BUSHENYI DISTRICT LOCAL GOVERNMENT

PRIMARY LEAVING MOCK EXAMINATION, 2024

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Random No.						Personal No.		

Candidate's Name: _____

Candidate's Signature: _____

District ID No. | | | | |

Read the following instructions carefully.

1. This paper is made up of sections A and B.
2. Section A has 20 questions (40 marks) and section B has 12 questions (60 marks)
3. 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 fountain pen. Any work in pencil other than graphs, pictures and diagrams will not be marked.
5. No calculators are allowed in the examination room
6. Unnecessary changes of work may lead to loss of marks.
7. Any handwriting that cannot be easily read may lead to loss of marks.
8. Do not fill anything in the table shown "FOR EXAMINER'S USE ONLY" and boxes inside the question paper.

"FOR EXAMINER'S USE ONLY"		
Qn. No.	Marks	Examiner'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: (40MARKS)

- *Answer all questions in this section*
- *Questions 1 to 20 carry two marks each.*

1. Work out: $36 \div 3$

2. Find the number that has been expanded as below:

   $(7 \times 1000) + (9 \times 100) + (5 \times 1)$

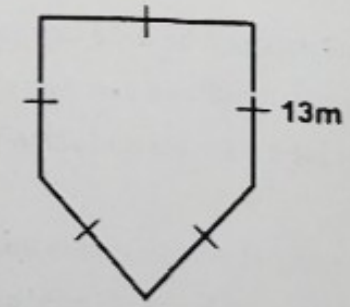
3. Given that set G = {a, e, i, o, u} and set B= {e, d, u, c, a, t, i, o, n}, Find n(G)'

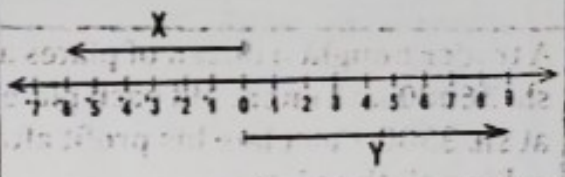
4. Find the next number in the sequence.

   40, 38, 35, 30, 23, _____

5. A poultry farmer collects 698 eggs daily from his poultry farm. How many eggs will he collect in a complete month of August?

6. Find the distance around the shape below.



7.	$(2p + 10^0)$ and $(p + 20^0)$ are supplementary angles. Find the value of p	10	Use the numberline below to write the integers represented by arrows x and y.  X_____ Y_____
8.	What is $\frac{7}{13}$ of 65?–	11.	Change 108km/h to m/s.
9	Write 746013 in words.	12.	Given that a = -3 and b = -5, find the value of 2ab.

13. A trader bought a dozen of plates at sh. 36000 and later sold each plate at sh. 3500. Calculate his profit after selling all the plates.

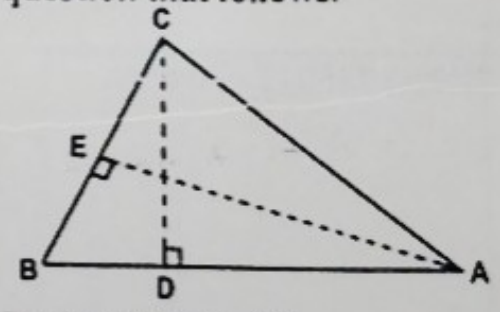
14. Show the time "a quarter to nine" on the clock face below.

15. A pupil scored the following marks in a series of Mathematics tests. 70%, 68%, 91%, 86%, 59% and 76%. Find the pupil's median mark.

16. Using a ruler, a pencil and a pair of compasses only, construct an angle of 75^0 in the space below.

17 The ratio of boys to girls in a school of 343 pupils is 3:4. How many girls are in the school?

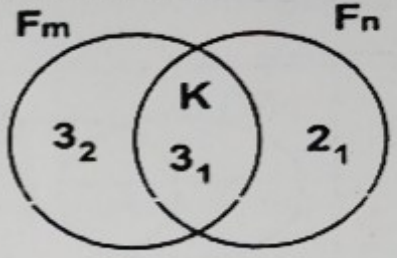
18 Below is a triangle ABC in which line AB=14cm, DC=8cm and AE=7cm. Use it to answer the question that follows.



Find the length BC.

19. Workout: $1 \div 3$ (finite 4)

20. The venn diagram below shows prime factors of m and n. Use it to answer the question that follows.



The Lowest Common Multiple of m and n is 90. Find the value of k.

SECTION B (60 MARKS)

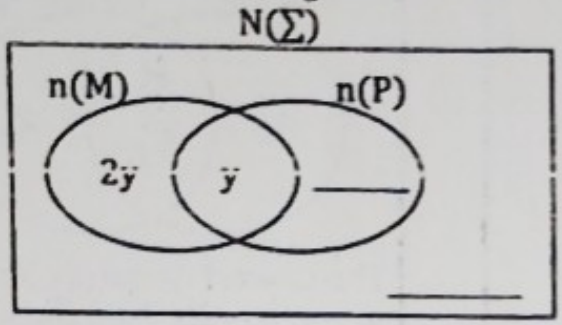
- *Answer all questions in this section*
- *Marks for each question are indicated in brackets.*

21. (a) Write MCDXLIX in Hindu Arabic numerals. (01mark)

(b) Change 221_{four} to binary system. (03marks)

22 At a birthday party, 2y guests took Mirinda (M) only, (y + 10) guests took pepsicola (P) only, y guests took both Mirinda and Pepsicola while 2 guests took none of the two drinks.

(a) Complete the venn diagram below. (02marks)



(b) If 32 guests took Pepsicola altogether, find the value of y. (02marks)

(c) Find the chance of randomly selecting a guest who did not take pepsicola to give a speech. (02marks)

23 A man went to the market and bought the following items.
2kg of meat at sh. 14000 per kg.
3kg of rice at sh. 3000 per 500g
750ml of cooking oil at sh. 12000 per litre.

(a) Calculate the total cost of all items. (04marks)

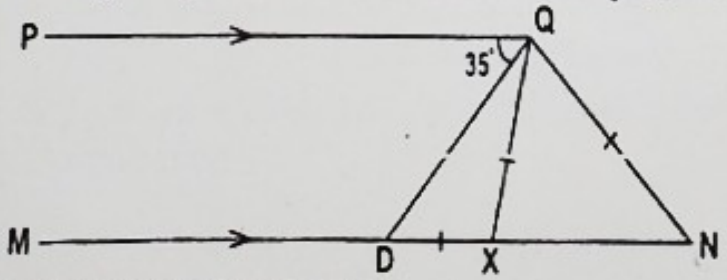
(b) If he was allowed a discount of 2% for paying cash, calculate his actual pay. (02marks)

24 A farmer borrowed sh. 900,000 from a bank at a simple interest rate of 2% per month for $3\frac{1}{2}$ years.

(a) Calculate the simple interest paid by the farmer after $3\frac{1}{2}$ years. (02marks)

(b) Find the amount of money a farmer paid after that period. (02marks)

25. (a) In the diagram below, line PQ is parallel to line MN. Line DX = XQ=QN and angle PQ=35^0 .Use it to answer the questions that follows.



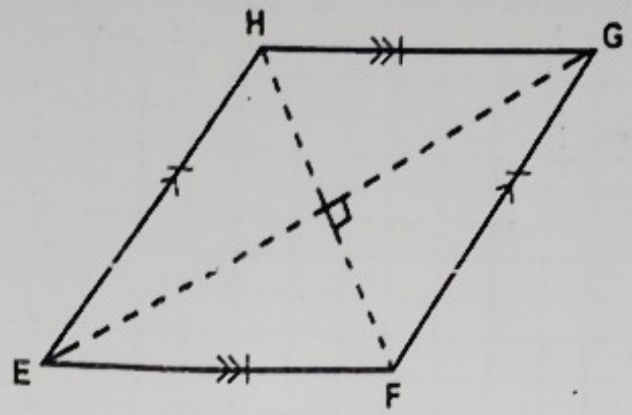
Find the size of angle XQN. (03marks)

(b) An ineterior angle of a regular polygon is 140^0. How many sides does it have? (02marks)

26 (a) Solve and find the solution set for $2(1 - k) > 4$. (03marks)

(b) Solve: $\frac{n-2}{3} = \frac{n+1}{4}$ (02marks)

27. The perimeter of the rhombus EFGH below is 52cm and its diagonal EG=24cm.

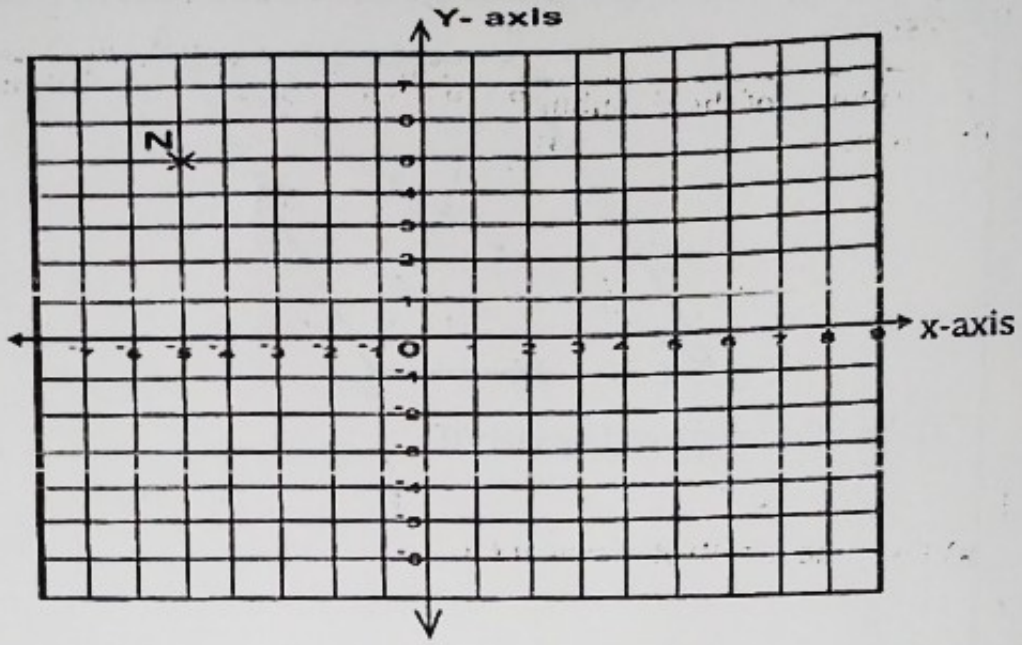


(a) Find the length of diagonal FH. (03marks)

(b) Calculate the area of EFGH. (02marks)

28. In a class, $\frac{5}{8}$ of the pupils like Mathematics and 40% of the remaining pupils like English while 18 pupils like other subjects. How many pupils are in the whole class? (05marks)

29. Study the coordinate of graph below and use it to answer the questions that follow.



(a) Write the coordinates of point N. (01mark)

(b) Plot points M (⁻5, ⁻3), K (⁺7, ⁻3) and L (⁺2, ⁺5) on the above grid. (03marks)

(c) Join points N to M, M to K, K to L and L to N. Name the quadrilateral formed. (01mark)

30. The timetable below shows arrival and departure time of a bus that travels from station V to Z daily.

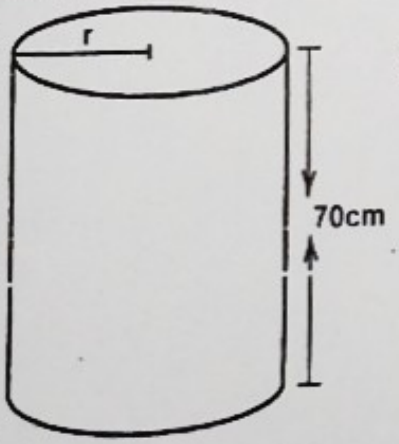
STATION	ARRIVAL	DEPARTURE
V		11.30am
W	12.10pm	12.30pm
X	1.30pm	1.45pm
Y	2.15pm	2.40pm
Z	3.40pm	

(a) At what time does the bus leave station V? (01mark)

(b) Express the arrival time at station W in a 24 hour clock. (01mark)

(c) The distance from station V to station Z is 250km. Workout the bus' average speed for the whole journey. (03marks)

31. Below is a cylindrical container whose capacity is 88 litres. Use it to answer the question that follows.



Find its radius (r). (Use π as $\frac{22}{7}$) (04marks)

32. A school is 600 metres on a bearing of 060^0 from the church. The hospital is 500 metres away from the school on a bearing of 210^0.

(a) Draw a sketch diagram showing the location of the three places. (01mark)

(b) Using a scale of 1cm to represent 100metres, draw an accurate diagram showing the location of the three places? (04marks)

(c) Find the bearing of the church from the hospital. (01mark)