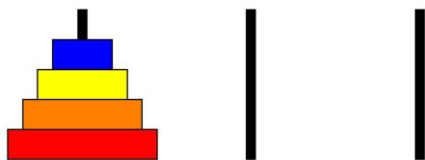


Towers of Hanoi Puzzle

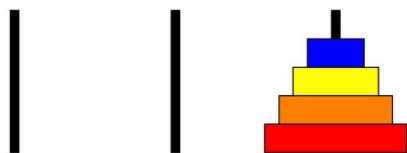
Towers of Hanoi puzzle

This game is a one-player puzzle, but you can work cooperatively with a classmate to figure it out. In the puzzle you always have 3 pegs. You have a tower of different sized disks, and need to move them from the left-most peg to the right-most peg.

Start like this:



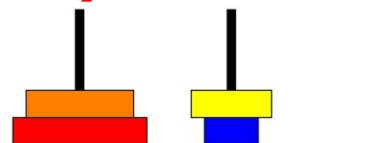
End like this:



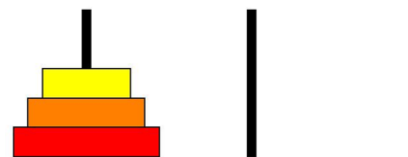
Rules of movement:

- You can move only one disk at a time.
- You can only move the top disk from a stack.
- You can move the disk to any peg you choose.
- You may NOT place a larger disk on top of a smaller disk.

The last rule means that the picture below is not permitted!



In the easiest version of the puzzle, start with a stack of 3 disks.



1. Solve this puzzle. Keep track of the total number of moves that you use to solve the puzzle.
2. Solve the problem again, and see if you can do it in fewer moves.
3. Once you are confident that you have found the solution with the fewest moves, try to solve the puzzle using 4 disks.

Standards: Reasoning, planning