SUREKEY EXAMINATIONS BOARD

PRIMARY SEVEN TARGET SERIES EXAMINATION

2023

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Index No.	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 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

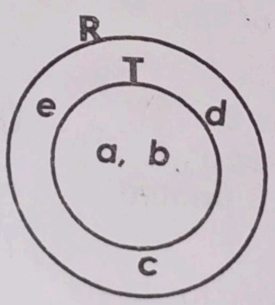
Answer **all** questions in this Section

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

1. Add: 32 to 14.

2. Simplify: $y^{-6} \div y^{-15}$.

3. Find n(R-T) in the Venn diagram below.



4. Multiply: $1\ 0\ 1_{two}$

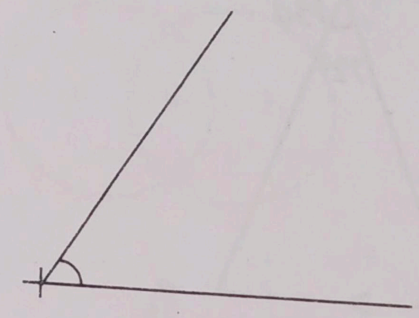
$\times\ 1\ 1_{two}$

5. Find the next number in the sequence:

256, 64, 16, 4, ...

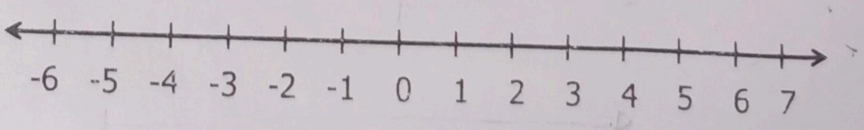
6. Three girls can sweep a classroom in 12 minutes. How long will 4 girls take to sweep the same classroom working at the same rate?

7. Use a protractor to measure the angle below.



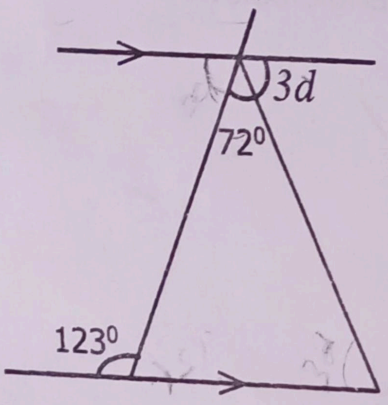
8. A trader sold an article at Sh.7,900 making a profit of Sh.700. Calculate the cost price of the article.

9. Workout $(^{+}4) - (^{-}5)$ using the number line below.



10. Tom had $\frac{3}{4}$ of a sugarcane and gave $\frac{1}{9}$ of it to Bashirah. What fraction did he remain with?

11. Find the value of d in the figure below

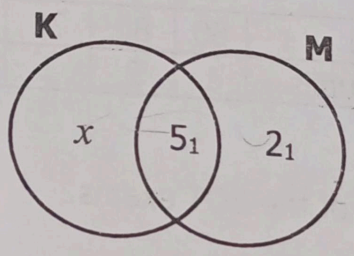


12. Solve the equation: $1\frac{1}{2}x + 3 = 9$.

13. Write 637 in standard form.

14. Given that $p = \frac{1}{2}$, $q = \frac{2}{3}$ and $r = \frac{1}{4}$. Find the value of $p + qr$.

15. Given that the LCM of K and M is 30. Find the value of x in the Venn diagram below.



16. A clock shows 5 minutes past 1: 00a.m.now, if the clock loses 6 minutes every hour. What will the real time be after seven hours?

17. Express 25m/sec to km/h.

18. The volume of a cylindrical water tank is 0,034 cubic metres. Express its volume in cubic centimeters.

19. The table below shows marks scored in the beginning of term III exams. Study it and answer the question that follows.

Marks scored	60	80	70	90
Number of pupils	1	2	1	3

Workout the median mark of the BOT exams.

20. The circumference of a wheel is 88cm. How many revolutions will it make to travel 352 metres?

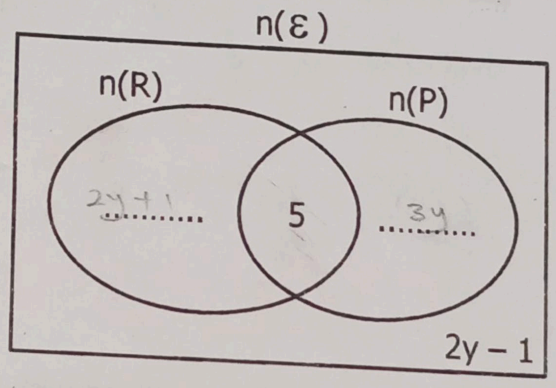
SECTION B: 60 MARKS

Answer **all** questions in this section

Marks for each question are indicated in brackets.

21. In a class, there are (2y + 1) pupils who like Rice (R) only, 3y like Posho (P) only. If 5 like both types of food and (2y – 1) like neither Posho nor Rice.

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



(b) If 31 pupils like either posho or rice. Find the value of y. (02 Marks)

(c) How many pupils are in the class? (02 Marks)

BODMAS

22. (a) Workout: $14 - (18 \div 3) + 5$ (02 Marks)

(b) Use distributive property to workout. (02 Marks)
$(23 \times 200) + (17 \times 200)$

$200 \times (23+17)$

200×30

6000

23. In a feeds factory, crushed fish is mixed with maize flour in the ratio 1:3 respectively. The feeds are packed in 80kg bags.

(a) How many kilograms of fish are used in one bag of the feeds?
(02 Marks)

(b) If one kilogram of maize flour costs Sh.4,000. How much does it cost to buy maize flour to make feeds that weigh 1000kg?
(03 Marks)

$\times 4000$
1000

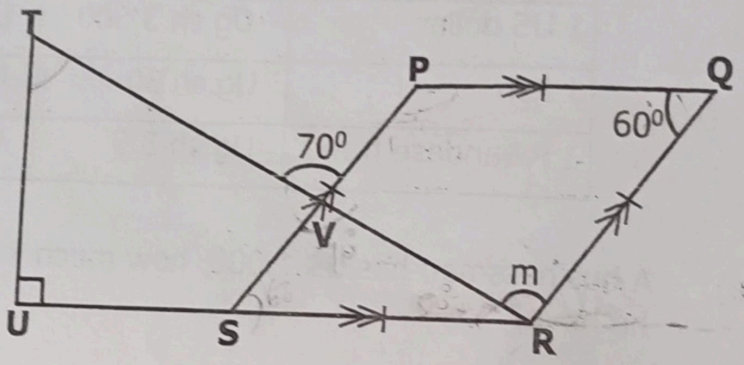
...able below shows the exchange rate of different currencies. Use it to answer the questions that follow.

Currency	Buying rates	Selling rates
1 US dollar	Ug.sh 3,500	Ug.sh 3,550
1 Ksh	Ug.sh 30	Ug.sh 32
1 Rwandese franc	Ug.sh 3.5	Ug.sh 3.7

(a) A businessman has U$ 1,000, how much in Uganda shillings does he have?
(02 Marks)

(b) If the business man used some of his money for online shopping and bought a gold watch worth Ksh.74,000 and a refrigerator worth 80,000 Rwandese francs. How much was his change in Ug.sh?
(03 Marks)

25. The diagram below is a rhombus PQRS where PQR is 60^0. TRU is a right angled triangle where angle PVT is 70^0. Study it carefully and answer the questions that follow.



(a) Find the value of **m** in degrees.

(02 Marks)

(b) Calculate the size of angle **UTR**.

(02 Marks)

26. Town **C** is on a bearing of 150^0 from town **A** which is 40km away and town **C** is 50km from town **B** on a bearing of 070^0. Using a scale of 1cm = 10km.

(a) Draw a sketch and an accurate figure to show the three towns.

(04 Marks)

(b) What is the shortest distance from A to B? (02 Marks)

27. Two drivers **A** and **B** left Soroti at 7:30am travelling to Kampala a distance of 300km away. Driver **A** drove at a speed of 60km/hr and driver **B** drove at a speed of 75km/hr.

(a) How many hours did driver **A** take to reach Kampala? (02 Marks)

(b) Find the distance driver **A** was left with to reach Kampala by the time driver **B** arrived in Kampala. (04 Marks)

28. A mother is four times as old as her daughter. Their total age is 50 years.

(a) How old is the daughter?

(02 Marks)

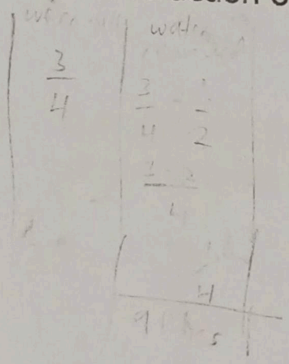
(b) How old will the mother be when the daughter is 30 years from now?

(02 Marks)

29. A tank is $\frac{3}{4}$ full of water, if 9 litres of water are removed, it becomes $\frac{1}{2}$ full of water.

(a) Find the fraction of water removed.

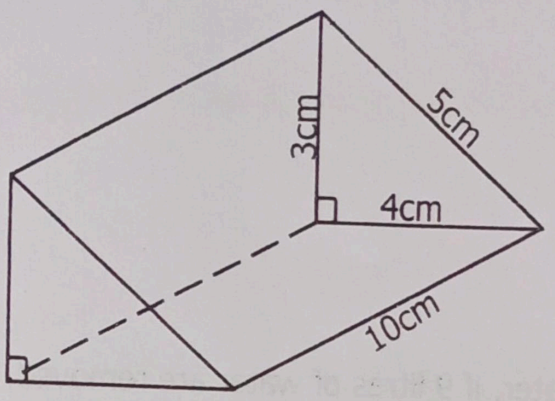
(02 Marks)



(b) What is the volume of the full tank?

(03 Marks)

30. Use the triangular prism below to answer the questions that follow.



(a) Find the sum of the length of all its edges. (03 Marks)

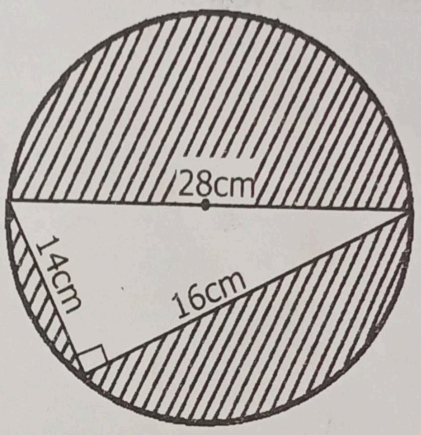
(b) Find the volume of the triangular prism. (02 Marks)

31. Mr. Obra received 120 shares from his father at a simple interest rate of 10% per annum. If each share is valued at sh.5,000.

(a) Find the interest after 3 years. (03 Marks)

(b) Calculate the total amount of money Obara gave back to his father after the three years. (02 Marks)

32. The diagram below shows a circular cardboard and a triangle was cut out of it. Study and use it to answer questions that follow.



(a) Calculate the area of the circle.

(02 Marks)

(Use π as $\frac{22}{7}$)

(b) Workout the area of the cardboard that remained after cutting out the triangle.

(03 Marks)

END