SURE KEY EXAMINATIONS BOARD

PRIMARY LEAVING EXAMINATION

MARCH 2021

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** 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. The paper has **16 printed pages** altogether
3. Answer **all** questions. **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 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 easily be read may lead to loss of marks.
7. Do not fill anything in the table indicated: **"For Examiners' Use only"** and 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		

Turn Over

SECTION A: 40 MARKS

Answer **all** questions in this Section

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

1. Divide: $5\overline{)155}$

2. Write 49,045 in words.

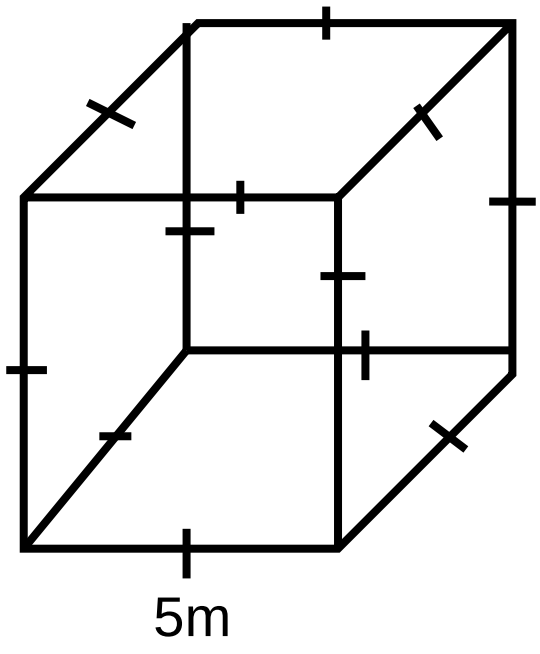
……

……..

3. Work out: $2 - \frac{2}{3}$

4. Given that set A = {square numbers between 2 and 30}
set B = {the first 6 prime numbers}, Find n(A U B)

5. Workout the length of the wire used to make a cube below in the diagram.



6. Workout the mean of 3y , 0 , 2y , 7 and 3.

7. Find the next number in the sequence below

0, 1 , 1 , 2 , 3 , 5 , 8 , ...

Turn Over

8. A container with shoe polish weighs 200gms. What is the weight in tones of 8000 such containers?

9. Using a ruler, a pencil, protractor and a pair of compasses, construct a circle of radius 4cm and in it, draw an angle of 55^0 on the radius.

10. In a mixed school , $\frac{2}{3}$ of the pupils are girls; if there are 120 boys in the school, how many girls are in the school?

11. The sum of 3 consecutive odd numbers is 45. Find the first number.

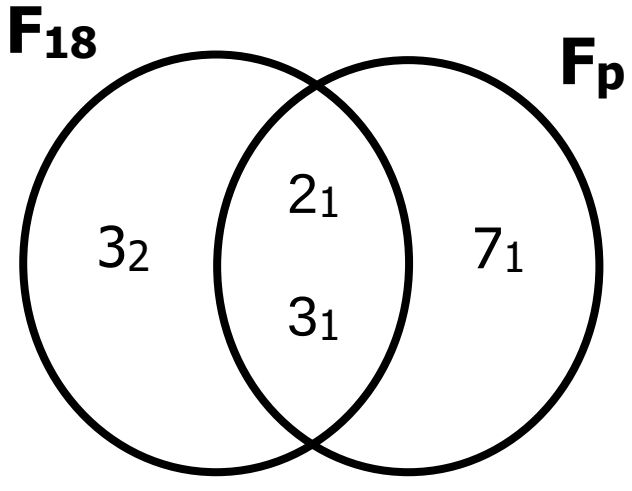
12. Simplify: 8 + 8 ÷ 8.

13. If a car moves at 80km/hr, it would take 30 minutes to travel from Kampala to Entebbe. How long would the car take if it travels at 60km/hr? Give your answer in minutes.

14. Round off 2982 to the nearest tens.

Turn Over

15. Use the Venn diagram to work out the LCM of 18 and P.



16. Write a single numeral that has been expanded to give;

$(8 \times 10^{2}) + (9 \times 10^{0}) + (5 \times 10^{-2})$

17. A ten percent deduction is made on the price of a COVID 19 testing kit.If the government buys each kit at sh 240,000, how much does it sell the testing kit to the COVID 19 suspected citizens?

18. Find the value of t. $2^{3t} \div 8 = 1$

19. The interior angle sum of a regular polygon is 720^0. What is the size of each exterior angle?

20. Mr. Mugonza saw a tree in a compound on a bearing of 055^0. What was the bearing of Mr. Mugonza from the tree?

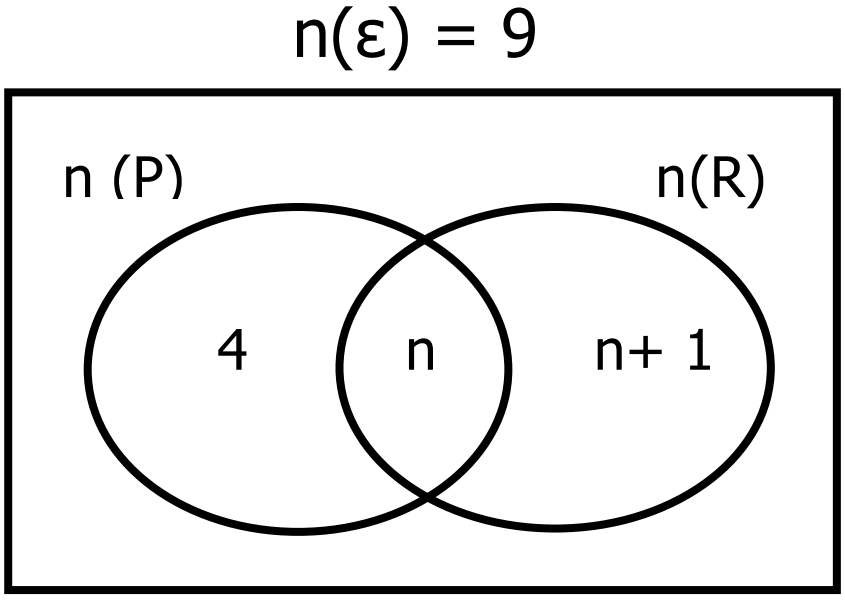
Turn Over

SECTION B: 60 MARKS

*Answer **all** questions in this section*

Marks for each question are indicated in brackets

21. The Venn diagram below represents a family of 9 members who eat Posho (P) and Rice (R). Use it to answer the questions that follow.



(a) Find the number of members who eat Posho in the family.

(03 Marks)

(b) How many members eat only one type of food in that family?

(01 Mark)

(c) Workout the probability of picking a member who eats rice only to be the father of the family?

(01 Mark)

22. Given that M = $^{-}3$

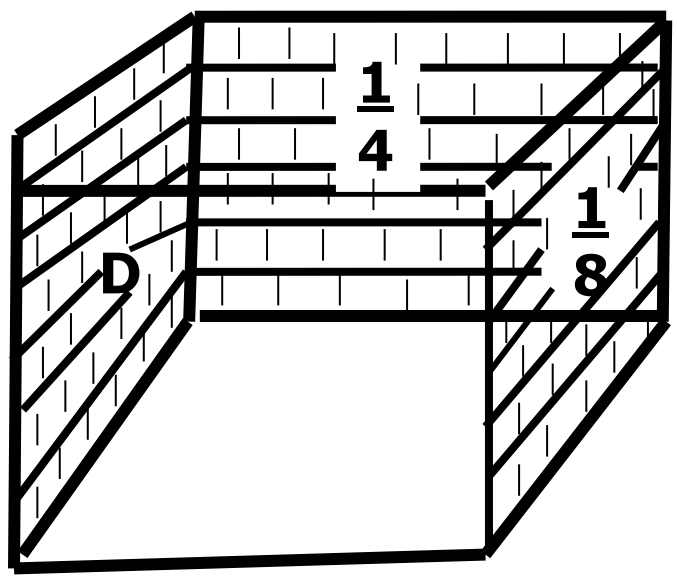
(a) Workout the value of $3 - m^2$ (02 Marks)

(b) Solve for y: $\frac{2}{y+2} = \frac{4}{3y+1}$ (03 Marks)

23. At Mulago Hospital, there are 50 more COVID 19 positive cases than negative cases. There are 4 times as many negative cases than positive asymptomatic cases. If there are **x** positive cases and the total number of cases at the hospital is 530. How many more negative than positive asymptomatic COVID 19 cases are at Mulago?
(05 Marks)

Turn Over

24. Jumbo used 3552 bricks to build the three blocks of the house below and allocated a certain number of bricks to each block of the house in different fractions as indicated in the diagram below.



(a) Find the fraction represented by letter **D** on the house.

(03 marks)

(b) How many bricks did Jumbo use to build block D?

(01 mark)

25. The table below shows how votes for different presidential candidates were tallied at the National Tally Centre at Kyambongo.

(a) Fill in the spaces in the table correctly. (04 Marks)

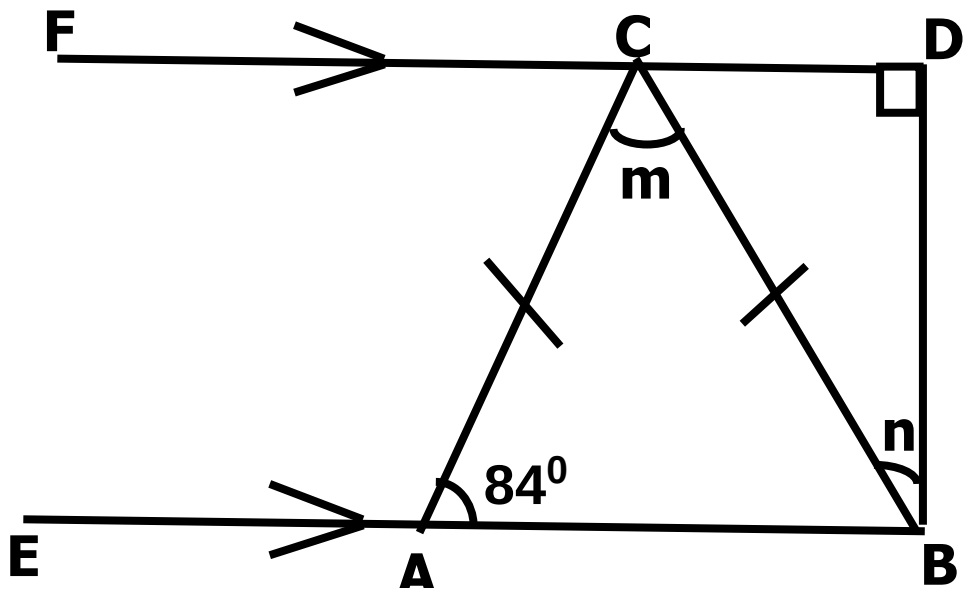
Name of Candidate	Tallies	Number of votes
Yoweri Kagutta	𝍸 𝍸 𝍸 𝍸 𝍸 |	.....
Kyagulanyi Sentamu	.....	2,800,000
Patric Oboi Amuriat	𝍸 |||	.....
Katumba John Oyee	.....	400,000

Key

| represents 200,000 votes

(b) Calculate the percentage for the votes got by candidate Yoweri Kagutta and Kyagulanyi Sentamu. (02 Marks)

26. In the diagram below, ABC is an isosceles triangle, CDB is a right angled triangle. Angle CAB = 84^0 .



(a) Work out the value of angle **m**. (02 Marks)

(b) Find the value of **n**. (02 Marks)

27. . (a) Solve: 1 – 3 = w (finite 7) (02 Marks)

(b) If today is Tuesday, what day of the week will it be 62 days from now? (02 Marks)

28. (a) Using a ruler, pencil and a pair of compasses only construct a triangle PQR where $\overline{PQ}$ = 7cm, angle RPQ = 90^0 and angle PQR = 30^0. (04 marks)

(b) Measure angle PRQ. ……. (01mark)

Turn Over

29. The height of two boys is in the ratio of 2:3. If the height of the shorter boy is 108cm.

(a) What is the difference in the height of the two boys?

(03 marks)

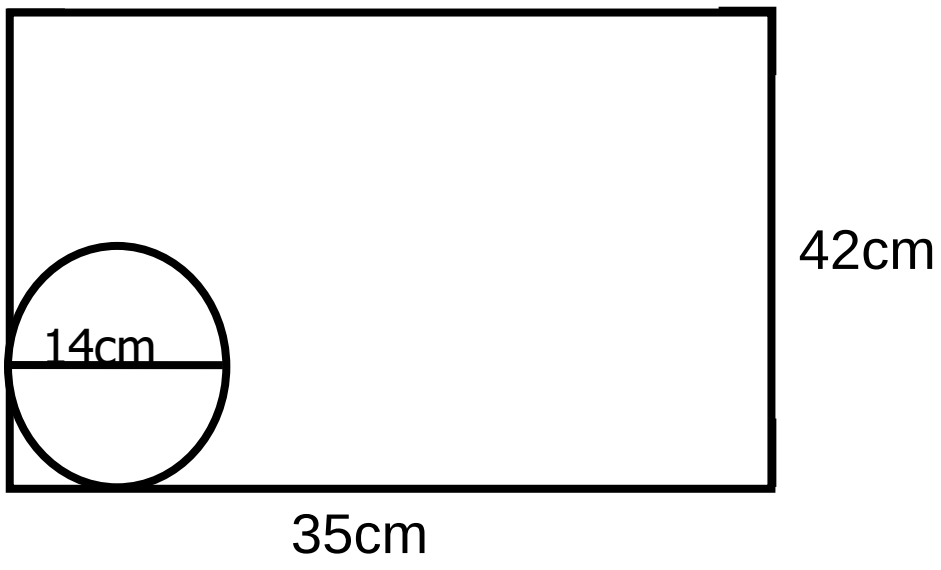
(b) If a third boy whose height is ***y*** cm joins the two boys, their average height becomes 218cm. Calculate the value of **y**?

(03 marks)

30. Jambo, Tendo and Mambo contributed Sh. 24,000, Sh. 36,000 and Sh. 60,000 respectively for a joint business which made a profit of Sh. 51,000 by the end of the year. The three boys agreed to separate so that each one of them can do his own business. They shared the total amount according to the initial contributions. How much money will each person get?

(05 marks)

31. Below is a rectangular piece of dough from which Adam cut circular pancakes of diameter 14cm.

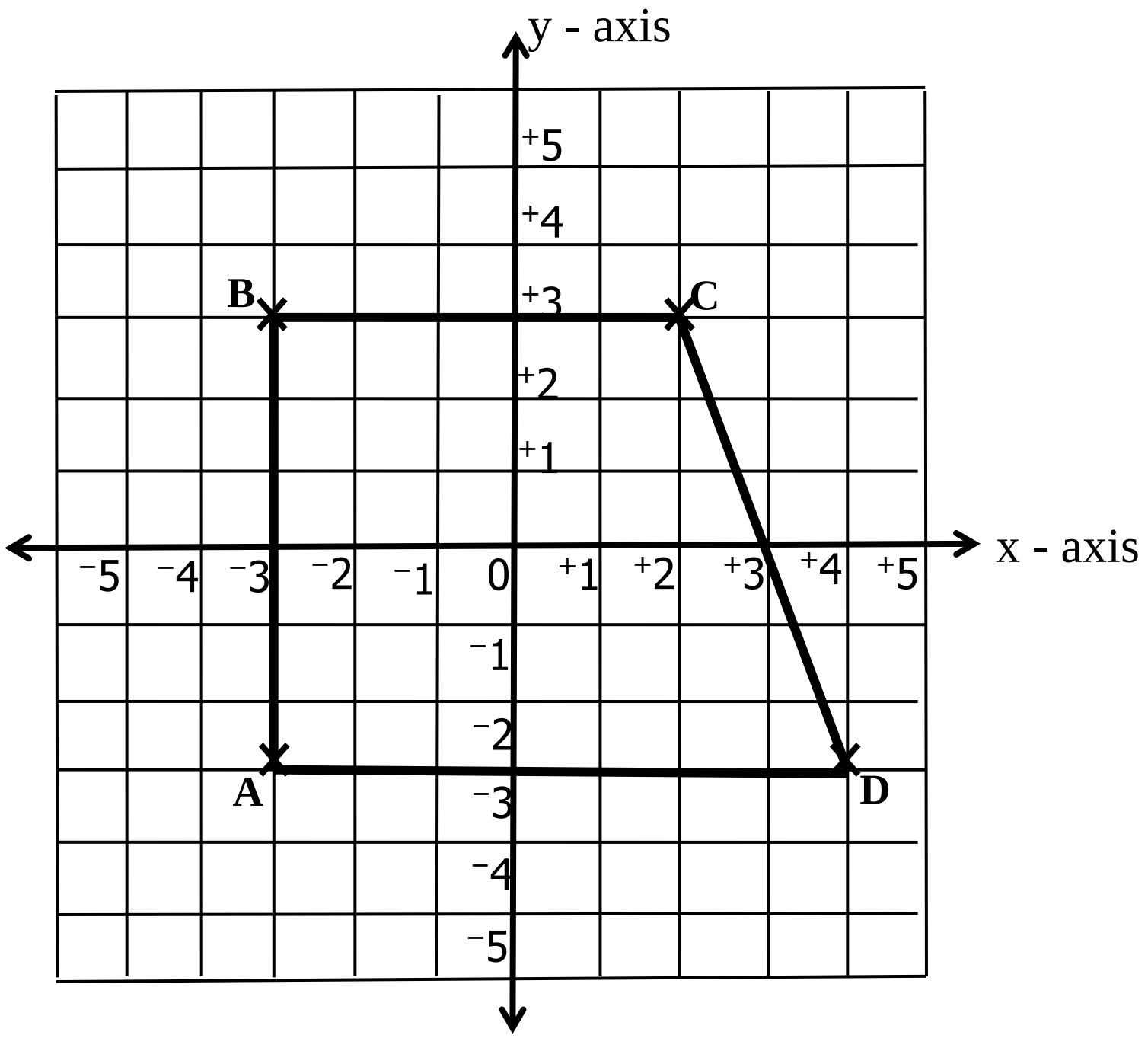


(a) How many circular pancakes did Adam cut from the dough?
(02 Marks)

(b) Find the area of the dough that was not cut into pancakes.
(Use $\pi = \frac{22}{7}$)
(03 Marks)

Turn Over

32. Study the coordinate graph below carefully and answer the questions that follow.



(a) Write the coordinates for points A , B, C and D.

(04 Marks)

(b) Calculate the area of the figure in the coordinate graph above.

(02 Marks)

END