

# Tower of Hanoi

Victor Milenkovic

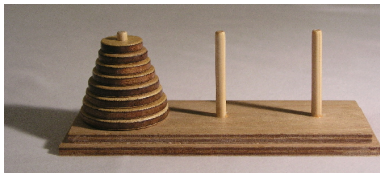
Department of Computer Science  
University of Miami

CSC220 Programming II – Spring 2019

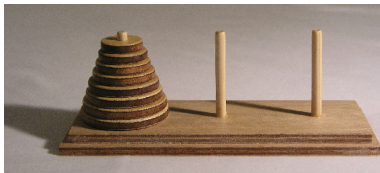


# Outline

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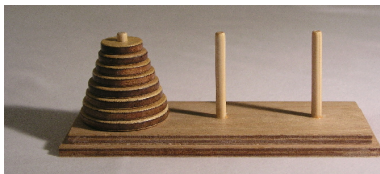


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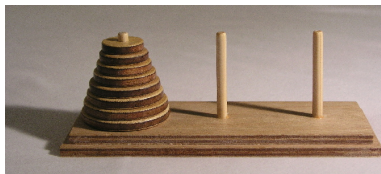
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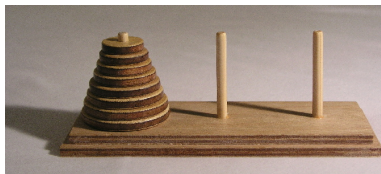
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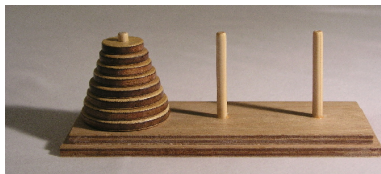
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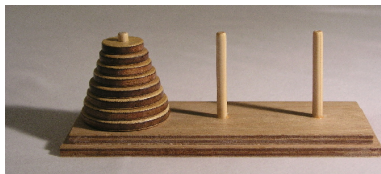


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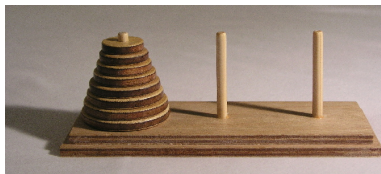
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**Here** is a good place to practice.

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    - ▶ and push the subgoals onto the stack.



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- ▶ Any goal with one disk, such as 1ab, is easy, and we can do it right away.
- ▶ All others can be broken into three subgoals.



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- ▶ Continue on your own!



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- ▶ And the stack is StackInt<Goal>.



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- ▶ Solving Tower of Hanoi requires *top-down* planning.
- ▶ Which we can implement using a `StackInt<Goal>`.
- ▶ This solution uses  $O(2^n)$  time.

