

Consider the following 8-puzzle states

1	2	3
8	6	
7	5	4

1	2	3
8		4
7	6	5

Given a puzzle state like the one on the left, where the numbers are in the wrong places, we want to search for a series of moves which ends in the solution above, on the right.

Consider the **Manhattan** heuristic function, h , discussed in class.

- i. Explain why this h is admissible.
- ii. What is the value of h for the above board state?
- iii. Solve the problem using A*.