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1 /Users/jaredwilliams/venv/bin/python /Users/jaredwilliams/
  Documents/AI/Reinforcement/connect4/play_game.py
2 root <node.Node object at 0x118ae1198>
3 iterated
4 root children value [ 374. 399. 1239. 25337. 990.
  970. 347.]
5 root children visits [ 746. 791. 2243. 41794. 1818.
  1784. 698.]
6 root choices: [<node.Node object at 0x10e704400> <node.Node
  object at 0x10e704438>
7 <node.Node object at 0x10e7048d0> <node.Node object at
  0x118ae12b0>
8 <node.Node object at 0x118ae1208> <node.Node object at
  0x10e712c18>
9 <node.Node object at 0x10e704940>]
10 ['- ', '- ', '- ', '- ', '- ', '- ', '- ', '- '
11 ['- ', '- ', '- ', '- ', '- ', '- ', '- ', '- '
12 ['- ', '- ', '- ', '- ', '- ', '- ', '- ', '- '
13 ['- ', '- ', '- ', '- ', '- ', '- ', '- ', '- '
14 ['- ', '- ', '- ', '- ', '- ', '- ', '- ', '- '
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 ['- ', '- ', '- ', '- ', '- ', '- ', '- ', '- '
25 ['- ', '- ', '- ', '- ', '- ', '- ', '- ', '- '
26 ['- ', '- ', '- ', 'O', '- ', '- ', '- ', '- '
27 ['- ', '- ', '- ', 'X', '- ', '- ', '- ', '- '
28 checkDorEndGame: 0
29 getValue: (0, 0, 0)
30 getScore: (0, 0)
31 root <node.Node object at 0x11894d6d8>
32 iterated
33 root children value [37081. 2201. 1029. 2053. 2612.
  1194. 1021.]
34 root children visits [60929. 3877. 1890. 3628. 4567.
  2172. 1876.]
35 root choices: [<node.Node object at 0x118d44f98> <node.Node
  object at 0x118d446d8>
36 <node.Node object at 0x118b94518> <node.Node object at
  0x118d44cf8>
37 <node.Node object at 0x118d44d68> <node.Node object at
  0x118d44c18>
38 <node.Node object at 0x118d8bf28>]
39 ['- ', '- ', '- ', '- ', '- ', '- ', '- ', '- '

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40 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']\n
41 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']\n
42 ['- ', '- ', '- ', 'X', '- ', '- ', '- ']\n
43 ['- ', '- ', '- ', 'O', '- ', '- ', '- ']\n
44 ['- ', '- ', '- ', 'X', '- ', '- ', '- ']\n
45 checkDorEndGame: 0\n
46 getValue: (0, 0, 0)\n
47 getScore: (0, 0)\n
48 [17, 35, 36, 37, 39, 40, 41]\n
49 [3, 0, 1, 2, 4, 5, 6]\n
50 slot # of next move3\n
51 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']\n
52 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']\n
53 ['- ', '- ', '- ', 'O', '- ', '- ', '- ']\n
54 ['- ', '- ', '- ', 'X', '- ', '- ', '- ']\n
55 ['- ', '- ', '- ', 'O', '- ', '- ', '- ']\n
56 ['- ', '- ', '- ', 'X', '- ', '- ', '- ']\n
57 checkDorEndGame: 0\n
58 getValue: (0, 0, 0)\n
59 getScore: (0, 0)\n
60 root <node.Node object at 0x1192be6d8>\n
61 iterated\n
62 root children value [1225. 5851. 2358. 5730. 6733. 3348.\n
    5762.]\n
63 root children visits [ 2375. 10607. 4416. 10394. 12159.\n
    6169. 10450.]\n
64 root choices: [<node.Node object at 0x11b379f98> <node.Node\n
    object at 0x11b379ac8>\n
65 <node.Node object at 0x119668ba8> <node.Node object at\n
    0x119a5ba58>\n
66 <node.Node object at 0x11ae1c978> <node.Node object at\n
    0x11cbb3278>\n
67 <node.Node object at 0x11cc44ba8>]\n
68 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']\n
69 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']\n
70 ['- ', '- ', '- ', 'O', '- ', '- ', '- ']\n
71 ['- ', '- ', '- ', 'X', '- ', '- ', '- ']\n
72 ['- ', '- ', '- ', 'O', '- ', '- ', '- ']\n
73 ['- ', '- ', '- ', 'X', 'X', '- ', '- ']\n
74 checkDorEndGame: 0\n
75 getValue: (0, 0, 0)\n
76 getScore: (0, 0)\n
77 [10, 32, 35, 36, 37, 40, 41]\n
78 [3, 4, 0, 1, 2, 5, 6]\n
79 slot # of next move5\n
80 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']\n
81 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']\n
82 ['- ', '- ', '- ', 'O', '- ', '- ', '- ']\n
83 ['- ', '- ', '- ', 'X', '- ', '- ', '- ']\n
84 ['- ', '- ', '- ', 'O', '- ', '- ', '- ']\n

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85 ['- ', '- ', '- ', 'X', 'X', 'O', '- ']
86 checkDorEndGame: 0
87 getValue: (0, 0, 0)
88 getScore: (0, 0)
89 root <node.Node object at 0x11d22dcf8>
90 iterated
91 root children value [1343. 3148. 5977. 1835. 4381. 1165.
6278.]
92 root children visits [ 2997. 6725. 12484. 4022. 9243.
2624. 13094.]
93 root choices: [<node.Node object at 0x123a0c518> <node.
Node object at 0x124e0fdd8>
94 <node.Node object at 0x124ee7128> <node.Node object at
0x124e0f438>
95 <node.Node object at 0x1246bb198> <node.Node object at
0x123d276d8>
96 <node.Node object at 0x123032b38>]
97 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']
98 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']
99 ['- ', '- ', '- ', 'O', '- ', '- ', '- ']
100 ['- ', '- ', '- ', 'X', '- ', '- ', '- ']
101 ['- ', '- ', '- ', 'O', '- ', '- ', '- ']
102 ['- ', '- ', '- ', 'X', 'X', 'O', 'X']
103 checkDorEndGame: 0
104 getValue: (0, 0, 0)
105 getScore: (0, 0)
106 [10, 32, 33, 34, 35, 36, 37]
107 [3, 4, 5, 6, 0, 1, 2]
108 slot # of next move4
109 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']
110 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']
111 ['- ', '- ', '- ', 'O', '- ', '- ', '- ']
112 ['- ', '- ', '- ', 'X', '- ', '- ', '- ']
113 ['- ', '- ', '- ', 'O', 'O', '- ', '- ']
114 ['- ', '- ', '- ', 'X', 'X', 'O', 'X']
115 checkDorEndGame: 0
116 getValue: (0, 0, 0)
117 getScore: (0, 0)
118 root <node.Node object at 0x125abd7b8>
119 iterated
120 root children value [ 236. 4995. 6889. 6310. 171. 5470.
315.]
121 root children visits [ 645. 10760. 14695. 13494. 492.
11360. 826.]
122 root choices: [<node.Node object at 0x13baa3d30> <node.
Node object at 0x135bae470>
123 <node.Node object at 0x13ac422b0> <node.Node object at
0x13aad94e0>
124 <node.Node object at 0x1300f4208> <node.Node object at
0x13baa3be0>

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125 <node.Node object at 0x1300acd68>]
126 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']
127 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']
128 ['- ', '- ', '- ', '0', '- ', '- ', '- ']
129 ['- ', '- ', '- ', 'X', '- ', '- ', '- ']
130 ['- ', '- ', '- ', '0', '0', 'X', '- ']
131 ['- ', '- ', '- ', 'X', 'X', '0', 'X']
132 checkDorEndGame: 0
133 getValue: (0, 0, 0)
134 getScore: (0, 0)
135 [10, 25, 26, 34, 35, 36, 37]
136 [3, 4, 5, 6, 0, 1, 2]
137 slot # of next move1
138 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']
139 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']
140 ['- ', '- ', '- ', '0', '- ', '- ', '- ']
141 ['- ', '- ', '- ', 'X', '- ', '- ', '- ']
142 ['- ', '- ', '- ', '0', '0', 'X', '- ']
143 ['- ', '0', '- ', 'X', 'X', '0', 'X']
144 checkDorEndGame: 0
145 getValue: (0, 0, 0)
146 getScore: (0, 0)
147 root <node.Node object at 0x152ecd240>
148 iterated
149 root children value [ 483. 4528. 2248. 15432. 880.
423. 169.]
150 root children visits [ 1254. 10156. 5194. 33503. 2160.
1114. 509.]
151 root choices: [<node.Node object at 0x161e5b0b8> <node.
Node object at 0x1536f99b0>
152 <node.Node object at 0x16357d160> <node.Node object at
0x1627658d0>
153 <node.Node object at 0x163bb0a20> <node.Node object at
0x163da80f0>
154 <node.Node object at 0x162d064e0>]
155 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']
156 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']
157 ['- ', '- ', '- ', '0', '- ', '- ', '- ']
158 ['- ', '- ', '- ', 'X', '- ', '- ', '- ']
159 ['- ', 'X', '- ', '0', '0', 'X', '- ']
160 ['- ', '0', '- ', 'X', 'X', '0', 'X']
161 checkDorEndGame: 0
162 getValue: (0, 0, 0)
163 getScore: (0, 0)
164 [10, 22, 25, 26, 34, 35, 37]
165 [3, 1, 4, 5, 6, 0, 2]
166 slot # of next move1
167 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']
168 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']
169 ['- ', '- ', '- ', '0', '- ', '- ', '- ']

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170 ['- ', '0', '- ', 'X', '- ', '- ', '- ']
171 ['- ', 'X', '- ', '0', '0', 'X', '- ']
172 ['- ', '0', '- ', 'X', 'X', '0', 'X']
173 checkDorEndGame: 0
174 getValue: (0, 0, 0)
175 getScore: (0, 0)
176 root <node.Node object at 0x1760aa160>
177 iterated
178 root children value [6991. 1318. 6300. 2484. 2597. 327.
785.]
179 root children visits [16059. 3272. 14549. 5947. 6205
. 928. 2027.]
180 root choices: [<node.Node object at 0x17ac73470> <node.
Node object at 0x17b6512b0>
181 <node.Node object at 0x17a2930f0> <node.Node object at
0x17a6d3240>
182 <node.Node object at 0x1797e0ef0> <node.Node object at
0x17b651240>
183 <node.Node object at 0x179f321d0>]
184 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']
185 ['- ', '- ', '- ', 'X', '- ', '- ', '- ']
186 ['- ', '- ', '- ', '0', '- ', '- ', '- ']
187 ['- ', '0', '- ', 'X', '- ', '- ', '- ']
188 ['- ', 'X', '- ', '0', '0', 'X', '- ']
189 ['- ', '0', '- ', 'X', 'X', '0', 'X']
190 checkDorEndGame: 0
191 getValue: (0, 0, 0)
192 getScore: (0, 0)
193 [3, 15, 25, 26, 34, 35, 37]
194 [3, 1, 4, 5, 6, 0, 2]
195 slot # of next move5
196 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']
197 ['- ', '- ', '- ', 'X', '- ', '- ', '- ']
198 ['- ', '- ', '- ', '0', '- ', '- ', '- ']
199 ['- ', '0', '- ', 'X', '- ', '0', '- ']
200 ['- ', 'X', '- ', '0', '0', 'X', '- ']
201 ['- ', '0', '- ', 'X', 'X', '0', 'X']
202 checkDorEndGame: 0
203 getValue: (0, 0, 0)
204 getScore: (0, 0)
205 root <node.Node object at 0x17fd0ac50>
206 iterated
207 root children value [ 137. 414. 23610. 558. 118.
139. 194.]
208 root children visits [ 419. 1072. 49189. 1400. 372
. 424. 558.]
209 root choices: [<node.Node object at 0x193727630> <node.
Node object at 0x1933c7b00>
210 <node.Node object at 0x193771940> <node.Node object at
0x18b470b00>

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211 <node.Node object at 0x1937275c0> <node.Node object at
    0x1911f49b0>
212 <node.Node object at 0x1921298d0>]
213 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']
214 ['- ', '- ', '- ', 'X', '- ', '- ', '- ']
215 ['- ', '- ', '- ', 'O', '- ', 'X', '- ']
216 ['- ', 'O', '- ', 'X', '- ', 'O', '- ']
217 ['- ', 'X', '- ', 'O', 'O', 'X', '- ']
218 ['- ', 'O', '- ', 'X', 'X', 'O', 'X']
219 checkDorEndGame: 0
220 getValue: (0, 0, 0)
221 getScore: (0, 0)
222 [3, 12, 15, 25, 34, 35, 37]
223 [3, 5, 1, 4, 6, 0, 2]
224 slot # of next move1
225 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']
226 ['- ', '- ', '- ', 'X', '- ', '- ', '- ']
227 ['- ', 'O', '- ', 'O', '- ', 'X', '- ']
228 ['- ', 'O', '- ', 'X', '- ', 'O', '- ']
229 ['- ', 'X', '- ', 'O', 'O', 'X', '- ']
230 ['- ', 'O', '- ', 'X', 'X', 'O', 'X']
231 checkDorEndGame: 0
232 getValue: (0, 0, 0)
233 getScore: (0, 0)
234 root <node.Node object at 0x1a8583ef0>
235 iterated
236 root children value [ 421.   723. 32927.   167.   111
    .   69.   65.]
237 root children visits [ 1027.  1678. 64754.   461.   331
    .  230.   220.]
238 root choices: [<node.Node object at 0x1aa047240> <node.
    Node object at 0x1a86a4a20>
239 <node.Node object at 0x1aa0472b0> <node.Node object at
    0x1aa1b1320>
240 <node.Node object at 0x1aabd90f0> <node.Node object at
    0x1a86134e0>
241 <node.Node object at 0x1a86a4a90>]
242 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']
243 ['- ', '- ', '- ', 'X', '- ', 'X', '- ']
244 ['- ', 'O', '- ', 'O', '- ', 'X', '- ']
245 ['- ', 'O', '- ', 'X', '- ', 'O', '- ']
246 ['- ', 'X', '- ', 'O', 'O', 'X', '- ']
247 ['- ', 'O', '- ', 'X', 'X', 'O', 'X']
248 checkDorEndGame: 0
249 getValue: (0, 0, 0)
250 getScore: (0, 0)
251 [3, 5, 8, 25, 34, 35, 37]
252 [3, 5, 1, 4, 6, 0, 2]
253 slot # of next move1
254 ['- ', '- ', '- ', '- ', '- ', '- ', '- ']

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255 ['- ', '0', '- ', 'X', '- ', 'X', '- ']
256 ['- ', '0', '- ', '0', '- ', 'X', '- ']
257 ['- ', '0', '- ', 'X', '- ', '0', '- ']
258 ['- ', 'X', '- ', '0', '0', 'X', '- ']
259 ['- ', '0', '- ', 'X', 'X', '0', 'X']
260 checkDorEndGame: 0
261 getValue: (0, 0, 0)
262 getScore: (0, 0)
263 root <node.Node object at 0x1ad108470>
264 iterated
265 root children value [2.4743e+04 2.0000e+01 1.9000e+01 1.
8000e+01 2.3000e+01 2.3000e+01
266 1.7000e+01]
267 root children visits [48603. 102. 99. 96. 110
. 110. 93.]
268 root choices: [<node.Node object at 0x1b09b1240> <node.
Node object at 0x1b0a3e2b0>
269 <node.Node object at 0x1b0a3e780> <node.Node object at
0x1af67e710>
270 <node.Node object at 0x1af368710> <node.Node object at
0x1b09f6fd0>
271 <node.Node object at 0x1afdd87f0>]
272 ['- ', 'X', '- ', '- ', '- ', '- ', '- ']
273 ['- ', '0', '- ', 'X', '- ', 'X', '- ']
274 ['- ', '0', '- ', '0', '- ', 'X', '- ']
275 ['- ', '0', '- ', 'X', '- ', '0', '- ']
276 ['- ', 'X', '- ', '0', '0', 'X', '- ']
277 ['- ', '0', '- ', 'X', 'X', '0', 'X']
278 checkDorEndGame: 0
279 getValue: (0, 0, 0)
280 getScore: (0, 0)
281 [3, 5, 25, 34, 35, 37]
282 [3, 5, 4, 6, 0, 2]
283 slot # of next move5
284 ['- ', 'X', '- ', '- ', '- ', '0', '- ']
285 ['- ', '0', '- ', 'X', '- ', 'X', '- ']
286 ['- ', '0', '- ', '0', '- ', 'X', '- ']
287 ['- ', '0', '- ', 'X', '- ', '0', '- ']
288 ['- ', 'X', '- ', '0', '0', 'X', '- ']
289 ['- ', '0', '- ', 'X', 'X', '0', 'X']
290 checkDorEndGame: 0
291 getValue: (0, 0, 0)
292 getScore: (0, 0)
293 root <node.Node object at 0x1b21e6b00>
294 iterated
295 root children value [11176. 2942. 7119. 3398. 362.]
296 root children visits [20641. 5651. 13287. 6491. 807.]
297 root choices: [<node.Node object at 0x1b7d368d0> <node.
Node object at 0x1b7d369b0>
298 <node.Node object at 0x1b6c044e0> <node.Node object at

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298 0x1b6c04470>
299 <node.Node object at 0x1b7d36860>]
300 ['- ', 'X', '- ', 'X', '- ', 'O', '- ']
301 ['- ', 'O', '- ', 'X', '- ', 'X', '- ']
302 ['- ', 'O', '- ', 'O', '- ', 'X', '- ']
303 ['- ', 'O', '- ', 'X', '- ', 'O', '- ']
304 ['- ', 'X', '- ', 'O', 'O', 'X', '- ']
305 ['- ', 'O', '- ', 'X', 'X', 'O', 'X']
306 checkDorEndGame: 0
307 getValue: (0, 0, 0)
308 getScore: (0, 0)
309 [25, 34, 35, 37]
310 [4, 6, 0, 2]
311 slot # of next move4
312 ['- ', 'X', '- ', 'X', '- ', 'O', '- ']
313 ['- ', 'O', '- ', 'X', '- ', 'X', '- ']
314 ['- ', 'O', '- ', 'O', '- ', 'X', '- ']
315 ['- ', 'O', '- ', 'X', 'O', 'O', '- ']
316 ['- ', 'X', '- ', 'O', 'O', 'X', '- ']
317 ['- ', 'O', '- ', 'X', 'X', 'O', 'X']
318 checkDorEndGame: 0
319 getValue: (0, 0, 0)
320 getScore: (0, 0)
321 root <node.Node object at 0x1b7d36940>
322 iterated
323 root children value [8141. 284. 224. 89.]
324 root children visits [10355. 426. 344. 156.]
325 root choices: [<node.Node object at 0x1c2c47e80> <node.
Node object at 0x1d1c8eb00>
326 <node.Node object at 0x1d064b0f0> <node.Node object at
0x1c2df8860>]
327 ['- ', 'X', '- ', 'X', '- ', 'O', '- ']
328 ['- ', 'O', '- ', 'X', '- ', 'X', '- ']
329 ['- ', 'O', '- ', 'O', 'X', 'X', '- ']
330 ['- ', 'O', '- ', 'X', 'O', 'O', '- ']
331 ['- ', 'X', '- ', 'O', 'O', 'X', '- ']
332 ['- ', 'O', '- ', 'X', 'X', 'O', 'X']
333 checkDorEndGame: 0
334 getValue: (0, 0, 0)
335 getScore: (0, 0)
336 [11, 34, 35, 37]
337 [4, 6, 0, 2]
338 slot # of next move4
339 ['- ', 'X', '- ', 'X', '- ', 'O', '- ']
340 ['- ', 'O', '- ', 'X', 'O', 'X', '- ']
341 ['- ', 'O', '- ', 'O', 'X', 'X', '- ']
342 ['- ', 'O', '- ', 'X', 'O', 'O', '- ']
343 ['- ', 'X', '- ', 'O', 'O', 'X', '- ']
344 ['- ', 'O', '- ', 'X', 'X', 'O', 'X']
345 checkDorEndGame: 0

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346 getValue: (0, 0, 0)
347 getScore: (0, 0)
348 root <node.Node object at 0x1de8f11d0>
349 iterated
350 root children value [1287. 2987. 2613. 151.]
351 root children visits [1704. 3830. 3364. 239.]
352 root choices: [<node.Node object at 0x1f243cb70> <node.
Node object at 0x1f1af69b0>
353 <node.Node object at 0x1f3296470> <node.Node object at
0x1f32054e0>]
354 ['- ', 'X', '- ', 'X', '- ', 'O', '- ']
355 ['- ', 'O', '- ', 'X', 'O', 'X', '- ']
356 ['- ', 'O', '- ', 'O', 'X', 'X', '- ']
357 ['- ', 'O', '- ', 'X', 'O', 'O', '- ']
358 ['- ', 'X', '- ', 'O', 'O', 'X', 'X']
359 ['- ', 'O', '- ', 'X', 'X', 'O', 'X']
360 checkDorEndGame: 0
361 getValue: (0, 0, 0)
362 getScore: (0, 0)
363 [4, 27, 35, 37]
364 [4, 6, 0, 2]
365 slot # of next move6
366 ['- ', 'X', '- ', 'X', '- ', 'O', '- ']
367 ['- ', 'O', '- ', 'X', 'O', 'X', '- ']
368 ['- ', 'O', '- ', 'O', 'X', 'X', '- ']
369 ['- ', 'O', '- ', 'X', 'O', 'O', 'O']
370 ['- ', 'X', '- ', 'O', 'O', 'X', 'X']
371 ['- ', 'O', '- ', 'X', 'X', 'O', 'X']
372 checkDorEndGame: 0
373 getValue: (0, 0, 0)
374 getScore: (0, 0)
375 root <node.Node object at 0x1f33b51d0>
376 iterated
377 root children value [ 661. 644. 1192. 332.]
378 root children visits [ 899. 877. 1568. 475.]
379 root choices: [<node.Node object at 0x1f4839da0> <node.
Node object at 0x1f66977f0>
380 <node.Node object at 0x1f5eb6e10> <node.Node object at
0x1f33b52b0>]
381 ['- ', 'X', '- ', 'X', '- ', 'O', '- ']
382 ['- ', 'O', '- ', 'X', 'O', 'X', '- ']
383 ['- ', 'O', '- ', 'O', 'X', 'X', '- ']
384 ['- ', 'O', '- ', 'X', 'O', 'O', 'O']
385 ['- ', 'X', '- ', 'O', 'O', 'X', 'X']
386 ['X', 'O', '- ', 'X', 'X', 'O', 'X']
387 checkDorEndGame: 0
388 getValue: (0, 0, 0)
389 getScore: (0, 0)
390 [4, 20, 28, 37]
391 [4, 6, 0, 2]

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392 slot # of next move4
393 ['- ', 'X', '- ', 'X', '0', '0', '- ']
394 ['- ', '0', '- ', 'X', '0', 'X', '- ']
395 ['- ', '0', '- ', '0', 'X', 'X', '- ']
396 ['- ', '0', '- ', 'X', '0', '0', '0']
397 ['- ', 'X', '- ', '0', '0', 'X', 'X']
398 ['X', '0', '- ', 'X', 'X', '0', 'X']
399 checkDorEndGame: 0
400 getValue: (0, 0, 0)
401 getScore: (0, 0)
402 root <node.Node object at 0x21e6e77f0>
403 iterated
404 root children value [171. 231. 30.]
405 root children visits [255. 334. 60.]
406 root choices: [<node.Node object at 0x21e779e48> <node.
Node object at 0x21e970240>
407 <node.Node object at 0x21e898d30>]
408 ['- ', 'X', '- ', 'X', '0', '0', '- ']
409 ['- ', '0', '- ', 'X', '0', 'X', '- ']
410 ['- ', '0', '- ', '0', 'X', 'X', '- ']
411 ['- ', '0', '- ', 'X', '0', '0', '0']
412 ['X', 'X', '- ', '0', '0', 'X', 'X']
413 ['X', '0', '- ', 'X', 'X', '0', 'X']
414 checkDorEndGame: 0
415 getValue: (0, 0, 0)
416 getScore: (0, 0)
417 [20, 21, 37]
418 [6, 0, 2]
419 slot # of next move6
420 ['- ', 'X', '- ', 'X', '0', '0', '- ']
421 ['- ', '0', '- ', 'X', '0', 'X', '- ']
422 ['- ', '0', '- ', '0', 'X', 'X', '0']
423 ['- ', '0', '- ', 'X', '0', '0', '0']
424 ['X', 'X', '- ', '0', '0', 'X', 'X']
425 ['X', '0', '- ', 'X', 'X', '0', 'X']
426 checkDorEndGame: 0
427 getValue: (0, 0, 0)
428 getScore: (0, 0)
429 root <node.Node object at 0x21eccf2b0>
430 iterated
431 root children value [37. 37. 79.]
432 root children visits [ 63. 64. 119.]
433 root choices: [<node.Node object at 0x21f6a0780> <node.
Node object at 0x21f389630>
434 <node.Node object at 0x21fdeae80>]
435 ['- ', 'X', '- ', 'X', '0', '0', '- ']
436 ['- ', '0', '- ', 'X', '0', 'X', '- ']
437 ['- ', '0', '- ', '0', 'X', 'X', '0']
438 ['- ', '0', '- ', 'X', '0', '0', '0']
439 ['X', 'X', '- ', '0', '0', 'X', 'X']

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440 ['X', 'O', 'X', 'X', 'X', 'O', 'X']
441 checkDorEndGame: 0
442 getValue: (0, 0, 0)
443 getScore: (0, 0)
444 [13, 21, 30]
445 [6, 0, 2]
446 slot # of next move2
447 ['- ', 'X', '- ', 'X', 'O', 'O', '- ']
448 ['- ', 'O', '- ', 'X', 'O', 'X', '- ']
449 ['- ', 'O', '- ', 'O', 'X', 'X', 'O']
450 ['- ', 'O', '- ', 'X', 'O', 'O', 'O']
451 ['X', 'X', 'O', 'O', 'O', 'X', 'X']
452 ['X', 'O', 'X', 'X', 'X', 'O', 'X']
453 checkDorEndGame: 0
454 getValue: (0, 0, 0)
455 getScore: (0, 0)
456 root <node.Node object at 0x22096db00>
457 iterated
458 root children value [ 3.  4. 55.]
459 root children visits [ 22. 24. 127.]
460 root choices: [<node.Node object at 0x223f90f60> <node.
Node object at 0x223c7c1d0>
461 <node.Node object at 0x223f49b70>]
462 ['- ', 'X', '- ', 'X', 'O', 'O', '- ']
463 ['- ', 'O', '- ', 'X', 'O', 'X', '- ']
464 ['- ', 'O', '- ', 'O', 'X', 'X', 'O']
465 ['- ', 'O', 'X', 'X', 'O', 'O', 'O']
466 ['X', 'X', 'O', 'O', 'O', 'X', 'X']
467 ['X', 'O', 'X', 'X', 'X', 'O', 'X']
468 checkDorEndGame: 0
469 getValue: (0, 0, 0)
470 getScore: (0, 0)
471 [13, 16, 21]
472 [6, 2, 0]
473 slot # of next move2
474 ['- ', 'X', '- ', 'X', 'O', 'O', '- ']
475 ['- ', 'O', '- ', 'X', 'O', 'X', '- ']
476 ['- ', 'O', 'O', 'O', 'X', 'X', 'O']
477 ['- ', 'O', 'X', 'X', 'O', 'O', 'O']
478 ['X', 'X', 'O', 'O', 'O', 'X', 'X']
479 ['X', 'O', 'X', 'X', 'X', 'O', 'X']
480 checkDorEndGame: 0
481 getValue: (0, 0, 0)
482 getScore: (0, 0)
483 root <node.Node object at 0x223fdae80>
484 iterated
485 root children value [19.  7.  4.]
486 root children visits [50. 26. 20.]
487 root choices: [<node.Node object at 0x2240f9a20> <node.
Node object at 0x2240f9b00>

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488 <node.Node object at 0x2240f9908>]
489 ['- ', 'X', '- ', 'X', '0', '0', '- ']
490 ['- ', '0', 'X', 'X', '0', 'X', '- ']
491 ['- ', '0', '0', '0', 'X', 'X', '0']
492 ['- ', '0', 'X', 'X', '0', '0', '0']
493 ['X', 'X', '0', '0', '0', 'X', 'X']
494 ['X', '0', 'X', 'X', 'X', '0', 'X']
495 checkDorEndGame: 0
496 getValue: (0, 0, 0)
497 getScore: (0, 0)
498 [2, 13, 21]
499 [2, 6, 0]
500 slot # of next move2
501 ['- ', 'X', '0', 'X', '0', '0', '- ']
502 ['- ', '0', 'X', 'X', '0', 'X', '- ']
503 ['- ', '0', '0', '0', 'X', 'X', '0']
504 ['- ', '0', 'X', 'X', '0', '0', '0']
505 ['X', 'X', '0', '0', '0', 'X', 'X']
506 ['X', '0', 'X', 'X', 'X', '0', 'X']
507 checkDorEndGame: 0
508 getValue: (0, 0, 0)
509 getScore: (0, 0)
510 root <node.Node object at 0x2241401d0>
511 iterated
512 root children value [5. 6.]
513 root children visits [216. 226.]
514 root choices: [<node.Node object at 0x2241cf5c0> <node.
Node object at 0x224188a90>]
515 ['- ', 'X', '0', 'X', '0', '0', '- ']
516 ['- ', '0', 'X', 'X', '0', 'X', '- ']
517 ['- ', '0', '0', '0', 'X', 'X', '0']
518 ['X', '0', 'X', 'X', '0', '0', '0']
519 ['X', 'X', '0', '0', '0', 'X', 'X']
520 ['X', '0', 'X', 'X', 'X', '0', 'X']
521 checkDorEndGame: 0
522 getValue: (0, 0, 0)
523 getScore: (0, 0)
524 [13, 14]
525 [6, 0]
526 slot # of next move0
527 ['- ', 'X', '0', 'X', '0', '0', '- ']
528 ['- ', '0', 'X', 'X', '0', 'X', '- ']
529 ['0', '0', '0', '0', 'X', 'X', '0']
530 ['X', '0', 'X', 'X', '0', '0', '0']
531 ['X', 'X', '0', '0', '0', 'X', 'X']
532 ['X', '0', 'X', 'X', 'X', '0', 'X']
533 checkDorEndGame: 1
534 getValue: (-1, -1, 1)
535 getScore: (-1, 1)
536 GAME OVER!

```

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537  
538 Process finished with exit code 0  
539
```