THE NERDS EXAMINATIONS BOARD

PRIMARY LEAVING EXAMINATION

SPECIAL SERIES 3 OF 4

2025

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. Do not write your **school** or **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** working for both sections **A** and **B** must be shown in the spaces provided.
4. **All** the 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 be read easily may lead to **loss of marks**.
7. Do not fill anything in the table indicated **"FOR EXAMINERS' USE ONLY"** and in the boxes inside the question paper.

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.

Question **1** to **20** carry two marks each

1. Workout: 1818 ÷ 3

2. Express 144 as Roman numerals.

3. Draw a Venn diagram to show that PUQ =Q

4. Find the next number in the sequence; 2, 3, 6, 12, 22,

5. Workout: $5 - \frac{3}{4}$

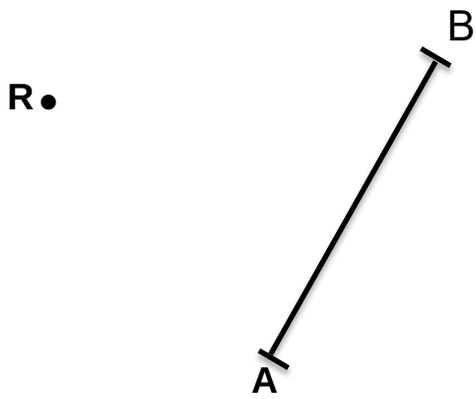
6. Solve for y: $\frac{y}{2} - 3 = 5$

7. Change 1.54kg to grammes.

8. The ratio of boys to girls in a class is 2:3 respectively. If the class has 12 boys, how many girls are in the class?

9. Round off 87.597 to one place of decimal.

10. Using a pair of compasses and a ruler, construct a perpendicular line through point R



11. Express 1240 hours as a 12 hour clock system.

12. The mean of 3k, 5k + 2 and k + 4 is 14. Find the value of k.

13. Which integer is 4 steps to the left of +3?

14. Write 0.040 in scientific notation.

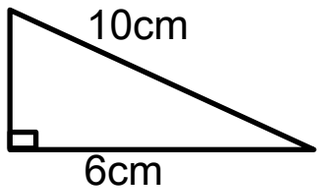
15. Given that p = 0.03 and q = 0.9

    Evaluate; $\frac{p}{q}$

16. Henry bought a shirt at sh.40,000 and he later sold it at a loss of 30%. How much did he sell the shirt?

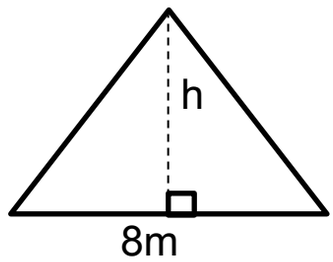
17. Find the angle which is $\frac{2}{3}$ of its complement.

18. Find the total length of the wire used to make the shape below.



19. 12 girls can mop a classroom in 6 minutes. If the teacher wanted the class to be mopped in only 4 minutes; how many girls will the teacher need to do that work while working at the same rate?

20. The area of a triangle is 40 square metres. If the base of the triangle is 8 metres; find its height (h)



SECTION B: 60 MARKS

21. Given the digits; 5, 0 and 7.

Use the above digits to;

(a) Form the smallest 3 digit numeral

(1 mark)

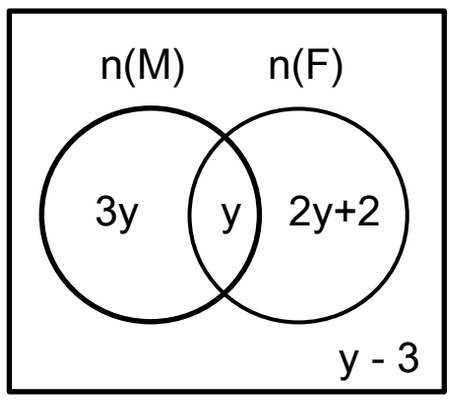
(b) Form the largest 3 digit numeral

(1 mark)

(c) Workout the difference of the largest and the smallest 3-digit numerals

(2 marks)

22. The venn diagram below shows the number of guests who took Mirinda and Fanta. Use it to answer the questions that follow.



(a) Given that 17 guests took Fanta complement, find the value of y

(2 marks)

(b) Find the probability that a guest selected at random to be the chief guest did not take any of the two drinks.

(2 marks)

23. Akello went for shopping with a fifty thousand shilling note and bought the following items;
    - 1 ½ litres of milk at sh. 2,000 each Sacket of 500ml.
    - 2kg of meat at sh.18,000 per kg
    - 500g of salt at sh.1,200 per kg.

    (a) Calculate her total expenditure.

(4 marks)

(b) How much was her change?

(2 marks)

24. In a family meeting, $\frac{1}{3}$ of the members were males and the rest were females.

    (a) If they were 12 female members, how many members attended the meeting?

(2 marks)

(b) If each male member was requested to contribute sh. 20,000, how much money was contributed by the male members?

(2 marks)

25. Sarah got a loan from a bank which gives an interest rate of 5½ % per month for 4 months.

(a) If she paid sh.44,000 at the end of the 4 months as simple interest, how much was the loan?

(3 marks)

(b)How much amount did she pay to the bank at the end of the 4months?

(2 marks)

26. A car moved a certain distance using a speed of 120km/h for 90 minutes.

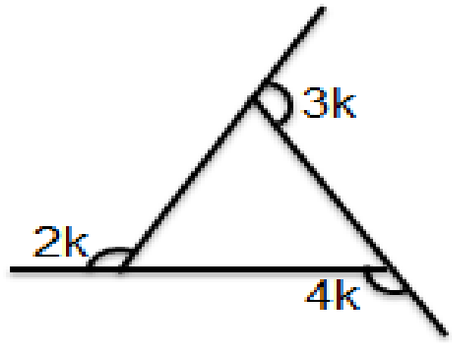
(a) Calculate the distance the car moved. (2 marks)

(b) If the car uses 1 litre of fuel to cover 12km, how much money will it be needed to buy the fuel which can cover the distance in question 26(a) above?

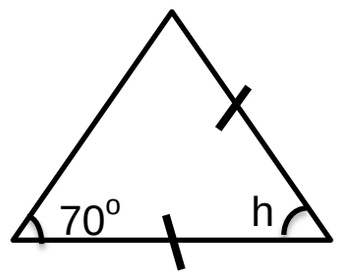
(If 1 litre of fuel costs sh. 4,500) (2 marks)

27. Find the value of the unknown angles in the figures below.

(a) (2 marks)



(b) (2 marks)



28. A father shared a certain number of books to his 3 children. Faith got $\frac{1}{3}$ of the books , Patience got $\frac{1}{4}$ of the remainder and Simon got the remaining 6 books.

(a) How many books did the father share altogether? (3 marks)

(b) If the cost of each book was sh.7000, how much money did the father spend on buying books for Faith? (3 marks)

29. (a) Solve and write the solution set for the inequality $6 < 2k < 12$ (3 marks)

(b) Subtract w+ 2 from 2w – 4 (3 marks)

30. The base area of a rectangular water tank is 1500 square centimetres. If the height of the tank is 100cm.

(a) Find its capacity in litres.

(3 marks)

(b) If Joseph use $\frac{1}{3}$ of the water in the tank, how much water in litres remained in the tank?

(2 marks)

31. Using a pair of compasses, ruler and a very sharp pencil only ,

(a) Construct a rhombus, SITE in which diagonal ST = 8cm and diagonal EI = 6cm

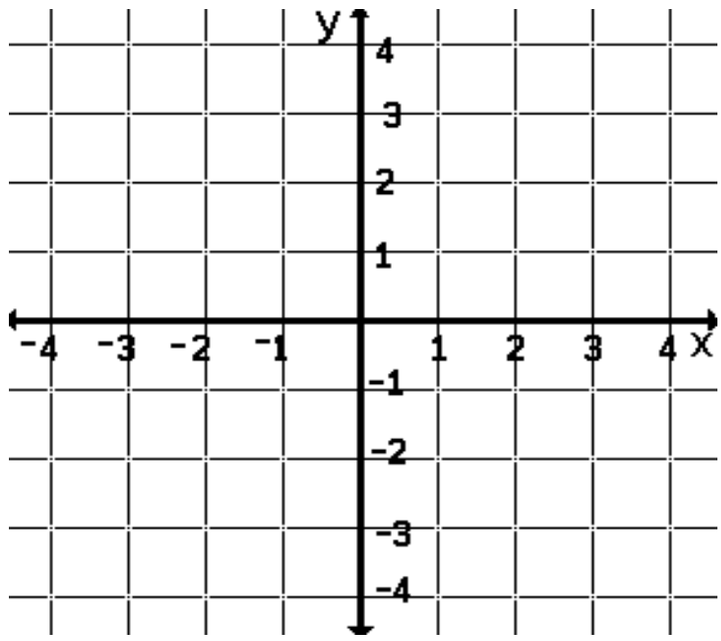
(4 marks)

(b) Measure side SI

(1 mark)

32. Plot the following co-ordinates on the graph below. (3 marks)

a) A(-4, 0), B(1, 0) and C(1,3)



(b)Join A to B, B to C and C to A and find the area of the figure formed.

(2 marks)

END