function LRTA*-AGENT($problem$, s', h) **returns** an action

s, a, the previous state and action, initially null

result, a table mapping (s, a) to s', initially empty

H, a table mapping s to a cost estimate, initially empty

if IS-GOAL(s') **then return** *stop*

if s' is a new state (not in H) **then** $H[s'] \leftarrow h(s')$

if s is not null **then**

$result[s, a] \leftarrow s'$

$H[s] \leftarrow \min_{b \in \text{ACTIONS}(s)}$ LRTA*-COST($problem$, s, b, $result[s, b]$, H)

$a \leftarrow \operatorname{argmin}_{b \in \text{ACTIONS}(s)}$ LRTA*-COST($problem$, s', b, $result[s', b]$, H)

$s \leftarrow s'$

return a

function LRTA*-COST($problem$, s, a, s', H) **returns** a cost estimate

if s' is undefined **then return** $h(s)$

else return $problem$.ACTION-COST$(s, a, s') + H[s']$