

CSE 473: Artificial Intelligence
Assignment #
April 8, 2005
Due: Friday, April 15

Reading Assignment: Read Chapters 6 and 7 carefully.

Problems:

1. Suppose that we run a greedy search algorithm with the following two heuristics:

(a) $h(n) = -g(n)$

(b) $h(n) = g(n)$

What sort of search will the greedy search emulate?

2. Show the individual steps performed by A^* search to solve the following 8-puzzle. Use the two heuristic functions h_1 (misplaced tiles) and h_2 (Manhattan distance).

Start State:

1	6	2
8		3
7	5	4

Goal State:

1	2	3
8		4
7	6	5

- Chapter 4, exercise 4.7.
- Chapter 4, exercise 4.11.
- Chapter 5, exercise 5.4.
- Extra credit:** Chapter 5, exercise 5.10.