CSIT113
Problem Solving

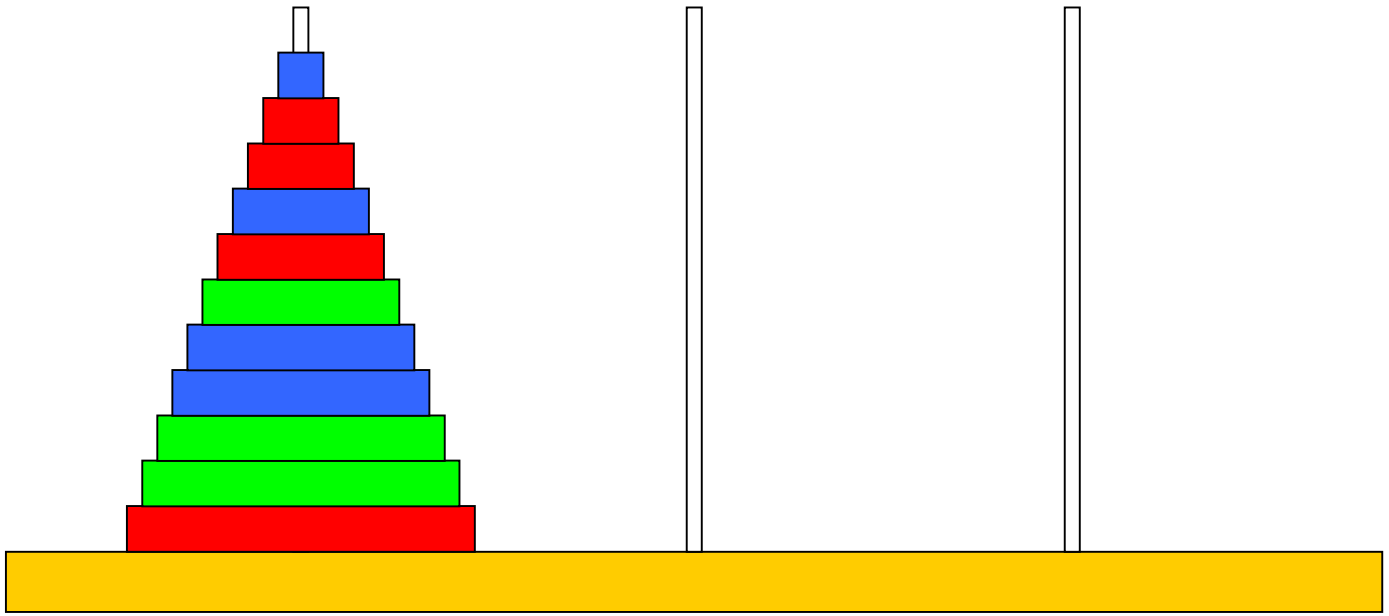
Workshop Week 7

Induction

- Consider a “Towers of Hanoi” problem with one extra condition:
  - Each of the disks is coloured randomly either red, green or blue.
- Using the normal rules devise an algorithm to put each colour of disc on its own needle.

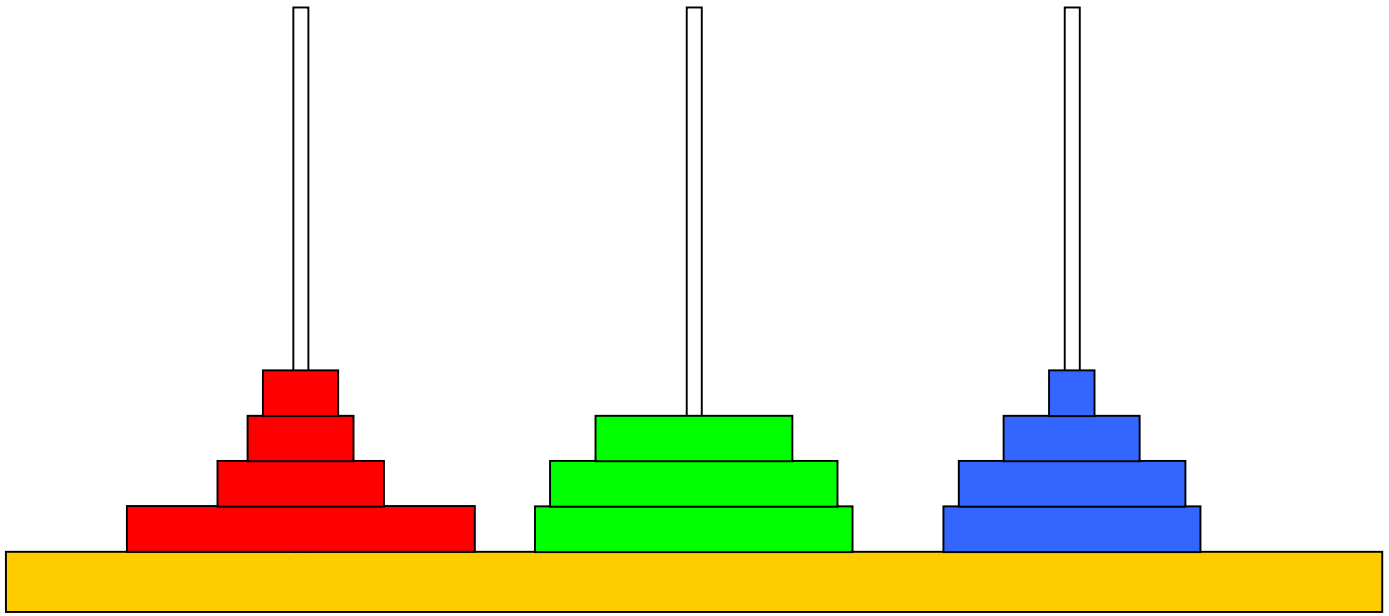
Induction

- Start:



Induction

- Finish:



Induction

- You must still obey all the standard rules:
  1. Only one disc may be moved at a time
  2. Discs may only be placed on needles
  3. A larger disc may never be placed on a smaller disc
- You may assume that you have $H_{k.d}$ and $\langle k,d \rangle$ already defined.