# Computational investigations of goal setting

# Part 1

1. Implement three different planning agents for solving the tower of Hanoi:
   1. Agent 0 plans h steps ahead, and then chooses the plan for which the state after h steps is most similar to the final goal (where similarity is measured by the number of disks that are on the same peg in both states).
   2. Agent 1 first sets the subgoal to move the largest misplaced disk to its target location and then plans h steps ahead to try to find a way how to accomplish that subgoal. The agent then executes the best plan it could find. Once the subgoal is accomplished the agent repeats its cycle of goal-setting, planning, and plan execution until all disks are in their target locations.
   3. Agent 2 is identical to Agent 1 except that it sets its subgoal by resolving to move a randomly selected disk to its target location.
2. Simulate how well the three agents perform at transforming one randomly chosen initial arrangement of the disks into a) a tower in a random location, or b) another randomly chosen configuration. Repeat this simulation for different values of h.
3. For each agent plot its average performance as a function of its planning horizon h and interpret your findings.

# Part 2

A randomized controlled trial compared 12 different variants of a goal setting app to a control condition that did wasn’t given the goal setting app. The researcher recruited 50 participants per condition and used RescueTime to obtain a productivity score for each participant. The resulting data are contained in the attached csv file. How would you interpret these results?