```
~/Desktop via 

base
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→ ./othello.sh !OTHELLO!

Choose player using BLACK:

Player's to choose from: human,random,alpha,expec,minmax,

> minmax

Choose Level 1. Easy 2. Medium 3. Hard

>2

Choose player using WHITE:

Player's to choose from: human,random,alpha,expec,minmax,

> minmax

Choose Level 1. Easy 2. Medium 3. Hard

> 3

Move made by '@' is: 34 in 0.000436 seconds Move made by 'o' is: 53 in 11.159246 seconds Move made by '@' is: 65 in 0.514674 seconds Move made by 'o' is: 56 in 51.295279 seconds Move made by '@' is: 67 in 1.657737 seconds Move made by 'o' is: 24 in 102.777727 seconds Move made by '@' is: 52 in 0.946041 seconds Move made by 'o' is: 78 in 85.080987 seconds Move made by '@' is: 14 in 1.433268 seconds Move made by 'o' is: 51 in 87.799908 seconds Move made by '@' is: 62 in 1.979971 seconds Move made by 'o' is: 76 in 191.326173 seconds Move made by '@' is: 66 in 1.596878 seconds Move made by 'o' is: 73 in 129.055031 seconds Move made by '@' is: 86 in 2.215245 seconds Move made by 'o' is: 87 in 189.091139 seconds Move made by '@' is: 88 in 2.258452 seconds Move made by 'o' is: 35 in 96.880937 seconds Move made by '@' is: 68 in 3.265948 seconds Move made by 'o' is: 58 in 162.747457 seconds Move made by '@' is: 46 in 3.112267 seconds Move made by 'o' is: 36 in 288.598475 seconds Move made by '@' is: 71 in 4.542613 seconds Move made by 'o' is: 72 in 505.011312 seconds Move made by '@' is: 74 in 5.108997 seconds Move made by 'o' is: 84 in 925.99192 seconds Move made by '@' is: 64 in 5.7151 seconds Move made by 'o' is: 82 in 686.807368 seconds Move made by '@' is: 57 in 2.031666 seconds Move made by 'o' is: 37 in 232.146916 seconds Move made by '@' is: 85 in 3.155714 seconds Move made by 'o' is: 77 in 290.206545 seconds Move made by '@' is: 75 in 2.880446 seconds Move made by 'o' is: 48 in 146.987571 seconds Move made by '@' is: 47 in 1.172626 seconds Move made by 'o' is: 63 in 72.731723 seconds Move made by '@' is: 83 in 2.561695 seconds Move made by 'o' is: 38 in 104.99812 seconds Move made by '@' is: 81 in 1.048759 seconds Move made by 'o' is: 33 in 42.093226 seconds Move made by '@' is: 28 in 0.973699 seconds Move made by 'o' is: 42 in 22.928848 seconds Move made by '@' is: 43 in 0.790335 seconds Move made by 'o' is: 15 in 12.668011 seconds Move made by '@' is: 16 in 0.630606 seconds

Move made by 'o' is: 27 in 1.187946 seconds Move made by '@' is: 61 in 0.236823 seconds Move made by '@' is: 41 in 0.146694 seconds Move made by 'o' is: 31 in 0.468001 seconds Move made by '@' is: 21 in 0.120879 seconds Move made by '@' is: 32 in 0.08086 seconds Move made by 'o' is: 26 in 0.410819 seconds Move made by '@' is: 18 in 0.024071 seconds Move made by 'o' is: 17 in 0.066267 seconds Move made by '@' is: 25 in 0.005664 seconds Move made by 'o' is: 23 in 0.006631 seconds Move made by '@' is: 13 in 0.001864 seconds Move made by 'o' is: 22 in 0.000858 seconds Move made by '@' is: 12 in 0.000343 seconds Move made by 'o' is: 11 in 0.000158 seconds Black wins!

Score for BLACK is: 43 and WHITE is: 21

Total time taken by Black(@) is: 50.210371 seconds and average per move is: 1.6196893870967743 Total time taken by White(o) is: 4440.524599 seconds and average per move is: 153.12153789655173 1 2 3 4 5 6 7 8

10000000@ 2@0@@@@@@ 3@@00@@0@ 4@@@0000@

5 @ @ @ @ o o @ @ 6 @ @ @ o @ o @ @

7 @ @ @ @ o @ o @ 8 @ @ @ @ @ @ @ @

./othello.sh: line 3: alpha: command not found ./othello.sh: line 4: 3: command not found ./othello.sh: line 5: expec: command not found ./othello.sh: line 6: 3: command not found

~/Desktop via base took 1h 14m 55s

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