

Weighted N-queens

April 29, 2006

In the weighted N -queens problem, every square of the $N \times N$ board is assigned a weight w , where $w \in \{1, \dots, N\}$. Let w_i denote the weight of the square assigned to the i^{th} queen, where $1 \leq i \leq N$. The N queens must be assigned to the squares so that the sum of the weights of the assigned squares must be less than or equal to a weight W ($\sum_{i=1}^N w_i \leq W$), and in such a way that no two queens are placed along the same row, column or diagonal.

This benchmark (wnqueens.tar) contains both sat and unsat instances of the weighted N-queens problem where $N = 13$ and $W = 38$.