```
~/Desktop via @ base
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→ ./othello.sh !OTHELLO!

Choose player using BLACK:

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

> alpha

Choose Level 1. Easy 2. Medium 3. Hard

>3

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 0.000446 seconds Move made by 'o' is: 53 in 6.542629 seconds Move made by '@' is: 64 in 1.169695 seconds Move made by 'o' is: 35 in 30.665032 seconds Move made by '@' is: 36 in 2.539639 seconds Move made by 'o' is: 75 in 160.885865 seconds Move made by '@' is: 74 in 7.291045 seconds Move made by 'o' is: 84 in 216.089076 seconds Move made by '@' is: 43 in 6.111242 seconds Move made by 'o' is: 33 in 155.001864 seconds Move made by '@' is: 32 in 8.207893 seconds Move made by 'o' is: 27 in 310.57334 seconds Move made by '@' is: 65 in 17.333663 seconds Move made by 'o' is: 31 in 1109.121593 seconds Move made by '@' is: 18 in 12.800449 seconds Move made by 'o' is: 56 in 328.718842 seconds Move made by '@' is: 25 in 5.477135 seconds Move made by 'o' is: 42 in 178.748533 seconds Move made by '@' is: 63 in 5.813846 seconds Move made by 'o' is: 16 in 785.324408 seconds Move made by '@' is: 41 in 19.084317 seconds Move made by 'o' is: 51 in 858.703572 seconds Move made by '@' is: 66 in 22.791916 seconds Move made by 'o' is: 77 in 1420.710695 seconds Move made by '@' is: 46 in 21.681112 seconds Move made by 'o' is: 76 in 1155.41598 seconds Move made by '@' is: 23 in 15.777739 seconds Move made by 'o' is: 12 in 1690.303445 seconds Move made by '@' is: 13 in 8.429585 seconds Move made by 'o' is: 14 in 1403.769046 seconds Move made by '@' is: 15 in 2.944827 seconds Move made by 'o' is: 47 in 741.837935 seconds Move made by '@' is: 11 in 4.414792 seconds Move made by 'o' is: 73 in 395.4243 seconds Move made by '@' is: 85 in 3.545437 seconds Move made by 'o' is: 86 in 167.332056 seconds Move made by '@' is: 17 in 2.619856 seconds Move made by 'o' is: 26 in 32.643625 seconds Move made by '@' is: 24 in 2.669428 seconds Move made by 'o' is: 28 in 8.002242 seconds Move made by '@' is: 22 in 1.72818 seconds Move made by 'o' is: 21 in 6.784544 seconds Move made by '@' is: 88 in 2.762716 seconds Move made by 'o' is: 78 in 28.137419 seconds Move made by '@' is: 61 in 1.860212 seconds

Move made by 'o' is: 57 in 3.94414 seconds Move made by '@' is: 62 in 0.897212 seconds Move made by 'o' is: 52 in 6.281242 seconds Move made by '@' is: 87 in 0.743227 seconds Move made by 'o' is: 67 in 2.667541 seconds Move made by '@' is: 83 in 0.362246 seconds Move made by 'o' is: 82 in 0.864292 seconds Move made by '@' is: 81 in 0.16094 seconds Move made by 'o' is: 72 in 0.107952 seconds Move made by '@' is: 37 in 0.006136 seconds Move made by 'o' is: 68 in 0.01522 seconds Move made by '@' is: 38 in 0.001057 seconds Move made by 'o' is: 58 in 0.001659 seconds Move made by '@' is: 48 in 0.000469 seconds Move made by '@' is: 71 in 0.000266 seconds

Black wins!

Score for BLACK is: 50 and WHITE is: 14

Total time taken by Black(@) is: 179.22672300000002 seconds and average per move is:

5.7815071935483875

Total time taken by White(o) is: 11204.618086999999 seconds and average per move is:

386.36614093103447

12345678

1@@@@@@@@

2@0000@@@

3@0@@00@@

4@0@@@@@@

5@0@0@0@@

6@@o@@@o@

7@@@@@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 3h 10m 1s