## EMMANUELLA EYO EEE917 11291003

tiles1.txt	STEP LIMIT							
	200 STEPS		1000 STEPS		5000 STEPS			
STRATEGY	score	time	score	time	score	time		
Random guessing	12	0.0056	10	0.0284	8	0.1374		
Random search	10	0.0302	7	0.1266	12	0.8042		
Hill climbing	7	0.0006	11	0.0008	2	0.0024		
Hill climbing, long restart	2	0.0045	2	0.0134	2	0.0597		
Hill climbing, frequent restarts	2	0.0145	2	0.0536	2	0.2749		

\*\*\*\* \*\*\*\* \*\*\*\*

tiles2.txt STEP LIMIT 200 STEPS **1000 STEPS** 5000 STEPS STRATEGY score time score time score time 22 0.0114 0.0499 Random guessing 21 18 0.2527 21 18 0.3281 Random search 0.1078 17 1.9485 17 17 0.0084 Hill climbing 0.0018 17 0.0073 Hill climbing, long restart 0.0452 9 11 0.0161 10 0.2212 Hill climbing, frequent restarts 13 0.0440 8 0.2172 8 1.0444

\*\*\*\*\*\* .\*\*\*.\* \*\*\*\*\*\* \*\*.\*\*\* \*\*\*\*\*\* \*...\*\*\* (HCFR, 8)

tiles3.txt	STEP LIMIT							
	200 STEPS		1000 STEPS		5000 STEPS			
STRATEGY	score	time	score	time	score	time		
Random guessing	67	0.028	61	0.1349	66	0.7304		
Random search	52	0.2904	48	1.3166	47	5.3166		
Hill climbing	53	0.0113	39	0.0497	45	0.0210		
Hill climbing, long restart	40	0.0993	34	0.5990	34	2.3215		
Hill climbing, frequent restarts	34	0.3992	34	2.3578	32	9.3626		



- Which algorithm found the best solution? What does this tell you about your choice of neighborhood for the block tiling problem?
  - The best solution is found with the hill climbing variant, (HCFR), This implies that the selection of neighborhoods for the block tiling issue may have been too limited, since the frequent resets facilitated the examination of various solutions, enhancing the likelihood of discovering an optimal solution.
- For the biggest problem (tiles3.txt), how well do you think the Search Tree methods from Chapter 3 would have performed? Why?'
  - For example like Informed Search like A\*, the use of heuristics to guide the search for an optimal solution can lead to a faster convergence to an optimal solution compared to RS or RG or HCFR in larger problem spaces where they could possibly not be as efficient