

# Problems in AI

---

- Hanoi Tower

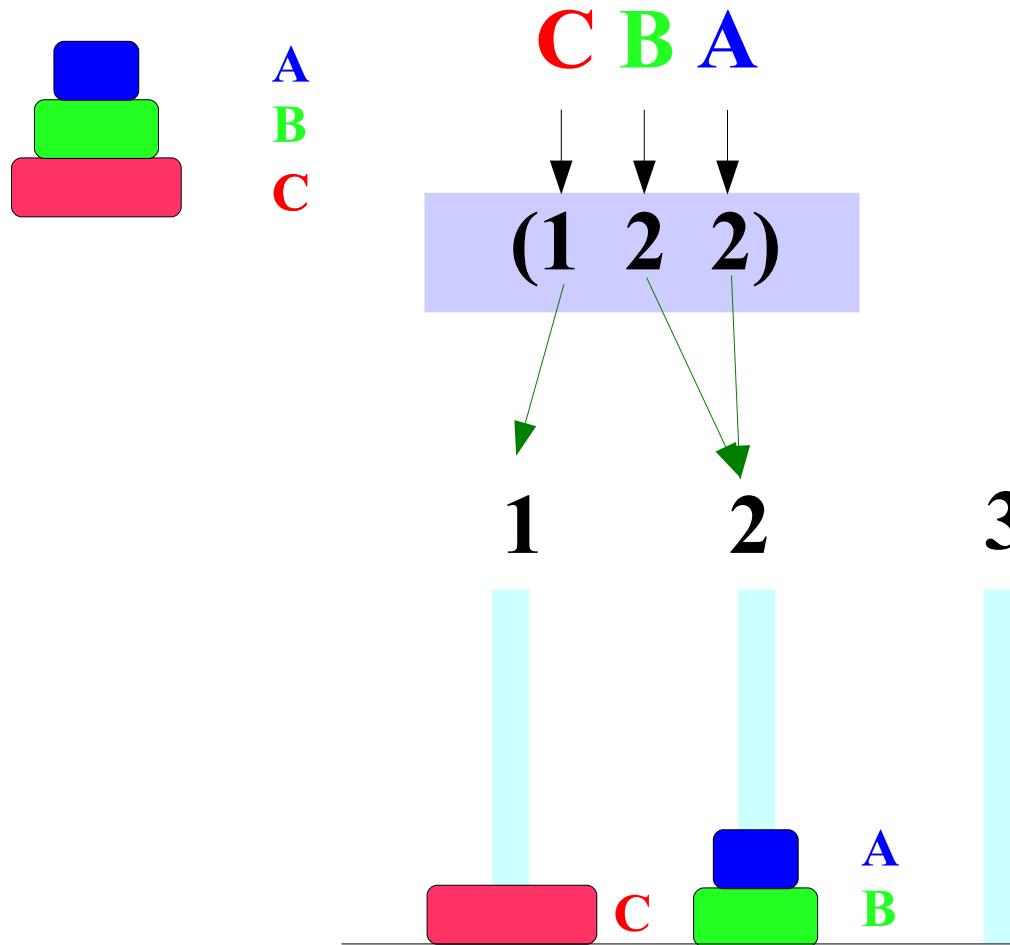
Copyright (c) 2010 Young W. Lim.

Permission is granted to copy, distribute and/or modify this document under the terms of the GNU Free Documentation License, Version 1.2 or any later version published by the Free Software Foundation; with no Invariant Sections, no Front-Cover Texts, and no Back-Cover Texts. A copy of the license is included in the section entitled "GNU Free Documentation License".

Please send corrections (or suggestions) to [youngwlim@hotmail.com](mailto:youngwlim@hotmail.com).

This document was produced by using OpenOffice and Octave.

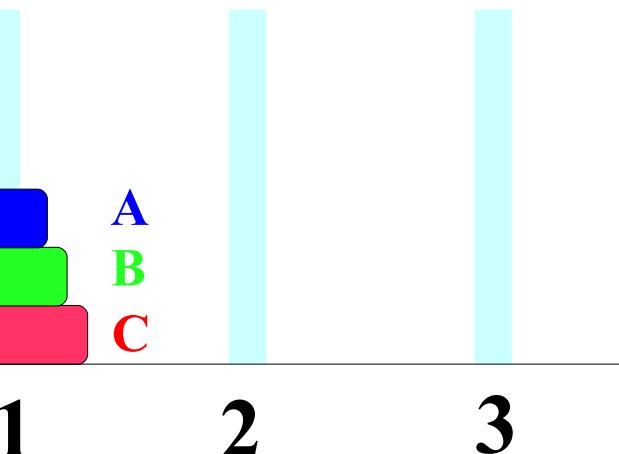
# Hanoi Tower - Notation



# Hanoi Tower - Problem

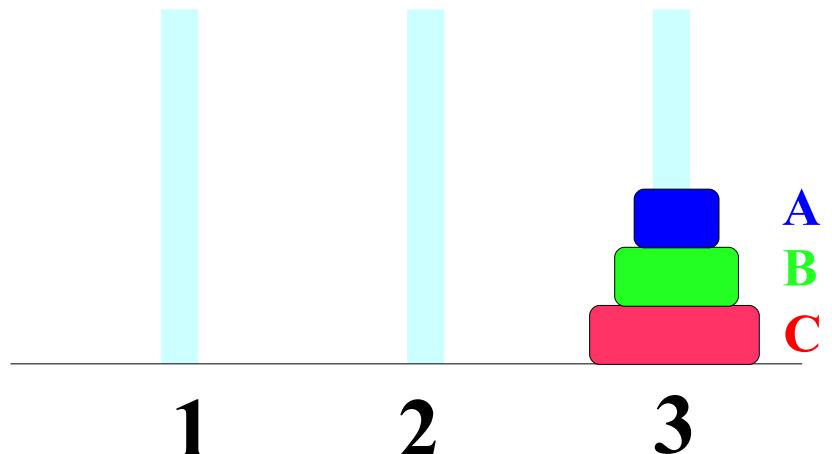
*Initial State*

(1 1 1)

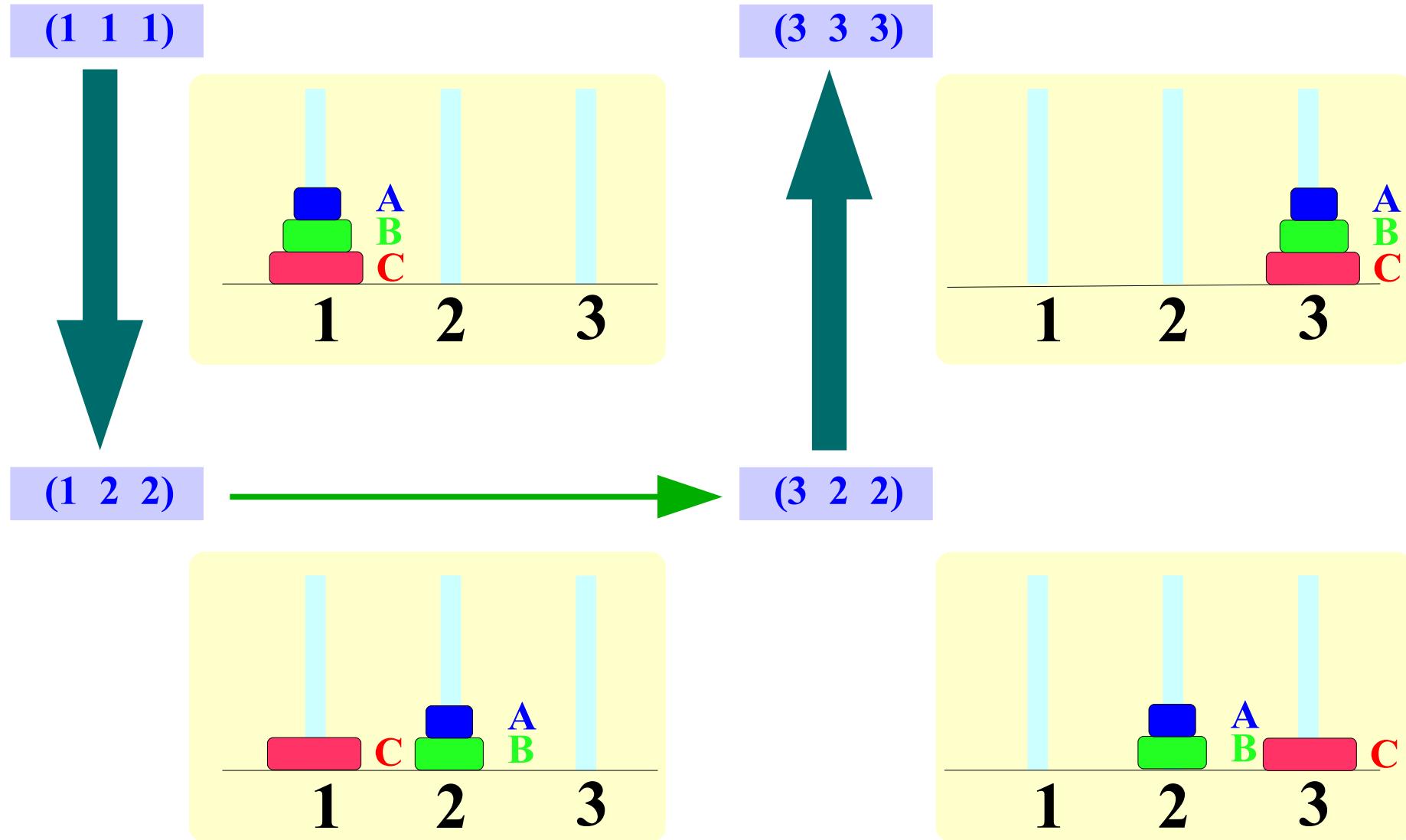


*Final State*

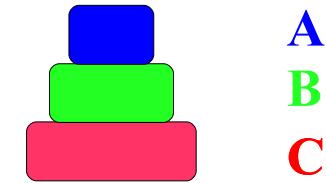
(3 3 3)



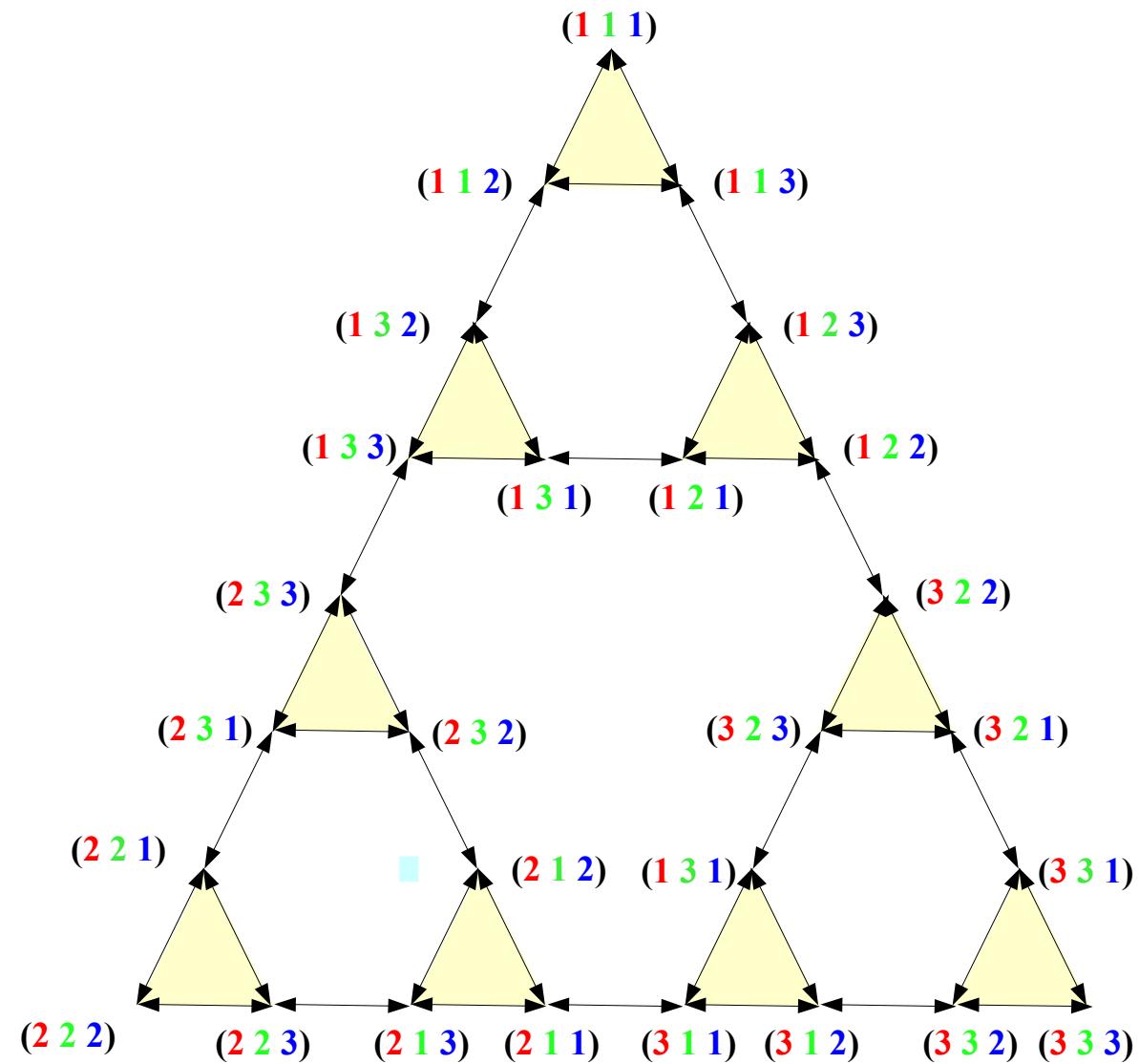
# Hanoi Tower – Problem Reduction



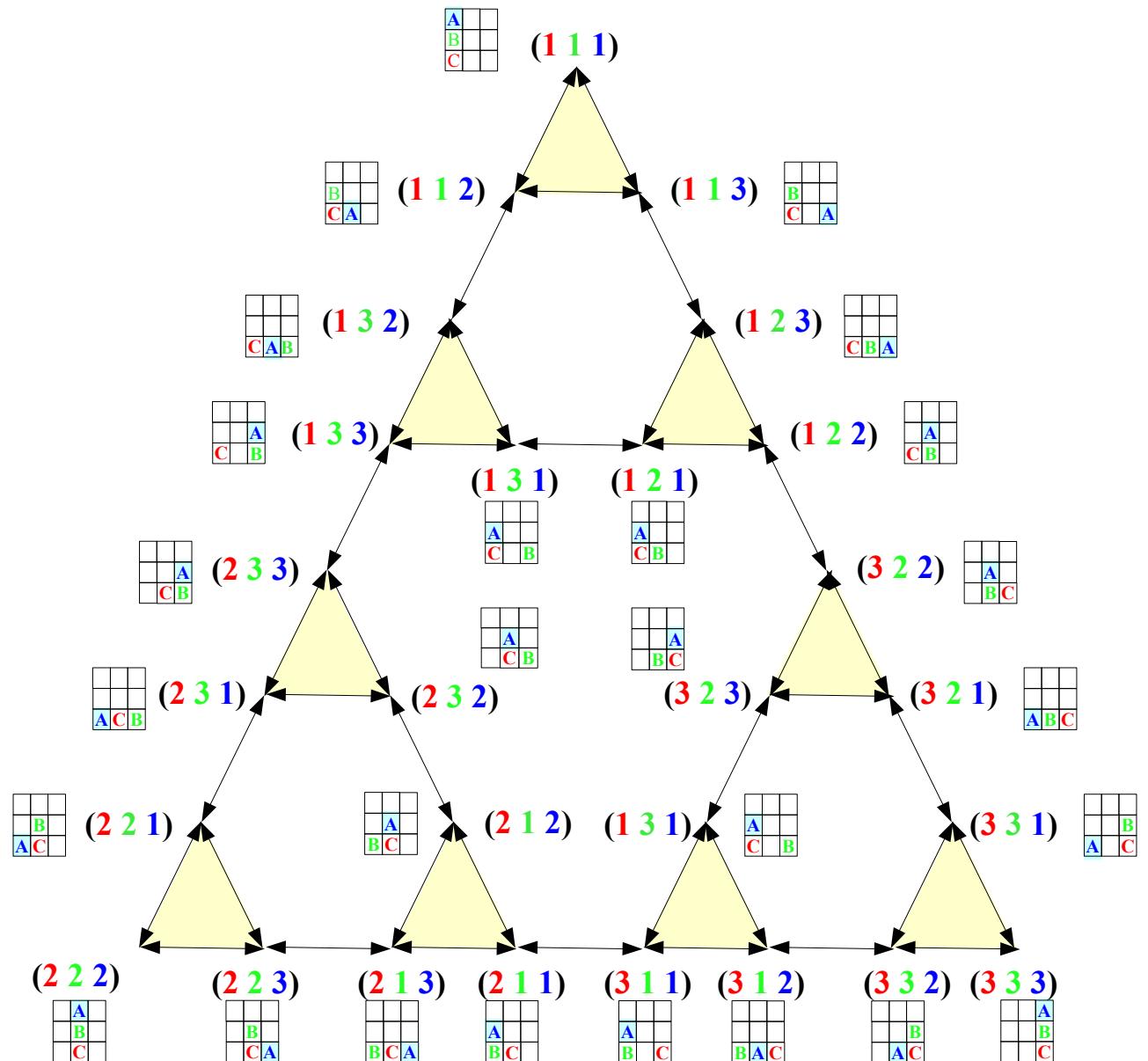
# Hanoi Tower – State Space (1)



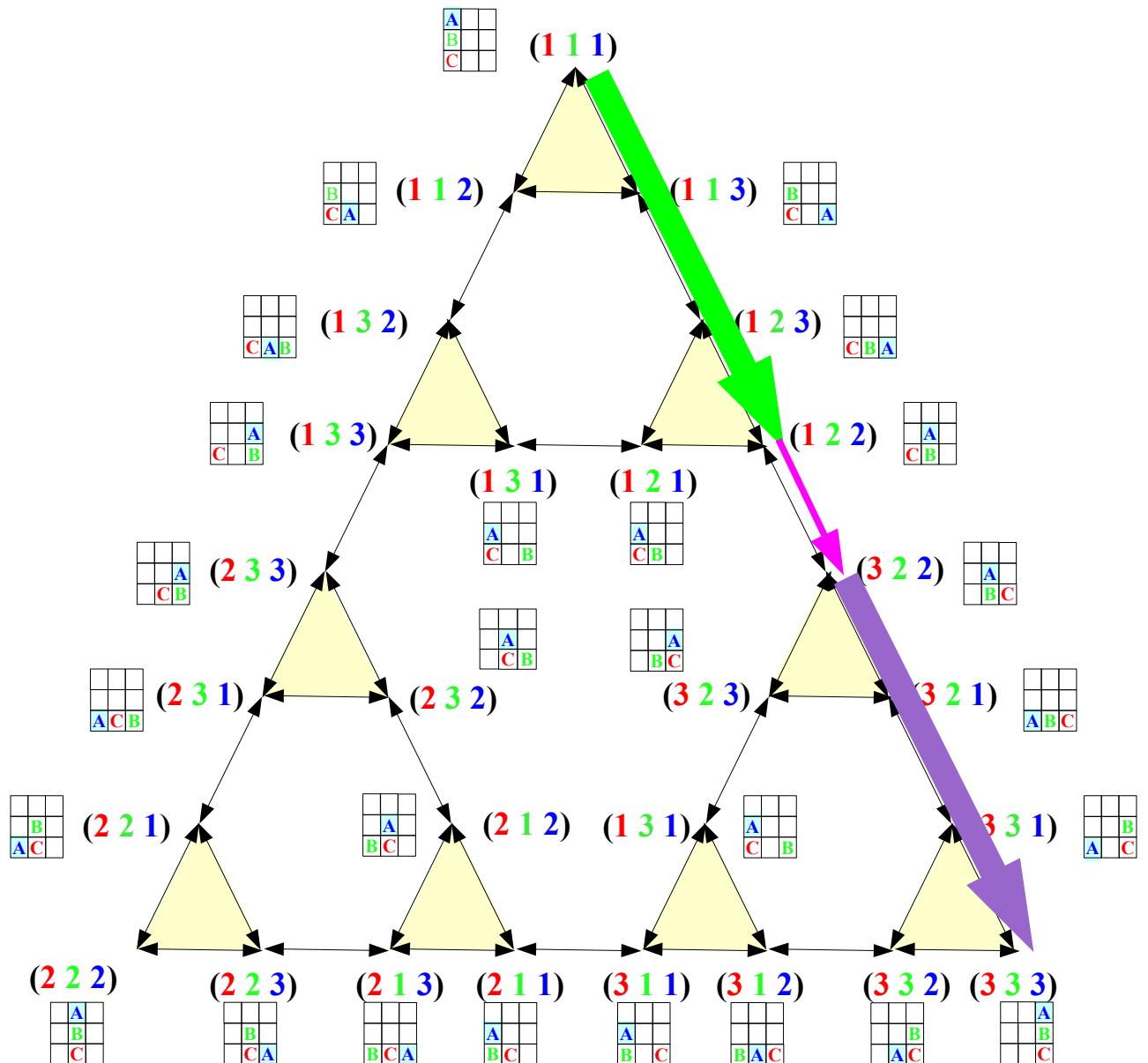
C B A  
↓ ↓ ↓  
(1 2 2)



# Hanoi Tower – State Space (2)



# Hanoi Tower – State Space (3)



## **References**

- [1] <http://en.wikipedia.org/>
- [2] 인공지능개론, 이광형, 조충호, 흥릉과학출판사, 2000