D+S

# DE LAMENNAIS SCHOOLS ACADEMIC COMMITTEE

## PRE-PRIMARY LEAVING EXAMINATIONS, 2022

### MATHEMATICS.

Time allowed : 2 hrs 30 min.

INDEX NO.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|

NAME: _____

STREAM: _____ SIGNATURE _____

DO NOT OPEN THIS BOOK LET UNTIL YOU ARE TOLD TO DO SO.

**Read the following instructions carefully.**

1. This paper is made of two sections  A and B
2. Section A has 20 questions  (40 marks)
3. Section B has 12 questions (60 marks)
4. Attempt All questions.
5. All answers must be written in blue or black ball-point pen, only diagrams and graph work may be done in pencil.
6. Unnecessary alteration of work will lead to loss of marks.
7. Any handwriting that cannot easily be read may lead to loss of marks.
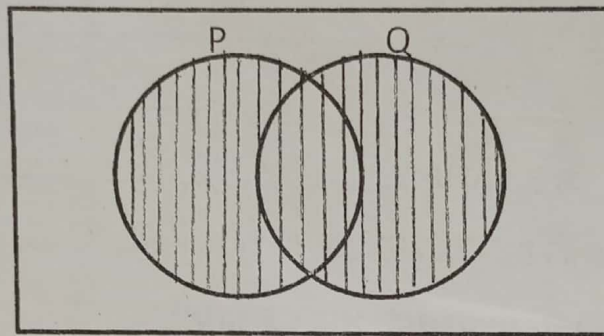
### FOR OFFICAL USE ONLY.

| SECTION | EXRS. MARKS | T/L MARKS | |
|---|---|---|---|
| A | | | |
| B | | | |
| TOTAL | | | |

**Copy 2022 Mathematics Department**

1.  Work out: $102 \div 3$

2.  Write 219308 in words.

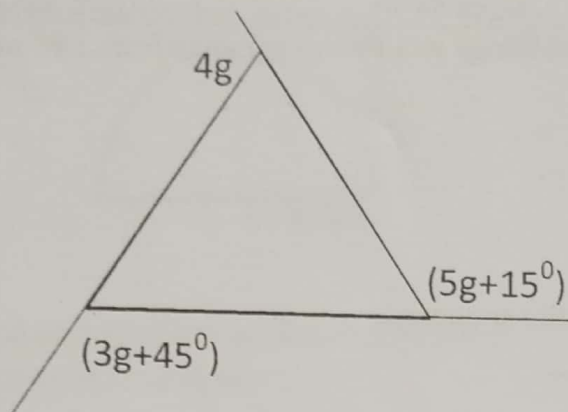3.  Describe the un shaded part



4.  Use the numberline to work out $12 \div 4$

5.  Prayers started at 12:45pm and ended at 2:25 pm. Find how long the prayers lasted?

6.  Simplify : $2(3m-4) -3(m-6)$

7. Use the figure to find the value of g



4g

$(5g+15^0)$

$(3g+45^0)$

8. Doreen wrote ¼ of her homework on Friday, $\frac{2}{3}$ of the remainder on Saturday. If her homework had 24 questions, how many questions did she write on Saturday?

9. Given that D={1,2,3,4,5} and E ={2,4,6,8} find $\cap(D-E)$

10. A business man bought 0.25kg of tea leaves and packed it into 50 centigram packets. How many packets did he get from the tea leaves?
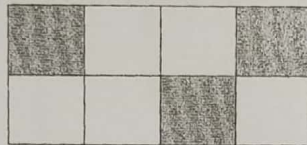
11. Use the exchange rate to answer the question

| Currency | Buying rate | Selling rate |
|---|---|---|
| £ | Ugsh 5400 | Ugsh 5450 |

Find how much Uganda shillings will Peter exchange from 540 pounds

12. Find the next number in the sequence.

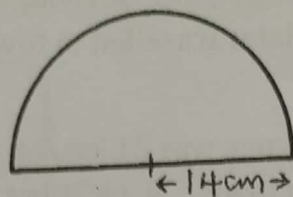1, 8, 27, 64,_____

13. Express the unshaded part as a percentage



14. Round off 907.44 to the nearest tenths.

15. Using a ruler and a pair of compass only construct and angle of $135^0$.

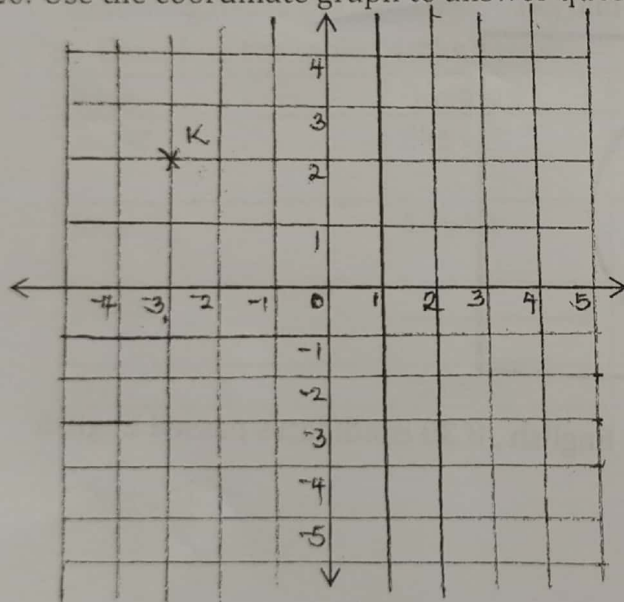16. Solve for a ; $\frac{1}{2}(a+4) = 6$

17. Workout $212 \div 4 - 160 \div 4$

18. Find the length of the arc on the shapes



← 14cm →

19. Sarah paid sh. 18,000 after being offered a discount of 10% for a dress. How much discount was offered to her.

20. Use the coordinate graph to answer questions



a. Name the coordinate point K
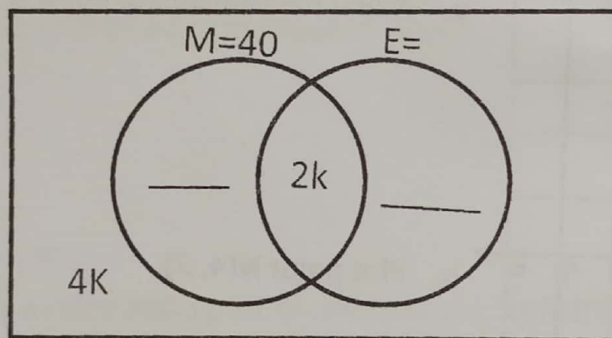
b. Plot point N(4,-3)

21. A cyclist left for town C from town A at 09:20hrs arriving town B at 12:20hrs. travelling at a speed of 20 km/hr. He later travelled to town C after resting for $\frac{1}{3}$ hr.

   If his average speed for the whole journey was 21 km/hr, at what speed must he cover the remaining journey to arrive town C at 14:20hrs (5marks)

22. In trial test, 40 candidates passed mathematics (M), 4K +22 of the candidates passed English (E), 2k passed both subject and 4k passed other subjects
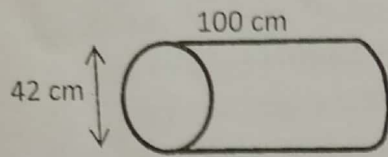   a. Complete the Venn diagram (2 marks)



   b. Find how many candidate hate English , If 30 candidates passed English only(3 marks)

23. At a tournament, $\frac{1}{5}$ of the participants were sick on Wednesday and 96% of the participants were not sick on Thursday. If four more participants were sick on Wednesday than Thursday, how many participants were at the tournament? (5marks)

24. A welder used a closed cylindrical drum below to cut out a rectangle window sheet

a. Find the length of the window (2mark)

100 cm

42 cm

b. Calculate the total surface area for the drum before it was cut (3 marks )

25. Okelo went shopping with four notes of five thousand shillings and bought the following items

a. Complete the table (4mks)

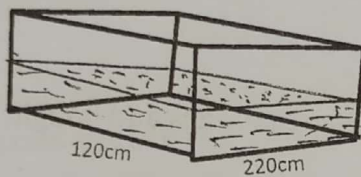| Item | Quantity | Unit cost | Amount |
|------|----------|-----------|--------|
| Sugar | 2kg | Sh 3600@kg | _____ |
| Rice | 1 ½ kg | Sh _____ | Sh 6000 |
| Flow | _____g | Sh 4000 per kg | Sh 1000 |
| Oil | ½ litre | Sh_____@litre | Sh 5000 |

b. Find how much balance he carried home (2mks)

26. The mean of the scores 2n+1,3n+1,2n-2 ,2n and 5n-2 is 8.
a.  Find the value of n (3marks)

b.  Workout the chance of picking a score below the average.(2 marks)

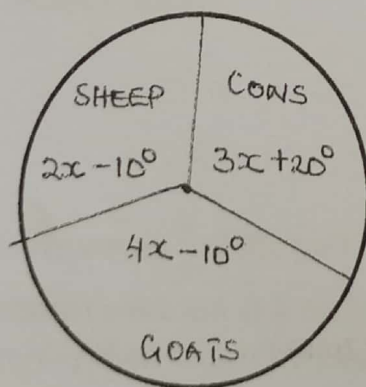27. The rectangular tank below is $\frac{1}{3}$ full of water.



120cm    220cm

a.  If 2640l are left to fill the tank, find height of water in the tank
(3 marks)

b.  Work out the capacity of the tank when its $\frac{5}{6}$ full (2 marks)

28. The circle graph shows animals on a farm



SHEEP    COWS
$2x-10^0$    $3x+20^0$
$4x-10^0$
GOATS

a) find the value of x (2mks)

b) If there are 280 sheep. How many animals are on the farm (3mks)

29. Amos, Peter and John are to report for medical check –up after 20days, 30day, and 40 days respectively.
    If they last appeared for check up on Tuesday, what day of the week will they first appear for check-up (4marks)

30. Construct a polygon MNOP where line MN is 5.5cm, angle PMN equal to angle ONM= 60⁰ and line PM is equal to line ON measuring 3cm. Drop a perpendicular from p to meet line MN at T (5mks)

31. a. Work out $1\frac{1}{2}$ -2 $+\frac{2}{3}$ (2 mark).

    b. Abbey has $\frac{2}{3}$ of cake and ate ¼ of it. What fraction of the cake did he remain with? (3 marks)

32. a. Solve for M; $\dfrac{m+1}{4} = \dfrac{1}{3}$ (2 marks).

b. Solve and give a solution set for B:

$\dfrac{5b+1}{9} \leq \dfrac{b+3}{3}$ (If $b$ is a positive integer) (3 marks)