SUREKEY EXAMINATIONS BOARD

PRIMARY SEVEN PLE PREPARATION SET I

2023

MATHEMATICS

Time Allowed: 2 hours 30 minutes

EMIS No.						**Personal No.**		

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 **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

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

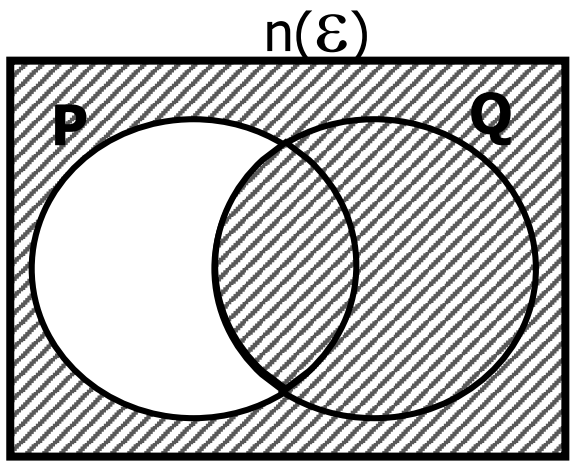
Questions **1** to **20** carry two marks each

1. Fill in the box correctly.

$$\frac{\square}{6} = 6$$

2. Solve for x: $3 - x = 2x$.

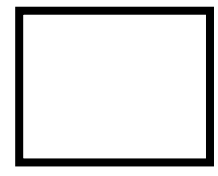
3. Describe the shaded region in the Venn diagram below.



4. Workout: $1\frac{3}{12} \div \frac{5}{6}$.

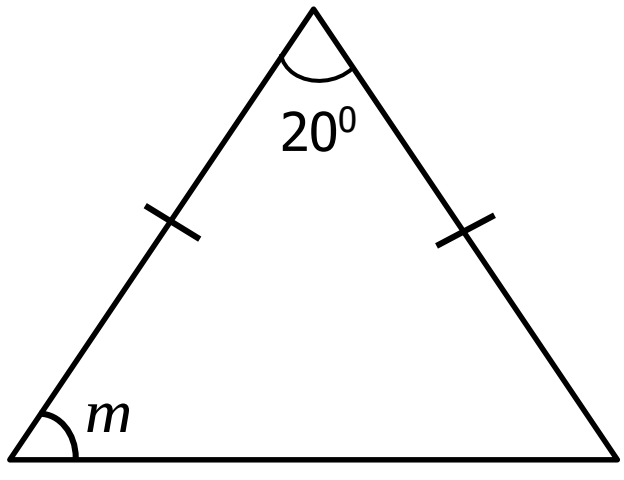
5. Find the square of the missing number in the sequence below:

2, 5, 7, 10, 12, …….



6. A store received 100 boxes where each box contained 6 plates. A donation of 80 boxes was made to Paragon. How many plates remained at the store?

7. Find the value of m in the figure below.



8. How many 500ml cups would Sarah, the school cook, serve to the nursery kids if she had prepared a big 20 little kettle of milk?

Turn Over

9. Express 25% as a ratio.

10. Arinaitwe made a profit of sh.80,000 after selling a sofa set to Bruno at sh.520,000. At how much did Arinaitwe buy the sofa set?

11. The numbers in the square puzzle below sum up to 18 when added vertically, horizontally and diagonally. Use it to calculate the values of x and y.

x	2	7
4	6	8
5	y	3

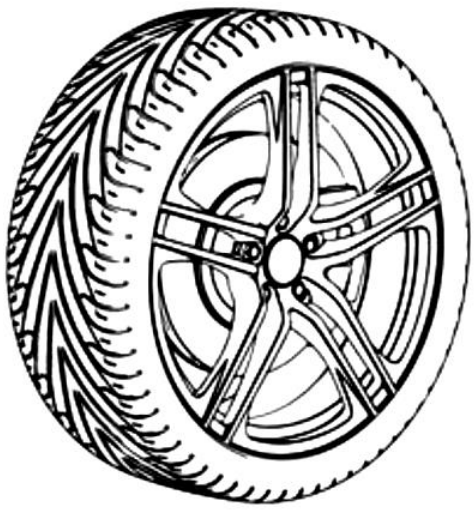
12. Using a ruler, a pencil and a pair of compasses only, construct an angle of 105^0 in the space below.

13. Mr. Okoth, whose class has a total number of 130 pupils, he counted the number of pupils present on a certain day and tallied them as below.

𝍸 𝍸 |||

Write the number of pupils who were absent in Roman Numerals.

14. The circumference of the car tyre below is 110cm. Calculate the radius of the rim of the car tyre. (Use π as $\frac{22}{7}$)

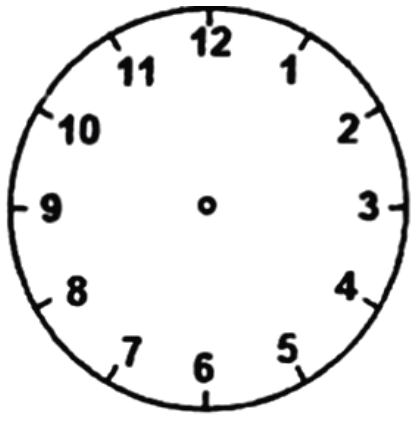


15. Our school is 120 metres away from the dispensary. How far in kilometres is our school from the dispensary?

16. Work out the Greatest Common Factor (GCF) of 24 and 28.

17. Shakirah bought 5 more blue pens than red pens. If she bought a dozen of pens altogether. Find the probability of randomly picking a red pen from the box.

18. Show the time **'a quarter to seven o'clock'** on the clock face below.



19. Find the quotient of (0.12 – 0.06) and 0.06.

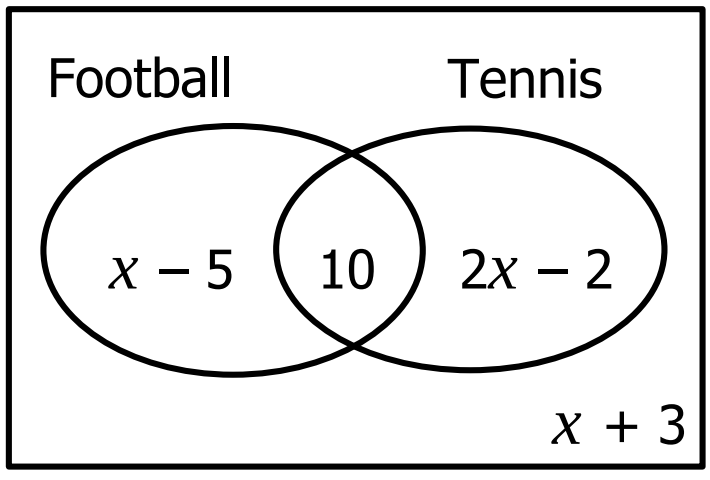
20. Annet banked Sh.4,000,000 in a bank and after 9 months, she found out that the money on her account had accumulated to Sh.4,360,000.At what simple interest rate had the bank increased the money on her account?

SECTION B: 60 MARKS

Answer **all** questions in this section

Marks for each question are indicated in brackets.

21. Study the Venn diagram below and use it to answer the questions that follow.



(a) Given that the number of pupils who play Tennis is twice the number of those who don't play it. Find the value of x.

(03 Marks)

(b) How many pupils who don't play football? (02 Marks)

Turn Over

22. (a) Workout: $332_{five} - 23_{five}$. (02 Marks)

(b) Given that $203_{\mathbf{g}} = 165_{ten}$ find the value of **g**. (03 Marks)

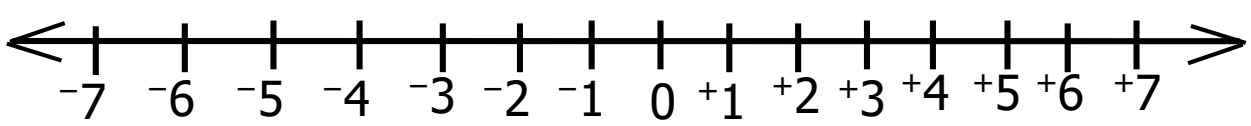
23. Two radio stations CBS and KFM play Omutume Planet's song "Chai we Njaye" at intervals of 30 and 40 minutes respectively.

(a) After how many minutes will the two radio stations play the song together at the same time? (02 Marks)

(b) If the two stations first played the song at 11:30a.m. At what time will they play the same song again at the same time? (02 Marks)

24. (a) Work out: $^{-}9 + {}^{-}5$ *(02 Marks)*

(b) Use the numberline below to work out $3 \times {}^{-}2$. *(02 Marks)*



25. Given the number **496.532**. Use it to answer the questions about it.

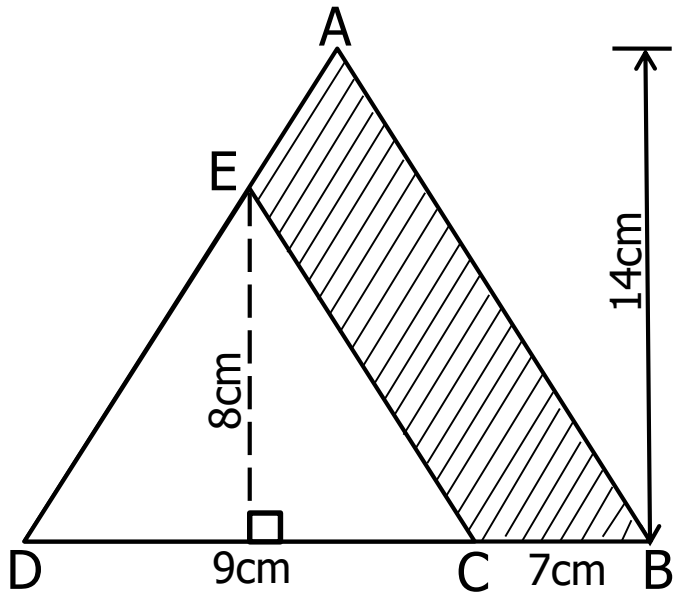
(a) Write the place value of **3** in the above number. (01 Marks)

(b) Work out the quotient of the value of digit **9** and the place value of **3** in the above number. (03 Marks)

26. (a) Using a ruler, a pencil and a pair of compasses only, construct triangle **ABC** where line **AB** = 6cm, angle **CAB**=60^0, angle **ABC** = 120^0 **.** Drop a perpendicular from **B** to meet length **AC** at point **O.** (05 Marks)

(b) Measure the length **AC.** ……**..**cm (01 Mark)

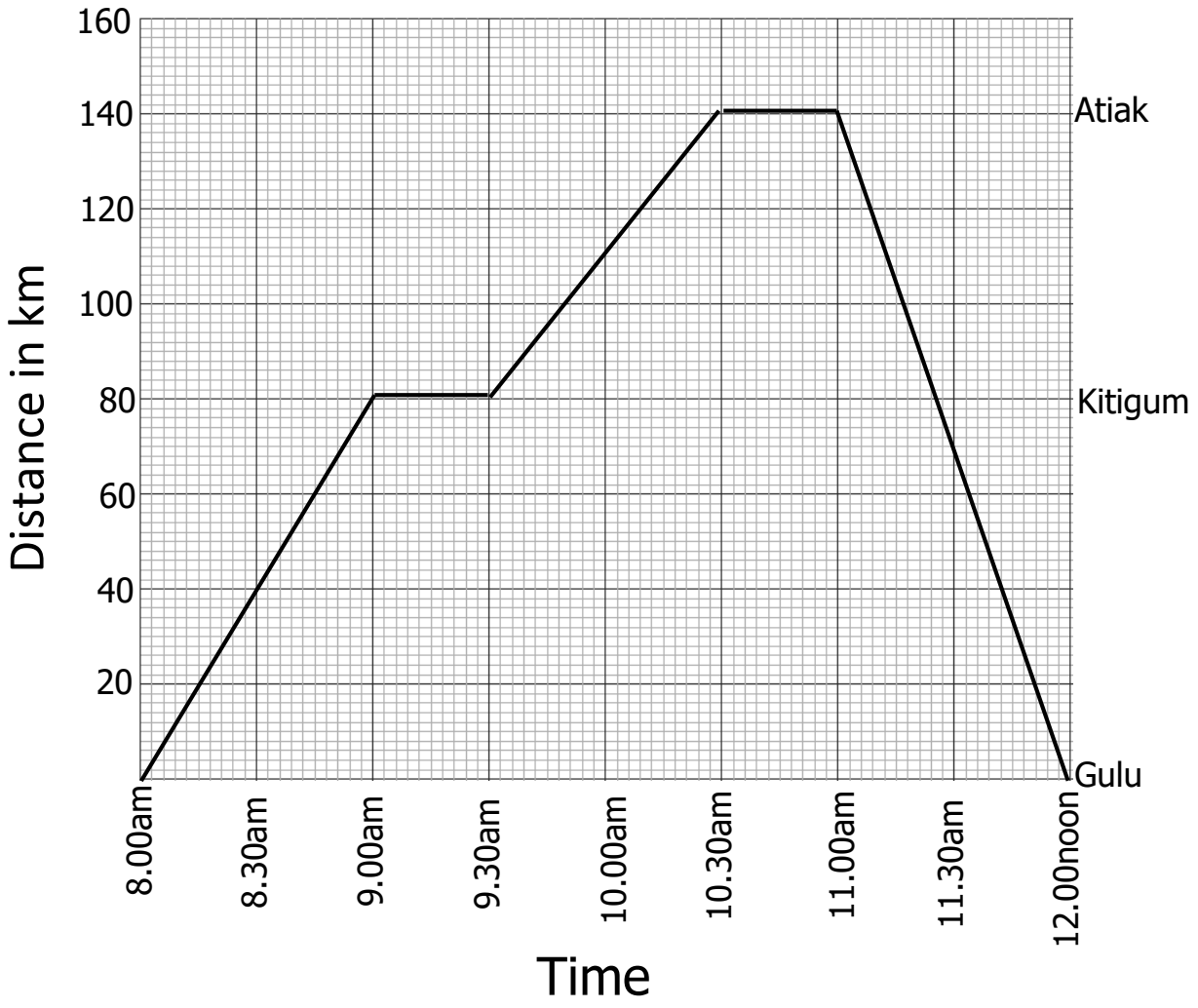
27. The diagram below shows a small triangle **EDC** enclosed in big triangle **ADB.** Study it carefully and answer the questions that follow.



(a) Find the area of triangle **ADB.** (02 Marks)

(b) Calculate the area of the shaded part. (03 Marks)

28. The travel graph below shows Opoloti's journey from Busega to Lukaya and back. Study it carefully and answer the questions that follow.



(a) Calculate the total time Opoloti rested during his journey. (01 Mark)

(b) At what speed did Opoloti drive from Atiak back to Gulu?

(02 Marks)

(c) Work out Opoloti's average speed for the whole journey. (03 Marks)

29. There are seven classes at our school. Each class has 4 streams, each stream has pupils seated in 3 columns and each column has 6 desks.

(a) If a teacher seats 3 pupils on each desk, find the number of pupils in each stream. (02 Marks)

(b) How many pupils are in each class? (02 Marks)

(c) Calculate the total number of pupils in the school. (02 Marks)

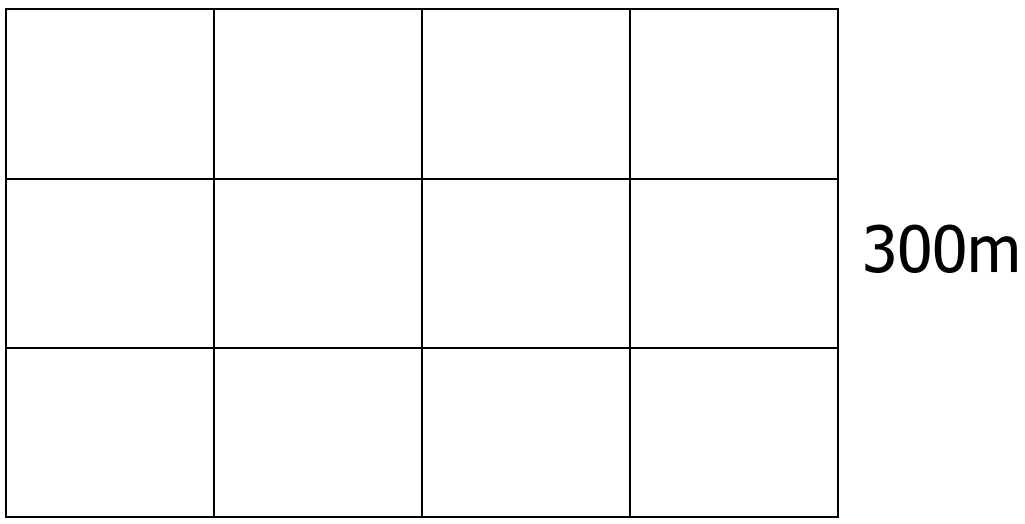
30. Patrick has four sons. Jumba, Jack, John and Joseph. Joseph is two years older than John while Jack and Jumba's age is $\frac{2}{3}$ Joseph's age. If the total age of the four boys is 30 years.

(a) How old is John? (03 Marks)

(b) Work out the range between the age of the oldest boy and that of Jack and Jumba. (02 Marks)

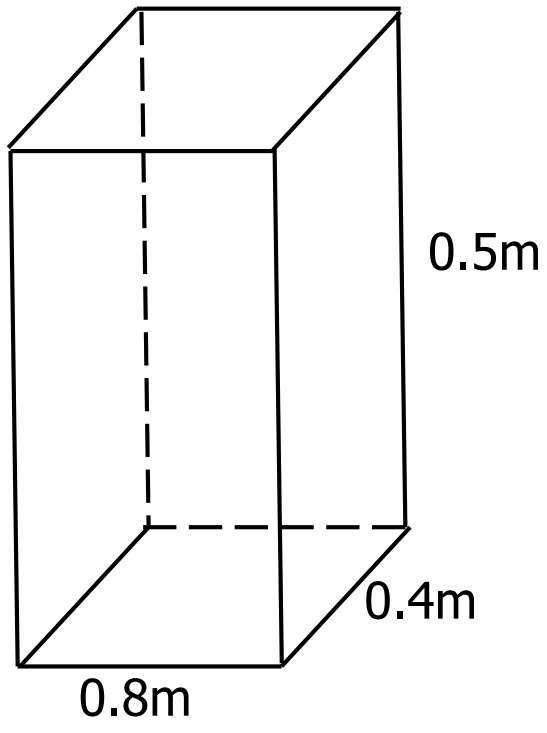
31. Samson bought a rectangular piece of land measuring 400m by 300m and divided it into equal square plots as shown below.

(a) Shade $\frac{2}{3}$ of Samson's land. *(02 Marks)*



(b) If Samson sold $\frac{1}{2}$ of the unshaded plots of land to Tom. How much land did he remain with? (03 Marks)

32. A rectangular container measures 0.8m long, 0.4m wide and 0.5m high as shown below.



What is the capacity of the container in litres? (05 Marks)

END