In my implementation of Isolation, I have included 4 different heuristics. The heuristics are as follows:

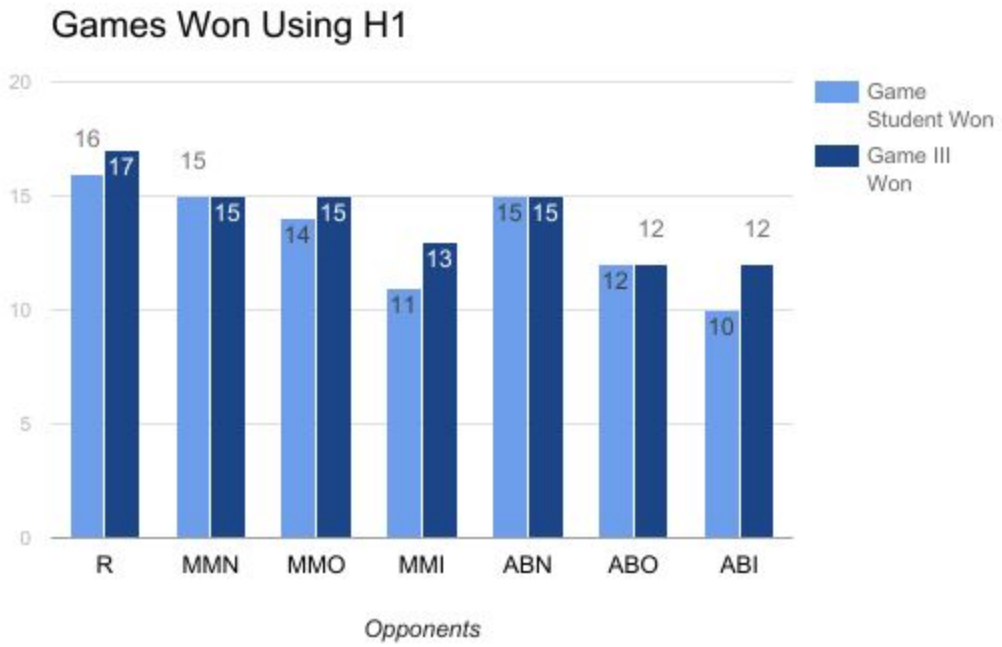
1. Heuristic 1 (H1): Moves available by player/Moves available by opponent
2. Heuristic 2 (H2): (Moves available by player+1)/(Moves available by opponent+1)
3. Heuristic 3 (H3): Manhattan distance between agents
4. Heuristic 4 (H4): Weight the number of moves left to the player with their respective position on the board

Using a game run time-limited iterative deepening search of the game tree(Student), For each Heuristics we play one round against the following agents(one game per agent, 7 games per round):

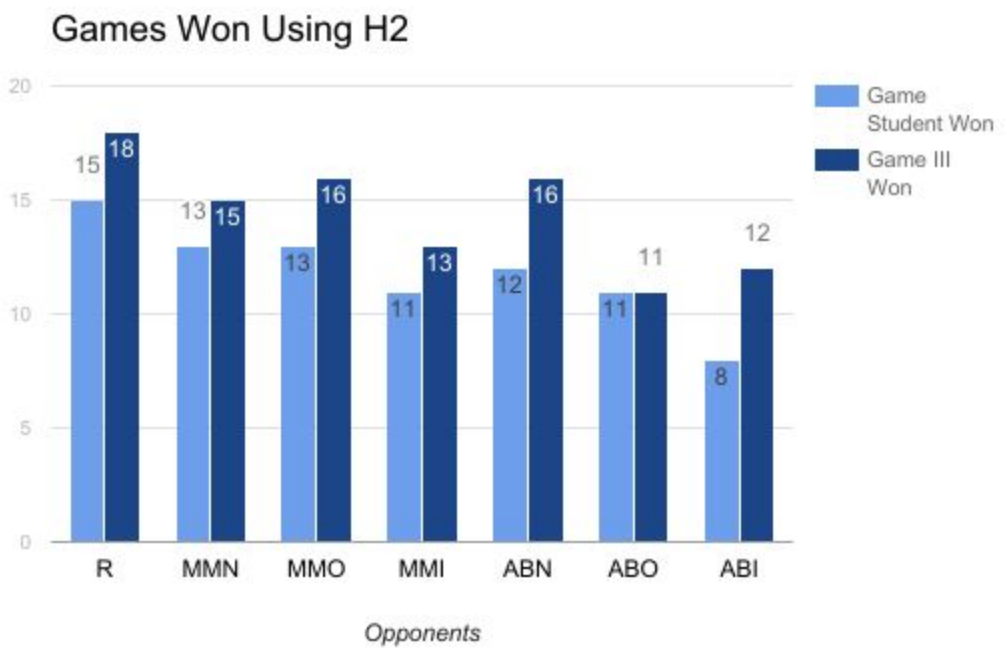
- Random(R): Agent that randomly chooses a move each turn.
- MM_Null(MMN): Agent using fixed-depth minimax search and the null_score heuristic
- MM_Open(MMO): Agent using fixed-depth minimax search and the open_move_score heuristic
- MM_Improved(MMI): Agent using fixed-depth minimax search and the improved_score heuristic
- AB_Null(ABN): Agent using fixed-depth alpha-beta search and the null_score heuristic
- AB_Open(ABO): Agent using fixed-depth alpha-beta search and the open_move_score heuristic
- AB_Improved(ABI): Agent using fixed-depth alpha-beta search and the improved_score heuristic

Also an agent using fixed-depth alpha-beta search and the improved_score heuristic, ID_IMPROVED(III), is used as a baseline.
The results of the first rounds were as follows:

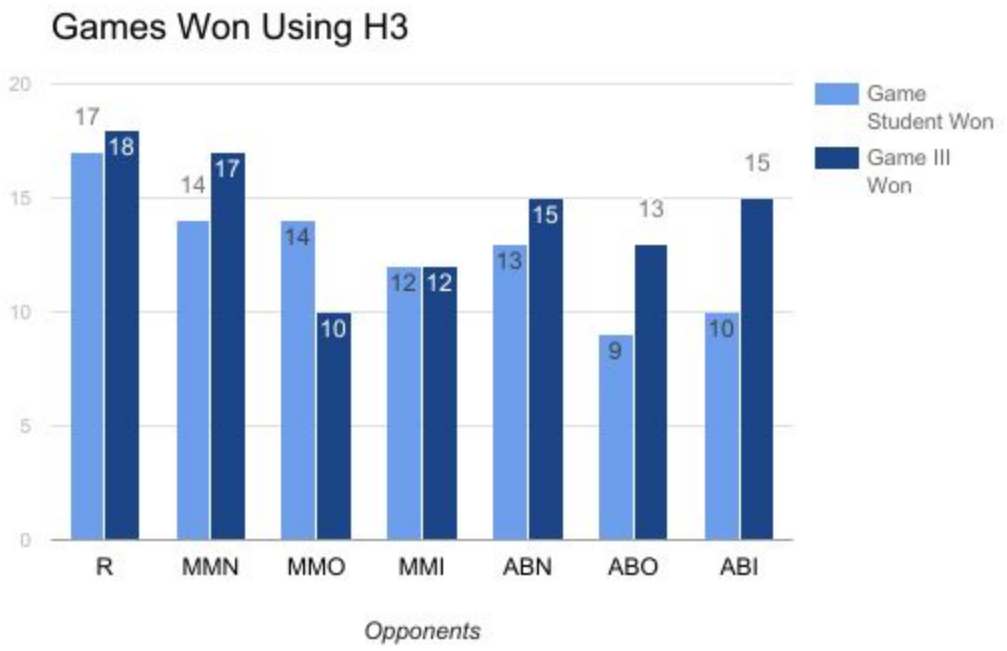
Comparison of H1 performance as compared to baseline				
H1	Opponent	Game Student Won	Game III Won	Difference in games
	R	16	17	-1
	MMN	15	15	0
	MMO	14	15	-1
	MMI	11	13	-2
	ABN	15	15	0
	ABO	12	12	0
	ABI	10	12	-2
				-0.8571



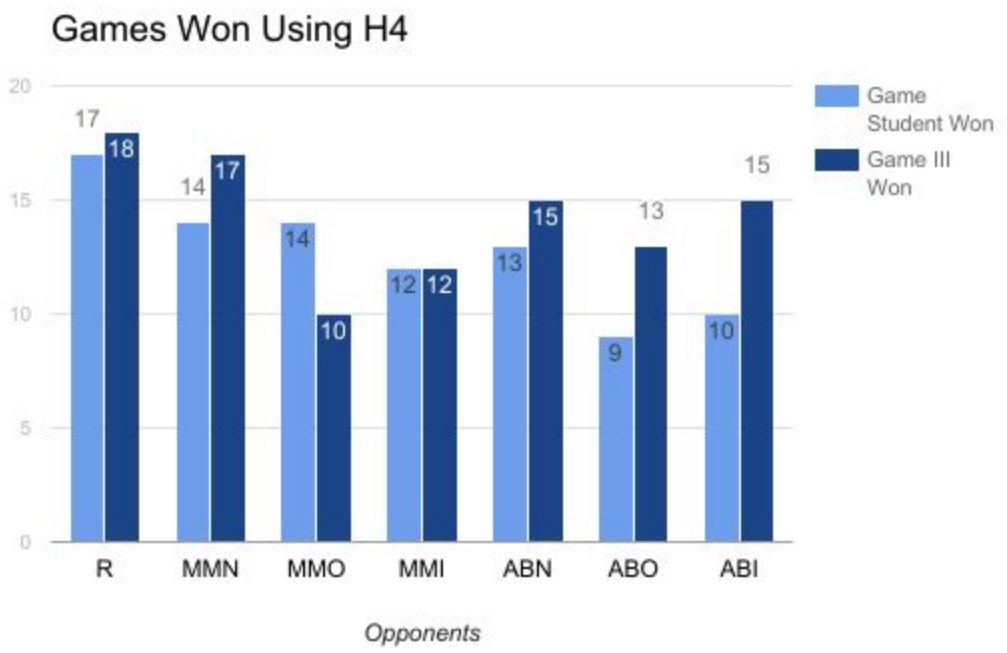
Comparison of H2 performance as compared to baseline				
H2	Opponent	Game Student Won	Game III Won	Difference in games
	R	15	18	-3
	MMN	13	15	-2
	MMO	13	16	-3
	MMI	11	13	-2
	ABN	12	16	-4
	ABO	11	11	0
	ABI	8	12	-4
				-2.5714



Comparison of H3 performance as compared to baseline				
H3	Opponent	Game Student Won	Game III Won	Difference in games
	R	13	18	-5
	MMN	15	18	-3
	MMO	11	10	1
	MMI	11	14	-3
	ABN	16	14	2
	ABO	8	12	-4
	ABI	9	8	1
				-1.5714

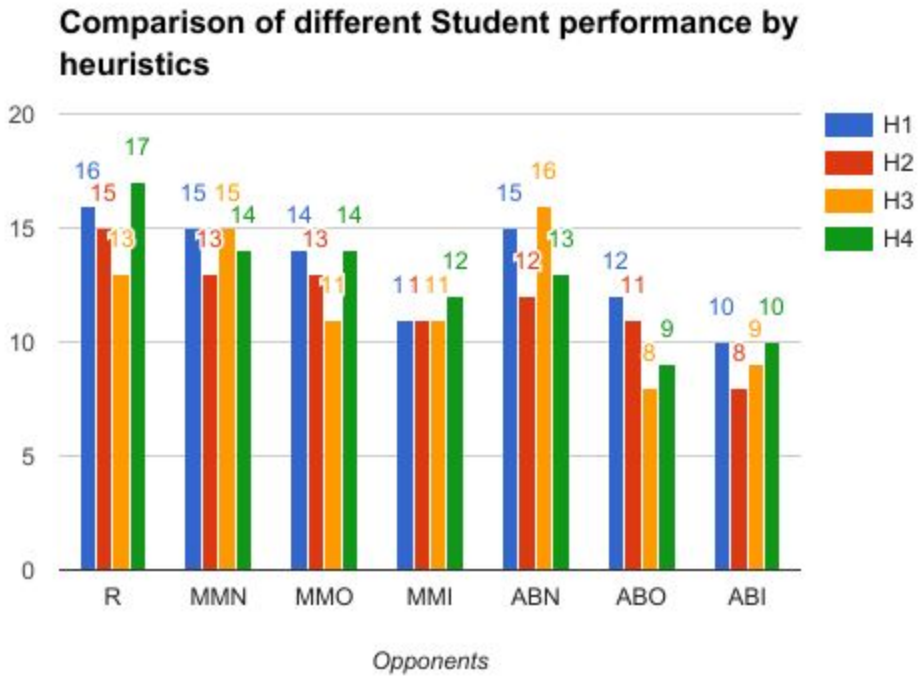


Comparison of H4 performance as compared to baseline				
H4	Opponent	Game Student Won	Game III Won	Difference in games
	R	17	18	-1
	MMN	14	17	-3
	MMO	14	10	4
	MMI	12	12	0
	ABN	13	15	-2
	ABO	9	13	-4
	ABI	10	15	-5
				-1.5714



Now we can objectively compare the performance of student by heuristic.

	H1	H2	H3	H4
R	16	15	13	17
MMN	15	13	15	14
MMO	14	13	11	14
MMI	11	11	11	12
ABN	15	12	16	13
ABO	12	11	8	9
ABI	10	8	9	10



Looking at this data we can see that H1 outperformed all other heuristics when compared to our baseline and compared to each other. H1 follows the rule of KISS(keep it simple stupid[complexity reasons]) Therefore I implemented H1 in the final submission.