Algorithms and Data Structures

Homework 11

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Problem 4

a. We can represent this problem as a graph problem and we can do this by making every cell of the board a node. We would have n^2 nodes because of the *n x n* board. We would access every cell of the board, *mat[i][j]* with this function *f(i,j)=i*n+j.* The neighboring edges would be:

- *f(i+mat[i][j],j)*
- *f(i-mat[i][j],j)*
- *f(i,j+mat[i][j])*
- *f(i,j-mat[i][j])*

And for checking if a node is in the board we would have to check if *i* and *j* are smaller than the size of the board *n*.

b. The solution for this can be found in “problem4.py”.

c. The solution for this can be found in “problem4.py”.

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