NEXUS EXAMINATIONS BOARD

PRE-PRIMARY LEAVING EXAMINATION 2023

SET II

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Index Number:	**Random No.**						**Personal No.**		

Candidate's Name: ……

Candidate's Signature: ……

School Name: ……

District Name:……

Read the following instructions carefully:

1. Do not forget to write your **school** and **district name** on this paper.
2. This paper has two sections: **A** and **B**. Section **A** has **20** questions and Section **B** has **12** questions.
3. Answer **all** questions. **All** the working for both sections **A** and **B** must be shown in the spaces provided.
4. **All** working must be done using a **blue** or **black** ball point pen or ink. Any work done in pencil other than graphs and diagrams will **not** be marked.
5. **No calculators** are allowed in the examination room.
6. Unnecessary **changes** in your work and handwriting that cannot easily be read may lead to loss of marks.
7. Do not fill anything in the table indicated: **"For Examiners' Use only"**

FOR EXAMINERS´ USE ONLY		
Qn.No.	**MARKS**	**EXR's NO.**
1 - 5		
6 - 10		
11 -15		
16 -20		
21 -22		
23 -24		
25 -26		
27-28		
29-30		
31 -32		
TOTAL		

SECTION A: 40 MARKS

*Answer **all** questions in this Section*
*Questions **1** to **20** carry two marks each*

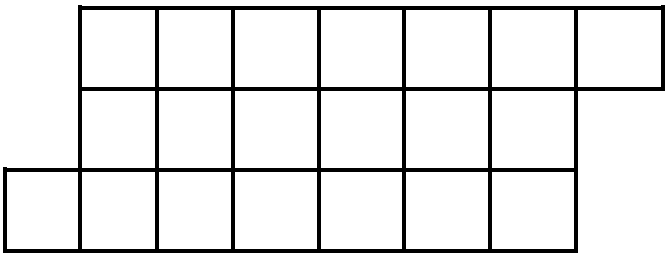
1. Work out: 80 – 60

2. Write 57,094 in words.

3. Fill in the missing subsets of set K if K= {r, a, t}.

   { }, { r, a }, {a, t }, ……., {r, a, t }, ……., {a} , { r }.

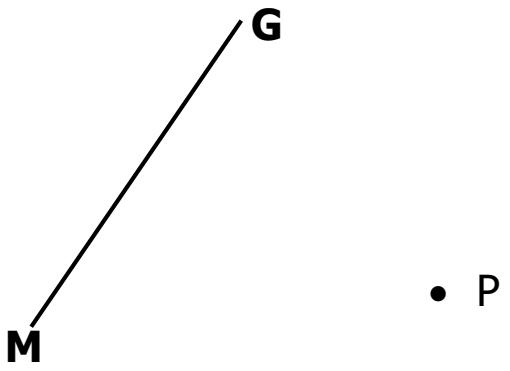
4. Shade 3:4 of the diagram below:



5. A forty-four minute lesson ended at 1:20 p.m. at what time did it start?

6. Given that b=ak, a=⁻3, and k=⁻4. Find the value of b(2a-k).

7. Using a pencil, a ruler and a set square only, draw a line parallel to **MG** below through point**, p.**

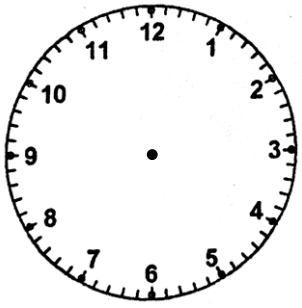


8. A trader made a profit of sh. 600 on each book after selling all the three books at sh. 10, 000. Find the cost price of the books.

9. Find the next number in the sequence:

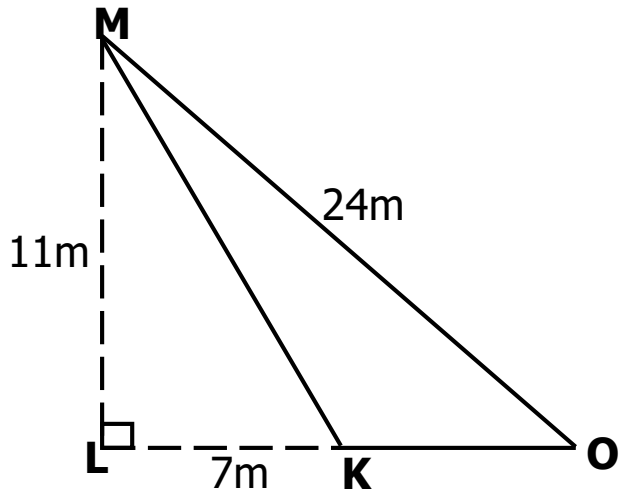
   -44, -41, -38, -35, ……

10. Show " twenty-five minutes to 2" on the 12 hour clock below.



11. Solve the inequality: $5 - 3h < 20$.

12. Calculate the area of triangle **MKO** in the figure below if line **LO**=15m, **LK**=7m and **MO**=24m.

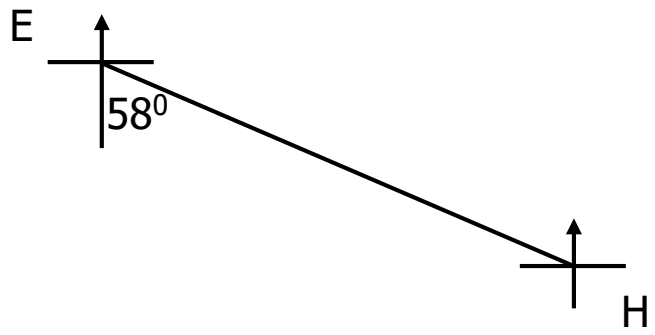


13.Express 600g as a percentage of 2kg.

14.The product of two numbers is 384. Their highest common factor (HCF) is 8. Calculate their lowest common multiple (LCM).

15. Five girls can weed a garden in 8 hours. How long will two girls take to weed the garden working at the same rate?

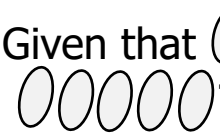
16. In the diagram below, find the bearing of town E from town H



17. Express 684.09 in standard form.

18. Hussein is five times as old as Isma. The difference in their ages is 24 years. How old is Isma now?

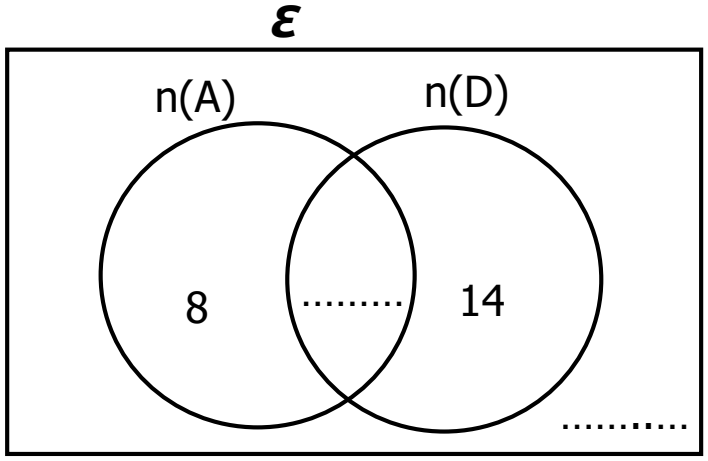
19.Convert 7300cm^3 into litres.

20.Given that  represent 6 eggs. How many eggs are represented by ?

SECTION B: 60 MARKS

Answer all questions in this section
Marks for each question are indicated in the brackets

21. On sports day, some pupils participated in Athletics(A), some in Dancing(D) and the rest in other games. **14** pupils participated in dancing only, **8** pupils participated in athletics only while ***g*** pupils participated in athletics. Pupils who participated in other sport is thrice those who participated in athletics.
    a) Use the above information to complete the Venn diagram below. *(2 Marks)*



b) If the number of pupils who participated in dancing is the same as those who participated in other games, find the value of ***g***.

(2 Marks)

c) How many pupils participated in dancing? (*1 Mark*)

22. a) Change $\frac{8}{33}$ into a recurring decimal. *(2 Marks)*

b) Simplify: $2\frac{4}{5} \times \frac{3}{7} \div 1\frac{1}{9}$ *(3 Marks)*

23. Namulondo went to the shop and bought the following items.

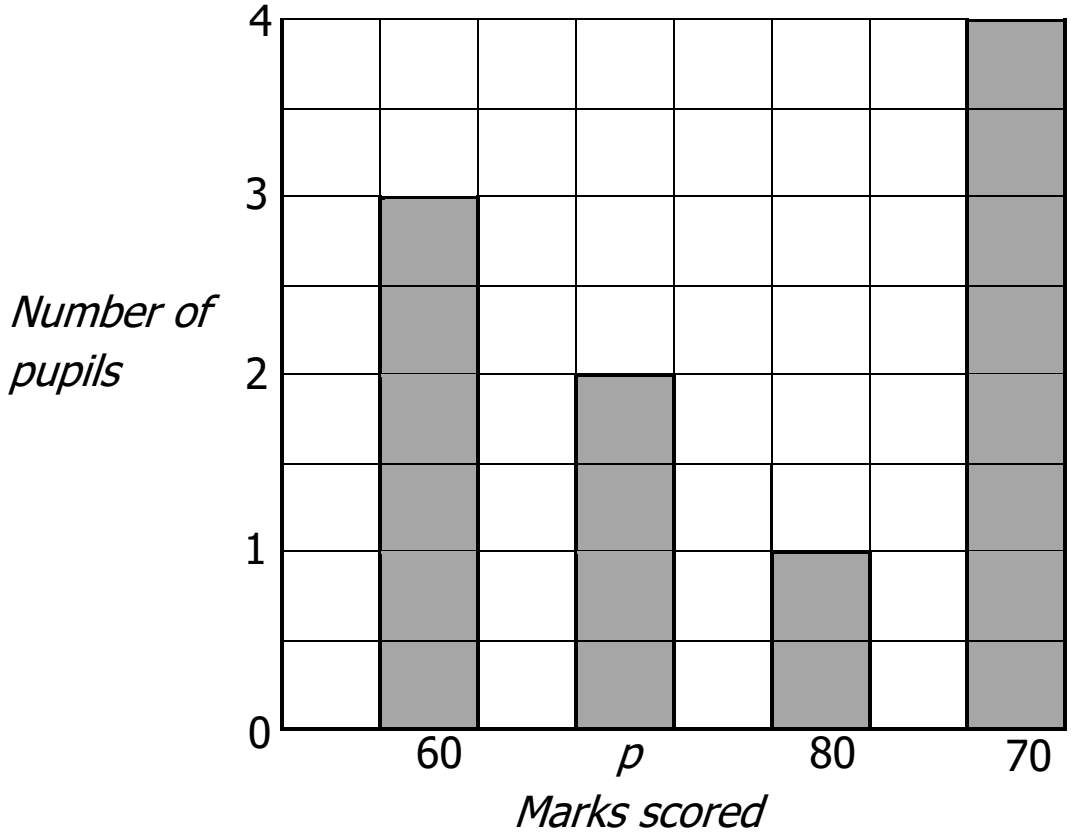
3 *tins of curry powder at sh.7,000.*
2 $\frac{1}{4}$ *kg of rice at sh.3,000 per kg.*
5 *pawpaws.*
600ml *of cooking oil at sh.8,000 a litre.*

a) If she paid sh.2,400 for every two pawpaws, how much was spent on pawpaws? *(2 Marks)*

b) Calculate her total expenditure. *(3 Marks)*

24. The distance between home and school is 4.4 kilometres. Mwima rides a bicyle whose tyre has a radius of 70cm from home to school. In how many revolutions will the tyre make to cover that distance? *(4 Marks)*

25. The bar graph below shows the marks scored by p.6 pupils in a certain test.

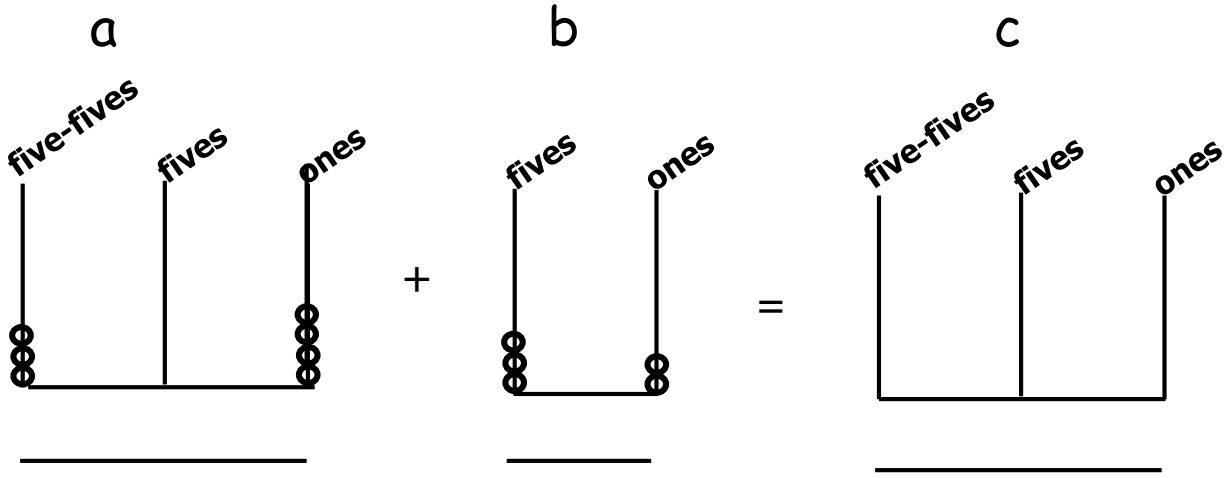


a) How many pupils did the test? *(2 Marks)*

b) If the mean score was 63, find the value of p. *(3 Marks)*

26. Two bells at a certain school are rung at intervals of 40 minutes and 50 minutes respectively for both lower and upper primary to change lessons. How many lessons will each section have had by the time the two bells ring together? *(4 Marks)*

27. The diagrams below shows addition of two numbers in base five. Use them to answer the questions that follow.



a) Write down the additional statement shown above. *(2 Marks)*

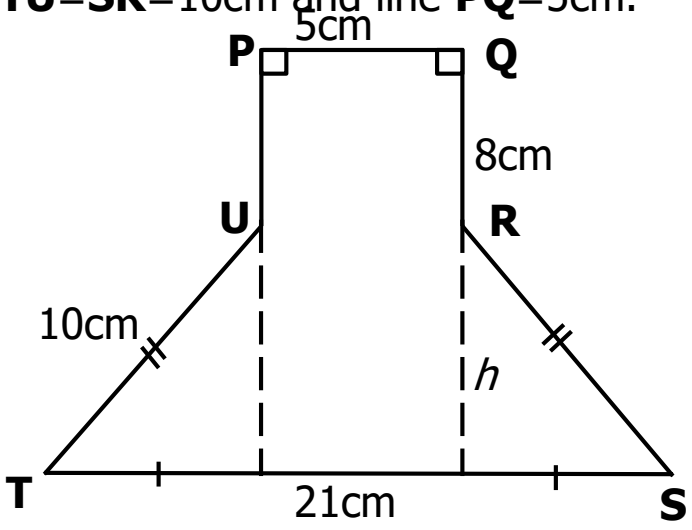
b) Work out the operation and show your answer on abacus **c**.

(3 Marks)

28. Mzee Safa bought a tray of eggs at sh.300 per egg from the market. On his way back home, some eggs got broken and sold the remaining eggs at sh.500 each. He realized a loss of sh.1,000 after selling all the eggs. Find the number of which eggs which got broken.

(5 Marks)

29. **PQRSTU** below is a combined figure. Line **PU**=**QR**=8cm, **TU**=**SR**=10cm and line **PQ**=5cm.

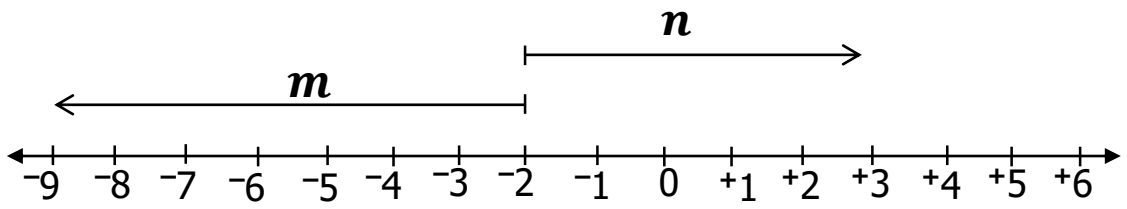


a) Find the value of *h*.

(3 Marks)

b) Work out the perimeter of the figure above. *(2 Marks)*

30. Study the number line below and then answer the questions that follow.



a) Write down the integers represented by the arrows. *(2 Marks)*

m=..... n=.....

b) Draw an arrow, x, to complete the sentence on the number line above. *(1 Mark)*

c) Workout the additive inverse of the integer represented by arrow marked x. *(2 Marks)*

31. A bus left Mbale City while travelling at a speed of 70Km/h and reached Iganga town after 2hours and 30 minutes. It stayed at Iganga for half an hour before it continued to Mukono at a speed of 60Km/h for 3hours. It then returned to Mbale City through the same route for 6hours.

a) How far is Mukono from Mbale? *(3 Marks)*

b) Calculate its average speed for the whole journey. *(3 Marks)*

32. Our home is 660metres East of the school and the town is 750metres away from school on a bearing of 230^0.

a) Draw a sketch diagram to show the position of the three places.

(2 Marks)

b) Using a scale of 1cm to represent 100m, draw an accurate diagram to show the position of the three places. *(3 Marks)*

c) Find the shortest distance between home and town in metres.

(1 Mark)

END