MBALE CITY PRIMARY SCHOOLS' HEAD TEACHERS' ASSOCIATION ACADEMIC BOARD

PRIMARY LEAVING MOCK EXAMINATION
2023
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. This paper has two sections: **A** and **B**.
2. Section A has **20** questions (**40 Marks**).
3. Section B has **12** questions (**60 Marks**).
4. Attempt all questions in both sections. All answers to both sections **A** and **B**. must be written in the spaces provided.
5. All answers must be written in blue or black ball point pens or **ink**. Only diagrams and graph work must be done in **pencil**.
6. Unnecessary **alteration** of work will lead to loss of marks.
7. Any **handwriting** that cannot be easily read may lead to loss of marks.
8. Do not fill anything in the boxes indicated:
   "FOR EXAMINER'S USE ONLY"

For Examiner's Use Only;

PAGES	MARKS	INITIALS
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31 - 32		
TOTAL		

Please turn over

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SECTION: 40 MARKS
*Attempt **all** questions in this section*
Questions **1** to **20** carry **two** marks each

1. **Work out:**

$$\begin{array}{r} 3\ 2\ 4 \\ +\ 4\ \ 7\ 0 \\ \hline \\ \hline \end{array}$$
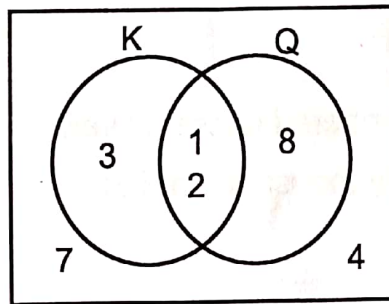
2. **Simplify:** $^-4 + {}^-6$

3. Express **90,919** in words.

4. Find the **G.C.F** of 8 and 12.

5. **Simplify:** $\dfrac{8}{9} \div 1\dfrac{1}{3}$
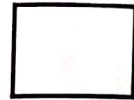
1

6. Solve for p: $\dfrac{2}{2p} = 2$

7. Study the venn diagram below and **list** the elements of set **K** complement.

8. The marks scored by Amos in **weekly** tests are 17, 13, 14 and 16. Work out his **average** mark.

9. James bought a pair of trousers for **sh. 32,000** and sold it for **sh.37,500**. Calculate the profit he made.

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10. Construct an angle of **120⁰** using a ruler, a pencil and a pair of compasses only in the space below.

11. Owori withdrew bank notes numbered consecutively from **QR094558** to **QR 094647** each worthy twenty thousand shillings. Calculate the amount of money he withdrew.

12. It takes $3\frac{1}{2}$ cups of butter to make one cake. How many cups of butter does it take to make $2\frac{1}{4}$ cakes?
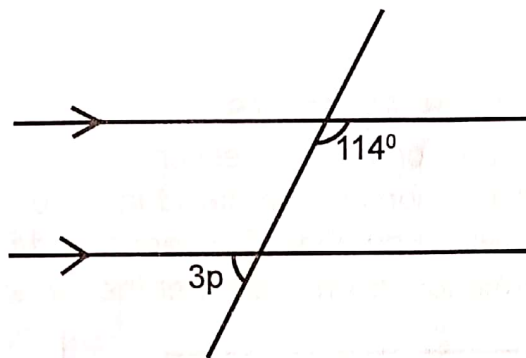
13. Given that set **X** has 32 subsets. Find the number of elements in set **X**.

14. Change **4 tonnes** to kilogrammes.

15. What number is written in standard form as **1.8 x 10³**?

16. Find the size of angle **P** in the figure below.

17. The cost of 1 US dollar is **sh. 3,800**. How much money in **US dollars** will Bwambale get from Ush. **760,000**?

18. What number is increased by **25%** to become **12,500**?

19. Find the time it stopped raining if it started at **2:30a.m** and lasted $3\frac{3}{4}$ hours.

20. Given that ☒ represents **6** bottles. Draw pictos to represent **42** bottles.
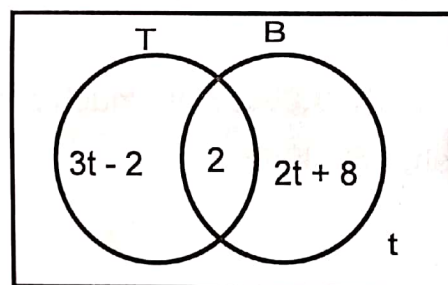
SECTION B: 60 MARKS
Attempt **all** questions in this section.
Marks for **each part** of the question are **indicated** in the brackets.

21. The venn diagram below shows the number of drivers who drive buses **(B)** or Taxis **(T)**. Use the information given to answer the questions that follow.

a) If 30 drivers do not drive buses, find the value of **t**.

(03marks)

b) How many drivers drive one type of vehicle only?
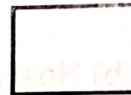
(02marks)

5

22.a) Prime factorise **48** using set notation.

(02marks)

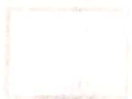b) Work out the **sum** of prime numbers between **70** and **90**.

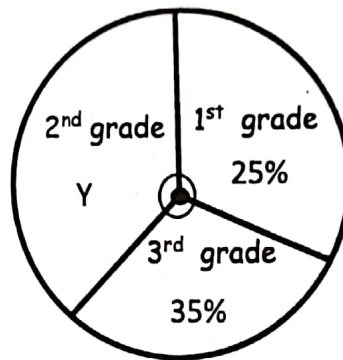(02marks)

23.a) **Work out:** $11011_{two} + 1101_{two}$

(02marks)

b) Given that $41_x = 221_{four}$.
   Find the value of x.

(02 marks)

24. The pie - chart below shows the performance of **180** candidates in Pre-Mock examinations. *Study and use it to answer the questions that follow.*

(a) Find the value of **Y**.

(b) How many candidates passed in **3ʳᵈ** grade?

(c) Calculate the **angle sector** representing 1st grade in **degrees**.

25. Tap **M** takes 2 minutes to fill a tank while **Tap K** takes 6 minutes to emr the same tank.
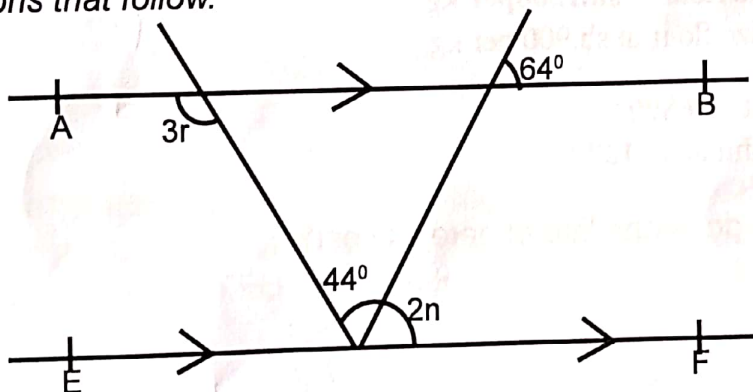
a) If both taps are opened at the same time, how many minutes will th. take to fill the tank?

(03 marks)

b) If the tank holds **720** litres of water when full, how much water will be in the tank in one minute?

(02 marks)

26. In the figure below, line **AB** is parallel to line **EF.** *Use it to answer the questions that follow.*

a) Find the value of **n** in degrees.

(02 marks)

b) Work out the value of **r** in degrees.

(03 s)

27. a) **Solve** and **state** the **solution set** for the inequality.

$3 < 2r - 5 < 7$

(02 marks)

b) Mr.Ongodia is **4**years older than his brother Tadeo. If their total age is **12** years, what will be their average age after 10 years?

(03 marks)

28. Nandutu went with fifty thousand shillings to a shop and bought the following items:

1500gm of soya flour at **sh.1200per kg**

$1\frac{1}{4}$ kg of maize flour at sh.900 per kg

2kg of sugar at **sh 6800**

$\frac{1}{4}$ litre of paraffin at **sh.1200**.
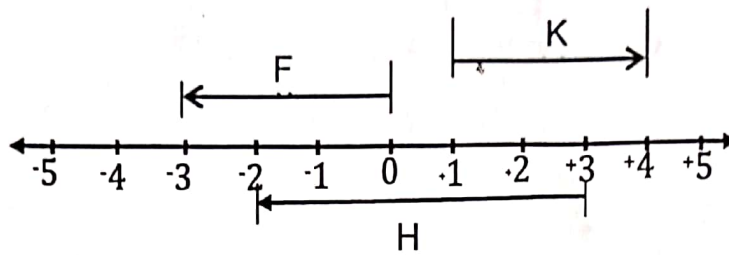
a) How much does one litre of paraffin cost?

(02 marks)

b) How much did she pay if she was given a discount of 10% on her bill?

(04 marks)

29.Study the **number line** below and use it to answer the questions that follow.

a) Write the **integers** represented on the number line.

(i) F=_____ (ii) K=_____ (iii) H =_____   (03marks)

b) **Work out:** 3 - 4 = e(finite 6)

(02marks)

30.A bus left Kasese for Kampala moving at a speed of **90km/h** and covered a distance of **360km**. The bus then took **5 hours** on its return journey to Kasese. Find the average speed of the bus for the whole journey.
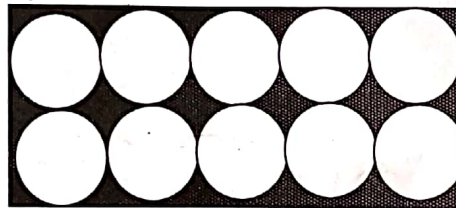
(05 marks)

31.a) Using a ruler, a pencil and a pair of compasses only, construct a
    parallelogram SATB such that **SA=7cm**, and **SAT=105⁰** and **AT= 5cm**.

b) Measure angle **ATB**.

32. Amos cut out ten circular plates from a rectangular metal sheet of length
    70cm as shown below.

70 cm

(a) Find the width of the metal sheet.

(b) Find the area of the unused sheet after cutting out the circular plates.
    Use $\left(\pi \text{ as } \dfrac{22}{7}\right)$