NERDS EXAMINATIONS BOARD

PRIMARY LEAVING MOCK

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. The paper has two sections: A and B.
2. Section A has 20 questions (40 marks)
3. Section B has 12 questions (60 marks)
4. Answer all questions. All answers to both Sections A and B must be written in the spaces provided.
5. All answers must be written using a blue or black ball point pen or ink. Diagrams should be drawn in pencil.
6. Unnecessary changes in your 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 indicated: 'For Examiner's use only' and boxes inside the question paper.

FOR EXAMINERS' USE ONLY		
Qn. No	**MARKS**	**EXR'S. No.**
01 – 05		
06 – 10		
11 – 15		
21 – 22		
23 – 24		
25 – 26		
27 – 28		
29 – 30		
31 – 32		
TOTAL		

Turn Over

SECTION A: 40 MARKS

Answer all questions in this section

Question 1 to 20 carry two marks each

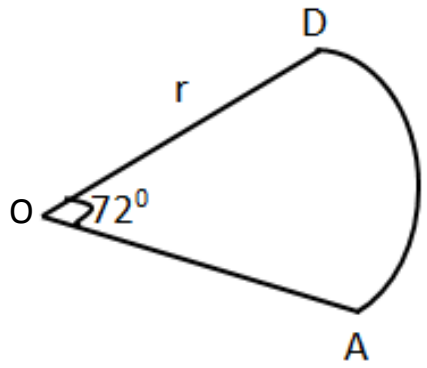
1. Work out: $2525 \div 5$

2. Rukid remained with 43 sheep after selling 19 of them. Write the number of sheep's he had at first in roman numerals.

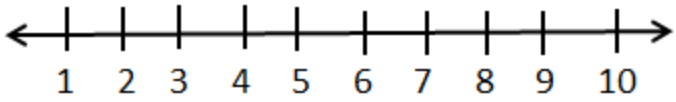
3. Find the complement of $(x-50)^0$

4. The cost of purchasing a dozen of 96 paged books is sh 9000. How many books of such a kind can be purchased at sh. 4000?

5. In the figure below AOD is 1256cm. find the value of r in cm. (take π=3.14)



6. Work out (+5)-(-3) using the number line below.



7. Find the difference of the next two numbers in the series below
   63, 52, 45, 40, ……., …….

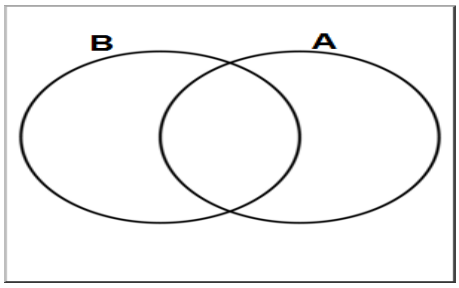
8. Using a ruler, a pencil and a pair of compasses only, construct an angle of 157.5^0

9. Solve for p: ($\frac{1}{2}$of 4p)-p=19.

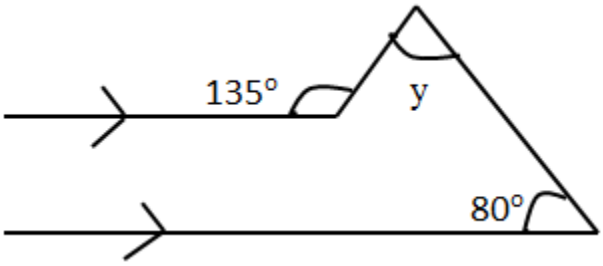
10. Find the square root of $7\frac{1}{9}$.

11. Use superscripts to represent prime factors of 72.

12. Shade the complement of (A ∩ B)

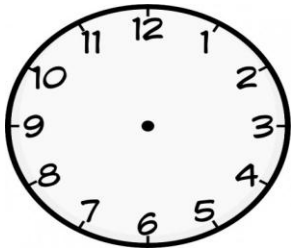


13. Find the size of angle marked y in degrees.



14. Write 144_{three} as a day to day base.

15. An examination ended at 1:15 pm. If it lasted for 2hrs and 25 minutes, show the time it started on the clock face below.



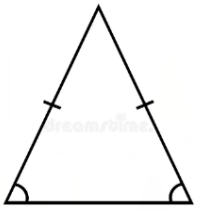
16. The mean of p,3,0 and 7 is 4. Find the value of p.

17. Write 20024 in words.

18. A school bursar withdrew 100 notes from the bank. If the serial number of the last note was AP00157839. What was the serial number of the first note?

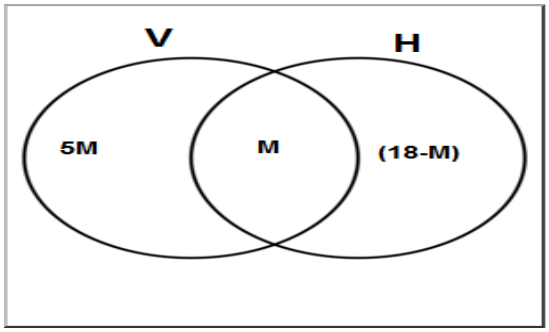
19. Find the length of a cube with $2.25m^3$ as volume

20. How many lines of symmetry does the figure below have?



SECTION B: 60 MARKS

21. The Venn diagram below shows the number of students who play hockey (H) and volleyball (V). Others like both hockey and football while 2M+3 like neither. Those who like hockey only is equal to those who like neither



a) Find the value of M (2mks)

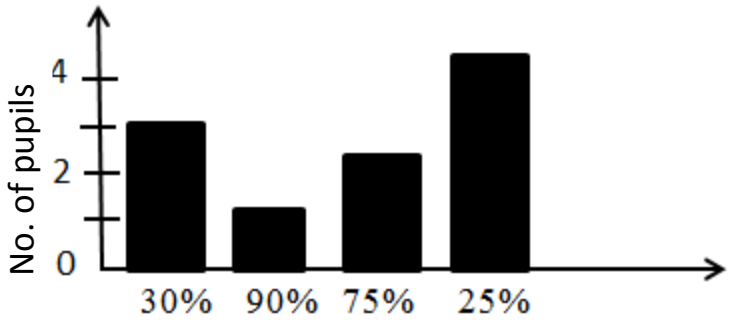
b) Find the probability of selecting at random a pupil who likes only one game? (3mks)

22. The table below shows a bank buys and sells foreign currencies.

Currency	Selling (Sh)	Buying
1 us dollar($)	Sh. 3700	Sh 3,600
1 sterling pound (€)	Sh.4700	Sh 4,650
1 Kenyan Sh (ksh)	Sh 42	Sh 40

Thompson Cloupe came from United States of America with four hundred fifty dollars, during his stay in Uganda, he spent an amount equivalent to ksh 32,275 and exchanged the rest to sterling pounds. How much in sterling pounds did he receive from the bank? (5mks)

23. The chart below shows the performance of primary seven class during national pre-mocks recently. Study it carefully and use it to answer questions that follow:



a) Find the total number of pupils in that class. (1 mark)

b) What was the modal score? (1mk)

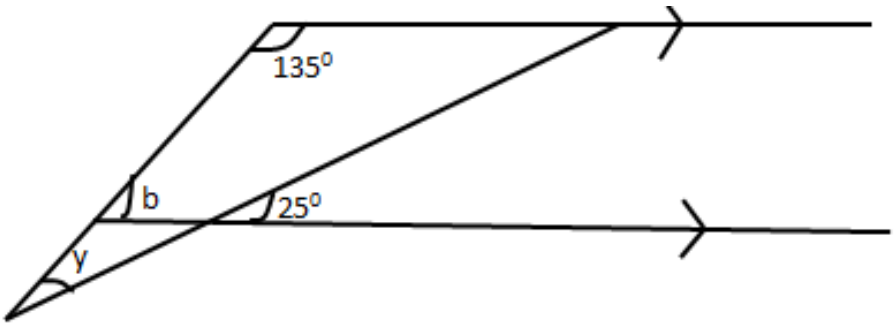
c) Work out the mean score. (3mks)

24. a) John Bosco is 8 years older than Naboth. Four years ago, their ages were in the ratio of 4:3 respectively. How old is each of them now? (3mks)

b) On a day when $\frac{1}{6}$ of the pupils in the class were absent 35 pupils were present. How many pupils were present when a seventh of the pupils were absent? (3mks)

25 a) By running around the track below twice, an athlete covered 1000m calculate the size of length AC (take π as $\frac{22}{7}$) (4mks)

26. Use the figure below to answer questions that follow.



a) Calculate the value of y. (2mks)

b) Find the value of b. (2mks)

27. a) Using a ruler, a pencil and a pair of compasses only, construct a quadrilateral RSTU whereby RS is 8cm ,UR = 4cm,URS =90^0 and RST =45^0 (4marks)

b) Find the area of the quadrilateral you have constructed in a) above (2mks).

28. If a=$\frac{1}{2}$, b=$\frac{3}{4}$ and c=$\frac{1}{4}$

a) Find the value of 3a+2(b-c) (2mks)

b) Solve for n: 5(3n-1)-3(n-1) =22 (2mks)

29. a) Divide: $143_{six} \div 13_{six}$ (3mks)

b) Write the number whose expanded form is $(5X10^{6}) + (4X10^{4}) + (2X10^{-2}) + (3X10^{-3})$ (2mks)

30. Kalema made a journey of 460 km from Bushenyi to Kampala. He drove at an average speed of 60 km/hr and made 4 stop overs of 40 minutes each. The car uses one liter of petrol for every 15km. the price of petrol is at sh. 3900 per liter.

a) If he left Bushenyi at 8:00 am, determine he time he arrived in Kampala (2mks)

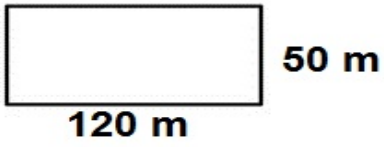
b) How much money did he spend on petrol in order to cover 80%of his journey? (2mks)

c) If he had driven at an average speed of 80 km/hr instead of 60km/hr and made no stopover, at what time would he reach Kampala? (2mks)

31. Waswa borrowed some money from a bank which offers an interest rate of $2\frac{1}{2}\%$ per annum. After 5 years, he had Tom pay back sh.450,000. How much did he borrow from the bank? (3 Marks)

b) If the simple interest rate was 10%, how much would he pay back after 2 years (2mks)

32. a) how many poles are needed to fence the rectangular garden shown below at an interest of 10m? (2mks)



c) How much money is needed to buy all the poles if sh 27,000 can purchase two (2mks)

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d) Calculate the area of the rectangular garden (2mks)

END