1. My evaluation function takes each row, column, and diagonal of the game space and calculates the value based on the number of empty spots, the number of tiles you own, and the number of tiles the opponent owns.

The evaluation function scores a +1 for each tile the line has that is empty, +2 for each tile you own on the line, and the score resets to 0 if there is a tile that the opponent owns.

This heuristic is sensible because it must be that we should be placing our own tiles on lines that are most dominated by our tiles, and that empty tiles are a good thing. Moreover, if an opponent owns a tile on the line, there is no chance for you to win by placing tiles among the rest of the empty tiles on the line. Thus, the score for that line is automatically zero.

1. I will be running games on a 2x2 tile, 3x3 tile, … to a 20x20 tile. The following times are recorded below: