Algorithmics	Student information	Date	Number of session
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Activity 1. The numerical square

The heuristic value I have used to implement my algorithm is to calculate the number of blank spaces ("?") I have left on the board.

Test case	Time for first solution (backtracking)	Number of developed nodes (backtracking)	Time for first solution (branch and bounds)	Number of developed nodes (branch and bounds)
Test00	0,017	12	0,047	6
Test01	0,062	3126	0,225	1138
Test02	0,016	1022	0,065	489
Test03	0,183	104496	253,302	69965
Test04	0,564	804235	OoT	-
Test05	0,021	9523	21,952	17633
Test06	0,025	2529	15,900	16687
Test07	1,297	2430710	OoT	-

With my current implementation backtracking works better than branch and bound because it takes less time. But if we observed the number of nodes used in each of the algorithms, we can clearly see that branch and bound in smaller boards is a better approach to this type of problem.

I think the problem is the heuristic value, if I had found a better one probably it would take less time and be better than the backtracking algorithm.