ID: 201714015

Name: Akib Uz Zaman

## **Comparison among the Heuristic functions:**

	Heuristic_1()	Heuristic_2()	Heuristic_3()	Heuristic_4()
Description	Number of misplaced black and white Knights of total board are counted here.	Number of misplaced black and white Knights at the left side of the diagonal of the board are counted here.	Number of misplaced black and white Knights of the right side of the diagonal are counted here.	Number of black Knights which are placed at the left side of the diagonal of the board are counted here.
Optimality	Less optimal [Full board is checked here i.e. 18 steps are taken for the given input]	More optimal than Heuristic_1() and Heuristic_4() [Less moves are needed as less than half of the board are counted]	More optimal than Heuristic_1() and Heuristic_4() [Less moves are needed as less than half of board are counted]	More optimal than Heuristic_1() [Less moves are needed as only black misplaced Knights are checked the automatically all white colored Knights will be on the same side]
Runtime	O(n^2) i.e. it runs 25 times for the given board in each call	O(n^2/2) i.e. it runs 9 times for the given board in each call	O(n^2/2) i.e. it runs 9 times for the given board in each call	O(n^2/2) i.e. it runs 12 times for the given board in each call