CS360 Homework 6

Local Search

1) In the N-Queens problem, we want to place N queens on an $N \times N$ board with no two queens on the same row, column, or diagonal. Come up with a value function and use hill climbing to try to solve the problem by minimizing this value function, starting with the configuration given below. Generate the successors of a state by moving a single queen vertically.

	A	B	C	D
1				
2	Q1		Q3	
3		Q2		Q4
4				

2) How would you approach the Traveling Salesman Problem if we wanted to find a good (but not necessarily the best) solution to it using hill climbing?