# KAMPALA ARCHDIOCESE CATHOLIC PRIMARY SCHOOLS (KAPSMA)

PRIMARY SEVEN MOCK EXAMINATION

**2024**

**MATHEMATICS**

***Time Allowed: 2 hours 30 minutes***

| Random No. | | | | | | Personal No. | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

**Candidate's Name:** .....

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

**District ID No.** | | | | |

## Read the following instructions carefully:

1. Do not write your **school** or **district name** anywhere 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 **12** printed pages.

3. Answer **all** questions. **All** the working for both sections **A** and **B** must be written 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 on graphs and drawings will **not** be marked.

5. No calculators are allowed in the examination room.

6. Unnecessary **changes** in your work and handwriting that cannot be read easily may lead to **loss of marks.**

7. Do not fill anything in the table indicated:
   **'FOR EXAMINERS' USE ONLY'**

| 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 | | |



**TURN OVER**

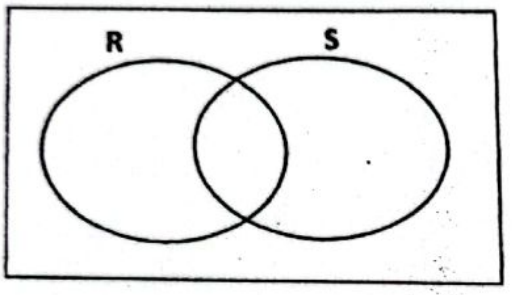
## SECTION A: 40 MARKS

*Answer **all** the questions in this section.*

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

1. Work out: $12 \div 2$

2. In the Venn diagram below shade the region representing members of complement of set **R.**




3. Write **145** in Roman numerals.

4. Find the next number in the sequence below.

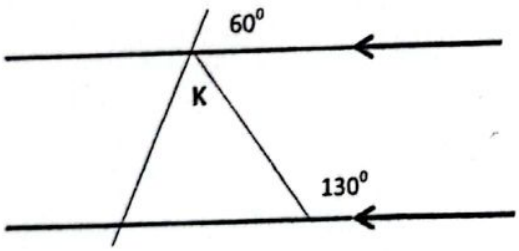
   20, 19, 16, 10 _____ .

5. **Simplify:** $\left|\frac{1}{2}\right. \quad \frac{3}{5}$

6. The temperature on the top of the mountain was $^{-}6^{0}$ **c** in the morning. In the evening the temperature dropped by $2^{0}$**c.** Find the new temperature on the top of the mountain in the evening.

7. Work out the mean of **5y, 8 3y** and **20.**

**8. Study the diagram below and Use it to answer the following questions.**




Find the value of **k**

9. A class discussion which started at **12:20 pm** ended at **1:30 pm.** For how long did the class discussion last?

10. A business man sold a radio at **Shs. 91,000** making a percentage profit of **30%**. Find his buying price.

11. A farmer walked around her circular garden of diameter **14meters.**
Find the distance the farmer covered ( Take $\pi = \frac{22}{7}$)

12. **Simplify:** $5 - 2(k - 1)$

13. Given that **T** = {all prime numbers between 30 and 40}
Find **n(T)**

14. **Work out:** $101_{two} + 11_{two}$

15. If $PF_k = \{ 2_1, \quad 2_2, \quad 3_1 \}$ and $PF_w \{ 2_1, \quad 3_1, \quad 5_1 \}$

Work out: the **HCF** of **k** and **w**

16. **Work out:** $80 + 20 \div 10$

17. Find the value of $\mathbf{9.65 \times 10^{-3}}$

18. Using a ruler a pencil and a pair of compasses only construct an angle of $\mathbf{120^0}$

19. A motorist travelled at a speed of **20m/sec**. Calculate his speed in kilometers per hour.

20. A mother is **3** times as old as her daughter. Find the daughter's age if the mother is **3x + 4** years.

**SECTIONB: 60 MARKS**

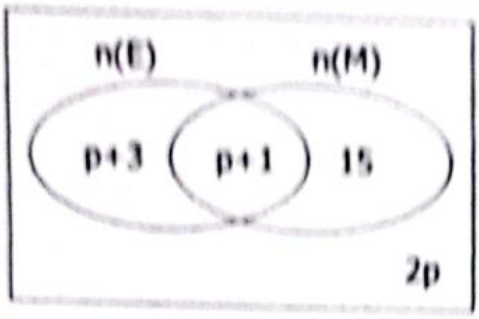
*Answer **all** the questions in this section.*

*Marks for each question are indicated in brackets.*

21. (a) Work out the product of the value of **4** in figure **8475** and the place value of **9** in the figure **0.09** *(3marks)*

(b) Expand **70024** using values. *(2marks)*

the Venn diagram below shows the number of pupils who like Mathematics (**M**) and English (**E**)




(a) Find the value of **P** if **52** pupils like English.

*(3marks)*

(b) Find the number of pupils in the whole class.

*(2marks)*

23. a) A match box contains **35** match sticks and **10** match boxes make a packet. If **12** packets fill a carton, find the number of match sticks in a carton.

*(2marks)*

(b) If a packet of match boxes is shared among **7** people, how many match sticks will every person receive?

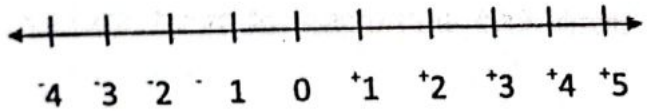
*(2marks)*

(3marks)

24. (a) **Work out:**
0.75 of 10 – 84.5 ÷10

(b) $8 \div \frac{2}{3}$ of $\frac{3}{4}$ (2marks)

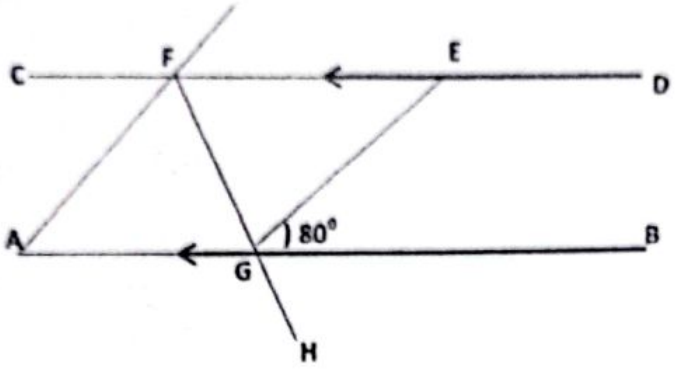
25. (a) Show: $^{-}3 - {}^{+}4 = {}^{-}7$ on the number line below; (3marks)




(b) Our term two started on Monday **27th May 2024.** If the midterm two examinations are to be done on **12th July 2024,** on what day of the week will the examination be done?

(3marks)

26. In the diagram below **AB** is parallel to **CD**, angle **AGH = 1500** angle EGB is equal; to angle CFA. Study it and use it to answer the questions.




(a) Find angle **AFE** *(3marks)*

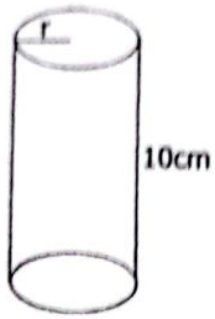
(b) Find angle **GED** *(2marks)*

27. A motor cyclist traveling at a speed of **40km/hr** started the journey from town **A** at 9:00a.m and reached town **B** at 12:00 noon. He then continued to town C for a distance of **100km** in 2 hours.

(a) How far is town **C** from town **A**. *(3marks)*

(b) Calculate the average speed for the whole journey. *(2marks)*

28. The cylindrical tin below has a volume of **6160 $cm^3$**




(a) Find the radius of the cylindrical tin.($\pi = \frac{22}{7}$). *(3marks)*

(b) Calculate the total surface area of the cylindrical tin. *(2marks)*

29. (a) A chair costs twice as much as a door and a window costs **Shs. 5,000** less than a door. If their total cost is **Shs. 35,000** how much is the cost of a chair? *(3marks)*

(b) Solve for **m**: $\frac{1}{3}(m + 2) = 1\frac{1}{2}$ *(2marks)*

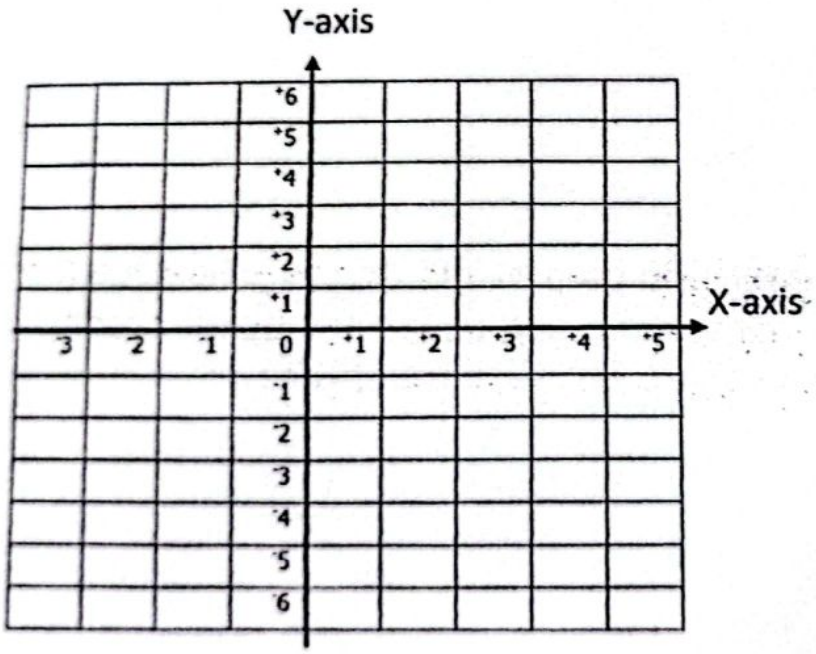
30. A father had **Shs. 800,000** and used **¼** of it to pay school fees for his daughter. He used **½** of the remaining money to buy food for his family and banked the rest. How much money was banked? *(4marks)*

31. a) Using a pair of compasses a pencil and a ruler only. Construct a rhombus **ABCD** in which angle **ABC** = $60^0$ and of length **6cm**. *(4marks)*

(b) Measure the diagonal **AC**. *(1mark)*

32. (a) Plot the following points on the grid below.

R($^+1$, $^+2$ ), S($^-1$, 0) , T($^+1$, $^-3$) and U ( $^+3$, 0 ) *(4marks)*




(b) Join the points to form a polygon and calculate the area of the polygon formed given that 1 cm = 1 square *(2marks)*