

function AND-OR-SEARCH(*problem*) **returns** a conditional plan, or failure
return OR-SEARCH(*problem*, *problem*.INITIAL, [])

function OR-SEARCH(*problem*, *state*, *path*) **returns** a conditional plan, or failure
if *problem*.IS-GOAL(*state*) **then return** the empty plan
if Is-CYCLE(*state*, *path*) **then return** failure
for each *action* **in** *problem*.ACTIONS(*state*) **do**
 plan \leftarrow AND-SEARCH(*problem*, RESULTS(*state*, *action*), [*state*] + [*path*])
 if *plan* \neq failure **then return** [*action*] + [*plan*]
return failure

function AND-SEARCH(*problem*, *states*, *path*) **returns** a conditional plan, or failure
for each s_i **in** *states* **do**
 *plan*_{*i*} \leftarrow OR-SEARCH(*problem*, *s_i*, *path*)
 if *plan*_{*i*} = failure **then return** failure
return [b*if* *s₁* **then** *plan*_{*1*} **else if** *s₂* **then** *plan*_{*2*} **else** ... **if** *s_{n-1}* **then** *plan*_{*n-1*} **else** *plan*_{*n*}]