

# Backtracking search

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**function** BACKTRACKING\_SEARCH(*csp*) returns a solution, or failure  
    *return* BACKTRACK({}, *csp*)

**function** BACKTRACK(*assignment*, *csp*)  
returns a solution, or failure  
    **if** *assignment* is complete **then return** *assignment*  
    *var* = SELECT\_UNASSIGNED\_VARIABLES(*csp*)  
    **for each** *value* in ORDER\_DOMAIN\_VALUES (*var*, *assignment*, *csp*)  
        **if** *value* is consistent with *assignment* **then**  
            add {*var* = *value*} to *assignment*  
            *result* = BACKTRACK(*assignment*, *csp*)  
            **if** *result* ≠ failure **then return** *result*  
            remove {*var* = *value*} from *assignment*  
    *return* failure