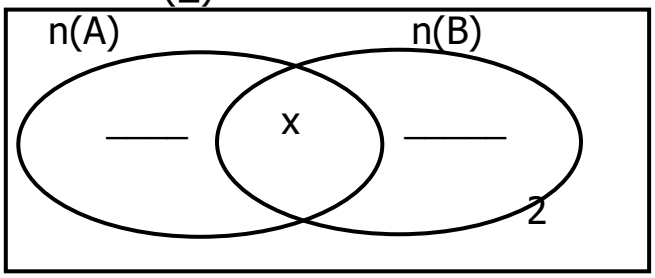
SECTION B (60 MARKS)

(Marks for each question are indicated in the brackets)

21. Given that n(A) = 18, n(B) =25 and n(A∩B) = x, n(AUB)^1 = 2 and n(∑)= 40

a) Use the above data to complete the Venn diagram below. (2mks)

n(∑) = 40



b) Find the value of x (2mks)

c) Find n(AUB) (1mk)

22. a) Write 201five in words (1mk)

b) Change 23 to quinary base. (2mks)

c) Add: 2 1 3five (2mks)

+ 1 1 1five

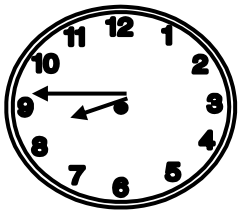
23. In a class of 42 pupils, $\frac{3}{7}$ of them are girls and the rest are boys.

a) Find the fraction for boys in the class. (1mk)

b) How many girls are in the class? (2mks)

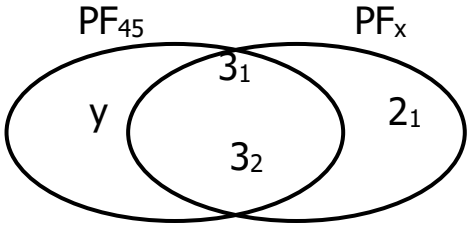
c) How many more boys than girls are in the class? (2mks)

24. a) Write the time shown on the clock face below in words. (2mks)



b) Find the distance covered by a car travelling at a steady speed of 80km/hr for 1 ½ hours. (2mks)

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



a) Find the value of x. (2mks)

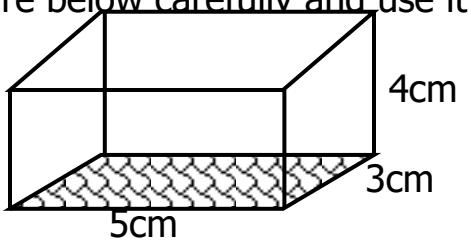
b) Work out the value of y. (2mks)

c) Find the LCM of x and 45. (2mks)

26. a) Follow the steps below carefully to construct a polygon. (4mks)
   i) Construct a circle of radius 3.5cm.
   ii) Using the same radius, mark off 6 points on the circumference.
   iii) Join the adjacent points.

b) Name the polygon you have constructed above. (1mk)

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



a) Name the shape drawn above. (1mk)

b) Work out the area of the shaded part. (2mks)

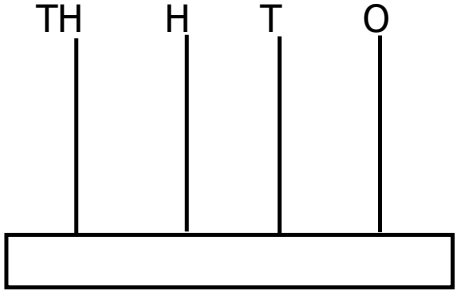
c) Calculate its volume. (2mks)

28. Use the number 2,536 to answer the questions that follow.

a) Write the above numeral in words. (1mk)

b) Express the above number in expanded form using values. (2mks)

c) Represent the above number on the abacus below. (2mks)



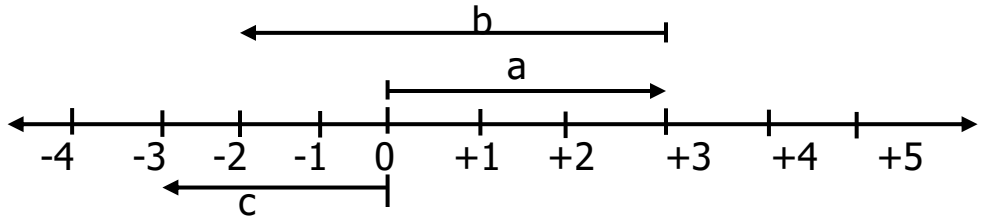
29. Otii went with a 20 thousand shilling note for shopping and bought the following items.

2kg of sugar at sh.3200 per kg
2kg of rice at sh.3000 per kg
500gm of soap at 2000 per bar
2 exercise books at sh.4000

a) How much money did he spend on all items? (4mks)

b) Work out his change. (1mk)

30. Use the number line below to answer the questions that follow.

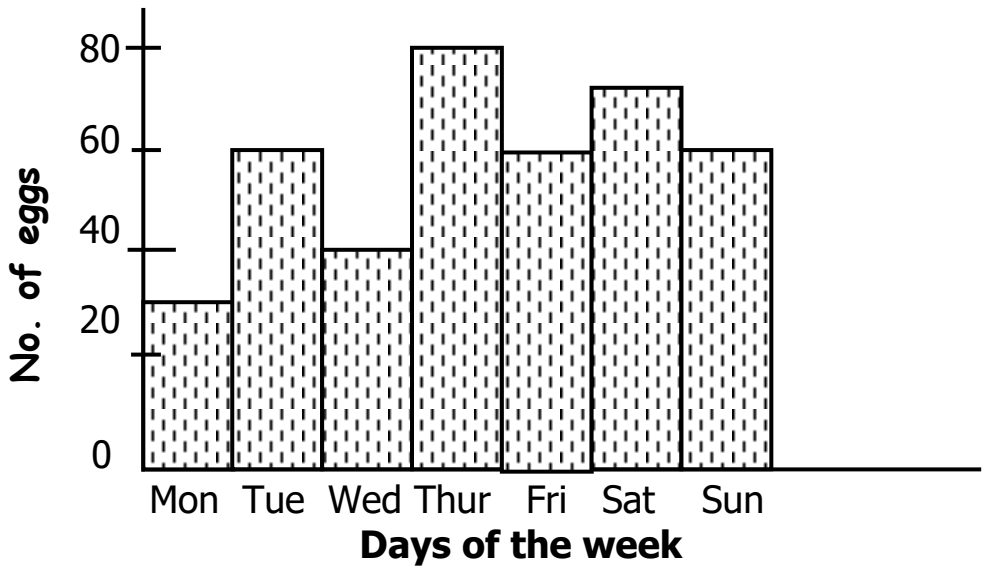


a) Find the value of; (1 mk each)

i) a ii) b iii) c

b) Which integer is 4 steps to left of +1? (2mks)

31. The graph below shows the number of eggs sold in a certain week. Use it to answer the questions that follow.



a) On which days did he sell the same number of eggs? (1mk)

b) How many eggs did he sell throughout the week? (2mks)

c) If he sold each egg worth sh.500. How much money did he get on Friday, Saturday and Sunday? (2mks)

32. Given that x = 4, y = 5 and p = 3. Work out;

i) 2y (1mk)

ii) xpy (2mks)

iii) $\frac{xp}{6}$ (2mks)

"GOOD LUCK"