

```

//Perform iterative deepening search from initial state, using defined
    "is_goal_state"
//and "find_successors" functions
//Returns: null if no goal state found
//Returns: object with two members, "actions" and "states", where:
//  actions: Sequence(Array) of action ids required to reach the goal state
//           from the initial state
//  states: Sequence(Array) of states that are moved through, ending with the
//           reached goal state (and EXCLUDING the initial state)
//  The actions and states arrays should both have the same length.

/**
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 */

function iterative_deepening_search(initial_state) {

    var d = 0;
    while(true){
        let temp = depth_limited_search(initial_state, d);
        if (temp != null){
            return temp;
        }
        ++d;
    }
}

```