```
~/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

>2

Choose player using WHITE:

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

> expec

Choose Level 1. Easy 2. Medium 3. Hard

> 3

Move made by '@' is: 56 in 0.000438 seconds Move made by 'o' is: 64 in 4.3537 seconds Move made by '@' is: 33 in 0.03404 seconds Move made by 'o' is: 46 in 80.542301 seconds Move made by '@' is: 36 in 0.072374 seconds Move made by 'o' is: 22 in 453.260067 seconds Move made by '@' is: 43 in 0.105595 seconds Move made by 'o' is: 27 in 1398.781397 seconds Move made by '@' is: 26 in 0.301361 seconds Move made by 'o' is: 37 in 7614.983369 seconds Move made by '@' is: 18 in 0.351691 seconds Move made by 'o' is: 17 in 5404.590777 seconds Move made by '@' is: 11 in 0.251695 seconds Move made by 'o' is: 32 in 4737.561769 seconds Move made by '@' is: 38 in 0.600623 seconds Move made by 'o' is: 28 in 5533.975462 seconds Move made by '@' is: 53 in 0.750025 seconds Move made by 'o' is: 12 in 10737.369093 seconds Move made by '@' is: 31 in 1.225457 seconds Move made by 'o' is: 65 in 6077.075302 seconds Move made by '@' is: 66 in 1.000365 seconds Move made by 'o' is: 77 in 11426.953601 seconds Move made by '@' is: 34 in 0.780851 seconds Move made by 'o' is: 47 in 2915.584793 seconds Move made by '@' is: 88 in 1.265495 seconds Move made by 'o' is: 21 in 18301.39135 seconds Move made by '@' is: 63 in 2.518154 seconds Move made by 'o' is: 72 in 5621.063733 seconds Move made by '@' is: 35 in 1.877017 seconds Move made by 'o' is: 67 in 9905.476079 seconds Move made by '@' is: 81 in 1.381521 seconds Move made by 'o' is: 52 in 7808.426865 seconds Move made by '@' is: 61 in 0.679142 seconds Move made by 'o' is: 87 in 5594.00392 seconds Move made by '@' is: 57 in 0.544731 seconds Move made by 'o' is: 23 in 1057.500385 seconds Move made by '@' is: 76 in 0.485713 seconds Move made by 'o' is: 73 in 1031.82154 seconds Move made by '@' is: 24 in 0.543685 seconds Move made by 'o' is: 71 in 777.901722 seconds Move made by '@' is: 42 in 0.380108 seconds Move made by 'o' is: 62 in 572.192115 seconds Move made by '@' is: 68 in 0.395847 seconds

Move made by 'o' is: 78 in 348.763359 seconds Move made by '@' is: 74 in 0.362092 seconds Move made by 'o' is: 41 in 235.531035 seconds Move made by '@' is: 51 in 0.094725 seconds Move made by 'o' is: 85 in 52.866493 seconds Move made by '@' is: 84 in 0.111881 seconds Move made by 'o' is: 82 in 11.179884 seconds Move made by '@' is: 75 in 0.099975 seconds Move made by 'o' is: 48 in 3.913388 seconds Move made by '@' is: 14 in 0.065193 seconds Move made by 'o' is: 58 in 0.35966 seconds Move made by '@' is: 83 in 0.016684 seconds Move made by 'o' is: 13 in 0.011836 seconds Move made by '@' is: 15 in 0.002325 seconds Move made by 'o' is: 16 in 0.000947 seconds Move made by '@' is: 25 in 0.000532 seconds Move made by '@' is: 86 in 0.000323 seconds Black wins!

Score for BLACK is: 40 and WHITE is: 24

Total time taken by Black(@) is: 16.299658000000004 seconds and average per move is: 0.5257954193548389

Total time taken by White(o) is: 107707.43594200003 seconds and average per move is: 3714.04951524138

12345678

1@000000@

2@0@@@000

3@@@@@ooo

4@@@@@ooo

5@@@@@ooo

6@@@@@@oo

70@@@@@00

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 1d 5h 55m 36s