

# CS360 Homework 9

## STRIPS

- 1) Formulate in STRIPS the planning problem of transforming the given start configuration of the eight-puzzle to the given goal configuration. (In the eight-puzzle, the empty tile can be swapped with its North, South, East or West neighbor.)

1	2	3
7		4
8	6	5

(a) Start configuration.

1	2	3
4	5	6
7	8	

(b) Goal configuration.

- 2) In the Tower of Hanoi game ([http://en.wikipedia.org/wiki/Tower\\_of\\_Hanoi](http://en.wikipedia.org/wiki/Tower_of_Hanoi)) there are three rods (pegs) and a number of disks of different sizes which can slide onto any rod. In the initial state, the disks are stacked on the first rod in ascending order of size, with the smallest on top. In the goal state, the disks are stacked on the third rod in the same order. At each turn, the player can take the topmost disk on a stack and place it on top of another stack. However, a disk may not be placed on top of a smaller disk. Formulate in STRIPS the Tower of Hanoi game played with three disks.