# LUNGUJJA PROGRESSIVE NURSERY AND PRIMARY MIXED DAY AND BOARDING SCHOOL 

## HOLIDAY WORK <br> MATHEMATICS

PRIMARY SIX

Time Allowed: $\mathbf{2}$ hours 30 minutes

Name :

## DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

Read the following instructions carefully:

1. This paper has two sections: $\mathbf{A}$ and $\mathbf{B}$.
2. All the working for both sections $\mathbf{A}$ and $\mathbf{B}$ must be shown in the spaces provided.
3. All working must be done using a blue or black ball-point pen or fountain pen. Any work done in pencil other than graphs, pictures and diagrams will not be marked.
4. No calculators are allowed in the examination room.
5. Unnecessary changes of work may lead to loss of marks.
6. Any handwriting that cannot easily be read may lead to loss of marks.
7. Do not fill anything in the boxes indicated:
"For Examiners' Use Only"

| FOR EXAMINERS' <br> USE ONLY |  |  |
| :--- | :---: | :--- |
| Qn. No. | MARKS | EXRS' IN. |
| $1-5$ |  |  |
| $6-10$ |  |  |
| $11-15$ |  |  |
| $16-20$ |  |  |
| $21-22$ |  |  |
| $23-24$ |  |  |
| $25-26$ |  |  |
| $27-28$ |  |  |
| $29-30$ |  |  |
| $31-32$ |  |  |

## SECTION A

1. Workout: $\mathbf{3 4 + 2 3}$
2. Write in figures "forty two thousand, eighty"
3. What number has been expanded to give $(\mathbf{2} \times \mathbf{1 0 0 0})+(1 \times 10)+(9 \times 1)$ ?
4. If represents 12 girls, How many girls are represented by the pictures drawn below?

5. Simplify: $\mathbf{3 g} \mathbf{- 2 d - g + 7 d}$
6. How many possible lines of folding symmetry has the figure below.

7. Find the probability that a prime number will appear on top when a dice is tossed once.
8. Find the next number in the sequence

1, 3, 7, 13, $\qquad$
10. Tell the afternoon time shown on the clock face below.

11. Workout: $\mathbf{2 0 3}_{\text {five }} \boldsymbol{+} \mathbf{3 4}$ five
12. Calculate the area of the triangle below.

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13. Given that Set $\mathbf{J}=\{2,3,5,7,11\}$ $K=\{1,2,3,4,5,6\}$

Find $\mathrm{n}(\mathrm{JnK})$
14. The cost of one book is sh. 4000 . Find the cost of one dozen of such books.
15. Solve: $\mathbf{2 y + 1} \mathbf{~ =} 9$
16. Using a pencil, ruler, and a pair of compasses only, construct an angle of $60^{\circ}$ at a point $O$.

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17. Find the lowest common multiple (L.C.M) of $\mathbf{6}$ and $\mathbf{1 0}$.
18. Express $9 \frac{3}{4}$ to an improper fraction.
19. In Mr. Opoka's family, there are nine children of the following ages (years): 12, 11, 12, 9, 13, 12, 18, 9 and 12. Find their median age.
20. Write 419 in Roman system.

## SECTION B(Show your working clearly)

21. Calculate the sum of the value of $\mathbf{3}$ and the value of $\mathbf{1}$ in the numeral 43719
b) Expand the numeral $\mathbf{2 0 5 4}$ using powers of ten
22. Study the number line below carefully and use it to answer the questions that follow.

(a) Identify the integers indicated with arrows $\mathbf{P}, \mathbf{Q}, \mathbf{R}$.
(3 marks)

(b) Write the mathematical statement shown on the number line above above.
(2 marks)
23. In a team of $\mathbf{4 0}$ players, $\mathbf{2 5}$ play basketball (B), $\mathbf{1 8}$ play volley ball (V), X play both basketball and volleyball, while $\mathbf{7}$ do not play any of the two games
(a) Use the information above to complete the Venn diagram below.

(3 marks)
(b) Calculate the value of $X$
(3 marks)
24. Find the value of angles marked $\mathbf{m}$ and $\mathbf{n}$ in degrees.
(2 marks each)

25. The shaded fraction in the diagram below represents the number of boys in a class of 40 pupils and the rest represents the number of girls. Use it to answer the questions that follow.

a) How many boys are in the class?
(2 marks)
b) How many girls are in the class?
(3 marks)
26. Use the figure drawn below to work out the area of the shaded part.

27. a) Solve the following algebraic equations. Page | 8
i) $3 \mathrm{k}-10=2$
ii) $\frac{2}{3} b=6$
b) Given that $a=5, b=2$, and $c=4$, Find the value of $a b+2 c$
(2 marks)
28. Using a pencil, ruler and a pair of compasses only, construct a regular hexagon in a circle of radius 2.5 cm.
(3 marks)
b) Work out the perimeter of the hexagon formed above.
(1 mark)
29. The table below shows the marks scored by some girls in a test. Study it carefully and answer the questions that follow.

| Names of <br> girls | Nabukeera | Mirembe | Nakayiza | Najjuko | Total |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Marks <br> scored | 80 | 90 | d | 60 | 280 |

a) Find the value of $d$
(2 marks)
b) Who scored the least mark?
(1 mark)
c) Calculate the range of their marks?
(2 marks)
30. Prime factorise the following numbers and list their prime factors in set notation.
i) 12
ii) 18
b) Represent the prime factors of 12 and 18 above in a venn diagram below.

(3 marks)
c) Use the venn diagram above to find the highest common factor. (H.C.F) of 12 and 18 .
(1 mark)
31. Mr. Okiria wants to make shirts and went to buy the following items.
(i) 3 rolls of thread at sh. 1300 each
(iii)3 pairs of buttons at sh. 1000 each button
(iii) 2 pieces of cloth at sh. 20,000
(a) How many buttons did he buy?
(b) Calculate his total expenditure
(4 marks)
32. a) Express 2 hours to minutes.
(2 marks)
(b) Calculate the distance covered by a bus travelling at a speed of $\mathbf{1 2 0} \mathbf{k m} / \mathbf{h r}$ for $31 / 2$ hours
(2 marks)

