

Mancala AI Match Report

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|-----------------|---------------------------------|
| • Date Created | @December 18, 2021 9:14 AM |
| Property | Sessional |
| ○ Tag | CSE 317 Artificial Intellignece |
| ▼ Teacher | |

Heuristics

• h1

```
stones_in_my_storage - stones_in_opponents_storage
```

• h2

```
// W1 = 4 , W2 = 6
W1 * (stones_in_my_storage - stones_in_opponents_storage) + W2 * (stones_on_my_sid
e - stones_on_opponents_side)
```

• h3

```
// W1 = 4 , W2 = 2 , W3 = 4
W1 * (stones_in_my_storage - stones_in_opponents_storage) + W2 * (stones_on_my_sid
e - stones_on_opponents_side) + W3 * (additional_move_earned)
```

• h4

```
stones_close_to_my_storage - stones_close_to_oppoenents_storage
```

• h5

```
// W1 = 4 , W2 = 6
W1 * (stones_in_my_storage - stones_in_opponents_storage) + W2 * (stones_close_to_
my_storage - stones_close_to_oppoenents_storage)
```

• h6

```
// W1 = 4 , W2 = 2 , W3 = 4
W1 * (stones_in_my_storage - stones_in_opponents_storage) + W2 * (stones_close_to_
my_storage - stones_close_to_opponents_storage) + W3 * (additional_moves_earned)
```

Game Report

- depths are randomized between 1 and 12
- move orders are randomized

| | h1 | h2 | h3 | h4 | h5 | h6 |
|----|-------|-------|-------|-------|-------|-------|
| h1 | | 31:18 | 26:22 | 39:8 | 30:19 | 31:19 |
| h2 | 26:21 | | 20:27 | 39:10 | 25:21 | 21:24 |
| h3 | 25:23 | 33:16 | | 46:4 | 27:22 | 32:16 |
| h4 | 13:35 | 15:35 | 5:44 | | 16:34 | 9:39 |
| h5 | 19:28 | 30:18 | 18:31 | 32:12 | | 15:32 |
| h6 | 29:19 | 33:16 | 19:28 | 43:6 | 31:17 | |