

CSE 473: Introduction to Artificial Intelligence

Assignment #2

April 7, 2001

Due: Friday, April 13

Reading Assignment: Russell/Norvig, Chapters 6, 7.

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

3. Exercise 4.10.

4. Exercise 6.3.

5. Exercise 6.7.

6. Exercise 6.12.