

Homework 3 - Local Search

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	N=20		
	Percentage of success in 100 runs	Elapsed time to complete experiment (secs)	Solutions found in how many restarts on average
Basic Hill Climbing	4%	20.08 s	-
Random Restart with k=10	16%	186.04 s	9.7
Random Restart with k=100	88%	833.69 s	40.8
Stochastic Hill climbing	0%	5.41 s	-
Simulated Annealing if implemented ($T = \dots$ and $\alpha = \dots$)	0%	0.093 s	-
c) Colab link for your solution	https://colab.research.google.com/drive/1UnNU9aCLJJjn3TX-aKaDYFZ_ZRj6fC?usp=sharing		
d) Enter your short summary	<p>Simulated annealing and stochastic hill climbing failed because they are too probability-based. It was expected for the k value 100 random restart to get the best value. Also, the random restart iteration hyperparameter is optimally 40, because for each simulation, approx. 40 reboots of the variable occurred.</p>		