

function DPLL-SATISFIABLE?(*s*) **returns** true or false

inputs: *s*, a sentence in propositional logic

clauses \leftarrow the set of clauses in the CNF representation of *s*

symbols \leftarrow a list of the proposition symbols in *s*

return DPLL(*clauses, symbols, {}*)

function DPLL(*clauses, symbols, model*) **returns** true or false

if every clause in *clauses* is true in *model* **then return** true

if some clause in *clauses* is false in *model* **then return** false

P, value \leftarrow FIND-PURE-SYMBOL(*symbols, clauses, model*)

if *P* is non-null **then return** DPLL(*clauses, symbols - P, model ∪ {P=value}*)

P, value \leftarrow FIND-UNIT-CLAUSE(*clauses, model*)

if *P* is non-null **then return** DPLL(*clauses, symbols - P, model ∪ {P=value}*)

P \leftarrow FIRST(*symbols*); *rest* \leftarrow REST(*symbols*)

return DPLL(*clauses, rest, model ∪ {P=true}*) **or**

DPLL(*clauses, rest, model ∪ {P=false}*)