

4 x 4 using minimax:

Printing the initial game state for a 4 x 4 game:

```
[' ', ' ', ' ', ' ']  
[' ', 'B', 'W', ' ']  
[' ', 'W', 'B', ' ']  
[' ', ' ', ' ', ' ']
```

Running full minimax:

Final state:

```
['B', 'W', 'W', 'W']  
[' ', 'W', 'W', 'W']  
[' ', 'W', 'W', 'W']  
['B', 'W', 'W', 'B']
```

Move list:

```
(-8, [('B', 0, 2), ('W', 0, 3), ('B', 1, 3), ('W', 0, 1), ('B', 3, 0),  
('W', 2, 3), ('B', 0, 0), ('W', 3, 2), ('B', 3, 3), ('W', 3, 1), ('B',  
-1, -1)])
```

Elapsed time: 1.18072795868

Terminal states seen: 74925

It means that white is guaranteed to win.

5 x 5 using minimax with alpha-beta pruning:

Printing the initial game state for a 5 x 5 game:

```
['W', 'B', ' ', ' ', ' ']  
['B', 'W', ' ', ' ', ' ']  
[' ', ' ', ' ', ' ', ' ']  
[' ', ' ', ' ', 'B', 'W']  
[' ', ' ', ' ', 'W', 'B']
```

Running full minimax w/ alpha-beta pruning:

Final state:

```
['W', 'W', 'W', ' ', ' ']  
['W', 'W', ' ', ' ', ' ']  
['W', ' ', ' ', ' ', 'B']  
[' ', ' ', ' ', 'B', 'B']  
[' ', ' ', 'B', 'B', 'B']
```

Move list:

```
(0, [('B', 2, 4), ('W', 0, 2), ('B', 4, 2), ('W', 2, 0), ('B', -1, -1)])
```

Elapsed time: 1.88154196739

Terminal states seen: 171243

Truncation operations: 200687

It means that no player is guaranteed to win.