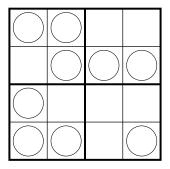
Tree #4: The Minidoku Variant Gauntlet

i Anonymous Employee

A Foreword

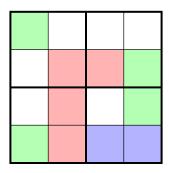
Eleni, you have made promising progress. Our team is suspecting that you truly are the chosen one. We have gone ahead turned on the teleporter for you. To be sure, we have one final trial for you. Succeed on this final trial and you will be given the key to Elenia.

2 Nine Circles



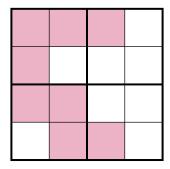
In the above minidoku, if there is a cell with a circle in it and a number n in that cell, then among the entire minidoku, there are exactly n cells with circles in it containing n.

3 Sum Zones



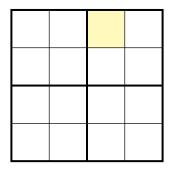
In the above minidoku, for each color c, if there are n_c cells with the color, the sum of the same-colored cells must equal $2n_c$.





In the above minidoku, for each column, cells in purple must be strictly decreasing from top to bottom.

S Night and Day



In the above minidoku, for each yellow cell, the cell attained from rotating the yellow cell $k\pi/2$ radians about the center has value¹ $(k \mod 4) + 1$.

6 The Final Key

On a new 4×4 grid, for each cell, record the sum of that cell on all prior minidokus. Reading from left to right, top to bottom, you will have a 16-tuple. If you are the chosen one selected by Chubs, then the concatenation of this 16-tuple will guide you to Elenia via the teleporter.

 $^{^{1}}k \pmod{4}$ denotes the remainder you get when you divide k by 4. For instance, if k=7, then $k \pmod{4} = 7 \pmod{4} = 1$ because 7 leaves a remainder of 1 when divided by 4.