



SURE KEY EXAMINATIONS BOARD
PRIMARY SEVEN PLE PREPARATION EXAMINATION SET III
2022
MATHEMATICS

Time Allowed: 2 hours 30 minutes

Admission 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 **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

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		

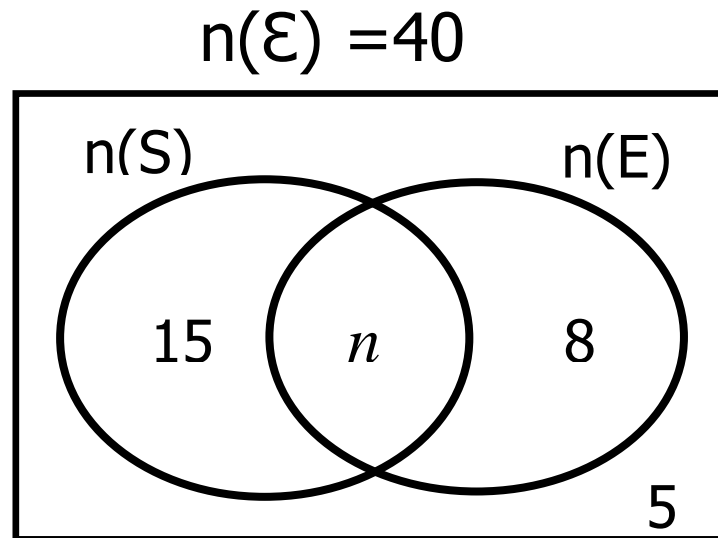
SECTION A: 40 MARKS

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

1. Add:
$$\begin{array}{r} 723 \\ + 264 \\ \hline \end{array}$$

2. Write in figures; Twenty seven thousand, forty.

3. Study the Venn diagram below and find the value of n .



4. Write the next number in the sequence below as a Roman numeral.

4, 9, 16, 25,

5. At what speed should Messi run around the field if he is to cover a distance of 6km in 90 minutes of playing football?



6. Using a ruler, a sharp pencil and a pair of compasses only, construct an angle of 75° in the space below.

7. Given that $y = -4$, $p = -3$, work out the value of $3y^2 - 5py^2$.

8. How many tins of 500grams would one get from a 4 kilogram tin of KIMBO?

9. Find the probability of Sarah going to the market if she usually goes there on a day beginning with letter **T**.

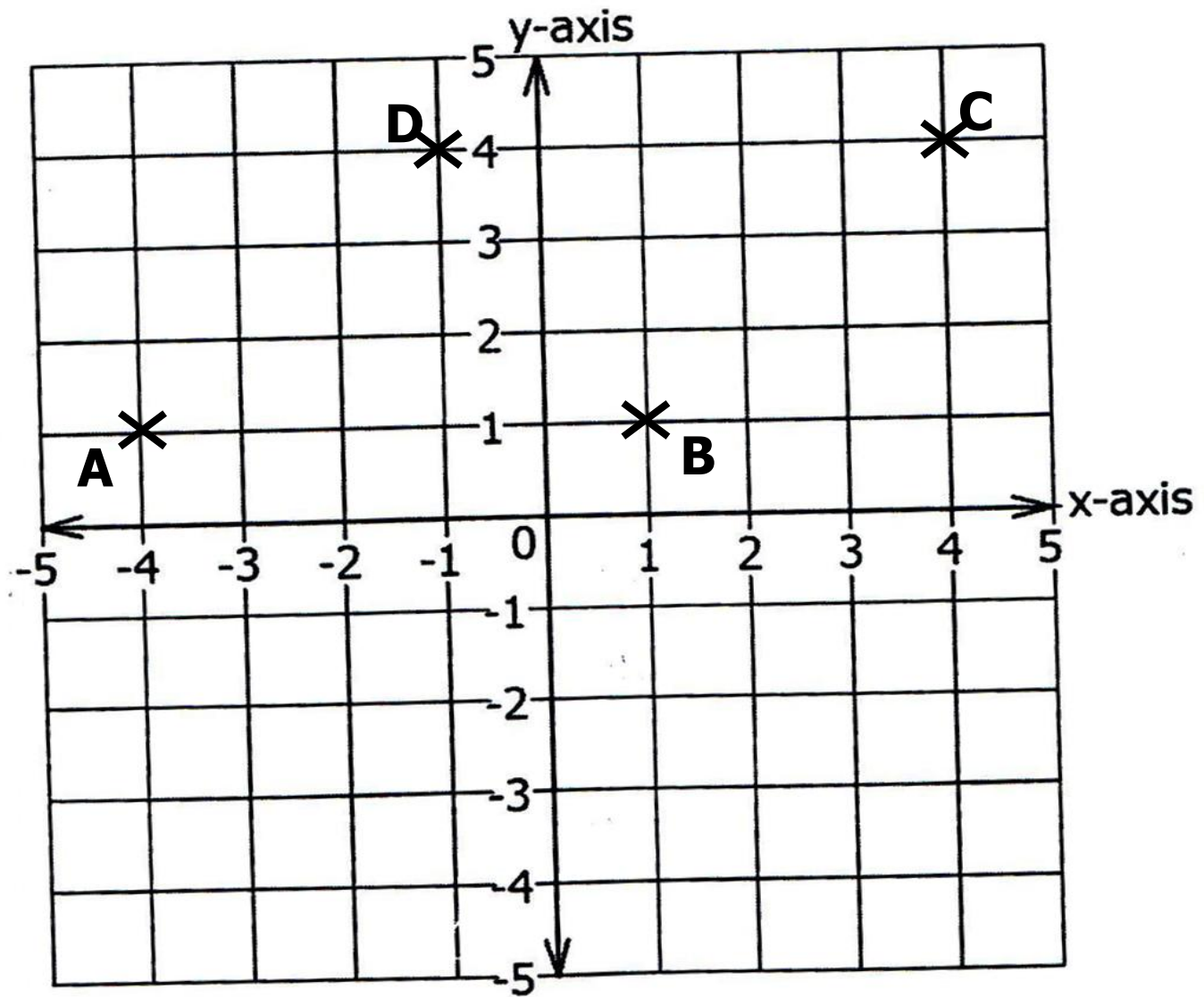
10. What number is written in standard form as 1.9×10^3 ?

11. Find the least number of sweets which can be shared by 12 boys or 15 boys leaving a remainder of 4.

12. How much simple interest on Sh240,000 at a rate of $4\frac{1}{2}\%$ per month would Sam pay to a Micro finance bank after 3 months?

13. Workout the sum of 7.5 and 5.

14. In the graph below, join point **A** to **B**, **B** to **C**, **C** to **D** and **D** to **A**.



Name the polygon **ABCD** formed.

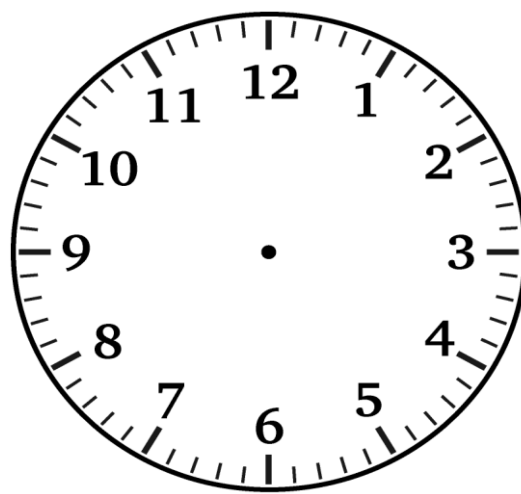
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15. Workout the difference between the 6th and 4th triangular numbers.



16. In a school of 540 pupils, 20% of them are boys and the rest are girls. Find the number of girls in the school.

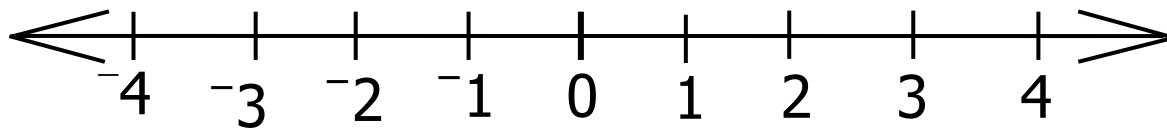
17. Show fifteen minutes before midnight on the clock face below.



18. Solve the inequality: $2x - 9 > 3 - x$.

19. The average weight of four boys is 56kg, when two teachers join them, their average weight becomes 52kg. Find the weight of the two teachers.

20. Workout: $+3 + -6$ on the number line below.

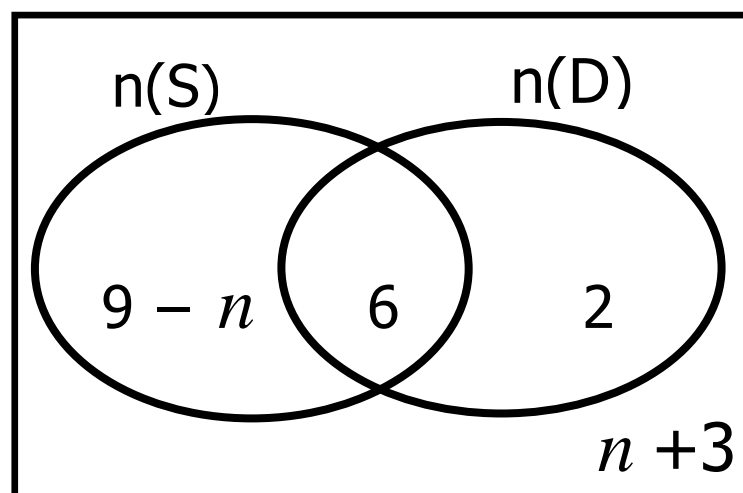


SECTION B: 60 MARKS

Answer **all** questions in this section

Marks for each question are indicated in brackets

21. The Venn diagram below shows the number of pupils who like singing (S) and others dancing (D), the rest like neither of the two.



(a) If 7 pupils like neither singing nor dancing, find the value of n . (02 Marks)

(b) How many pupils don't like dancing? (02 Marks)

22. (a) Simplify: 4 boys + 3 girls – 2boys + 2 girls. (02 Marks)

(b) Kalibbala is 24 years old and his brother Kabali is 6 years old. After how many years will Kalibbala be three times as old as his brother Kabali? (04 Marks)



23. Rose went for shopping and bought the following items

4kg of sugar at Sh.12,000.

2 litres of cooking oil at Sh.11,000.

3 bars of soap.

(a) How much did she pay for sugar and cooking oil? (02 Marks)

(b) If Rose paid Sh32,000 for all the items, how much did she pay for each bar of soap? (02 Marks)

24. (a) Workout: $133_{\text{five}} - 42_{\text{five}}$

(02 Marks)

(b) The table below shows addition in base two. Study it carefully and complete it correctly. (03 Marks)

+	0	1	2
0	0	1
1	10	11
2	10	100



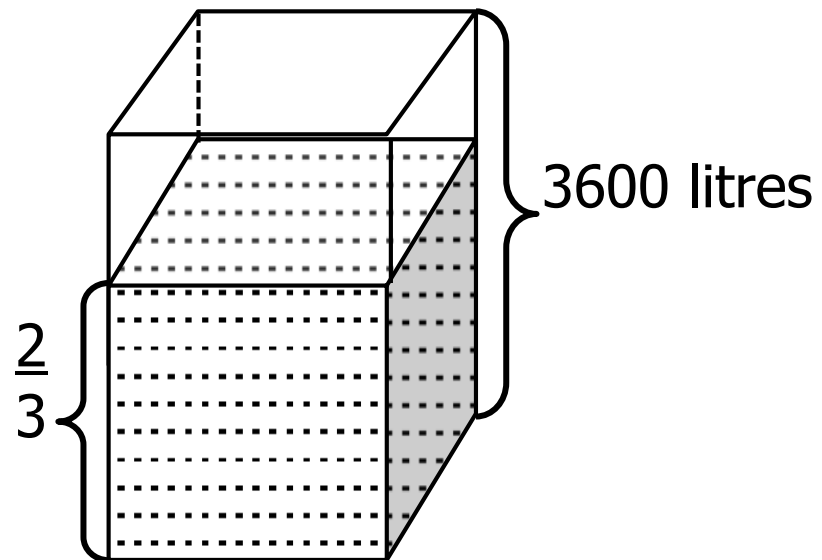
25. On a day when $\frac{1}{6}$ of the pupils in the class were absent, 35 pupils were present. How many pupils were present when $\frac{1}{7}$ of the pupils in the class were absent? (05 Marks)

26. (a) Using a ruler, a pencil and a pair of compasses only,
Construct triangle MAP where $\angle M = 60^\circ$ length MA = 7.5cm
and $\angle A = 45^\circ$. (04 Marks)

- (b) Measure the length AP _____cm. (01 Mark)



27. The milk tank below holds a capacity of 3600 litres when completely full. When James sold some litres of it at Sh1,200 per litre, it became $\frac{2}{3}$ full.



- (a) How many litres of milk did James sell for the tank to become $\frac{2}{3}$ full? (03 Marks)
- (b) How much did James earn from the sold milk? (02 Marks)



28. 5 builders can build a classroom block in 8 months, if each builder is paid Sh20,000 per day.
- (a) How much money is required to pay the builders if they worked from 1st March up to 30th June? (04 Marks)

- (b) How many less builders are needed to build the same classroom work in 10 months? (02 Marks)



29. (a) Find the Highest Common Factor (HCF) of 8 and 12. (02 Marks)

- (b) The sum of three consecutive odd numbers is 87. What is the range of the numbers? (04 Marks)

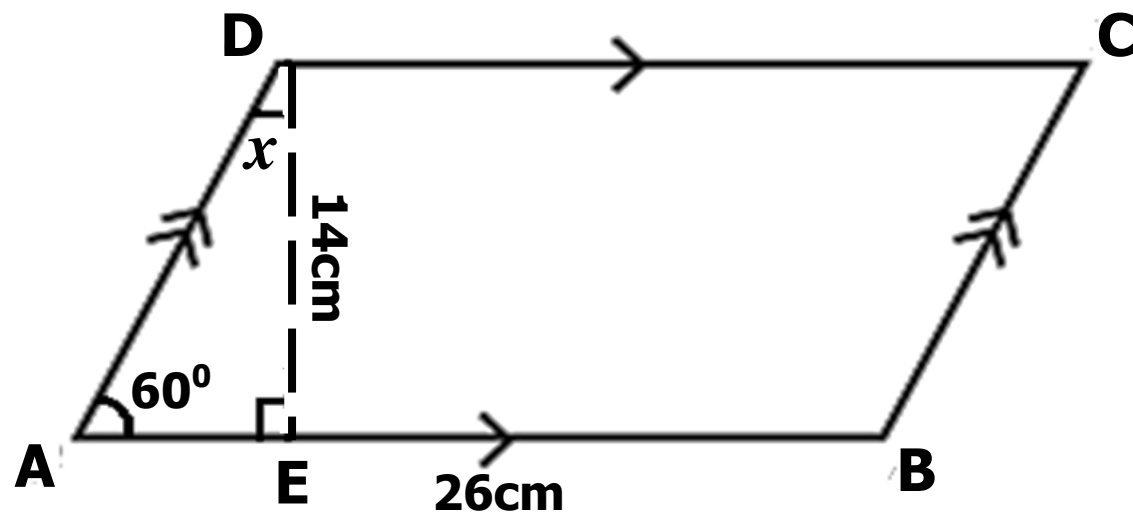
30. The table below shows the number of mangoes picked by some boys in a week. Use the information to answer the question below.

Mangoes	40	m	60	70
No. of boys	II	III+I	III	III

- If the mean number of mangoes picked that week was 55,
Find the value of m . (04 Marks)



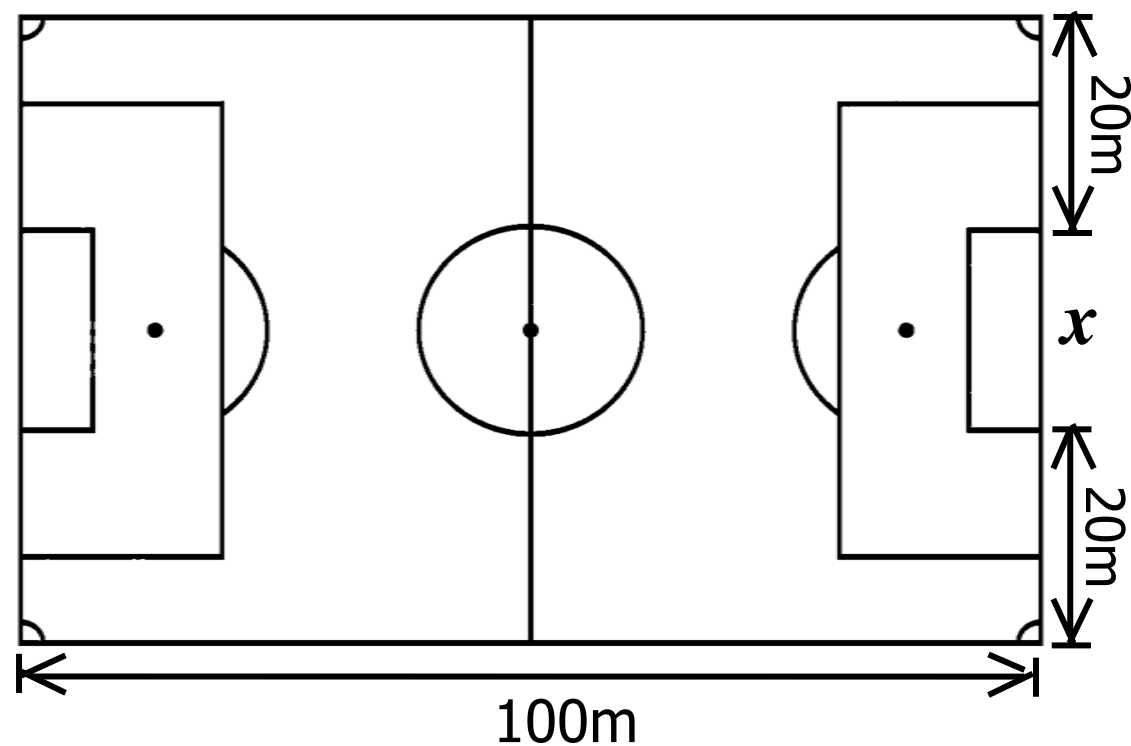
31. In the figure below, **ABCD** is a parallelogram and **AED** is a right angled triangle. Where $\overline{AB}=26\text{cm}$ and angle **DAE**= 60° .



- (a) Calculate the area of figure **ABCD**. (02 Marks)

- (b) Work out the size of angle x in degrees. (02 Marks)

32. Below is a rectangular football pitch of length 100m and a width which is three quarters the length. Use it to answer the questions that follow.



- (a) Find the area of the above field. (03 Marks)

- (b) If the width between the goal posts marked x is equal to the diameter of the circle in the middle of the pitch, calculate the circumference of that circle. (Use $\pi = \frac{22}{7}$) (03 Marks)



