All work on the project is to be your own. You are free to discuss the project and enhancements to your program with other students, but you may not share source code. List any students that you discussed the milestone with on your project report.

Part 2: Implement Hop Step

Implement the game Hop Step as described in class. You should be able to get a list of legal moves, apply moves, undo moves, and test for the end of the game. Once your implementation of the game state is complete, test it thoroughly to make sure it is working.

When finished, write an approximately one-page report about your implementation and the game Hop Step. Your report should cover the following information:

- What is the average length of a game? Test this by measuring the average the number of moves until a game ends with random play. (Do this a large number of times and take the average. Report the 95% confidence bounds.)
- What is the average branching factor? Measure the average branching factor over 20-move increments and report the results in a table.
- Under random play measure the percentage of games won by the first and second player and report the results.
- Measure the speed of your implementation? How many states can you generate per second?

Make sure that your measurements are large enough to have statistical confidence.

To turn in your assignment, create a directory in your repository with the name “Milestone2”. Copy your implementation of Hop Step and your report into the directory.