```
1 /Users/jaredwilliams/venv/bin/python /Users/jaredwilliams/
   Documents/AI/Reinforcement/connect4/play game.py
 2 root <node.Node object at 0x1125480f0>
 3 iterated
 4 root children value [ 199. 482. 1267. 24231. 2465.
   470.
           453.]
 5 root children visits [ 431. 941. 2299. 40060.
                                                         4326.
   919.
           889.]
 6 root choices: [<node.Node object at 0x112548160> <node.Node
    object at 0x11235d4a8>
 7 <node.Node object at 0x11236acc0> <node.Node object at
   0x112548208>
 8 <node.Node object at 0x11235d400> <node.Node object at
   0x11235d978>
 9 <node.Node object at 0x11235d9e8>]
10 ['-', '-', '-', '-', '-', '-', '-']
10

11 ['- ,

12 ['-', '- ,

13 ['-', '-',

'-', '-',
        '-', '-',
'-', '-',
'-', '-',
                    '-', '-', '-'
'-', '-', '-'
                               '-'
                    '-'
                         '_'
                       ', '-'
               '-',
                    1_1
                              '-'
15 ['-', '-', '-', 'X',
16 checkDorEndGame: 0
17 getValue: (0, 0, 0)
18 getScore: (0, 0)
19 [31, 35, 36, 37, 39, 40, 41]
20 [3, 0, 1, 2, 4, 5, 6]
21 slot # of next move3
22 ['-', '-', '-', '-', '-',
23 ['-', '-', 24 ['-', '-',
               '_'
                     1_1
                               1_1
                    '_'
              '-',
         '-',
               '-'
                    '-'
        '-',
               '-',
                    '0'
        , -, ,
, '-', '-',
                    'X',
27 ['-'
                          '-'
28 checkDorEndGame: 0
29 getValue: (0, 0, 0)
30 getScore:
              (0, 0)
31 root <node.Node object at 0x112548b00>
32 iterated
33 root children value [35307. 1720. 886. 3339. 2570.
   1316.
           1778.l
34 root children visits [58195. 3072. 1648.
                                                  5794.
                                                         4506.
   2386. 3171.]
35 root choices: [<node.Node object at 0x1126d6240> <node.Node
    object at 0x11268d1d0>
36 <node.Node object at 0x1125b8240> <node.Node object at
   0x1126d6630>
37 <node.Node object at 0x112648e80> <node.Node object at
   0x11271f9b0>
38 <node.Node object at 0x1125b8fd0>]
39 ['-', '-', '-', '-', '-', '-']
```

File - play\_game.py

```
'-']
                   'X',
                    '0'
43 ['-'
                    'X'
44 ['-'
45 checkDorEndGame:
46 getValue:
              (0, 0, 0)
47 getScore:
              (0, 0)
48 [17, 35, 36, 37, 39, 40, 41]
49 [3, 0, 1, 2, 4, 5, 6]
50 slot # of next move3
        "'-',
             '-',
                  '-'
51 ['-'
52 ['-'
                   0',
53 [
                   'X'
                   '0'
55 ['-'
56 ['-',
                    'X'
57 checkDorEndGame:
58 getValue:
              (0, 0, 0)
59 getScore:
              (0, 0)
60 root <node.Node object at 0x1137e5390>
61 iterated
62 root children value [1638. 4895. 3083. 6744. 6454. 2953.
   4217.]
63 root children visits [ 3082. 8805.
                                         5636. 12023. 11519.
   5407. 7623.]
64 root choices: [<node.Node object at 0x11394de10> <node.Node
    object at 0x11ac129b0>
65 <node.Node object at 0x11f436d30> <node.Node object at
   0x11f47e9b0>
66 <node.Node object at 0x11f47e7f0> <node.Node object at
   0x11cb5d630>
    <node.Node object at 0x11b9524e0>]
68 ['-', '-', '-', '-', '-', '-']
         '-',
              1_1
                   '-'
                              '-'
                   '0'
                   'Χ',
                   '0',
73 ['-', '-',
              'Χ',
                   'X',
74 checkDorEndGame:
75 getValue:
              (0, 0, 0)
             (0, 0)
76 getScore:
77 [10, 30, 35, 36, 39, 40, 41]
78 [3, 2, 0, 1, 4, 5, 6]
79 slot # of next move4
80 ['-',
         '-', '-',
                    '0'
82 ['-'
                   'X',
83 ['-'
84 ['-', '-', '-', '0',
```

```
'-', 'X', 'X', '0', '-',
 85 ['-',
 86 checkDorEndGame:
               (0, 0, 0)
 87 getValue:
 88 getScore:
                (0, 0)
 89 root <node.Node object at 0x1235fc390>
 90 iterated
 91 root children value [ 967. 3016. 20754.
                                                 1167.
                                                        1406.
    1287.
           1942.
 92 root children visits [ 2074. 6072. 39701.
                                                  2470.
                                                          2941.
    2707.
           3990.1
 93 root choices: [<node.Node object at 0x1276c9da0> <node.
   Node object at 0x128ebefd0>
     <node.Node object at 0x1244ea080> <node.Node object at</pre>
    0x128f04080>
    <node.Node object at 0x12b947b00> <node.Node object at</pre>
    0x128e737f0>
 96
     <node.Node object at 0x128e73860>]
          '-', '-',
 97 ['-'.
               '_'
                     '_'
98 ['-'
                     '0'
 99 ['-'
100 ['-'
                     'X'
                                     '-'1
                          'X',
                     '0'
101 ['
102 ['-', '-', 'X', 'X',
                          '0',
103 checkDorEndGame:
104 getValue:
               (0, 0, 0)
105 getScore:
               (0, 0)
106 [10, 25, 30, 35, 36, 40, 41]
107 [3, 4, 2, 0, 1, 5, 6]
108 slot # of next move6
              '-',
109 ['-',
          '-',
          '-'
                     '-'
                     '0'
111 ['-'
112 ['-',
                     'X'
                          'X'
113 ['-'
                     '0'
               'Χ',
          '-',
                     'X',
                          '0'.
115 checkDorEndGame:
116 getValue:
               (0, 0, 0)
               (0, 0)
117 getScore:
118 root <node.Node object at 0x12fc08a20>
119 iterated
120 root children value [ 274. 21495.
                                         5950.
                                                  773.
                                                         1314.
    1488.
            271.]
121 root children visits [ 529. 33381.
                                           9461.
                                                  1351.
                                                          2220.
    2497.
            524.
122 root choices: [<node.Node object at 0x13915e4a8> <node.
   Node object at 0x13af81dd8>
    <node.Node object at 0x1393e7a58> <node.Node object at</pre>
    0x13aea90b8>
124
     <node.Node object at 0x13ac22128> <node.Node object at</pre>
    0x13ab8fcf8>
```

```
<node.Node object at 0x13aea9080>]
           '-', '-', '-',
                            '-',
              ', '-'
                   ', '-'
           '_'
                                 '-'
127 ['-'
                      '0',
                            '_'
                                       '-'1
128 ['-',
           '-'
                '-'
                                  '-'
129 ['-',
                 1_1
                      'X',
                            'X'
                                       '-'1
                      0',
                            'X',
130 ['-'
                 '-'
                                       '-']
               'X',
                      'X',
                            '0'.
131 ['-',
132 checkDorEndGame: 0
                 (0, 0, 0)
133 getValue:
134 getScore:
                 (0, 0)
135 [10, 18, 30, 34, 35, 36, 40]
136 [3, 4, 2, 6, 0, 1, 5]
137 slot # of next move1
                                  '-',
          · '-',
138 ['-',
               '-'
                     '-'
                            '-'
           '-'
                '-'
                      '_'
139 ['-'
           1_1,
140 ['-',
                '-', '0',
                            '-'
                                       '-'1
                1_1
141 ['-',
                      'X'
                            'X'
                                       '-'1
                    ,
                            'Χ',
                 '-'
                                       '-'1
                      '0'
142 ['-'
143 ['-', '0', 'X', 'X',
                            '0',
144 checkDorEndGame:
145 getValue:
                 (0, 0, 0)
146 getScore:
                 (0, 0)
147 root <node.Node object at 0x14b2ff438>
148 iterated
149 root children value [ 1008.
                                     3325. 30908.
                                                      735.
                                                             1827.
    1102.
            1294.]
150 root children visits [ 1717. 5347. 47350.
                                                      1280.
                                                              3011.
    1867.
            2171.]
151 root choices: [<node.Node object at 0x17906a438> <node.
    Node object at 0x179141c18>
    <node.Node object at 0x15c2b03c8> <node.Node object at
    0x16b7d32e8>
153
     <node.Node object at 0x178f450b8> <node.Node object at</pre>
    0x178f8f3c8>
     <node Node object at 0x179020358>]
155 ['-', '-', '-', '-', '-', '-']
156 ['-',
157 ['-',
           '-'
                 '-'
                      1_1
                            '-'
                                  '_'
                                       '-'1
           '-',
                '-',
                          ,
                                  '-',
                      '0',
                            '-'
                                       '-']
           '-',
                            'X',
                '-'
                      'X',
                                  '-'
158 ['-'
                                       '-'1
           1X1,
159 ['-',
                 '_'
                      '0',
                            'X'
                                       '-']
                'X',
                      'X',
           '0',
                            '0',
160 ['-',
161 checkDorEndGame: 0
162 getValue:
                 (0, 0, 0)
                 (0, 0)
163 getScore:
164 [10, 18, 22, 30, 34, 35, 40]
165 [3, 4, 1, 2, 6, 0, 5]
166 slot # of next move1
167 ['-', '-', '-', '-', '-', '-', '-']
168 ['-', '-', '-', '-', '-', '-']
169 ['-', '-', '-', '0', '-', '-', '-']
```

```
'-', ^
'0',
          '0',
170 ['-',
                          'Χ¹,
          'X',
               '-',
                               '-'
                                     '-']
172 ['-', '0', 'X', 'X',
                          '0', '-'
173 checkDorEndGame:
                (0, 0, 0)
174 getValue:
175 getScore:
                (0, 0)
176 root <node.Node object at 0x1793c8d68>
177 iterated
178 root children value [ 325. 31301. 2146.
                                                   180.
                                                           154.
           333.1
    166.
179 root children visits [ 594. 46859.
                                           3426.
                                                    355.
                                                            311
        331.
                607.
180 root choices: [<node.Node object at 0x17a7ceac8> <node.
    Node object at 0x17a787278>
181
     <node.Node object at 0x17a9c9518> <node.Node object at</pre>
    0x17a155f28>
182
     <node.Node object at 0x17a981c88> <node.Node object at</pre>
    0x17a7ce748>
183
     <node.Node object at 0x17a9c9a58>]
          '-', '-', '-',
184 ['-',
                          '-', '-', '-']
          '-'
                     1_1
185 ['-'
                                     '-']
          '-',
                '_'
185 ['-',
                     0',
                                     '-'1
                           'X'
          '0'
                     'X'
187 ['-'
188 ['-',
          'X'
                '-'
                     '0'
                           'X',
                                     '-']
                     'X',
                'X'
                           '0',
                                '-'
189 ['-',
          '0',
190 checkDorEndGame: 0
191 getValue:
                (0, 0, 0)
192 getScore:
                (0, 0)
193 [8, 10, 18, 30, 34, 35, 40]
194 [1, 3, 4, 2, 6, 0, 5]
195 slot # of next move4
              '-',
          '-',
'-'.
196 ['-',
                    '-'
                1_1
                     1_1
197 ['-'
                1_1,
          'X',
                     101,
198 ['-',
                           '0'
                                     '-'1
                     'X',
199 ['-'
          '0',
                '-'
                           'X'
                                     '-'1
200 ['-',
          'X'
                '-'
                     '0'
                           'X'
                                     '-'1
                'X',
                     'X',
          '0',
                           '0',
202 checkDorEndGame:
203 getValue:
                (0, 0, 0)
                (0, 0)
204 getScore:
205 root <node.Node object at 0x17c054a58>
206 iterated
207 root children value [ 568. 35546.
                                           443.
                                                   193.
                                                          1359.
    206.
           336.]
208 root children visits [ 874. 47621.
                                             697.
                                                    333.
                                                           1978
                543.]
        352.
209 root choices: [<node.Node object at 0x17e6a3ac8> <node.
    Node object at 0x17f5da438>
210
     <node.Node object at 0x17ff6ec18> <node.Node object at</pre>
    0x17e6ebeb8>
```

```
<node.Node object at 0x17fc9e908> <node.Node object at</pre>
    0x17fc9e9e8>
212
     <node.Node object at 0x17ebb79e8>]
          '-', '-', '-', '-', '-', '-']
213 ['-',
214 ['-',
                     'X',
                                      '-']
           '-',
                '-',
                           0',
                     '0',
215 ['-',
                                 '-'
                     'X',
216 ['-',
          '0'
                '-'
                           'X'
                                      '-'1
                     0',
                           ·Χ',
          'X',
217 ['-',
                                '-'
                '-'
                                '-',
218 ['-',
                'X', 'X',
                           '0',
           '0',
219 checkDorEndGame:
220 getValue:
                (0, 0, 0)
221 getScore:
                (0, 0)
222 [3, 8, 11, 30, 34, 35, 40]
223 [3, 1, 4, 2, 6, 0, 5]
224 slot # of next move5
         , '-', '-', '-',
, '-', '-', 'X',
, 'X', '-', '0',
225 ['-',
                        ,
               '-', 'X',
226 ['-',
227 ['-',
                                '-',
                                      '-'1
                           1_1
                     0',
                                '-'
                           '0'
                                      '-'1
228 ['-',
          '0'
                '_'
                     ١X١
                           'X'
                     0',
          'X',
                           'X',
229 ['-',
                '-'
                                      '-'1
                                '-'
                'X', 'X',
                           '0',
                                '0',
230 ['-',
           '0',
231 checkDorEndGame: 0
232 getValue:
                (0, 0, 0)
                (0, 0)
233 getScore:
234 root <node.Node object at 0x1816cf358>
235 iterated
236 root children value [ 1889. 30906. 3780.
                                                            329.
                                                   3311.
    3740.
             441.]
237 root children visits [ 2591. 39709.
                                            5057.
                                                    4448.
                                                             508.
    5005.
             663.]
238 root choices: [<node.Node object at 0x186014978> <node.
    Node object at 0x1a139bf28>
     <node.Node object at 0x1a139b5f8> <node.Node object at</pre>
    0x19a2562e8>
    <node.Node object at 0x1a65999e8> <node.Node object at</pre>
    0x197bcbc88>
241
     <node.Node object at 0x1a139bc88>]
242 ['-', '-', '-', '-', '-', '-']
          'X',
                     'X',
243 ['-',
                '-'
                           ^{1}-^{1}
                                1_1
                                      '-']
               '-',
244 ['-',
          'X',
                    '0',
                                      '-']
                           101
          '0',
                           'X',
245 ['-',
                '-'
                     'X',
                                      '-'1
246 ['-',
                '-'
                     '0',
                           'X'
           'X',
                                      '-'1
247 ['-', '0', 'X', 'X',
                           '0'.
                                '0'.
248 checkDorEndGame:
249 getValue:
                (0, 0, 0)
                (0, 0)
250 getScore:
251 [1, 3, 11, 30, 33, 34, 35]
252 [1, 3, 4, 2, 5, 6, 0]
253 slot # of next move0
254 ['-', '-', '-', '-', '-', '-']
```

```
'X',
255
                           0',
          'Χ',
                     ٠̈́0',
256 ['-'
                                      '-']
                                     '-'1
                     'X',
                           'X',
257 ['-'
          '0'
                     ٠̈́0',
                           'X',
          'X'
258 ['-'
          '0',
                'X',
                     'X',
259 ['0',
                           '0'
                                '0'
260 checkDorEndGame:
                       0
261 getValue:
                (0, 0, 0)
262 getScore:
                (0, 0)
263 root <node.Node object at 0x1a96e7278>
264 iterated
265 root children value [ 1462.
                                   1455.
                                          9326. 4188. 27214.
    264.
          1836.]
266 root children visits [ 1932. 1923. 11640.
                                                   5324. 33428
        397.
              2402.]
267 root choices: [<node.Node object at 0x1aa3dc518> <node.
    Node object at 0x1aa46af98>
     <node.Node object at 0x1aa73ac88> <node.Node object at</pre>
    0x1aa3dc4a8>
269
     <node.Node object at 0x1a9d5d7b8> <node.Node object at</pre>
    0x1aa663ba8>
270
     <node.Node object at 0x1aa663518>]
                '-'
271 ['-',
          'X',
                     'X',
272 ['-'
          'X',
                '-'
273 ['-',
                           '0'
                     '0'
                     'X',
                           ١X١
274 ['-'
          '0'
275 ['-'
           'X'
                'X'
                           'X'
                     '0'
          '0', 'X', 'X',
276 ['0',
                           '0',
277 checkDorEndGame:
278 getValue:
                (0, 0, 0)
279 getScore:
                (0, 0)
280 [1, 3, 11, 23, 28, 33, 34]
281 [1, 3, 4, 2, 0, 5, 6]
282 slot # of next move6
283 ['-',
          '-',
               '-',
                     'X',
284 ['-'
          'Χ',
                '-'
                           '-'
285 ['-',
                           '0'
          'X'
                     '0'
                     'X',
286 ['-',
          '0'
                           'X'
                     '0',
287 ['-',
                'X',
                           'X'
           'X'
                                      '0'1
288 ['0',
          '0', 'X', 'X',
                           '0',
289 checkDorEndGame:
290 getValue:
                (0, 0, 0)
                (0, 0)
291 getScore:
292 root <node.Node object at 0x1c14af978>
293 iterated
294 root children value [ 113.
                                           1161.
                                                  1216. 41831.
                                    653.
    209.
           146.]
                                            1445.
295 root children visits [ 176.
                                     841.
                                                   1510. 47772
        299.
                219.l
296 root choices: [<node.Node object at 0x1d99e0ac8> <node.
    Node object at 0x1d9711518>
```

```
<node.Node object at 0x1d9907358> <node.Node object at</pre>
    0x1d99073c8>
298
     <node.Node object at 0x1d95f2f28> <node.Node object at</pre>
    0x1d0521a58>
299
     <node.Node object at 0x1d9907588>]
                '-',
                      '-',
                           '-',
          '-',
300 ['-',
301 ['-',
           'X',
                '-'
                      'X',
                            '_'
           'X',
                      .
'0',
302 ['-',
                '-'
                            '0'
                                 '-'
                      'Χ',
303 ['-',
          '0',
                '-'
                           'X'
                                      'X']
                'X',
                      0',
                           'X',
           'X',
304 ['-'
                                 '-'
                                      '0']
305 ['0', '0', 'X',
                      'X',
                            '0',
                                 '0'
                                       '0'1
306 checkDorEndGame:
307 getValue:
                (0, 0, 0)
308 getScore:
                (0, 0)
309 [1, 3, 11, 20, 23, 28, 33]
310 [1, 3, 4, 6, 2, 0, 5]
311 slot # of next move0
           '-',
312 ['-',
                '_'
                      '-'
                   ,
           'X',
                '_'
                            '-'
                      'X'
313 ['-'
           'Χ',
314 ['-',
                '-'
                            101
                      '0'
                   ,
315 ['-', 316 ['0',
                '-'
                                      'X'1
           '0'
                      'X'
                           'X'
                      ٠̈́0',
                'X',
                            'X',
           'X'
                                       '0'1
317 ['0', '0', 'X', 'X',
                            '0',
318 checkDorEndGame:
319 getValue:
                (0, 0, 0)
320 getScore:
                (0, 0)
321 root <node.Node object at 0x1db5c5c88>
322 iterated
323 root children value [ 748.
                                    1199.
                                             722.
                                                    1175. 44418.
             354.]
    1694.
324 root children visits [ 908.
                                     1418.
                                              879.
                                                     1391. 48356.
    1972.
             455.
325 root choices: [<node.Node object at 0x1f20c1ac8> <node.
    Node object at 0x1f16e4358>
     <node.Node object at 0x1f1f9f7b8> <node.Node object at</pre>
    0x1e859f828>
     <node.Node object at 0x1e69bf668> <node.Node object at</pre>
327
    0x1f1bf7b38>
     <node.Node object at 0x1f1653eb8>]
329 ['-',
           '-', '-', '-',
                           '-',
           'X',
                      'X',
330 ['-',
                '_'
                            '_'
                                      '-'1
                      '0',
331 ['-',
           'X',
                '-'
                           '0'
                                 '-',
                                      '-']
                      'Χ',
                           'Χ',
           0',
332 ['X',
                '_'
                                      'X']
           'X',
                'X',
                      '0',
                            'X'
333 ['0',
                                       '0'1
                      'X',
           '0',
                'X',
                            '0',
                                 '0',
334 ['0',
335 checkDorEndGame:
336 getValue:
                (0, 0, 0)
                (0, 0)
337 getScore:
338 [1, 3, 11, 14, 20, 23, 33]
339 [1, 3, 4, 0, 6, 2, 5]
```

```
340 slot # of next move0
                '-',
                     '-',
           '-',
341 ['-',
           'X',
                '_'
                     'X'
342 ['-'
          'Χ',
                     '0',
343 ['0',
                '-'
                           '0'
                                      '-'1
344 ['X',
           '0',
                     'X'
                           'X'
                                      'X']
                'X',
                           'X',
                     0',
           'X',
345 ['0',
                                      '0'1
                     'X',
           '0',
               'X',
                           '0',
346 ['0',
                                 '0'
347 checkDorEndGame:
348 getValue:
                (0, 0, 0)
349 getScore:
                (0, 0)
350 root <node.Node object at 0x1f5b9cf28>
351 iterated
352 root children value [ 3028. 5423.
                                           3317.
                                                  4179.
                                                          5170.
    30769.
              775.]
353 root children visits [ 3299. 5818.
                                            3604.
                                                    4512.
                                                           5553.
    32136.
              896.]
354 root choices: [<node.Node object at 0x20125b6d8> <node.
    Node object at 0x1f5fd8c18>
     <node.Node object at 0x1f5efdcf8> <node.Node object at</pre>
355
    0x2014525f8>
     <node.Node object at 0x1fefba4a8> <node.Node object at</pre>
    0x1f669ab38>
357
     <node.Node object at 0x200b9a358>]
           '-', '-', '-',
358 ['-',
          'X',
                     1X1,
                '-'
                                      '-'1
               1_1,
359 ['-', 360 ['0',
                     'Ô',
                           '0'
                                      '-'1
361 ['X',
           '0',
                'X',
                     'X'
                           'X'
                                      'X']
                'Χ',
           'X',
362 ['0',
                     '0'
                           'Х'
                                      '0'1
                     'X',
                           0',
363 ['0',
                'X',
           '0',
364 checkDorEndGame:
365 getValue:
                (0, 0, 0)
                (0, 0)
366 getScore:
367 [1, 3, 7, 11, 16, 20, 33]
368 [1, 3, 0, 4, 2, 6, 5]
369 slot # of next move2
           '-', '-', '-'
370 ['-',
                     'X',
371 ['-',
           'X',
                '-'
                                      '-'1
                     0',
372 ['0',
           'X',
                '0',
                           '0'
                                      '-'1
                'X',
                     'Χ',
                           'X',
           0',
373 ['X',
                                      'X']
374 ['0',
           'X'
                'X'
                     '0'
                           'X'
                                      '0'1
                     'X',
                'X',
           '0',
                           '0'.
                                 '0'
375 ['0',
376 checkDorEndGame: 0
377 getValue:
                (0, 0, 0)
                (0, 0)
378 getScore:
379 root <node.Node object at 0x208b20518>
380 iterated
381 root children value [ 469.
                                   1143.
                                            443. 53011.
                                                           574.
    659.
            250.1
382 root children visits [ 547. 1262.
                                             519. 53823.
                                                            660
        751.
                309.1
```

```
383 root choices: [<node.Node object at 0x2114c4f28> <node.
    Node object at 0x20c71aac8>
384
     <node.Node object at 0x216c05f98> <node.Node object at</pre>
    0x2156ecb38>
385
     <node.Node object at 0x209ed8d68> <node.Node object at</pre>
    0x2158533c8>
386
     <node.Node object at 0x218ae1a58>]
               '-',
                     '-',
                           '-',
                                `-',
387 ['-',
          '-',
                     'X',
           'X',
388 ['-',
                'X',
                                      '-']
                           '0',
                '0',
                     .
'0',
          'X',
389 ['0',
                                '-'
                                      '-']
                     'X',
                'X',
390 ['X',
                           'X'
           '0'
                                      'X']
                     .
'0',
                           'X',
                'X',
           'X',
391 ['0',
                                '-'
                                      '0'1
                     'X',
                'X',
392 ['0',
                           '0',
                                '0',
           '0',
                                      '0']
393 checkDorEndGame:
394 getValue:
                (0, 0, 0)
395 getScore:
                (0, 0)
396 [1, 2, 3, 7, 11, 20, 33]
397 [1, 2, 3, 0, 4, 6, 5]
398 slot # of next move0
399 ['-', '-',
               '-', '-',
                'X',
400 ['0',
           'X',
                                      '-'1
                     'X'
                0',
                     0',
401 ['0',
                           '0'
                                      '-'1
402 ['X',
                'X'
                     'X'
                           'X'
                                      'X']
           '0'
                'X',
403 ['0',
           'X',
                     '0'
                           'X'
                                      '0'1
                     'X',
                'X',
                           '0',
                                '0',
404 ['0',
           '0',
405 checkDorEndGame:
                (0, 0, 0)
406 getValue:
                (0, 0)
407 getScore:
408 root <node.Node object at 0x21fb7eb38>
409 iterated
410 root children value [ 1894. 2065. 2436. 24874. 24873.
            1359.
    2356.
411 root children visits [ 2001. 2174.
                                            2550. 24874. 24873.
    2469.
            1455.
412 root choices: [<node.Node object at 0x22d663a58> <node.
    Node object at 0x22f797c88>
413
     <node.Node object at 0x228cae5f8> <node.Node object at</pre>
    0x2211b9828>
414
     <node.Node object at 0x22999feb8> <node.Node object at</pre>
    0x22f797b70>
415
     <node.Node object at 0x224c3fcf8>]
416 ['-', '-', '-', 'X',
                           '-', '-', '-']
          'X',
                'X',
                     'X',
417 ['0',
                           '-'
                                      '-'1
                0',
418 ['0',
           'X',
                           101
                     '0',
                                      '-'1
           0',
                'X',
                     'X',
                           'Χ',
419 ['X',
                                      'X']
420 ['0',
           'X'
                'X',
                     '0',
                           'X'
                                      '0']
           '0', 'X', 'X',
                                      '0']
421 ['0',
                           '0'.
                                '0'
422 checkDorEndGame: 1
423 getValue:
                (-1, -1, 1)
                (-1, 1)
424 getScore:
```

	./OII   OCE								-
425	5 YOU LOSE!								
426	GAME OVE	R!							
427									
428	Process	finished	with	exit	code	0			
429									