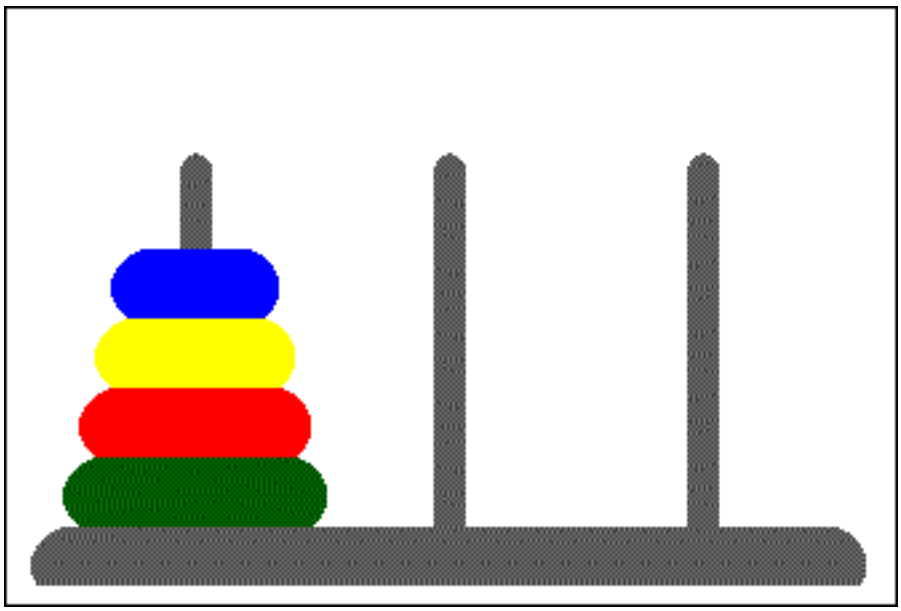
Towers of hanoi
There are three pegs. There are discs of different diameters. Initially, N disks are placed in order on the first peg in such a way that the disk with the largest diameter is at the bottom, and the one with the smallest one is at the top. The goal is to move all disks from the first peg to the third peg, keeping the same (original) ordering on it. For this, a second peg is used. When shifting discs between pegs, there is an important rule: you can not put a disc of a larger diameter on a disc with a smaller diameter.



The mechanics of the game itself do not need to be programmed - it is enough to program the very formula for counting the number of steps.

It is necessary to write a function solve_hanoi_tower, which takes the number of disks and returns the minimum number of moves for which the problem can be solved.

Call and return examples

solve_hanoi_tower(3) −> 7
solve_hanoi_tower(5) −> 31
solve_hanoi_tower(0) −> 0

Only positive integers >= 0 are transmitted.