3. **(20 points) Local Search**

Give the name of the algorithm that results from each of the following special cases:

(a) Local beam search with k=1

Put your answer(s) to 3a here:
generates 1 start state, hill climbing
replace start w/ best state(neighbor)

(b) Local beam search with one initial state and no limit on the number of states retained.

Put your answer(s) to 3b here:
start w/ 1 state, generate all successors,
then generate all successors of all those successors,
breadth first search

(c) Simulated annealing with T=0 at all times (and omitting the termination test).

Put your answer(s) to 3c here:
T=0 means small chance for "bad move"
hill climbing.

(d) Simulated annealing with T=∞ at all times.

Put your answer(s) to 3d here:
T=∞ means infinite "bad moves"
this is a random walk