# KAMPALA CAPITAL CITY AUTHORITY

## DIRECTORATE OF EDUCATION AND SOCIAL SERVICES

## PRIMARY SEVEN MOCK EXAMINATIONS 2022

## MATHEMATICS

***TIME ALLOWED: 2 HOURS 30 MINUTES***

| ***INDEX NO:*** | ***EMIS No.*** | | | | | | ***Personal No.*** | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

***CANDIDATE'S NAME:*** .....

***CANDIDATE'S SIGNATURE:*** .....

***EMIS No:*** .....

***DIVISION NAME:*** .....

***Read the following instructions carefully.***

1. This paper is made up of two sections: **A** and **B**
2. Section **A** has **20** questions (**40** marks)
3. Section **B** has **12** questions (**60** marks)
4. Answer ALL questions in both sections **A** and **B**
5. ALL answers **MUST** be written in Blue or Black Ball - point pen or ink
6. Un-necessary changes in your work may lead to loss of marks.
7. All diagrams **MUST** be drawn in pencils.
8. Any handwriting that cannot be easily read may lead to loss of marks.
9. Do **not** fill any thing in the boxes shown "***For Examiner's use only***".

**FOR EXAMINERS' USE ONLY**

| *QN. NO.* | *MARKS* | *SIGN* |
|---|---|---|
| 1 - 10 | | |
| 11 - 20 | | |
| 21 – 25 | | |
| 26 - 30 | | |
| 31 - 32 | | |
| ***TOTAL*** | | |



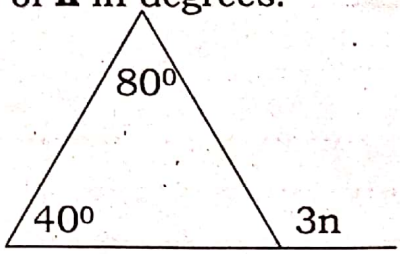
***TURN OVER***

## SECTION A

1. **Workout:** 12 x 3

2. **Subtract:**
$$\begin{array}{r} 2\ 0\ 3_{\text{five}} \\ -\ 1\ 4_{\text{five}} \\ \hline \\ \hline \end{array}$$

3. In the triangle below, find the value of **n** in degrees.




4. Given that **n = 3** and **m = -2**, evaluate $\frac{\mathbf{2n + m}}{\mathbf{n}}$

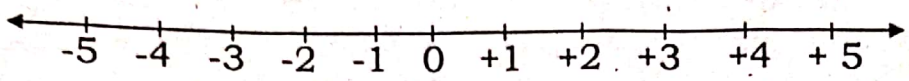
5. If a dice is tossed once, what is the chance of picking a square number?

6. What number has been expanded to give;
$(7x10^3)+(6x10^1)+(8x10^{-1})+(4x10^{-2})$

7. Mary had **20** litres of liquid soap. She gave each child **½** litre. How many children did she give?

8. Find the median of the numbers.
**8, 10, 4, 1, 6** and **9**

9. Workout using the number line below. $^{-}3 - {}^{+}5$



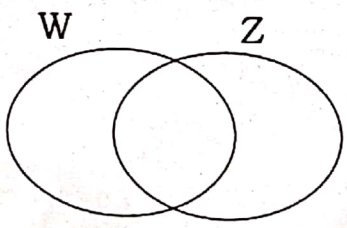

10. Using a ruler, a pencil and a pair of compasses only, construct an angle of $75^0$ in the space provided below.

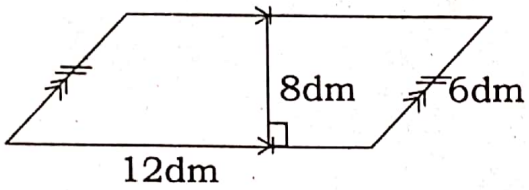
11. At DFCU Bank, One US Dollar costs **Ug. Sh 3,600**. How much money in Uganda Shillings would one get from **1050 US Dollars**.

12. Write **147** in Roman numerals.

13. Peter got **2½%** in a Maths contest. What fraction of the work did Peter get?

14. In the Venn diagram below; Shade $\mathbf{Z^1}$.

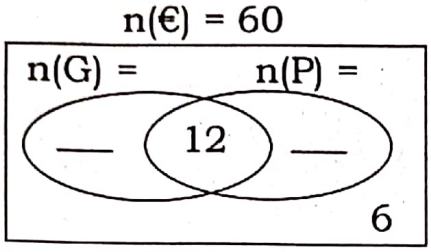


| | | | |
|---|---|---|---|
| 15. | What angle is a complement of $(2x + 30)^0$ ? | 16. | Solve the equation: $\frac{1}{2}p + 1 = 3$ |
| 17. | Find the area of the Parallelogram below.<br>  <br> | 18. | **Add:**<br>Hrs Min<br>3 45<br>+ 1 50<br>_____<br>_____ |
| 19. | A pupil has $\frac{2}{3}$ of an orange. If she gave ¼ of it to her friend. What fraction of the orange did she remain with? | 20. | The two base angles of an isosceles triangle are: $(2x + 50)^0$ and $(4x+20)^0$. Find the value of $x$ |

## SECTION B

21. In a birthday party, **60** students were invited, **42** were served with popcorns (**P**), **r** were served with groundnuts (**G**), **6** did not take any and **12** were served with both eats.

a. Represent the above information in the Venn diagram below. *(2marks)*




b. How many students like ground nuts?

*(2marks)*

c. Find the number of students who were served with one type of eats.

*(2marks)*

c. Find the number of students who were served with one type of eats.

*(1mark)*

22. **Complete the shopping bill table below.** *(6marks)*

| ITEM | UNIT PRICE | QUANTITY | AMOUNT |
|---|---|---|---|
| Bread | sh. 3,500 per loaf | 2 loaves | sh. ..... |
| Meat | sh. 10,000 per kg | ..... kg | sh. 5,000 |
| Rice | sh. ..... per kg | 1½ kg | sh. 6,000 |
| Sugar | sh. 3,000 per kg | 1.5kg | sh. ..... |
| Milk | sh. 1200 per litre | 2½ litres | sh. 3,000 |
| Total expenditure | | | sh. ..... |

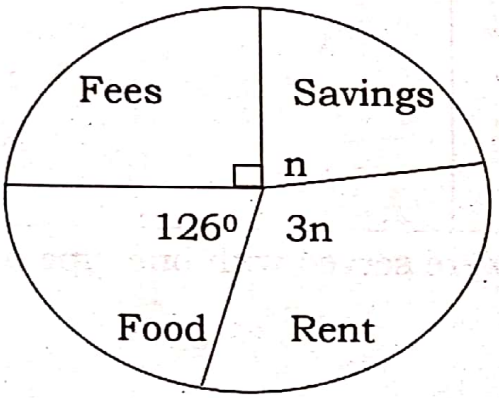
23. Write **CDXLIX** in Hindu Arabic numerals.

*(2marks)*

b. Find the sum of the place value of **4** and the value of **6** in the number: **435.16**

*(3marks)*

24. The pie chart below shows how Mrs. Opio spends her monthly income. If she saves **sh. 120,000**, how much money does she earn per month?




*(5marks)*

25. a. **Simplify:** $\frac{0.12 \times 5.4}{0.03 \times 0.6}$

*(4marks)*

b. Express **0.5454 ...** as a common fraction.

*(2marks)*

26. A bus left Kampala bus park at **8:30am** and reached Soroti at **1:00pm** a distance of **270km** apart.

a. How long did the bus take to reach Soroti ?

*(2marks)*

b. Calculate the speed of the bus in km/hr.

*(3marks)*

27. a. Write **955** in Roman numerals.

*(2marks)*

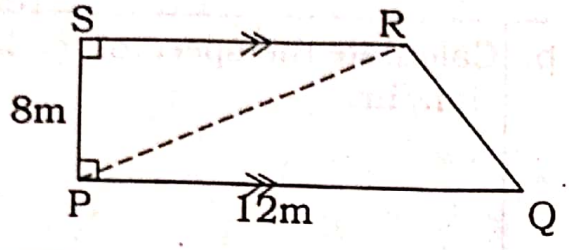
b. Nashed has **496** goats on the farm. Round off the number of her goats to the nearest tens.

*(1mark)*

c. **Workout:** 3 – 4 = p *(mode 5)*

*(2marks)*

28. The area of the figure below is **72m²**.




a. Find the length of $\overline{\mathbf{SR}}$. *(3marks)*

b. Workout the area of the triangle **RSP**. *(2marks)*

29. a. Using a pencil, a ruler and a pair of compasses only, construct a kite **ABCD** where diagonal **AC = 11cm**, **BD = 6cm** and line **AB = AD = 4.5cm**.

*(5marks)*

| | | |
|---|---|---|
| b. | Measure length **BC** in cm. | *(1mark)* |
| 30. | A man deposited **sh. 120,000** in a bank which gives 5% interest rate per month for four months. | |
| a. | Calculate the simple interest. | *(3marks)* |
| b. | How much money will he have at the end of the period? | *(3marks)* |
| 31. | Solve for **m**: | |
| a. | $2(2m + 4) - 2(m - 2) = 6$ | *(3marks)* |

b. Nakiku is three times as old as her son Kiku. In **5** years time, their total age will be **46** years.
How old will Nakiku be in **8 years** time? *(3marks)*

32. a. **Simplify:** $n^2 \times n$ *(1mark)*

b. $m^6 \div m^2$ *(2marks)*

c. $\frac{a^2 \times a^5}{a^3}$ *(2marks)*

***END***