Towers of Hanoi

Optional Task

[Wiki](https://en.wikipedia.org/wiki/Tower_of_Hanoi)

Three vertical bars (henceforth "towers") stand next to each other. We call them A, B and C. Tower A is surrounded by donut-shaped discs. The disc with the largest diameter is at the bottom and we call it disc 1. The rest of the discs above disc 1 are numbered in ascending order as their diameter decreases.For example, if we work with three discs, the one with the largest diameter at the bottom is called 1. The disc with the next smallest diameter, disc 2, would be on disc 1. And finally, the disc with the smallest diameter, disc 3, would be on disc 2. Our goal is to move all the discs from tower A to tower C, subject to the following restrictions:  Only one disc may be moved per turn.  Only the top disc on each tower is available for movement.  A disc with a higher diameter may never lie on one with a lower diameter.