



SURREKEY EXAMINATIONS BOARD  
PRIMARY SEVEN UNIQUE SERIES EXAMINATION  
2023  
MATHEMATICS

*Time Allowed: 2 hours 30 minutes*

<b>Index No.</b>	<b>EMIS No.</b>	<b>Personal No.</b>
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**Candidate's Name:** .....

**Candidate's Signature:** .....

**School Name:** .....

**District Name:** .....

**Read the following instructions carefully:**

1. Do not forget to write your **school** and **district name** 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 **15 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		

## SECTION A: 40 MARKS

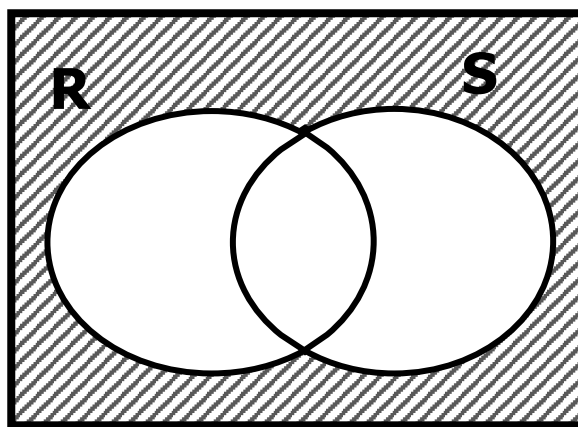
Answer **all** questions in this Section  
Questions **1** to **20** carry two marks each

1. Add 35 to 63

2. Write XLII in words.

.....

3. Describe the shaded region in the Venn diagram below.



.....

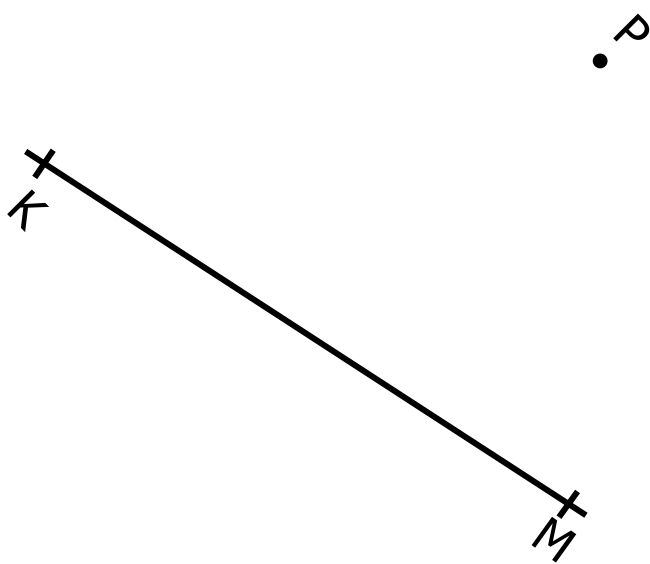
4. What is  $\frac{1}{3}$  of  $90^\circ$ ?

5. Round off 5.348 to two decimal places.



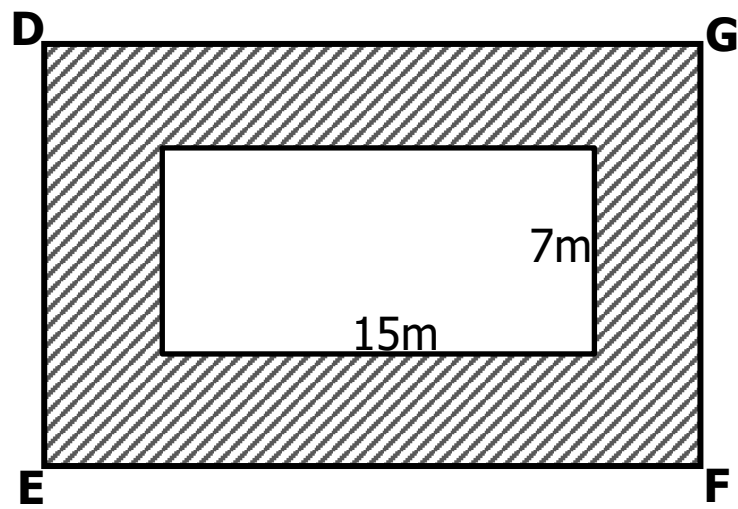
6. A bag weighs 3 kilograms when packed with books. If the books in the bag weigh 450 grams. What is the mass of the bag?

7. Using a ruler, a pencil and a pair of compasses only, drop a perpendicular line from point  $p$  to meet line  $KM$  below at  $Y$ .



8. The prime factors of 36 are  $2_1$ ,  $g$ ,  $2_2$  and  $3_1$ . Find the value of  $g$ .
9. There are 20% more girls than boys in the family. Calculate the percentage of boys in the family.

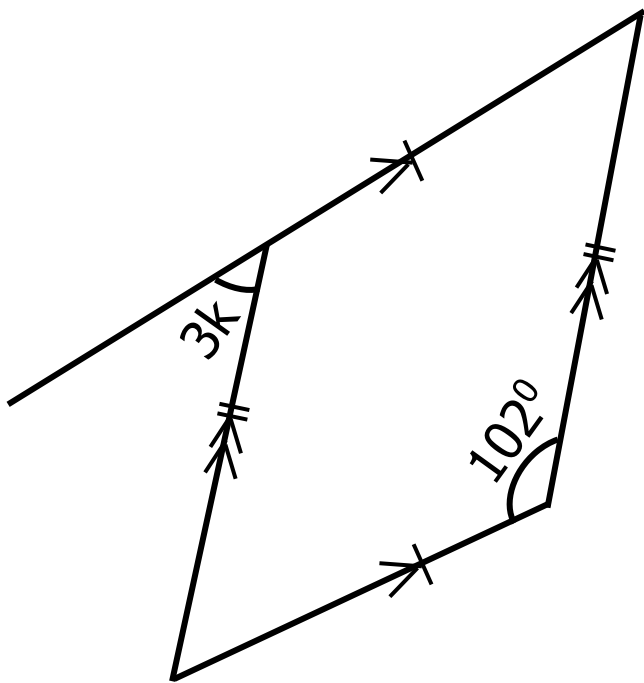
10. The area of the shaded part in the figure below is  $95\text{m}^2$ . Find the area of outer rectangle **DEFG**.



11. An American tourist arrived in Uganda with USD \$450. After exchanging it from a bank, he got Ugsh.1,350,000. What was the exchange rate at the bank?
12. Simplify:  $3(p - q) - (p + q)$
13. The bearing of point A from point B is  $210^\circ$ . Find the bearing of point B from point A.

14. Convert  $1010_{\text{two}}$  to a base six figure.

15. Calculate the value of  $k$  in the figure below.

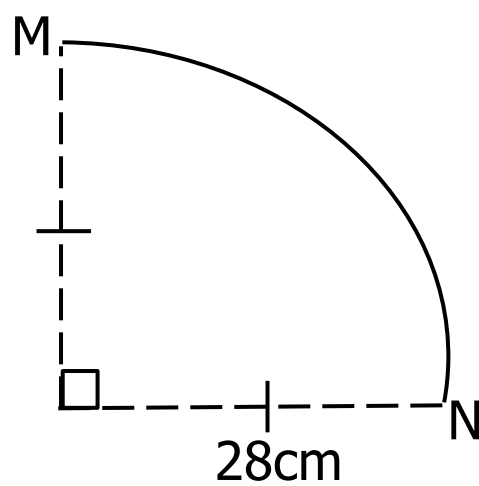


16. Find the simple interest on sh.500,000 borrowed for 4 months at an interest rate of 5% per month.

17. Workout:  $^{-}3 - ^{-}4$

18. The amount of water in a tank decreased in the ratio of 4:7. If there were 490 litres of water in the tank. How much water was left in the tank?

19. Find the length of the arc MN in the figure below. (Use  $\pi$  as  $\frac{22}{7}$ )



20. Hoima is 135km away from Kampala. Andrew travelled to and back at an average speed of 54km/hr. Find the total time he used to cover the whole journey.



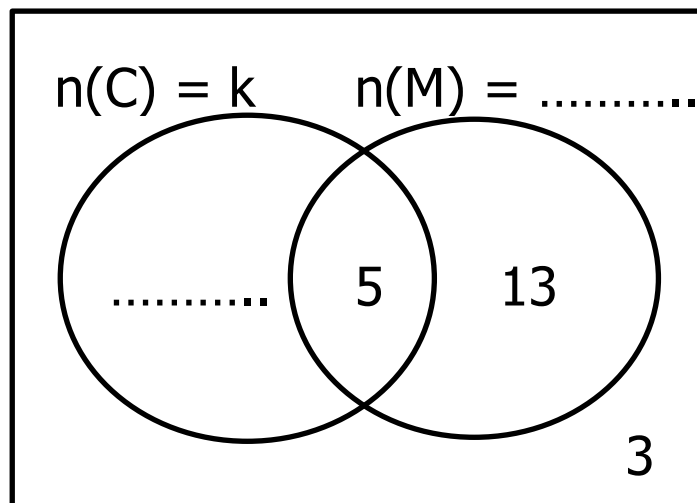
## SECTION B: 60 MARKS

Answer **all** questions in this section

Marks for each question are indicated in brackets.

21. In a group of farmers who grow Cassava (C) and Maize (M), 13 farmers grow maize only, 5 farmers grow cassava and maize, k farmers grow cassava while 3 farmers grow none of the two crops.

- (a) Complete the Venn diagram below using the above information. (02 Marks)



- (b) If 20 farmers don't grow maize, how many farmers grow cassava? (02 Marks)

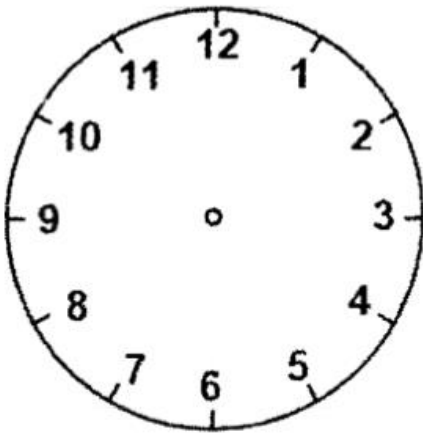
- (c) How many farmers are in the group altogether? (01 Mark)

22. The table below shows 42 Uganda shillings notes a school bursar deposited in the bank. Complete the table. (05 Marks)

Denomination	Number of notes	Amount
sh 5,000	.....	sh 30,000
sh .....	9	sh 18,000
sh 10,000	3	sh 30,000
sh 1,000	.....	.....
Total amount in figures		.....



23. James leaves school at 5:45p.m. and walks for 2 hours to reach home.
- (a) Show the time James reaches home on the clock face below. (02 Marks)



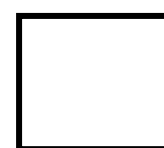
- (b) Convert the time he reaches home to 24-hour clock system. (02 Marks)



24. The scores for Tom, Samuel, Betty and Musa in a test are 58, 22, 28 and 21 marks respectively. When Martha joins them, the mean score for all the pupils becomes 30 marks.

(a) Find Martha's score. (03 Marks)

(b) Workout the median score for the pupils. (01 Mark)



25. (a) A trader sells laundry soap. He sells half a bar of soap at sh.4,500 and a box containing 25 bars at sh.118,750. Calculate the amount of money Tom would save on each bar if he buys a box of 25 bars.

(04 Marks)

26. (a) Using a ruler, pencil and a protractor only, draw an isosceles triangle ABC with a base line AB of 10cm and base angles of  $55^\circ$ . On line AB, mark a point D such that  $AD = 5\text{cm}$ . Draw a line from point C to meet point D.

(04 Marks)

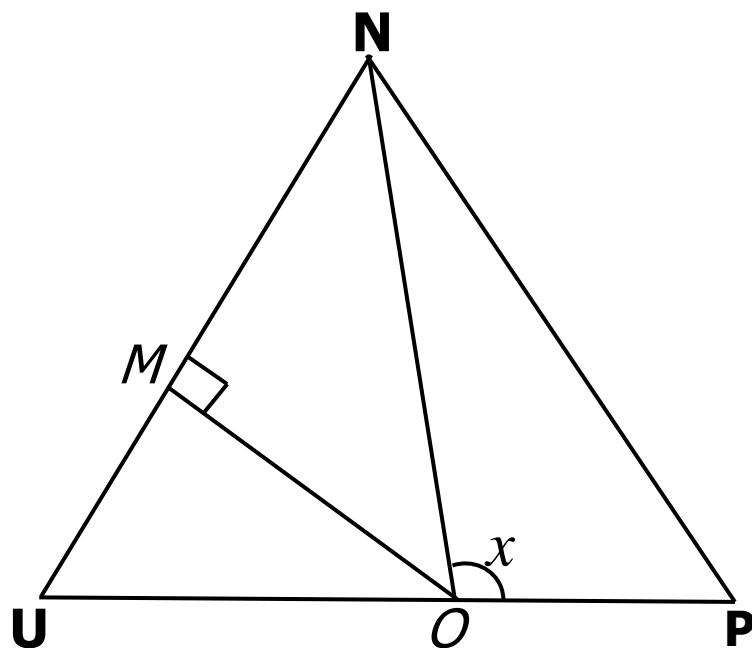
- (b) Calculate the area of triangle ABC.

(02 Marks)



27. (a) Name the polygon whose interior angle is  $108^\circ$ . (03 Marks)

(b) In the figure below, NUP is an equilateral triangle, angle MNO is two thirds of angle UNP. Study it carefully and calculate the size of angle NOP marked  $x$ . (03 Marks)



28. (a) Express the recurring decimal 0.3636 ..... as a common fraction.  
(03 Marks)

(b) Simplify:  $\frac{4}{5} \times \frac{3}{7} \div \frac{9}{14} + 2\frac{7}{15}$ . (03 Marks)

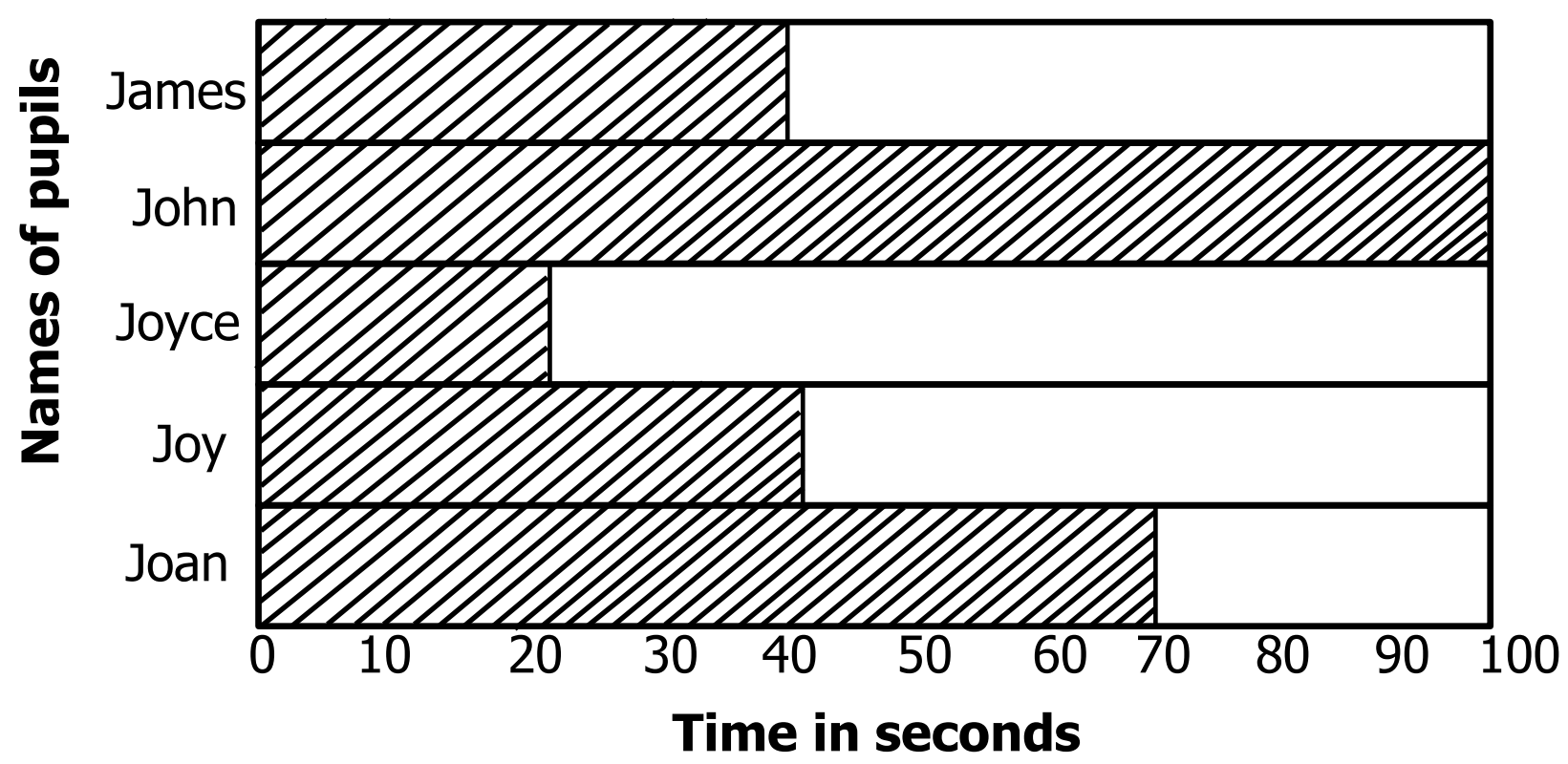


29. Jackie Chan is  $\frac{1}{3}$  Jet Lee's age and Bruce Lee is twice as old as Jet Lee.  
If their total age is 60 years.

(a) How old is Jet Lee? (03 Marks)

(b) Find the difference between Jackie Chan and Bruce Lee’s age?  
(02 Marks)

30. The graph below shows names of five pupils that took part in a 100 metre race and their time. Study it carefully and answer questions that follow.



(a) Who won the race? (01 Mark)

.....

(b) Find the total time taken by the five pupils. (01 Mark)

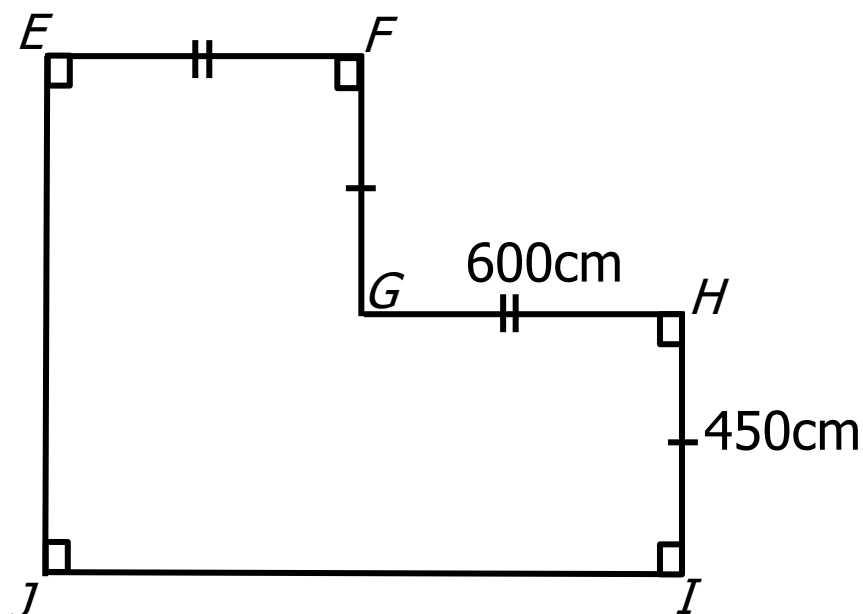
(c) Workout John’s speed in metres per second? (02 Marks)



31. (a) It takes 1 hour for a tank to be  $\frac{1}{12}$  full of water when connected to two taps R and H which fill and withdraw water respectively. If tap R fills the whole tank in 4 hours, how long does tap H take to empty  $\frac{1}{2}$  the tank? (03 Marks)

- (b) If the two taps fill 4500 litres of water in the tank in 1 hour, How much water does tap H draw from the tank in 2 hours? (03 Marks)

32. The figure below shows Olupot's fish pond where  $GH = EF = 600\text{cm}$  And  $IH = GF = 450\text{cm}$ . He fenced it using wooden poles and barbed wire. Study and use it to answer the questions that follow.



- (a) How long in metres is the barbed wire does Olupot need to fence the pond twice? (03 Marks)
- (b) If he planted the poles spaced at intervals of 2 metres each, how many poles did he use? (02 Marks)



GET READY

TIME IS UP