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Opening Book

2) I tested creating a book using random samples, minimax, and alpha beta procedures. I used the same standard score heuristic. One thing that was confusing to me was that when I created the open book with random actions, I could see it getting larger. When I tried to use minimax or alpha beta I would consistently only get a few moves. I tried increasing the number of rounds all the way to 100,000, but still saw the same behavior. As such, it does not seem like my open book was that useful. I played 1000 games 4 times with no opening book against minimax, and 4 times with the opening book against minimax, and as can be seen below, didn’t see any remarkable difference.

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| --- | --- |
| **No Open Book** | **With Open Book** |
| 55.6 | 55.9 |
| 51.4 | 49.4 |
| 53 | 40.5 |
| 47 | 47 |
| **51.75** | **48.2** |