

function MINIMAX-SEARCH(*game, state*) **returns** an action

player \leftarrow game.TO-MOVE(*state*)

value, move \leftarrow MAX-VALUE(*game, state*)

return *move*

function MAX-VALUE(*game, state*) **returns** a (*utility, move*) pair

if game.IS-TERMINAL(*state*) **then return** game.UTILITY(*state, player*), null

v, move $\leftarrow -\infty$

for each *a* **in** game.ACTIONS(*state*) **do**

v2, a2 \leftarrow MIN-VALUE(*game, game.RESULT(state, a)*)

if *v2* > *v* **then**

v, move \leftarrow *v2, a*

return *v, move*

function MIN-VALUE(*game, state*) **returns** a (*utility, move*) pair

if game.IS-TERMINAL(*state*) **then return** game.UTILITY(*state, player*), null

v, move $\leftarrow +\infty$

for each *a* **in** game.ACTIONS(*state*) **do**

v2, a2 \leftarrow MAX-VALUE(*game, game.RESULT(state, a)*)

if *v2* < *v* **then**

v, move \leftarrow *v2, a*

return *v, move*