## Problem 1



- is Player 2
score: 0
pip: 138
Unlimited Game Jacoby Beaver
pip: 140
score: 0
- is Player 1

XGID=aAa-BBBB-A--bC---c-db-bAA-:0:0:1:21:0:0:3:0:10

- to play 21

| 1. | Rollout ${ }^{1}$ | 24/23 13/11 | eq: +0.127 |
| :---: | :---: | :---: | :---: |
|  | Player: <br> Opponent: | $\begin{aligned} & 52.69 \% \text { (G:19.31\% B:0.76\%) } \\ & \text { 47.31\% (G:16.44\% B:1.02\%) } \end{aligned}$ | Conf.: $\pm 0.015(+0.112 \ldots+0.142)-[100.0 \%]$ Duration: 1 minute 36 seconds |
| 2. | Rollout ${ }^{1}$ | 9/6 | eq: $+0.041(-0.086)$ |
|  | Player: <br> Opponent: | $\begin{aligned} & 50.88 \% \text { (G:19.94\% B:0.72\%) } \\ & \text { 49.12\% (G:19.07\% B:0.99\%) } \end{aligned}$ | Conf.: $\pm 0.015(+0.027 \ldots+0.056)-[0.0 \%]$ <br> Duration: 1 minute 37 seconds |
| 3. | Rollout ${ }^{1}$ | 24/23 9/7 | eq: $+0.030(-0.097)$ |
|  | Player: <br> Opponent: | $\begin{aligned} & 50.05 \% \text { (G:18.34\% B:0.61\%) } \\ & \text { 49.95\% (G:16.15\% B:0.82\%) } \end{aligned}$ | $\text { Conf.: } \pm 0.015(+0.015 \ldots+0.045)-[0.0 \%]$ <br> Duration: 1 minute 35 seconds |
| 4. | Rollout ${ }^{1}$ | 24/21 | eq: +0.028 (-0.099) |
|  | Player: <br> Opponent: | $\begin{aligned} & 51.46 \% \text { (G:18.01\% B:0.69\%) } \\ & \text { 48.54\% (G:19.94\% B:1.37\%) } \end{aligned}$ | Conf.: $\pm 0.014(+0.014 \ldots+0.042)-[0.0 \%]$ Duration: 1 minute 35 seconds |
| 5. | Rollout ${ }^{1}$ | 4/2* $2 / 1$ | eq: +0.028 (-0.099) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 48.83\% (G:23.81\% B:0.40\%) } \\ & \text { 51.17\% (G:20.44\% B:1.74\%) } \end{aligned}$ | Conf.: $\pm 0.017(+0.011 \ldots+0.045)-[0.0 \%]$ Duration: 1 minute 19 seconds |
| 6. | Rollout ${ }^{1}$ | 13/11 9/8 | eq: -0.035 (-0.162) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 50.89\% (G:18.41\% B:0.75\%) } \\ & \text { 49.11\% (G:23.46\% B:2.46\%) } \end{aligned}$ | Conf.: $\pm 0.021$ ( $-0.056 \ldots-0.014$ ) - [0.0\%] <br> Duration: 1 minute 31 seconds |
| 7. | Rollout ${ }^{1}$ | 13/10 | eq: -0.043 (-0.170) |
|  | Player: <br> Opponent: | $\begin{aligned} & 50.75 \% \text { (G:18.18\% B:0.76\%) } \\ & 49.25 \% \text { (G:22.36\% B:2.10\%) } \end{aligned}$ | Conf.: $\pm 0.015(-0.058 \ldots-0.028)-[0.0 \%]$ <br> Duration: 1 minute 28 seconds |

[^0]
## Problem 2

is Player 2

score: 0
pip: 152

7 point match
pip: 178
score: 0

- is Player 1

XGID=--b---E-D-b--B--bc-db-C-A-:1:1:1:52:0:0:0:7:5

- to play 52

| 1. | Rollout ${ }^{1}$ | 8/3 6/4 | eq: -0.460 |
| :---: | :---: | :---: | :---: |
|  | Player: <br> Opponent: | $\begin{aligned} & 33.01 \% ~(\mathrm{G}: 6.82 \% \mathrm{~B}: 0.57 \%) \\ & 66.99 \% \text { (G:29.75\% B:1.65\%) } \end{aligned}$ | Conf.: $\pm 0.013$ ( $-0.473 \ldots-0.448$ ) - [100.0\%] Duration: 5 minutes 49 seconds |
| 2. | Rollout ${ }^{1}$ | 6/4 6/1 | eq: -0.543 (-0.083) |
|  | Player: <br> Opponent: | $\begin{aligned} & 29.43 \% ~(G: 6.14 \% \mathrm{~B}: 0.32 \%) \\ & 70.57 \% \text { (G:27.64\% B:1.74\%) } \end{aligned}$ | Conf.: $\pm 0.012$ ( $-0.555 \ldots-0.531$ ) - [0.0\%] <br> Duration: 5 minutes 18 seconds |
| 3. | Rollout ${ }^{1}$ | 8/1 | eq: -0.546 (-0.085) |
|  | Player: <br> Opponent: | $\begin{aligned} & 27.62 \% ~(G: 6.10 \% ~ B: 0.29 \%) \\ & 72.38 \% ~(G: 23.89 \% ~ B: 1.31 \%) \end{aligned}$ | Conf.: $\pm 0.010$ ( $-0.556 \ldots-0.536$ ) - [0.0\%] Duration: 4 minutes 37 seconds |
| 4. | Rollout ${ }^{1}$ | 8/6 8/3 | eq: -0.552 (-0.092) |
|  | Player: <br> Opponent: | $\begin{aligned} & 29.10 \% ~(\mathrm{G}: 5.88 \% \mathrm{~B}: 0.35 \%) \\ & 70.90 \% \text { (G:27.83\% B:1.43\%) } \end{aligned}$ | Conf.: $\pm 0.011$ ( $-0.563 \ldots-0.541$ ) - [0.0\%] <br> Duration: 5 minutes 12 seconds |
| 5. | Rollout ${ }^{1}$ | 13/8 6/4 | eq: -0.576 (-0.116) |
|  | Player: <br> Opponent: | $\begin{aligned} & 29.68 \% ~(G: 5.96 \% ~ B: 0.50 \%) \\ & 70.32 \% ~(G: 31.70 \% ~ B: 1.85 \%) \end{aligned}$ | Conf.: $\pm 0.011$ ( $-0.587 \ldots-0.564$ ) - [0.0\%] <br> Duration: 5 minutes 16 seconds |
| 6. | Rollout ${ }^{1}$ | 13/11 13/8 | eq: $-0.584(-0.123)$ |
|  | Player: <br> Opponent: | $\begin{aligned} & 27.53 \% ~(\mathrm{G}: 5.40 \% \mathrm{~B}: 0.42 \%) \\ & 72.47 \% \text { (G:26.67\% B:1.34\%) } \end{aligned}$ | Conf.: $\pm 0.010$ ( $-0.594 \ldots-0.574$ ) - [0.0\%] <br> Duration: 4 minutes 57 seconds |
| 7. | Rollout ${ }^{1}$ | 24/22 8/3 | eq: -0.602 (-0.141) |
|  | Player: <br> Opponent: | $\begin{aligned} & 27.28 \% ~(G: 5.54 \% \mathrm{~B}: 0.40 \%) \\ & 72.72 \% \text { (G:28.25\% B:1.43\%) } \end{aligned}$ | Conf.: $\pm 0.011$ ( $-0.612 \ldots-0.591$ ) - [0.0\%] <br> Duration: 5 minutes 07 seconds |
| 8. | Rollout ${ }^{1}$ | 13/6 | eq: -0.613 (-0.153) |
|  | Player: <br> Opponent: | $\begin{aligned} & 27.03 \% ~(G: 5.14 \% ~ B: 0.55 \%) \\ & 72.97 \% ~(G: 27.94 \% ~ B: 1.51 \%) \end{aligned}$ | Conf.: $\pm 0.010$ ( $-0.623 \ldots-0.603$ ) - [0.0\%] Duration: 4 minutes 45 seconds |
| 9. | Rollout ${ }^{1}$ | 24/22 6/1 | eq: -0.632 (-0.172) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 25.05\% (G:4.80\% B:0.36\%) } \\ & 74.95 \% \text { (G:25.21\% B:1.13\%) } \end{aligned}$ | Conf.: $\pm 0.010$ ( $-0.642 \ldots-0.623$ ) - [0.0\%] <br> Duration: 4 minutes 35 seconds |

## Problem 3



O is Player 2
score: 1
pip: 129

5 point match
pip: 134
score: 2
is Player 1
XGID=-aBA--C-D-a--D-d-abc-ab--A:0:0:1:11:2:1:0:5:10

- to play 11

| 1. | Rollout ${ }^{1}$ | Bar/23 2/1*(2) | eq: -0.557 |
| :---: | :---: | :---: | :---: |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 43.19\% (G:14.92\% B:1.27\%) } \\ & 56.81 \% ~(G: 21.26 \% ~ B: 1.22 \%) \end{aligned}$ | Conf.: $\pm 0.021(-0.578 . . .-0.535)-[100.0 \%]$ <br> Duration: 2 minutes 30 seconds |
| 2. | Rollout ${ }^{1}$ | Bar/24 13/10* | eq: -0.710 (-0.153) |
|  | Player: <br> Opponent: | $\begin{aligned} & 41.89 \% ~(G: 15.20 \% ~ B: 2.54 \%) \\ & 58.11 \% ~(G: 22.83 \% ~ B: 2.48 \%) \end{aligned}$ | Conf.: $\pm 0.022(-0.732 \ldots-0.687)-[0.0 \%]$ <br> Duration: 2 minutes 49 seconds |
| 3. | Rollout ${ }^{1}$ | Bar/23 3/1* | eq: -0.735 (-0.178) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 41.38\% (G:14.37\% B:1.21\%) } \\ & 58.62 \% ~(G: 22.81 \% ~ B: 1.34 \%) \end{aligned}$ | Conf.: $\pm 0.023$ (-0.758...-0.712) - [0.0\%] <br> Duration: 2 minutes 28 seconds |
| 4. | Rollout ${ }^{1}$ | Bar/24 6/3 | eq: -0.754 (-0.197) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 40.08\% (G:10.99\% B:1.38\%) } \\ & \text { 59.92\% (G:20.80\% B:0.70\%) } \end{aligned}$ | Conf.: $\pm 0.021$ (-0.775...-0.733) - [0.0\%] <br> Duration: 2 minutes 08 seconds |
| 5. | Rollout ${ }^{1}$ | Bar/24 8/7(2) 3/2 | eq: -0.774 (-0.217) |
|  | Player: <br> Opponent: | $\begin{aligned} & 39.13 \% ~(G: 10.32 \% ~ B: 1.15 \%) \\ & 60.87 \% ~(G: 20.02 \% ~ B: 1.05 \%) \end{aligned}$ | Conf.: $\pm 0.021$ (-0.795...-0.754) - [0.0\%] <br> Duration: 2 minutes 16 seconds |
| 6. | Rollout ${ }^{1}$ | Bar/24 3/1* 2/1 | eq: -0.801 (-0.244) |
|  | Player: <br> Opponent: | $\begin{aligned} & 39.33 \% ~(G: 13.67 \% ~ B: 1.21 \%) \\ & 60.67 \% ~(G: 21.65 \% ~ B: 1.49 \%) \end{aligned}$ | Conf.: $\pm 0.021$ (-0.822...-0.780) - [0.0\%] <br> Duration: 2 minutes 27 seconds |
| 7. | Rollout ${ }^{1}$ | Bar/24 8/7 2/1*(2) | eq: -0.802 (-0.246) |
|  | Player: <br> Opponent: | $\begin{aligned} & 39.71 \% ~(G: 15.78 \% ~ B: 1.27 \%) \\ & 60.29 \% ~(G: 22.50 \% ~ B: 2.27 \%) \end{aligned}$ | Conf.: $\pm 0.023(-0.825 \ldots-0.779)-[0.0 \%]$ Duration: 2 minutes 54 seconds |
| 8. | Rollout ${ }^{1}$ | Bar/24 13/12 2/1*(2) | eq: -0.845 (-0.288) |
|  | Player: <br> Opponent: | $\begin{aligned} & 39.47 \% ~(G: 15.19 \% ~ B: 1.24 \%) \\ & 60.53 \% ~(G: 22.79 \% ~ B: 2.93 \%) \end{aligned}$ | Conf.: $\pm 0.022(-0.867 . . .-0.822)-[0.0 \%]$ Duration: 2 minutes 54 seconds |
| 9. | Rollout ${ }^{1}$ | Bar/23 8/7(2) | eq: -0.904 (-0.347) |
|  | Player: <br> Opponent: | $\begin{aligned} & 41.60 \% ~(G: 13.29 \% ~ B: 1.90 \%) \\ & 58.40 \% ~(G: 26.24 \% ~ B: 1.83 \%) \end{aligned}$ | Conf.: $\pm 0.023$ (-0.927...-0.882) - [0.0\%] Duration: 2 minutes 35 seconds |
| 10. | Rollout ${ }^{1}$ | Bar/24 8/7 3/1* | eq: -0.913 (-0.357) |
|  | Player: <br> Opponent: | $\begin{aligned} & 38.80 \% ~(G: 14.88 \% ~ B: 1.20 \%) \\ & 61.20 \% ~(G: 23.70 \% ~ B: 2.02 \%) \end{aligned}$ | Conf.: $\pm 0.023$ (-0.936...-0.891) - [0.0\%] <br> Duration: 3 minutes 00 second |

## Problem 4



O is Player 2
score: 4
pip: 79
5 point match
Crawford
pip: 117
score: 0

- is Player 1

XGID=--BB-BDaA-B------b-eAb-bcA:0:0:1:52:0:4:1:5:10

- to play 52

| 1. | Rollout ${ }^{1}$ | Bar/18 | eq: -0.456 |
| :---: | :---: | :---: | :---: |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 27.01\% (G:2.63\% B:0.12\%) } \\ & \text { 72.99\% (G:22.01\% B:0.25\%) } \end{aligned}$ | Conf.: $\pm 0.003$ ( $-0.460 \ldots-0.453$ ) - [100.0\%] Duration: 1 minute 14 seconds |
| 2. | Rollout ${ }^{1}$ | Bar/20 8/6 | eq: -0.541 (-0.084) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 22.90\% (G:1.21\% B:0.05\%) } \\ & 77.10 \% ~(G: 5.18 \% ~ B: 0.02 \%) \end{aligned}$ | Conf.: $\pm 0.002$ ( $-0.543 \ldots-. .0 .538$ ) - [0.0\%] Duration: 1 minute 09 seconds |
| 3. | Rollout ${ }^{1}$ | Bar/20 6/4 | eq: -0.554 (-0.097) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 22.22\% (G:1.46\% B:0.05\%) } \\ & \text { 77.78\% (G:13.71\% B:0.08\%) } \end{aligned}$ | Conf.: $\pm 0.003$ (-0.557...-0.551) - [0.0\%] Duration: 1 minute 22 seconds |
| 4. | Rollout ${ }^{1}$ | Bar/20 10/8 | eq: -0.594 (-0.137) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 20.24\% (G:1.28\% B:0.04\%) } \\ & 79.76 \% ~(G: 14.75 \% \text { B:0.07\%) } \end{aligned}$ | Conf.: $\pm 0.003$ (-0.596...-0.591) - [0.0\%] Duration: 1 minute 18 seconds |

[^1]
## Problem 5



| 1. | Rollout ${ }^{1}$ | 21/15 6/4* | eq: -0.073 |
| :---: | :---: | :---: | :---: |
|  | Player: <br> Opponent: | $\begin{aligned} & 35.22 \% ~(\mathrm{G}: 6.69 \% \text { B:0.70\%) } \\ & 64.78 \% \text { (G:30.80\% B:3.96\%) } \end{aligned}$ | Conf.: $\pm 0.016$ ( $-0.088 \ldots-. .0 .057$ ) - [100.0\%] <br> Duration: 6 minutes 02 seconds |
| 2. | Rollout ${ }^{1}$ | 21/15 11/9 | eq: -0.194 (-0.122) |
|  | Player: <br> Opponent: | $\begin{aligned} & 31.29 \% ~(G: 5.60 \% ~ B: 0.42 \%) \\ & 68.71 \% ~(G: 25.63 \% ~ B: 3.69 \%) \end{aligned}$ | Conf.: $\pm 0.013$ (-0.208...-0.181) - [0.0\%] Duration: 4 minutes 53 seconds |
| 3. | Rollout ${ }^{1}$ | 21/13 | eq: -0.208 (-0.136) |
|  | Player: <br> Opponent: | $\begin{aligned} & 30.80 \% ~(G: 5.44 \% ~ B: 0.53 \%) \\ & 69.20 \% ~(G: 26.00 \% ~ B: 2.66 \%) \end{aligned}$ | Conf.: $\pm 0.013$ (-0.221 ...-0.196) - [0.0\%] Duration: 5 minutes 07 seconds |
| 4. | Rollout ${ }^{1}$ | 13/7 6/4* | eq: -0.216 (-0.144) |
|  | Player: <br> Opponent: | $\begin{aligned} & 32.41 \% ~(G: 5.44 \% ~ B: 0.48 \%) \\ & 67.59 \% ~(G: 37.74 \% \mathrm{~B}: 6.78 \%) \end{aligned}$ | Conf.: $\pm 0.021$ ( $-0.237 \ldots-0.196$ ) - [0.0\%] Duration: 6 minutes 46 seconds |
| 5. | Rollout ${ }^{1}$ | 11/5 6/4* | eq: -0.239 (-0.166) |
|  | Player: <br> Opponent: | $\begin{aligned} & 31.10 \% ~(G: 5.28 \% ~ B: 0.56 \%) \\ & 68.90 \% ~(G: 32.09 \% ~ B: 4.54 \%) \end{aligned}$ | Conf.: $\pm 0.016$ (-0.255...-0.222) - [0.0\%] <br> Duration: 6 minutes 17 seconds |
| 6. | Rollout ${ }^{1}$ | 21/15 5/3 | eq: -0.243 (-0.170) |
|  | Player: <br> Opponent: | $\begin{aligned} & 30.28 \% ~(G: 5.06 \% ~ B: 0.50 \%) \\ & 69.72 \% ~(G: 28.16 \% ~ B: 3.26 \%) \end{aligned}$ | Conf.: $\pm 0.013$ (-0.256...-0.230) - [0.0\%] Duration: 4 minutes 54 seconds |
| 7. | Rollout ${ }^{1}$ | 21/15 13/11 | eq: -0.243 (-0.171) |
|  | Player: <br> Opponent: | $\begin{aligned} & 30.22 \% ~(G: 4.98 \% ~ B: 0.45 \%) \\ & \text { 69.78\% (G:28.22\% B:2.85\%) } \end{aligned}$ | Conf.: $\pm 0.013$ (-0.256...-0.230) - [0.0\%] Duration: 4 minutes 57 seconds |
| 8. | Rollout ${ }^{1}$ | 15/9 6/4* | eq: -0.265 (-0.192) |
|  | Player: <br> Opponent: | $\begin{aligned} & 31.23 \% ~(G: 4.98 \% \text { B:0.61\%) } \\ & 68.77 \% ~(G: 39.36 \% ~ B: 8.04 \%) \end{aligned}$ | Conf.: $\pm 0.020(-0.284 \ldots-0.245)-[0.0 \%]$ <br> Duration: 6 minutes 43 seconds |
| 9. | Rollout ${ }^{1}$ | 24/22 21/15 | eq: -0.276 (-0.203) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 29.27\% (G:4.80\% B:0.41\%) } \\ & 70.73 \% \text { (G:27.17\% B:2.47\%) } \end{aligned}$ | Conf.: $\pm 0.013(-0.288 \ldots-0.263)-[0.0 \%]$ Duration: 5 minutes 34 seconds |
| 10. | Rollout ${ }^{1}$ | 11/3 | eq: -0.319 (-0.246) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 27.97\% (G:5.30\% B:0.44\%) } \\ & \text { 72.03\% (G:24.79\% B:2.89\%) } \end{aligned}$ | Conf.: $\pm 0.012$ ( $-0.331 \ldots-0.306$ ) - [0.0\%] <br> Duration: 5 minutes 02 seconds |

## Problem 6



O is Player 2
score: 0
pip: 149
5 point match Crawford
pip: 141
score: 4
is Player 1
XGID=-b----EBBB--cC-a-abbbb--A-:0:0:1:21:4:0:1:5:10

- to play 21

| 1. | Rollout ${ }^{1}$ | 24/22 6/5 | eq: -0.112 |
| :---: | :---: | :---: | :---: |
|  | Player: <br> Opponent: | $\begin{aligned} & 45.62 \% ~(G: 13.14 \% \text { B:1.54\%) } \\ & 54.38 \% \text { (G:20.20\% B:0.74\%) } \end{aligned}$ | Conf.: $\pm 0.006(-0.118 \ldots-0.106)-[100.0 \%]$ Duration: 3 minutes 58 seconds |
| 2. | Rollout ${ }^{1}$ | 24/22 9/8 | eq: -0.184 (-0.072) |
|  | Player: | 42.10\% (G:13.16\% B:1.78\%) | Conf.: $\pm 0.005(-0.189 . . .-0.179)-[0.0 \%]$ |
|  | Opponent: | 57.90\% (G:21.98\% B:0.74\%) | Duration: 3 minutes 48 seconds |
| 3. | Rollout ${ }^{1}$ | 24/23 13/11 | eq: -0.202 (-0.090) |
|  | Player: | 41.18\% (G:14.03\% B:1.92\%) | Conf.: $\pm 0.006$ (-0.207...-0.196) - [0.0\%] |
|  | Opponent: | 58.82\% (G:20.15\% B:0.82\%) | Duration: 3 minutes 43 seconds |
| 4. | Rollout ${ }^{1}$ | 13/11 6/5 | eq: -0.203 (-0.091) |
|  | Player: | 41.48\% (G:13.06\% B:1.47\%) | Conf.: $\pm 0.006$ (-0.210...-0.197) - [0.0\%] |
|  | Opponent: | 58.52\% (G:23.06\% B:1.31\%) | Duration: 3 minutes 49 seconds |
| 5. | Rollout ${ }^{1}$ | 7/5 6/5 | eq: -0.214 (-0.102) |
|  | Player: | 40.73\% (G:15.64\% B:2.17\%) | Conf.: $\pm 0.006$ (-0.220 ...-0.208) - [0.0\%] |
|  | Opponent: | 59.27\% (G:20.30\% B:1.14\%) | Duration: 3 minutes 40 seconds |
| 6. | Rollout ${ }^{1}$ | 24/22 8/7 | eq: -0.215 (-0.103) |
|  | Player: | 40.67\% (G:13.25\% B:1.76\%) | Conf.: $\pm 0.006$ (-0.221...-0.209) - [0.0\%] |
|  | Opponent: | 59.33\% (G:23.20\% B:0.91\%) | Duration: 3 minutes 50 seconds |
| 7. | Rollout ${ }^{1}$ | 13/10 | eq: -0.227 (-0.115) |
|  | Player: | 40.03\% (G:13.87\% B:1.38\%) | Conf.: $\pm 0.006$ (-0.233...-0.221) - [0.0\%] |
|  | Opponent: | 59.97\% (G:19.78\% B:1.05\%) | Duration: 3 minutes 33 seconds |
| 8. | Rollout ${ }^{1}$ | 24/23 6/4 | eq: -0.228 (-0.116) |
|  | Player: | 40.00\% (G:11.61\% B:1.78\%) | Conf.: $\pm 0.006$ (-0.234 $\ldots-0.222)-[0.0 \%]$ |
|  | Opponent: | 60.00\% (G:23.20\% B:0.86\%) | Duration: 3 minutes 50 seconds |
| 9. | Rollout ${ }^{1}$ | 24/23 9/7 | eq: -0.262 (-0.150) |
|  | Player: | 38.15\% (G:12.24\% B:1.52\%) | Conf.: $\pm 0.005(-0.268 . . .-0.257)-[0.0 \%]$ |
|  | Opponent: | 61.85\% (G:20.79\% B:0.77\%) |  |
| 10. | Rollout ${ }^{1}$ | 6/3 | eq: -0.262 (-0.150) |
|  | Player: | 38.31\% (G:12.80\% B:1.57\%) | Conf.: $\pm 0.006$ (-0.268...-0.256) - [0.0\%] |
|  | Opponent: | 61.69\% (G:21.87\% B:1.01\%) | Duration: 3 minutes 50 seconds |

## Problem 7


is Player 2
score: 0
pip: 157

3 point match
pip: 164
score: 0
is Player 1
XGID=-a-a-BDBBa--b---Bccd--B-A-:0:0:1:65:0:0:0:3:10

- to play 65

| 1. | Rollout ${ }^{1}$ | 22/11 | eq: +0.238 |
| :---: | :---: | :---: | :---: |
|  | Player: <br> Opponent: | $\begin{aligned} & 54.48 \% ~(\mathrm{G}: 17.92 \% \mathrm{~B}: 1.91 \%) \\ & 45.52 \% ~(\mathrm{G}: 13.30 \% \mathrm{~B}: 1.57 \%) \end{aligned}$ | Conf.: $\pm 0.019(+0.219 \ldots+0.257)-[100.0 \%]$ Duration: 3 minutes 54 seconds |
| 2. | Rollout ${ }^{1}$ | 22/16 6/1* | eq: +0.116 (-0.122) |
|  | Player: <br> Opponent: | $\begin{aligned} & 51.33 \% ~(\mathrm{G}: 17.64 \% \mathrm{~B}: 1.32 \%) \\ & 48.67 \% ~(\mathrm{G}: 13.55 \% \mathrm{~B}: 1.54 \%) \end{aligned}$ | Conf.: $\pm 0.018$ (+0.098 ...+0.134) - [0.0\%] Duration: 4 minutes 07 seconds |
| 3. | Rollout ${ }^{1}$ | 16/5 | eq: $+0.047(-0.191)$ |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 49.87\% (G:17.99\% B:1.95\%) } \\ & 50.13 \% ~(G: 14.01 \% ~ B: 1.62 \%) \end{aligned}$ | Conf.: $\pm 0.020(+0.027 \ldots+0.067)-[0.0 \%]$ <br> Duration: 3 minutes 26 seconds |
| 4. | Rollout ${ }^{1}$ | 16/11 16/10 | eq: +0.024 (-0.214) |
|  | Player: <br> Opponent: | $\begin{aligned} & 49.98 \% ~(G: 16.12 \% ~ B: 1.28 \%) \\ & 50.02 \% ~(G: 14.48 \% ~ B: 1.70 \%) \end{aligned}$ | Conf.: $\pm 0.018$ (+0.006 $\ldots+0.041)-[0.0 \%]$ Duration: 3 minutes 35 seconds |
| 5. | Rollout ${ }^{1}$ | 22/16 8/3* | eq: -0.006 (-0.244) |
|  | Player: <br> Opponent: | $\begin{aligned} & 49.28 \% ~(G: 17.78 \% ~ B: 2.39 \%) \\ & 50.72 \% ~(G: 16.18 \% ~ B: 2.05 \%) \end{aligned}$ | Conf.: $\pm 0.020(-0.027 . . .+0.014)-[0.0 \%]$ Duration: 4 minutes 26 seconds |
| 6. | Rollout ${ }^{1}$ | 7/1* 6/1 | eq: -0.014 (-0.251) |
|  | Player: <br> Opponent: | $\begin{aligned} & 47.39 \% ~(G: 19.70 \% ~ B: 1.05 \%) \\ & 52.61 \% ~(G: 13.70 \% ~ B: 1.37 \%) \end{aligned}$ | Conf.: $\pm 0.018(-0.032 \ldots+0.005)-[0.0 \%]$ Duration: 3 minutes 32 seconds |
| 7. | Rollout ${ }^{1}$ | 16/10 6/1* | eq: -0.077 (-0.315) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 47.36\% (G:17.54\% B:1.37\%) } \\ & \text { 52.64\% (G:17.08\% B:1.83\%) } \end{aligned}$ | Conf.: $\pm 0.022$ ( $-0.099 . . .-0.055$ ) - [0.0\%] Duration: 3 minutes 41 seconds |
| 8. | Rollout ${ }^{1}$ | 8/3* $7 / 1^{*}$ | eq: -0.161 (-0.399) |
|  | Player: <br> Opponent: | $\begin{aligned} & 45.49 \% ~(G: 18.84 \% ~ B: 1.12 \%) \\ & 54.51 \% ~(G: 17.62 \% ~ B: 2.23 \%) \end{aligned}$ | Conf.: $\pm 0.020$ ( $-0.182 \ldots-0.141$ ) - [0.0\%] Duration: 3 minutes 54 seconds |

[^2]
## Problem 8



O is Player 2
score: 4
pip: 147

7 point match
pip: 141
score: 4

- is Player 1

XGID=---b-CCBC---cB---cacc-B---:0:0:1:51:4:4:0:7:10

- to play 51

| 1. | Rollout ${ }^{1}$ | 22/16 | eq: +0.042 |
| :---: | :---: | :---: | :---: |
|  | Player: <br> Opponent: | $\begin{aligned} & 52.25 \% \text { (G:12.67\% B:0.85\%) } \\ & 47.75 \% \text { (G:15.98\% B:1.04\%) } \end{aligned}$ | Conf.: $\pm 0.015(+0.027 \ldots+0.058)-[100.0 \%]$ Duration: 2 minutes 24 seconds |
| 2. | Rollout ${ }^{1}$ | 13/7 | eq: -0.052 (-0.094) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 49.08\% (G:11.43\% B:0.60\%) } \\ & 50.92 \% ~(G: 11.55 \% ~ B: 1.08 \%) \end{aligned}$ | Conf.: $\pm 0.017$ (-0.069...-0.035) - [0.0\%] <br> Duration: 2 minutes 21 seconds |
| 3. | Rollout ${ }^{1}$ | 13/8 5/4 | eq: -0.079 (-0.121) |
|  | Player: <br> Opponent: | $\begin{aligned} & 48.58 \% ~(G: 12.04 \% ~ B: 0.86 \%) \\ & 51.42 \% ~(G: 12.92 \% ~ B: 1.11 \%) \end{aligned}$ | Conf.: $\pm 0.016(-0.095 \ldots-0.063)-[0.0 \%]$ Duration: 2 minutes 12 seconds |
| 4. | Rollout ${ }^{1}$ | 8/2 | eq: -0.091 (-0.133) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 48.46\% (G:11.83\% B:0.48\%) } \\ & 51.54 \% ~(G: 13.01 \% ~ B: 0.92 \%) \end{aligned}$ | Conf.: $\pm 0.016(-0.107 \ldots-0.076)-[0.0 \%]$ <br> Duration: 2 minutes 06 seconds |
| 5. | Rollout ${ }^{1}$ | 8/7 6/1 | eq: -0.141 (-0.183) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 46.98\% (G:11.69\% B:0.75\%) } \\ & 53.02 \% ~(G: 13.16 \% ~ B: 0.71 \%) \end{aligned}$ | Conf.: $\pm 0.015$ (-0.156...-0.126) - [0.0\%] Duration: 2 minutes 09 seconds |

[^3]
## Problem 9



O is Player 2
score: 1
pip: 146

5 point match
pip: 71
score: 3

- is Player 1
- to play 42

| 1. | Rollout ${ }^{1}$ | 22/18* $5 / 3$ | eq: +2.332 |
| :---: | :---: | :---: | :---: |
|  | Player: <br> Opponent: | 93.92\% (G:86.68\% B:11.88\%) <br> 6.08\% (G:0.49\% B:0.02\%) | $\text { Conf.: } \pm 0.009(+2.323 \ldots+2.341)-[100.0 \%]$ <br> Duration: 30.2 seconds |
| 2. | Rollout ${ }^{1}$ | 22/18* 6/4 | eq: +2.251 (-0.081) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 92.28\% (G:84.98\% B:15.92\%) } \\ & \text { 7.72\% (G:0.62\% B:0.03\%) } \end{aligned}$ | $\text { Conf.: } \pm 0.010(+2.241 \ldots+2.261)-[0.0 \%]$ <br> Duration: 32.6 seconds |
| 3. | Rollout ${ }^{1}$ | 22/18* $3 / 1$ | eq: +2.226 (-0.106) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 91.21\% (G:84.17\% B:17.22\%) } \\ & \text { 8.79\% (G:0.26\% B:0.04\%) } \end{aligned}$ | Conf.: $\pm 0.010$ (+2.216...+2.236) - [0.0\%] Duration: 39.0 seconds |
| 4. | Rollout ${ }^{1}$ | 22/18* 18/16 | eq: +2.207 (-0.125) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 91.27\% (G:83.63\% B:15.19\%) } \\ & \text { 8.73\% (G:0.73\% B:0.08\%) } \end{aligned}$ | Conf.: $\pm 0.010$ (+2.197...+2.217) - [0.0\%] Duration: 35.3 seconds |
| 5. | Rollout ${ }^{1}$ | 5/35/1 | eq: +2.166 (-0.166) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 92.59\% (G:78.48\% B:6.66\%) } \\ & 7.41 \% \text { (G:0.44\% B:0.02\%) } \end{aligned}$ | Conf.: $\pm 0.009(+2.157 \ldots+2.175)-[0.0 \%]$ Duration: 29.0 seconds |

[^4]
## Problem 10



O is Player 2
score: 0
pip: 108

7 point match
pip: 105
score: 2

- is Player 1

XGID=aABBB-BBB-a-----c--bcbBc---0:0:1:31:2:0:0:7:10

- to play 31

| 1. | Rollout ${ }^{1}$ | 8/5 6/5 | eq: -0.034 |
| :---: | :---: | :---: | :---: |
|  | Player: <br> Opponent: | $\begin{aligned} & 46.48 \% ~(G: 17.69 \% ~ B: 0.28 \%) \\ & 53.52 \% ~(G: 16.78 \% ~ B: 0.72 \%) \end{aligned}$ | Conf.: $\pm 0.011$ (-0.045...-0.023) - [100.0\%] Duration: 46.2 seconds |
| 2. | Rollout ${ }^{1}$ | 8/7 8/5 | eq: -0.158 (-0.124) |
|  | Player: <br> Opponent: | $\begin{aligned} & 44.98 \% ~(G: 15.56 \% ~ B: 0.24 \%) \\ & 55.02 \% ~(G: 14.10 \% ~ B: 0.40 \%) \end{aligned}$ | Conf.: $\pm 0.011$ (-0.169...-0.147) - [0.0\%] <br> Duration: 50.2 seconds |
| 3. | Rollout ${ }^{1}$ | 8/4 | eq: -0.228 (-0.194) |
|  | Player: <br> Opponent: | 44.84\% (G:13.61\% B:0.19\%) <br> 55.16\% (G:11.38\% B:0.44\%) | Conf.: $\pm 0.010$ (-0.238...-0.218) - [0.0\%] Duration: 53.6 seconds |
| 4. | Rollout ${ }^{1}$ | 8/5 7/6 | eq: -0.260 (-0.225) |
|  | Player: <br> Opponent: | $\begin{aligned} & 45.61 \% ~(G: 19.89 \% ~ B: 0.31 \%) \\ & 54.39 \% ~(G: 25.29 \% ~ B: 1.33 \%) \end{aligned}$ | Conf.: $\pm 0.013$ (-0.273...-0.246) - [0.0\%] <br> Duration: 1 minute 18 seconds |
| 5. | Rollout ${ }^{1}$ | 7/6 7/4 | eq: -0.292 (-0.258) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 43.08\% (G:13.16\% B:0.21\%) } \\ & 56.92 \% \text { (G:10.64\% B:0.40\%) } \end{aligned}$ | Conf.: $\pm 0.009$ (-0.301...-0.283) - [0.0\%] <br> Duration: 38.3 seconds |
| 6. | Rollout ${ }^{1}$ | 7/6 4/1 | eq: -0.304 (-0.269) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 42.31\% (G:14.71\% B:0.20\%) } \\ & 57.69 \% ~(G: 15.63 \% ~ B: 0.60 \%) \end{aligned}$ | Conf.: $\pm 0.008$ (-0.311...-0.296) - [0.0\%] Duration: 45.4 seconds |
| 7. | Rollout ${ }^{1}$ | 7/4 2/1 | eq: -0.306 (-0.271) |
|  | Player: <br> Opponent: | $\begin{aligned} & 43.10 \% ~(G: 13.65 \% ~ B: 0.19 \%) \\ & 56.90 \% ~(G: 14.72 \% ~ B: 0.60 \%) \end{aligned}$ | Conf.: $\pm 0.009$ (-0.315...-0.296) - [0.0\%] Duration: 46.1 seconds |
| 8. | Rollout ${ }^{1}$ | 4/3 4/1 | eq: -0.339 (-0.304) |
|  | Player: <br> Opponent: | $\begin{aligned} & \text { 42.62\% (G:10.67\% B:0.14\%) } \\ & 57.38 \% ~(G: 11.42 \% ~ B: 0.52 \%) \end{aligned}$ | Conf.: $\pm 0.010$ (-0.349...-0.328) - [0.0\%] Duration: 44.1 seconds |
| 9. | Rollout ${ }^{1}$ | 7/3 | eq: -0.341 (-0.307) |
|  | Player: <br> Opponent: | 41.66\% (G:12.92\% B:0.19\%) <br> 58.34\% (G:15.23\% B:0.59\%) | Conf.: $\pm 0.008$ (-0.349...-0.333) - [0.0\%] <br> Duration: 43.7 seconds |
| 10. | Rollout ${ }^{1}$ | 8/7 4/1 | eq: -0.404 (-0.370) |
|  | Player: <br> Opponent: | 39.23\% (G:12.22\% B:0.14\%) <br> 60.77\% (G:14.43\% B:0.57\%) | Conf.: $\pm 0.012$ (-0.416...-0.392) - [0.0\%] <br> Duration: 1 minute 00 second |

11. Rollout ${ }^{1} 8 / 52 / 1$ eq: $-0.410(-0.376)$

Player: $\quad 41.58 \%$ (G:16.78\% B:0.23\%) Conf.: $\pm 0.013$ (-0.423...-0.397) - [0.0\%]
Opponent: $58.42 \% ~(G: 22.14 \% ~ B: 0.94 \%) \quad$ Duration: 1 minute 07 seconds

[^5]
[^0]:    1296 Games rolled with Variance Reduction.
    Moves and cube decisions: 3-ply

[^1]:    1296 Games rolled with Variance Reduction.
    Moves and cube decisions: 3-ply

[^2]:    1296 Games rolled with Variance Reduction.
    Moves and cube decisions: 3-ply

[^3]:    1296 Games rolled with Variance Reduction.
    Moves and cube decisions: 3-ply

[^4]:    1296 Games rolled with Variance Reduction.
    Moves and cube decisions: 3-ply

[^5]:    1296 Games rolled with Variance Reduction.
    Moves and cube decisions: 3-ply

