**Report on the findings of experiments**

**Fixed Heuristic (Depth Variable)**

|  |  |  |  |
| --- | --- | --- | --- |
| Heuristic Number | 1st AI depth | 2nd AI depth | Result(Winner) |
| 3 | 3 | 10 | 2nd AI |
| 3 | 3 | 3 | 2nd AI |
| 3 | 10 | 3 | 1st AI |
| 3 | 9 | 6 | 1st AI |
| 3 | 5 | 5 | 2nd AI |
| 4 | 3 | 10 | 2nd AI |
| 4 | 3 | 3 | 2nd AI |
| 4 | 10 | 3 | 1st AI |
| 4 | 9 | 6 | 1st AI |
| 4 | 5 | 5 | 1st AI |

**Fixed Depth (Heuristic Variable)**

|  |  |  |  |
| --- | --- | --- | --- |
| Depth | 1st AI Heuristic | 2nd AI Heuristic | Result(Winner) |
| 3 | 3 | 4 | 1st AI |
| 3 | 4 | 3 | 1st AI |
| 3 | 1 | 2 | 1st AI |
| 3 | 2 | 1 | 2nd AI |
| 3 | 5 | 6 | 2nd AI |
| 10 | 6 | 5 | 1st AI |
| 10 | 3 | 6 | 2nd AI |
| 10 | 6 | 1 | 1st AI |
| 10 | 4 | 6 | 2nd AI |
| 10 | 5 | 2 | Draw |

**For 100 AI vs AI Autoplay :**

For heuristic 3(random values of w1,w2,w3),depth 5:

Win-loss ratio:1.04

For heuristic 4(random values of w1,w2,w3,w4),depth 5:

Win-loss ratio:4.64

For heuristic 2(random values of w1,w2),depth 5:

Win-loss ratio:5.66

For heuristic 1(move ordering) depth 5:

Win-loss ratio:13.14

For heuristic 5(move ordering) depth 5:

Win-loss ratio:10.875