LAB 5

Simulated Annealing

Algorithm:

Current ← initial state
while T > 0 do
    next ← a random neighbor of current
    ΔE ← current.cost − next.cost
    if $\Delta E > 0$ then
        current ← next
    else
        current ← next with probability $p = e^{\Delta E/T}$
    end if
    decrease T
~~End end~~ while
    ~~return current~~
return current.

input (initial state)

```
Q  -  -  -  -  -  -  .
-  Q  -  -  -  -  -  -
-  -  Q  -  -  -  -  -
-  -  -  Q  -  -  -  -
-  -  -  -  Q  -  -  -
-  -  -  -  -  Q  -  -
-  -  -  -  -  -  Q  -
-  -  -  -  -  -  -  Q
```

Final state

-   -   Q   -   -   -   -
-   -   -   -   Q   -   -
-   -   -   -   -   -   Q
-   -   -   Q   -   -   -
Q   -   -   -   -   -   -
-   -   -   -   -   Q   -
-   Q   -   -   -   -   -
-   -   -   -   Q   -   -

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