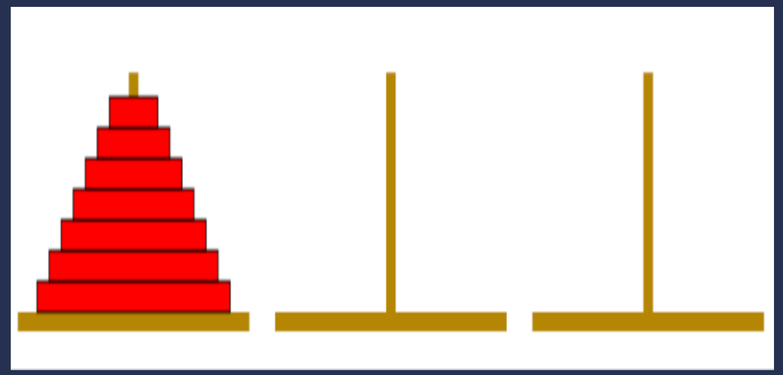
How do we solve problems recursively?

Classic Recursion Problem: Towers of Hanoi!



How can we help the monks devise the optimal strategy? Given *n* disks:

1. Identify the base case:

   When *n* = 1, Take the only disk from the start tower to the ending tower.

2. How to shrink?:

How do we solve problems recursively?

1. How to shrink?: In order to move *n* disks from start to end, we must get all the disks off the largest disk, staking them in the middle.

2. Now, a monk can move the largest disk directly from start to end (this is the base case!)

3. Then, the monks can move the rest of the disks from the middle to the end