Adveserial Search:

With custom agent with custom heuristic and iterative deepening:

Running 10 games:

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Your agent won 90.0% of matches against Minimax Agent

Normal minimax with iterative deepening.

Running 10 games:

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Your agent won 30.0% of matches against Minimax Agent

Advanced Heuristic
- What features of the game does your heuristic incorporate, and why do you think those features matter in evaluating states during the search?

  For my custom heuristic I have combined the state.utility with num_of_possible moves for us – 1.2 * num_of_possible moves for opponent. This essentially tries to maximize the total number of moves for us more aggressively

  From the above you can see that the custom heuristic performs 3 times as better then a normal minimax.

Answer:
- Analyze the search depth your agent achieves using your custom heuristic. Does search speed matter more or less than accuracy to the performance of your heuristic?
  Ans: I have used a depth of 3 although a depth of 5 gives better results but it takes more time. Search speed matters in time constraint games like chess where we need to respond under a fixed time.