BETTER EDUCATIONAL CONSULTANCY

PRE-PRIMARY LEAVING EXAMINATION

SET FOUR, 2022

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Index No.	**Random No.**							**Personal No.**		

Candidate's Name: .....

Candidate's Signature: .....

School Random No. .....

District ID: .....

Read the following instructions carefully:

1. Do not write your **school** of **district** name anywhere 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** answers to both sections **A** and **B** must be written in the spaces provided.

4. All answers **must** be written using a **blue** or **black** ball point pen or ink. Any work written in pencil will **not** be marked.

5. **No calculators** are allowed in the examination room

6. Unnecessary **changes** in your work and handwriting that cannot be easily read may lead to **loss of marks.**

6. Do not fill anything in the table indicated: **"for examiner's use only"** and boxes inside the question paper.

FOR EXAMINER'S USE ONLY

Qn. No	MARK	EXR'S NO.
1 – 5		
6 – 10		
11 – 15		
16 – 20		
21 – 22		
23 – 24		
25 – 26		
27 – 28		
29 – 30		
31 – 32		
TOTAL		

Tel: 0779101164, 0750558616, 0706602422, 0775157214.

SECTION A:(30 marks)

1. Multiply: 3 x 1 2.

2. A set has 15 proper subsets. How many members does that set have?

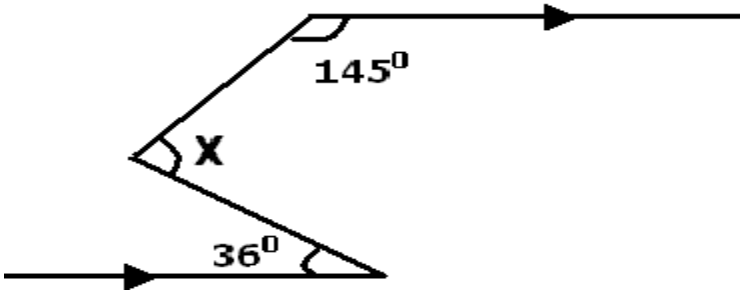
3. Find the next number in the sequence: 1 , 4 , 9 , 16 , _____.

4. By what percentage did 72 pupils decrease to become 48 pupils?

5. Using a dial workout **3 + 4** = _____ (mod 5)

6. The mean of 8 numbers is 7.5. Find their sum.

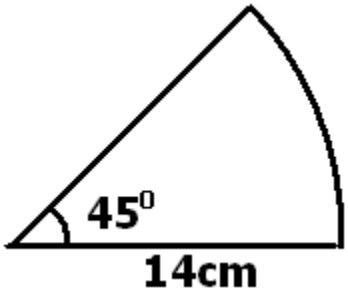
7. Calculate the size of angle marked X in the figure below.



8. The LCM of two numbers is 24 and their HCF is 4. If one of the numbers is 12, find the other number.

9. Express 12:45 p.m. to military clock system.

10. Calculate the area of the figure below.



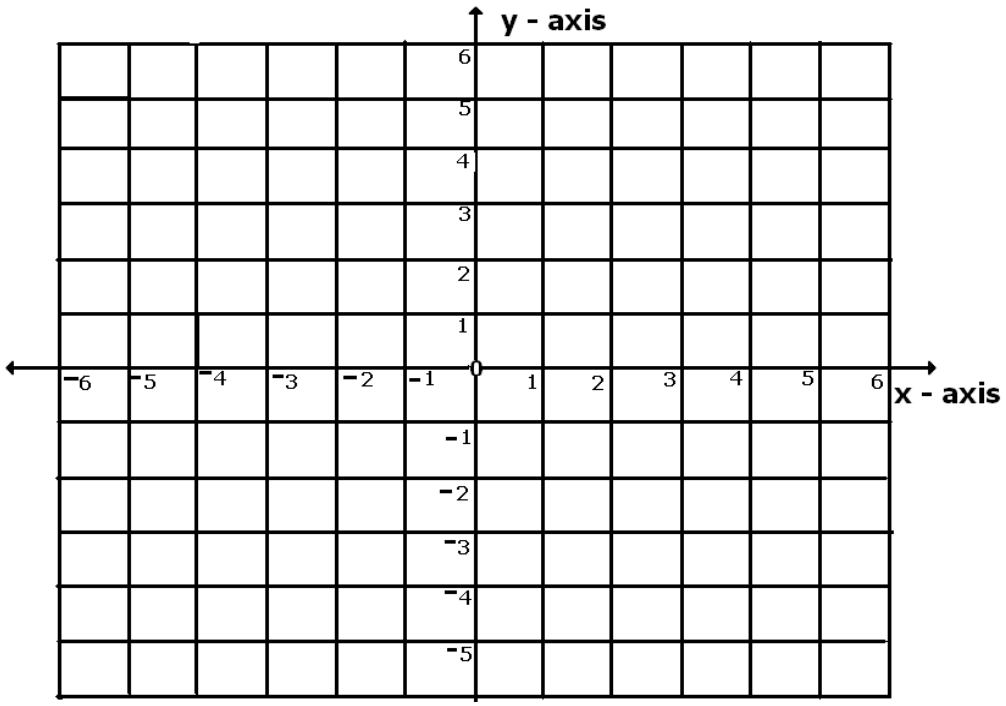
11. If I multiply a number by 4 and add 5 to the result, my answer is 29. What is the number?

12. Subtract: $3\ ^{2}/_{3} \quad - \quad 1\ ¾$

13. Kamoga ran 100 metres in 10 seconds. How fast was he in kilometers per hour?

14. Convert **23** to binary.

15. Plot R ($\bar{2}$, +3) on the grid below.



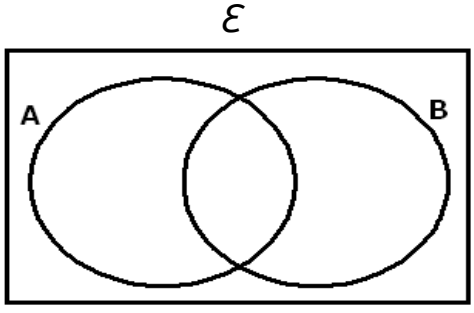
16. Prime factorise 36 and write your answer in set notation.

17. Find the value of ½ a – 2b + c, when a = 8 , b = 2 and c = 3.

18. Using a pair of compasses, a pencil and a ruler only, construct an angle of 150^0 in the space provided below.

19. Acham bought soap at Sh. 4500 and sugar at Sh. 8500. She paid with a twenty thousand shilling note and she was given Sh. 9000 as change. How much more was she given than she should have received?

20. Shade $(B - A)'$ in the Venn diagram below.

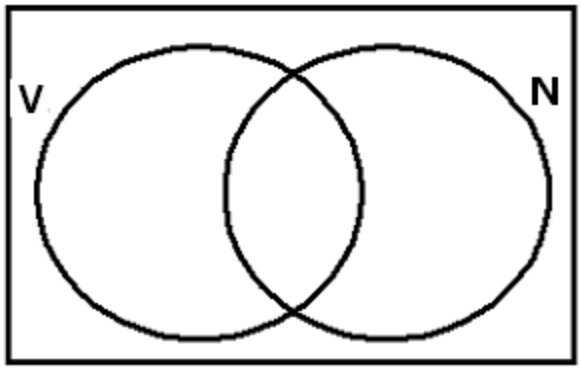


Section B: (60 marks)

21. In a club of 50 women, 11 play Volleyball (**V**) only, (**p + 6**) play Netball (**N**) only. **P** play both Volleyball and Netball. **9** play none of the two games.

(a) Represent the information above in the Venn diagram below. **(2 marks)**

n($\mathcal{E}$) = 50



(b) Work out the value of p. **(2 marks)**

(c) What fraction of women play Netball? **(2 marks)**

22. The sum of three consecutive odd numbers is 105.if the middle number is **(y+1),**

(a) Find the numbers. **(4 marks)**

(b) Work out their range. **(1 mark)**

23(a) Evaluate: $\frac{1.7 + 3.1}{0.25 \times 2.4}$ **(3 marks)**

(b) Simplify: $^{2}/_{3} \div ¾ + 1\ ½$ **(2 marks)**

24(a) In the space provided below, use a pair of compasses, ruler and pencil only to construct a triangle EFG, where EF = 7cm, EFG = 120^0 and FG = 6cm.

(4 marks)

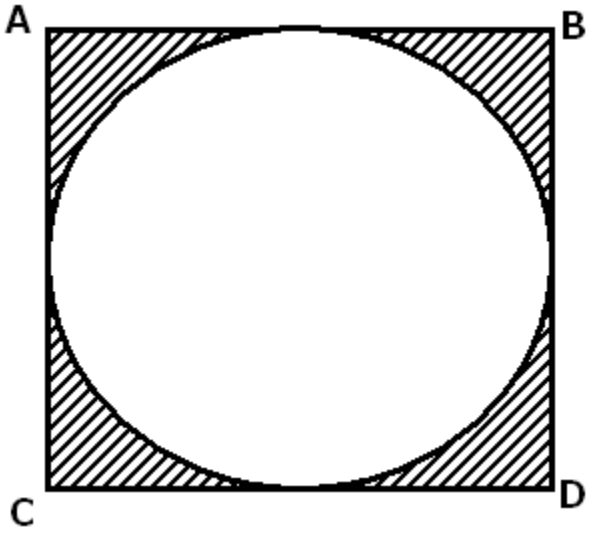
(b) Measure EG. **(1 mark)**

25. In a tea factory, on Monday 36,000 packets were packed. On Tuesday, 1340 more packets were packed. But on Wednesday due to power failure, only one third of Monday's were packed.

(a) What was the number of packets packed on Tuesday? **(2 marks)**

(b) Calculate the total number of packets packed in three days. **(3 marks)**

26. Given that AB = BD = 14cm in the diagram below, calculate the area of the shaded part. (Take π as $^{22}/_{7}$). **(4 marks)**



27. In a Math test, children scored the following marks:
35 , 70 , 40 , 35 , 36 , 68 , 94 , 25 , 87 , 30

(a) Find the mode. **(1 marks)**

(b) Calculate the median. **(2 marks)**

(c) Work out the mean. **(2 marks)**

28. Maraka went shopping with 4notes of twenty thousand shillings each and bought 2 bunches of matooke at Sh.15,000 a bunch. 1 ½ kg of meat at Sh. 12,000 per kilo, 3kg of rice at Sh. 3,600 @ kilo , ¼ a sack of charcoal at Sh. 12,000.

(a) Work out his total bill. **(4 marks)**

(b) If he was given a discount of 10% for paying cash, how much money did he receive as his change? **(2 marks)**

29(a) Solve for x in $5(4x + 6) = 6(4x - 1)$. **(2 marks)**

(b) Given that $3^{2y} \times 3 = 81$. Find the value of y. **(3 marks)**

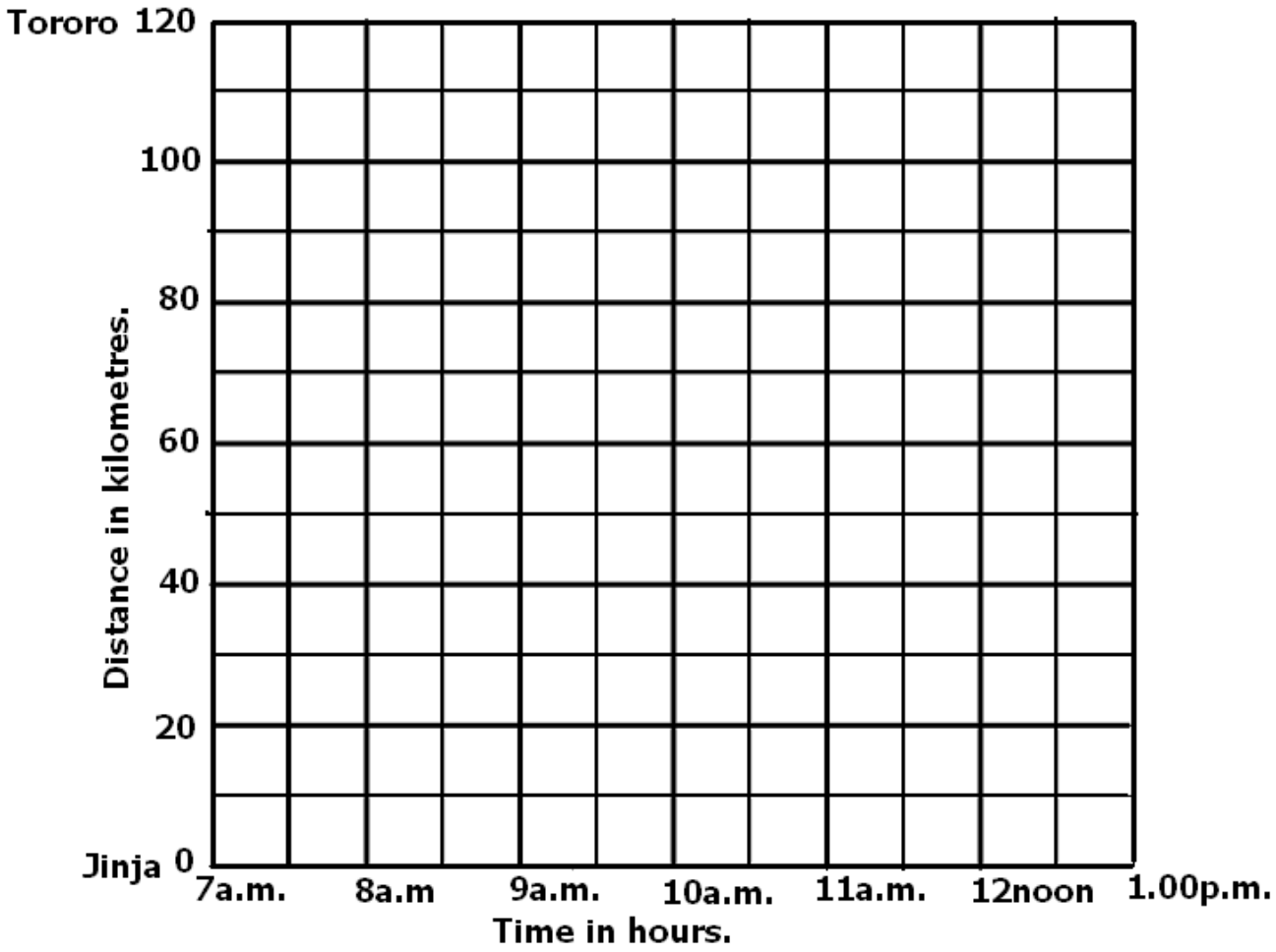
30. Okore spends $^2/_5$ of his income on food and then $^2/_3$ of the remainder on rent and clothing. He saves Sh. 80,000 every month.

(a) What fraction does he spend on rent and clothing? **(3 marks)**

(b) Calculate his monthly income. **(2 marks)**

31. Mr. Ocwo left Jinja at 7:00 am and covered 50km in 1 hour to Iganga. He rested for ½ an hour and covered the next 40km in ½ an hour to Bugiri. He took a break of 30 minutes covering the remaining 30km to Tororo where he arrived at 10:00 am. He left Tororo at 11:00 a.m. and drove back to Jinja at a speed of 60 km per hour.

(a) Show Mr. Ocwo's journey on the graph below**.** **(5 marks)**



32.(a) Subtract: $1\ 0\ 1\ 0_{two} - 1\ 1\ 1_{two}$ **(2 marks)**

(b) If today is Thursday, what day of the week will it be after 45 days?

(2 marks)

END