

Homework/Pop Quiz #2 of the course: Theory of Computer Games.

1. Illustrate the A* tree search by finding the shortest pathfinding (#nodes = 10) for the following 8-puzzles. (Hint: use Manhattan distance.)

2	3	4
8		5
1	7	6

(Source)

1	2	3
8		4
7	6	5

(Target)

2. If you have only memory space with M, how do you design an efficient bi-directional search?
3. If you want to use additive pattern databases for 1-7 and 8-15, how do you design the pattern databases and what sizes do you need?

	1	2	3
4	5	6	7
8	9	10	11
12	13	14	15